



Electric assembly tools

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Highest productivity with lowest life-cycle cost

Atlas Copco supplies a comprehensive range of high productivity assembly tools with intelligent controllers and a sharp focus on ergonomics. Our many product lines were developed to meet all your tightening needs and give you lowest life cycle cost. Products range from low torque MicroTorque tools providing 0.01 Nm of torque, to high torque Tensor ST tools, offering up to 4,000 Nm.

EBL SCREWDRIVER

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

MICROTORQUE SCREWDRIVERS

The most innovative and reliable low torque screwdrivers on the market to ensure high productivity and quality in all joints. The new groundbreaking controller, MTF6000, is designed for Industry 4.0. With the fixtured QMC series, or the handheld ETD M ABL V2 series, it is the ultimate solution to improve the competitiveness of any manufacturing process.

TENSOR TOOLS

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

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

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

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

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

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

POWER FOCUS 6000 CONTROLLER

Power Focus 6000 is the market-leading controller for handheld battery and electric tools. Power Focus is a controller with full flexibility and connectivity to fit your production infrastructure. The Power Focus 6000 is compatible with STR, ST, SR and ES.

POWER FOCUS 4000 CONTROLLER

The Power Focus 4000 is a range of controllers for handheld tools. Power Focus 4000 controls tools in the Tensor ST, STB and SL family and has the capability to run fixtured tools. The Power Focus 4002 controls Tensor SL tools.

POWER FOCUS 600 CONTROLLER

The Power Focus 600 is compatible with the Tensor ES tools and is the perfect choice for quality critical assembly. It comes in one single hardware version regardless of which tool model or functionality level is used.



Product Safety

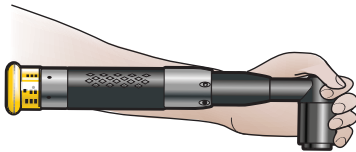
SAFETY GUIDELINES

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

HOW TO MAKE TOOL OPERATION SAFER

1 Entanglement hazard

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



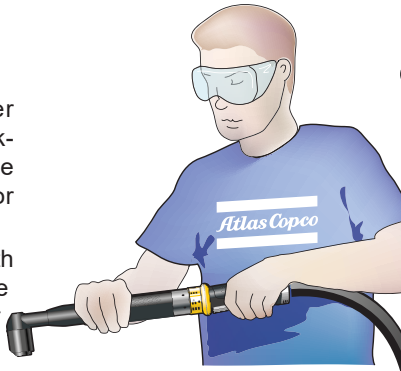
5 Reaction bar

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



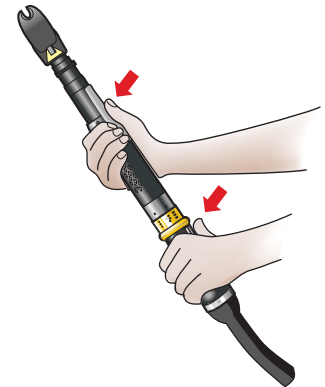
2 Hold the tool correctly

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



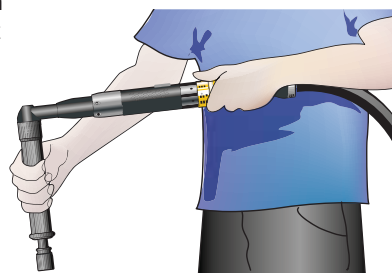
6 Open end tools

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



3 Supported extensions

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

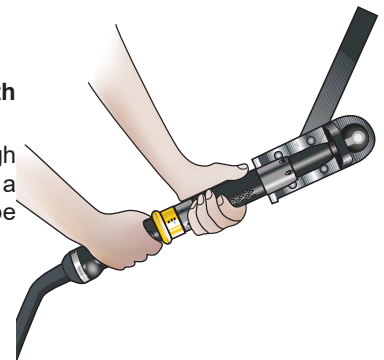


Other advantages are:

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

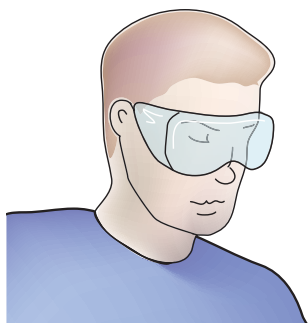
7 Angle nutrunners with reaction bar

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



4 Use goggles

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



8 Screwdrivers

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



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

Atlas Copco supplies a complete range of advanced electric screwdrivers to match your needs. If it's cutting-edge ergonomics you want, true reliability, or long-life, low maintenance motors, we have tools to match your needs. With models such as MicroTorque QMC, ETD M ABL V2 or Tensor we cover the range from 0,01 Nm up to 20 Nm. They all have one thing in common – quality.

EBL SCREWDRIVERS

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

MICROTORQUE

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

TENSOR SR TOOLS

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

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

TENSOR SL

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

TENSOR ES

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



ESD CERTIFIED SCREWDRIVERS

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

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



**DESIGNED FOR LOW-TORQUE
ASSEMBLY OPERATIONS**

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

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



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

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

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

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

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

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

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

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

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

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

Optional Accessories

DRIVES

Model		Ordering No.
EBL Drive	For standard models and soft-stop models	8431 0170 70
EBL RE-Drive	For reporting models and soft-stop + reporting models	8431 0170 75
EBL Drive Plus	For all standard models and soft-stop models	8431 0170 85
EBL Drive Plus is required for EBL25-1500, EBL25-1500-RE, EBL45, EBL45-RE, EBL55 and EBL55-RE		



EBL Drive

EBL REPORTING MODULE

Model	Ordering No.
EBL RE module	8431 0170 76
RE module to be connected between EBL Drive or EBL Drive Plus and RE tool.	



EBL RE-Drive

VACUUM PICK-UP ACCESSORIES

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



EBL Drive Plus

CABLES

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

^b Maximum total length 8 m.



EBL RE module

SCREW DISPENSER

Model	Ordering No.
SDS Screw dispenser	8432 0830 00

PISTOL GRIP

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



Pistol grip



Vacuum pick-up system

ANGLE HEAD

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

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



Angle head, EBL



Screw dispenser

CURRENT CONTROLLED TOOLS – ETD M ABL V2

MicroTorque handheld screwdrivers are designed to deliver outstanding quality with superior productivity in all assembly processes.

- High accuracy current controlled tools.
- Torque and angle monitoring for error proofing customized to any process.
- Advanced seating control tightening strategy that eliminates floating screws.
- Advanced torque seating monitoring to ensure final torque and monitor the clamping torque (unique for MTF 6000).
- Ergonomic design: comfortable grip and low weight to maximize operator satisfaction.
- Controllers and tools are ordered separately.



ETD M27



ETD M50



ETD M250

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

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

CURRENT CONTROLLED TOOLS – QMC

MicroTorque fixtured screwdrivers are designed to deliver outstanding quality with superior productivity in all assembly processes.

- Lightweight to maximize productivity in any automation process.
- High accuracy current controlled tools.
- Multistep tightening to maximize productivity and quality.
- Torque and angle monitoring to ensure quality.
- Advanced torque seating monitoring to ensure final torque and monitor the clamping torque (unique for MTF6000).



Model	Torque range		Speed r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Fixtured current controlled									
QMC21-05-HM4 ^a	1.2-5	0.11-0.44	2000	123	57	0.2	0.44	HM 4 mm	8432 0844 05
QMC21-10-HM4	3-10	0.27-0.89	2000	178	57	0.3	0.66	HM 4 mm	8432 0844 10
QMC21-25-HM4	5.5-25	0.49-2.2	1000	178	57	0.3	0.65	HM 4 mm	8432 0844 25
QMC41-50-HM4	12.5-50	1.1-4.4	2000	200	66	0.6	1.32	HM4	8432 0844 52
QMC41-100-HM4	25-100	2.2-8.9	2000	200	66	0.6	1.32	HM4	8432 0844 53
QMC41-50-I06	12.5-50	1.1-4.4	2000	205	66	0.61	1.36	1/4" Hex	8432 0844 61
QMC41-100-I06	25-100	2.2-8.9	2000	205	66	0.61	1.36	1/4" Hex	8432 0844 62
QMC41-150-I06	37.5-150	3.3-13.3	1000	213	66	0.625	1.38	1/4" Hex	8432 0844 63
QMC41-250-I06	62.5-250	5.5-22.1	750	224	66	0.650	1.43	1/4" Hex	8432 0844 64

^a Only compatible with MTF6000. **NOTE.** Ordering number for screwdriver only. Tool cable, controller and PSU need to be ordered separately.

TRANSDUCERIZED TOOLS – ETF MT AND G4 SYSTEMS

MicroTorque transducerized systems are designed to bring outstanding precision, time after time.

- High accuracy transducerized tools.
- Complete system with one ordering number that includes screwdriver, controller, tool cable, PSU and ToolsTalk MT.
- Torque and angle control and monitoring.
- Multistep tightening.
- Advanced programming via PC software, ToolsTalk MT.
- Multiple I/Os for integration with assembly line, automation stations or error proofing accessories.



ETF MT 5/10/20/50/80/100/200/500

Model	Torque range		Speed r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Fixtured transducerized systems									
ETF MT 5	0.5-5	0.04-0.4	1300	183	20	0.4	0.9	HM 4 mm	8432 0800 10
ETF MT 10	1-10	0.09-0.9	900	183	20	0.4	0.9	HM 4 mm	8432 0800 11
ETF MT 20	2-20	0.18-1.8	900	183	20	0.4	0.9	HM 4 mm	8432 0800 12
ETF MT 50	5-50	0.44-4.4	1300	269	30	1.1	2.42	HM 4 mm	8432 0800 13
ETF MT 80	8-80	0.71-7.1	1300	269	30	1.2	2.65	HM 4 mm	8432 0800 14
ETF MT 100	10-100	0.88-8.8	1300	272	30	1.2	2.65	1/4" HEX	8432 0800 15
ETF MT 100 HM4	10-100	0.88-8.8	1300	269	30	1.2	2.65	HM 4 mm	8432 0800 21
ETF MT 200	20-200	1.77-17.7	800	272	30	1.2	2.65	1/4" HEX	8432 0800 16
ETF MT 500	50-500	4.42-44.2	500	258	40	1.8	4.05	1/4" HEX	8432 0800 17

MTF 400

MT Focus 400 is an extremely compact and advanced controller designed to attend the most demanding assembly processes. It offers the advanced seating control strategy, multiple Psets, multi-steps tightening and ensures high quality and productivity. It is compatible with the latest MicroTorque tools including ETD M ABL V2 and QMC (excluding QMC21-05).

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

MTF 6000

MT Focus 6000 is the latest and most innovative controller from MicroTorque including all features of MTF 400 and much more. It elevates the Atlas Copco's low torque tightening and is designed for Industry 4.0.

MT Focus 6000 is smart with new advanced tightening strategies such as Torque Seating Monitoring. With Batch Sequence it is easy to setup simple workflow instructions to ensure efficiency, and the multi communication ports ensures connectivity with external equipment and software.

With two different levels of functionality, the IAM models gives a good offering for every customer. IAM Workstation is designed for a workstation setup with no or low need for advanced tightening strategies and communication. For processes, with a need of communication, data and advanced tightening strategies, IAM Process is the right choice.



MTF 6000



MTF 400A

Model	Ordering No.
MTF 6000	8432 0851 00
MTF 400A	8432 0850 00

NOTE: Ordering number for controller only. PSU and IAM Module (for MTF6000) has to be ordered separately.

IAM FOR MTF 6000

Model	Ordering No.
IAM MT Workstation	8432 0852 10
IAM MT Process	8432 0852 20

	MTF6000	
	IAM Workstation 8432 0852 10	IAM Process 8432 0852 20
Tightening		
Number of Psets	50	150
Multi step tightening	●	●
Number of tightening steps	5	10
Number of batch sequence	20	50
Batch sequence - Batch count	250	250
Batch sequence - Steps	30	30
Number of identifiers	20	50
Torque and angle control	●	●
Thread engagement step	●	●
Angle step	●	●
Torque step	●	●
Seating control strategy (SCS)		●
Torque seating monitoring (TSM)		●
Bit slip detection		●
Data Storage and Analysis		
Detailed data results stored in the controller	●	●
Results - Data storage	100000	100000
Graphs - Data storage		1000
Download results data via USB memory	●	●
Download graphs data via USB memory		●
Realtime trace analysis - ToolsTalk (USB only)	●	●
Save graphs via ToolsTalk Analysis (USB)		●
Auto save graph via ToolsTak Analysis (USB Only)	●	●
ToolsNet 8 data reporting		●
Communication		
Configurable Digital I/Os	●	●
Number of digital I/Os (in/out)	(12/8)	(12/8)
Open Protocol (MicroTorque Legacy)		
Open Protocol (Atlas Cocpo V2)		RS232, Ethernet
Direct communication with ToolsNet 8		●
Others		
Transducerized tools		●
Barcode reader	●	●
Quick programming	●	●
Password protection	●	●
Customized 3 levels of password protection	●	●
Remote configuration via Ethernet		●
Ports (Hardware Only - Not Functionality)		
RS232	1	1
Fieldbus	1	1
USB device	1	1
USB host	1	1
I/O Bus	1	1
Ethernet	1	1
Digital I/Os	(12/8)	(12/8)
Fieldbus module compatible		●

Optional Accessories

POWER SUPPLY UNIT, PSU

Model	Battery / Power	Ordering No.
MTF 6000		
ETD M08/20/27 ABL V2, QMC21-05/10/25	36V / 72W	8432 0840 01
ETD M ABL V2 and QMC, all tools	36V / 180W	8432 0840 02
MTF 400		
ETF S08 V2 and ETD M08/20/27 ABL V2	24V / 72W	8432 0840 00
ETF S25 V2, QMC21-10/25 HM4	36V / 72W	8432 0840 01
ETD M50/80/100/120/200/250 ABL V2, QMC41-50/100/1500/250	36V / 180W	8432 0840 02



Power supply unit

CONTROLLER ACCESSORIES

Model	Ordering No.
Digital program selector for MTF 400	8432 0830 65
Controller wall fixture for MTF 400	8432 0833 83
Y cable for I/O connector ^a	8432 0831 99
I/O extension cable 1 m	4216 1933 80
I/O adapter cable ^b	4216 2665 80

^a Y cable for MTF6000 and G4, suitable when two I/O accessories are required.

^b Used when MTF6000 shall be connected to a MTF400 I/O system.



Digital program selector

TOOL CABLE

Model	Length	Ordering No.
QMC, ETD M ABL V2, ETF S	2 m	8432 0835 20
QMC, ETD M ABL V2, ETF S	3.5 m	8432 0835 35
QMC, ETD M ABL V2, ETF S	5 m	8432 0835 50
ETF M, MT	2 m	8432 0836 20
ETF M, MT	3.5 m	8432 0836 35
ETF M, MT 90 deg angle cable	2 m	8432 0831 15



Tool cable, 90 deg

CABLE ACCESSORIES

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



Tool cable

Optional Accessories

VACUUM ADAPTER

Model	Nozzle Ø mm	Tool Bit Drive	Tool model	Ordering No.
QC Vacuum adapter Small	8	HM4	ETD M, ETF S, ETF M, ETF MT and QMC	8432 0770 58
QC Vacuum adapter Large	12	1/4" HEX	ETD M and QMC	8432 0770 57
QC Vacuum adapter Large	12	1/4" HEX	ETF M100, ETF MT100, ETF M200 and ETF MT200	8432 0770 59



Vacuum adapter

VACUUM NOZZLES

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



Vacuum nozzles

SCREW DISPENSER

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



Screw dispenser for magnetic bit



Screw dispenser for vacuum pick up

ETV ES

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

**ETV ES**

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
Angle models									
ETV ES21-04-06	1/4	1.6-4.5	1.2-3.3	1909	0.85	1.9	284	9.5	8436 0120 04
ETV ES21-07-06	1/4	2.8-7	2.1-5.2	1147	0.85	1.9	284	9.5	8436 0120 07
ETV ES21-12-06	1/4	4.8-12	3.5-8.9	718	0.95	2.1	304	11	8436 0120 12
ETV ES21-20-10	3/8	8-20	5.9-14.8	430	1.05	2.3	303	14	8436 0120 20
ETV ES61-25-10	3/8	10-25	7.4-18.4	1378	1.8	4.0	419	14	8436 0160 25
ETV ES61-30-10	3/8	12-30	8.9-22.1	1160	1.8	4.0	421	15.5	8436 0160 30
ETV ES61-40-10	3/8	16-40	11.8-29.5	1153	1.9	4.2	441	18	8436 0160 40
ETV ES61-50-10	3/8	20-50	14.8-36.9	692	1.9	4.2	441	18	8436 0160 50
ETV ES61-70-13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	8436 0160 70
ETV ES61-100-13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	8436 0160 10
ETV ES61-150-13	1/2	60-150	44.3-110.6	296	3.2	7.1	541	26	8436 0160 15
ETV ES61-180-13	1/2	72-180	53-133	232	3.2	7.1	541	26	8436 0160 18
ETV ES61-200-20	3/4	80-200	59-147.5	203	3.4	7.5	543	27	8436 0160 20
Quick chuck									
ETV ES21-12-I06-QC	—	4.8-12	3.5-8.9	718	0.95	2.1	304	11	8436 0121 12
Ball retainer									
ETV ES61-70-B13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	8436 0165 70
ETV ES61-100-B13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	8436 0165 10
Flush socket									
ETV ES61-30-FS	—	12-30	8.9-22.1	1160	1.8	4.0	421	16	8436 0160 51
ETV ES61-40-FS	—	16-40	11.8-29.5	1145	1.9	4.2	441	18	8436 0160 52
ETV ES61-50-FS	—	20-50	14.8-36.9	687	1.9	4.2	441	18	8436 0160 53
ETV ES61-70-FS	—	28-70	20.7-51.6	439	3.1	6.8	499	20	8436 0160 54
ETV ES61-100-FS	—	40-100	29.5-73.8	370	3.15	6.9	505	23	8436 0160 55
ETV ES61-150-FS	—	60-150	44.3-110.6	296	3.2	7.1	541	26	8436 0160 57
ETV ES61-180-FS	—	72-180	53-133	232	3.2	7.1	541	26	8436 0160 58
ETV ES61-200-FS	—	80-200	59-147.5	203	3.4	7.5	543	28	8436 0160 59
Hold & Drive									
ETV ES61-30-HAD	—	6-30	4-21	1160	2.4	5.3	442	18.3	8436 0160 61
ETV ES61-50-HAD	—	20-50	14.8-36.9	692	2.2	4.9	441	18	8436 0160 62
ETV ES61-150-HAD	—	60-150	44.3-110.6	296	3.4	7.5	541	26	8436 0160 64
ETV ES61-180-HAD	—	72-180	53-133	232	3.4	7.5	540.4	26	8436 0160 65
ETV ES61-200-HAD	—	80-200	59-147.5	203	3.8	8.4	543	28	8436 0160 66

ETD/ETF ES

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

ETD ES



ETF ES



Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
Straight models										
ETD ES21-02-I06-PS	—	0.8-2	0.6-1.5	4471	0.75	1.7	267	19.5	—	8436 0220 02
ETD ES21-04-I06-PS	—	1.6-4	1.2-3	1909	0.8	1.8	267	19.5	—	8436 0220 04
ETD ES21-07-I06-PS	—	2.8-7	2.1-5.2	1147	0.8	1.8	267	19.5	—	8436 0220 07
ETD ES21-12-I06-PS	—	4.8-12	3.5-8.9	745	0.8	1.8	267	19.5	—	8436 0220 12
ETD ES61-18-10	3/8	7.2-18	5.3-13.3	2129	1.7	3.75	418	23	-1/1	8436 0265 18
ETD ES61-18-10-T25	3/8	7.2-18	5.3-13.3	2129	1.85	4.1	456	23	2/2	8436 0260 18
ETD ES61-25-10	3/8	10-25	7.4-18.4	1793	1.7	3.8	418	23	-1/1	8436 0265 25
ETD ES61-25-10-T25	3/8	10-25	7.4-18.4	1793	1.85	4.1	456	23	2/2	8436 0260 25
ETD ES61-30-10	3/8	12-30	8.9-22.1	1077	1.7	3.8	418	23	-1/1	8436 0265 30
ETD ES61-30-10-T25	3/8	12-30	8.9-22.1	1077	1.85	4.1	456	23	2/2	8436 0260 30
ETD ES61-50-13	1/2	20-50	14.8-36.9	679	2.95	6.5	493	29	2/2	8436 0265 50
ETD ES61-50-13-T25	1/2	20-50	14.8-36.9	679	3.05	6.7	521	29	3/5	8436 0260 50
ETD ES61-70-13	1/2	28-70	20.7-51.6	608	2.95	6.5	493	29	2/2	8436 0265 70
ETD ES61-70-13-T25	1/2	28-70	20.7-51.6	608	3.1	6.8	521	29	3/5	8436 0260 70
ETD ES61-90-13	1/2	36-90	26.6-66.4	467	2.95	6.5	493	29	2/2	8436 0265 90
ETD ES61-90-13-T25	1/2	36-90	26.6-66.4	467	3.1	6.8	521	29	3/5	8436 0260 90
ETD ES61-120-13	1/2	48-120	35.4-88.5	365	2.95	6.5	493	29	2/2	8436 0265 12
ETD ES61-120-13-T25	1/2	48-120	35.4-88.5	365	3.1	6.8	521	29	3/5	8436 0260 12
Straight models with lever start										
ETD ES21-02-I06	—	0.8-2	0.6-1.5	4471	0.78	1.76	267	19.5	—	8436 0221 02
ETD ES21-04-I06	—	1.6-4.5	1.2-3.3	1909	0.83	1.86	267	19.5	—	8436 0221 04
ETD ES21-07-I06	—	2.8-7	2.1-5.2	1147	0.83	1.86	267	19.5	—	8436 0221 07
ETD ES21-12-I06	—	4.8-12	3.5-8.9	745	0.83	1.86	267	19.5	—	8436 0221 12
Fixtured models										
ETF ES21-04-I06-T25	—	1.6-4	1.2-3	1909	0.96	2.1	338	22.5	— ^a	8436 0224 04
ETF ES21-07-I06-T25	—	2.8-7	2.1-5.2	1147	0.96	2.1	338	22.5	— ^a	8436 0224 07
ETF ES21-12-I06-T25	—	4.8-12	3.5-8.9	745	0.96	2.1	338	22.5	— ^a	8436 0224 12

^a Mounting bracket fixed.

Pistol Grip Models

Tensor ES

ETP ES

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

ETP ES



Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
Pistol grip models										
ETP ES21-02-I06-PS	—	0.8-2	0.6-1.5	4471	0.85	1.87	225	19.5	—	8436 0320 02
ETP ES21-04-I06-PS	—	1.6-4	1.2-3	1909	0.85	1.87	225	19.5	—	8436 0320 04
ETP ES21-07-I06-PS	—	2.8-7	2.1-5.2	1147	0.85	1.87	225	19.5	—	8436 0320 07
ETP ES21-12-I06-PS	—	4.8-12	3.5-8.9	745	0.85	1.87	225	19.5	—	8436 0320 12

Tensor SL

ETD SL

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



ETD SL



ETP SL



ETV SL



ETF SL

ETV SL

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

ETP SL

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

ETF SL

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

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

^a For ETV, CS distance over angle head.

ETP SR31

The ETP SR is a pistol type electric nut-runner that delivers accurate, fast and error proof tightening with low reaction force. With TurboTight™ the ETP SR31 can handle one hand operations up to 25 Nm.

Delivers fully traceable results, has a low energy consumption and is simple to set up.

- Perfectly balanced and ergonomically designed handle.
- High free run speed (up to 2000 rpm's) and short tightening cycle (Up to 10 tightenings/min).
- Direct and robust gear box.
- The LED ring provides instant input to the operator and the incorporated speaker improve the operator feedback.
- Integrated function button, customized for your needs.



ETP SR



ETV SR



ETD SR

ETV SR

- SR angle tools are extremely fast, compact and easy to operate.
- ESD certified.
- Easy to configure the function button.
- Front LED's gives better operator feedback.
- Torque range from 2.5 to 30 Nm.

ETD SR

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

Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
	Nm	ft lb		kg	lb			
Angle models								
ETV SR21-12-10	2.5-12	1.9-8.9	1350	1.1	2.4	297	14	8436 4120 12
ETV SR21-25-10	5-25	3.7-18.5	1000	1.2	2.6	297	14	8436 4120 25
ETV SR21-30-10	6-30	4.4-22.1	663	1.2	2.6	299	15.5	8436 4120 30
Straight models								
ETD SR21-07-I06-PS	1.5-7	1.0-5.2	2090	0.9	1.9	259	24	8436 4220 07
ETD SR21-16-I06-PS	3.5-16	2.6-11.8	1460	1.0	2.2	276	24	8436 4220 16
ETD SR21-07-I06-T25	1.5-7	1.0-5.2	2090	0.9	1.9	353	24	8436 4224 07
ETD SR21-16-10-T25	3.5-16	2.6-11.8	1460	1.0	2.2	353	24	8436 4224 17
Pistol grip models								
ETP SR31-25-I06	5-25	3.7-18.4	2010	0.85	1.8	210	19.5	8436 4300 21
ETP SR31-25-10	5-25	3.7-18.4	2010	0.85	1.8	210	19.5	8436 4300 20

Optional Accessories

COVERS FOR STANDARD SOCKETS

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



Cover for standard sockets

SUPPORTED EXTENSIONS (~154 MM)

Model	Ordering No.
SR21, ETV SL21	4220 3868 90



Supported extensions

SUSPENSION YOKES SL/SR

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

PISTOL GRIP TENSOR SL

Model	Ordering No.
Tensor SL	4220 3516 80



Pistol grip
Tensor SL

SUPPORT HANDLE

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



Support handle

LEVER

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

TOOL HOLDER SL

Model	Ordering No.
ETP / ETD	4220 3584 80



Tool holder

Optional Accessories

CABLES TENSOR ES

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

CABLES TENSOR SL

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



SL Cable



SL Cable with 90 degrees connector



SL Spiral cable

Optional Accessories

CABLES TENSOR SR

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



SR Cable



SR Cable with 90 degrees connector



SR Spiral cable



SR Cable protection

Tensor – the operators' choice

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

PRODUCTIVITY GAINS

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

OPERATOR FEEDBACK

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

LOWEST COST OF OPERATION

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

TENSOR TOOLS

Tensor SL: low torque safety critical, configurable tool functions

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

Tensor ST: safety critical, configurable tool functions

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

Tensor STR, SR: safety critical, configurable tool functions

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

Tensor ES: quality critical

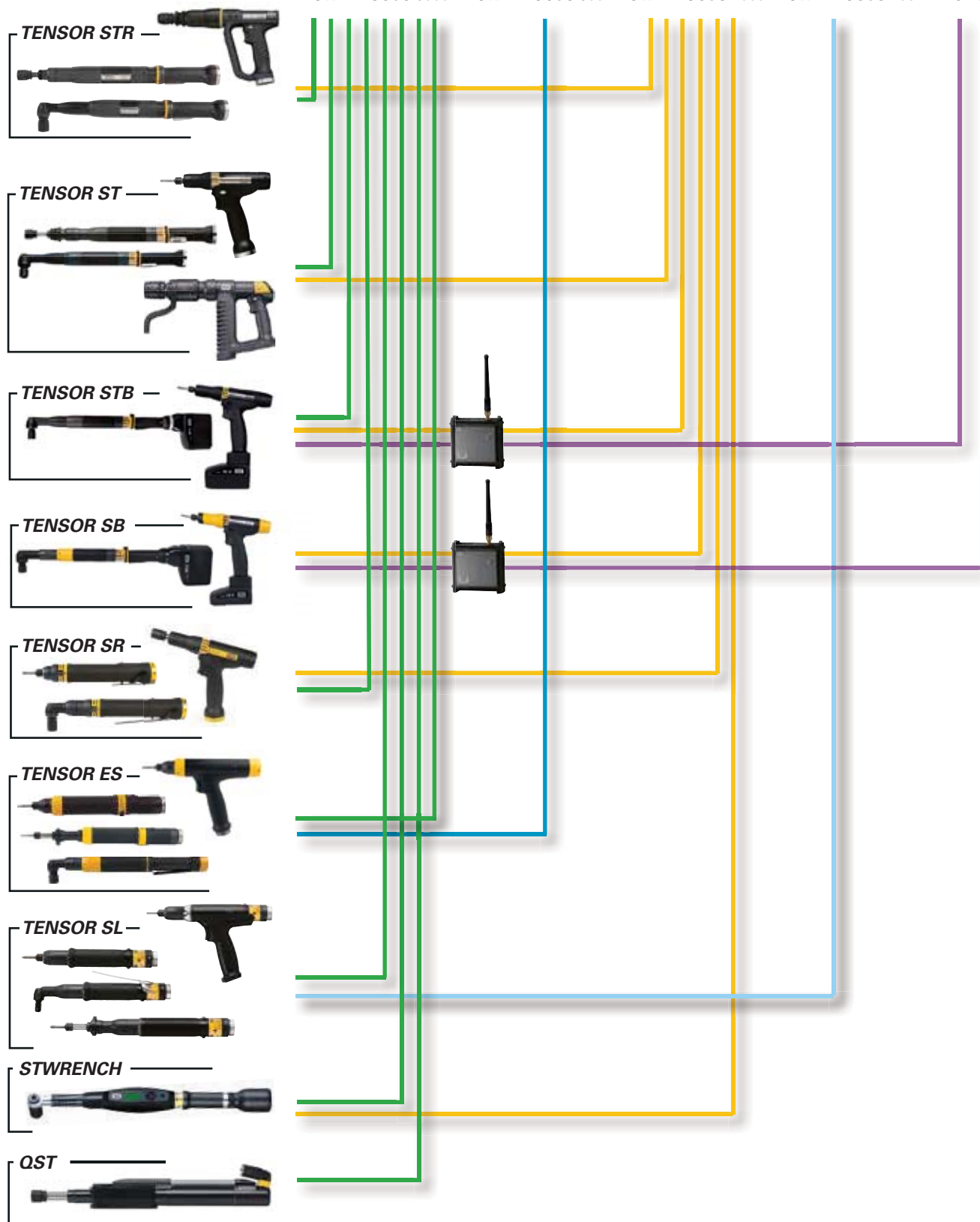
Tensor ES transducerized nutrunners for quality critical applications are available in straight and right angle versions. All models have a sealed design for robustness and offer high productivity with improved ergonomics.



Tensor Overview



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



ETV ES

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



ETV ES

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
Angle models									
ETV ES21-04-06	1/4	1.6-4.5	1.2-3.3	1909	0.85	1.9	284	9.5	8436 0120 04
ETV ES21-07-06	1/4	2.8-7	2.1-5.2	1147	0.85	1.9	284	9.5	8436 0120 07
ETV ES21-12-06	1/4	4.8-12	3.5-8.9	718	0.95	2.1	304	11	8436 0120 12
ETV ES21-20-10	3/8	8-20	5.9-14.8	430	1.05	2.3	303	14	8436 0120 20
ETV ES61-25-10	3/8	10-25	7.4-18.4	1378	1.8	4.0	419	14	8436 0160 25
ETV ES61-30-10	3/8	12-30	8.9-22.1	1160	1.8	4.0	421	15.5	8436 0160 30
ETV ES61-40-10	3/8	16-40	11.8-29.5	1153	1.9	4.2	441	18	8436 0160 40
ETV ES61-50-10	3/8	20-50	14.8-36.9	692	1.9	4.2	441	18	8436 0160 50
ETV ES61-70-13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	8436 0160 70
ETV ES61-100-13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	8436 0160 10
ETV ES61-150-13	1/2	60-150	44.3-110.6	296	3.2	7.1	541	26	8436 0160 15
ETV ES61-180-13	1/2	72-180	53-133	232	3.2	7.1	541	26	8436 0160 18
ETV ES61-200-20	3/4	80-200	59-147.5	203	3.4	7.5	543	27	8436 0160 20
Quick chuck									
ETV ES21-12-106-QC	—	4.8-12	3.5-8.9	718	0.95	2.1	304	11	8436 0121 12
Ball retainer									
ETV ES61-70-B13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	8436 0165 70
ETV ES61-100-B13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	8436 0165 10
Flush socket									
ETV ES61-30-FS	—	12-30	8.9-22.1	1160	1.8	4.0	421	16	8436 0160 51
ETV ES61-40-FS	—	16-40	11.8-29.5	1145	1.9	4.2	441	18	8436 0160 52
ETV ES61-50-FS	—	20-50	14.8-36.9	687	1.9	4.2	441	18	8436 0160 53
ETV ES61-70-FS	—	28-70	20.7-51.6	439	3.1	6.8	499	20	8436 0160 54
ETV ES61-100-FS	—	40-100	29.5-73.8	370	3.15	6.9	505	23	8436 0160 55
ETV ES61-150-FS	—	60-150	44.3-110.6	296	3.2	7.1	541	26	8436 0160 57
ETV ES61-180-FS	—	72-180	53-133	232	3.2	7.1	541	26	8436 0160 58
ETV ES61-200-FS	—	80-200	59-147.5	203	3.4	7.5	543	28	8436 0160 59
Hold & Drive									
ETV ES61-30-HAD	—	6-30	4-21	1160	2.4	5.3	442	18.3	8436 0160 61
ETV ES61-50-HAD	—	20-50	14.8-36.9	692	2.2	4.9	441	18	8436 0160 62
ETV ES61-150-HAD	—	60-150	44.3-110.6	296	3.4	7.5	541	26	8436 0160 64
ETV ES61-180-HAD	—	72-180	53-133	232	3.4	7.5	540.4	26	8436 0160 65
ETV ES61-200-HAD	—	80-200	59-147.5	203	3.8	8.4	543	28	8436 0160 66

ETD/ETF ES

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

ETD ES**ETF ES**

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
Straight models										
ETD ES21-02-I06-PS	—	0.8-2	0.6-1.5	4471	0.75	1.7	267	19.5	—	8436 0220 02
ETD ES21-04-I06-PS	—	1.6-4	1.2-3	1909	0.8	1.8	267	19.5	—	8436 0220 04
ETD ES21-07-I06-PS	—	2.8-7	2.1-5.2	1147	0.8	1.8	267	19.5	—	8436 0220 07
ETD ES21-12-I06-PS	—	4.8-12	3.5-8.9	745	0.8	1.8	267	19.5	—	8436 0220 12
ETD ES61-18-10	3/8	7.2-18	5.3-13.3	2129	1.7	3.75	418	23	-1/1	8436 0265 18
ETD ES61-18-10-T25	3/8	7.2-18	5.3-13.3	2129	1.85	4.1	456	23	2/2	8436 0260 18
ETD ES61-25-10	3/8	10-25	7.4-18.4	1793	1.7	3.8	418	23	-1/1	8436 0265 25
ETD ES61-25-10-T25	3/8	10-25	7.4-18.4	1793	1.85	4.1	456	23	2/2	8436 0260 25
ETD ES61-30-10	3/8	12-30	8.9-22.1	1077	1.7	3.8	418	23	-1/1	8436 0265 30
ETD ES61-30-10-T25	3/8	12-30	8.9-22.1	1077	1.85	4.1	456	23	2/2	8436 0260 30
ETD ES61-50-13	1/2	20-50	14.8-36.9	679	2.95	6.5	493	29	2/2	8436 0265 50
ETD ES61-50-13-T25	1/2	20-50	14.8-36.9	679	3.05	6.7	521	29	3/5	8436 0260 50
ETD ES61-70-13	1/2	28-70	20.7-51.6	608	2.95	6.5	493	29	2/2	8436 0265 70
ETD ES61-70-13-T25	1/2	28-70	20.7-51.6	608	3.1	6.8	521	29	3/5	8436 0260 70
ETD ES61-90-13	1/2	36-90	26.6-66.4	467	2.95	6.5	493	29	2/2	8436 0265 90
ETD ES61-90-13-T25	1/2	36-90	26.6-66.4	467	3.1	6.8	521	29	3/5	8436 0260 90
ETD ES61-120-13	1/2	48-120	35.4-88.5	365	2.95	6.5	493	29	2/2	8436 0265 12
ETD ES61-120-13-T25	1/2	48-120	35.4-88.5	365	3.1	6.8	521	29	3/5	8436 0260 12
Straight models with lever start										
ETD ES21-02-I06	—	0.8-2	0.6-1.5	4471	0.78	1.76	267	19.5	—	8436 0221 02
ETD ES21-04-I06	—	1.6-4.5	1.2-3.3	1909	0.83	1.86	267	19.5	—	8436 0221 04
ETD ES21-07-I06	—	2.8-7	2.1-5.2	1147	0.83	1.86	267	19.5	—	8436 0221 07
ETD ES21-12-I06	—	4.8-12	3.5-8.9	745	0.83	1.86	267	19.5	—	8436 0221 12
Fixtured models										
ETF ES21-04-I06-T25	—	1.6-4	1.2-3	1909	0.96	2.1	338	22.5	— ^a	8436 0224 04
ETF ES21-07-I06-T25	—	2.8-7	2.1-5.2	1147	0.96	2.1	338	22.5	— ^a	8436 0224 07
ETF ES21-12-I06-T25	—	4.8-12	3.5-8.9	745	0.96	2.1	338	22.5	— ^a	8436 0224 12

^a Mounting bracket fixed.

Tensor ES

Pistol Grip Models

ETP ES

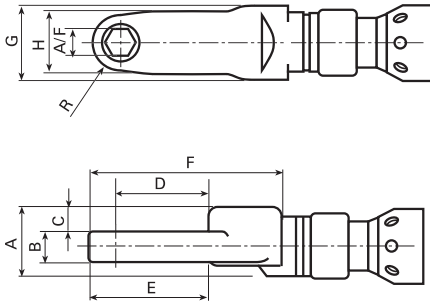
- Torque transducer with an accuracy of $\pm 7.5\%$ over six sigma.
- Robust, sealed design.
- New durable motor with higher speeds.
- Engineered in modules with component commonality.
- Clear LEDs visible through 360°.
- Hot swap.

**ETP ES**

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
Pistol grip models										
ETP ES21-02-I06-PS	—	0.8-2	0.6-1.5	4471	0.85	1.87	225	19.5	—	8436 0320 02
ETP ES21-04-I06-PS	—	1.6-4	1.2-3	1909	0.85	1.87	225	19.5	—	8436 0320 04
ETP ES21-07-I06-PS	—	2.8-7	2.1-5.2	1147	0.85	1.87	225	19.5	—	8436 0320 07
ETP ES21-12-I06-PS	—	4.8-12	3.5-8.9	745	0.85	1.87	225	19.5	—	8436 0320 12

IN-LINE CROWFOOT TOOLS

Dimensions

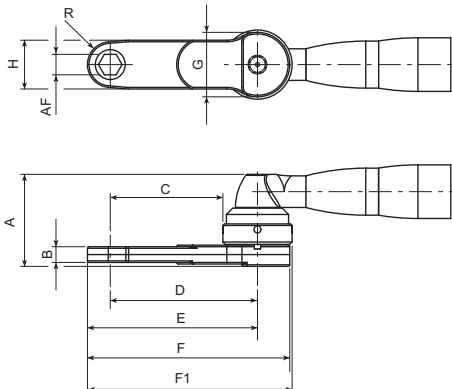


ETC ES

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
ETC ES61																	
ETC ES61-18-10-LI3	7.2-18	5.4-13	1789	2.2	4.9	503	10	34	15	12.5	36.7	59.2	82.2	35	22	10	8436 0160 31
ETC ES61-28-12-LI3	11.2-28	8.3-20.6	810	2.2	4.9	515	12	34	15	12.5	45.5	71	94	35	30	13	8436 0160 33

OFFSET CROWFOOT TOOLS

Dimensions



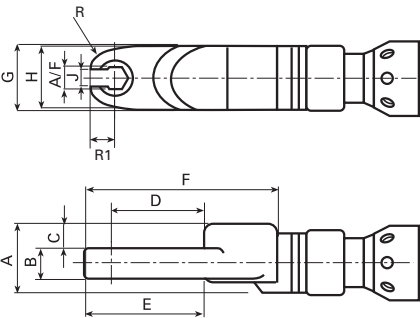
ETC ES

Model	Torque range		Speed	Weight		Length	A/F	A	B	C	D	E	F	G	H	R	F1	Ordering No.
	Nm	ft lb		r/min	kg													
ETC ES61																		
ETC ES61-18-10-LO5	7.2-18	5.4-13.2	1160	2.1	4.7	485	10	61.8	15	47.4	65.6	75.6	90.6	36.5	22	10	94	8436 0160 32
ETC ES61-28-12-LO5	11.2-28	8.3-20	1153	2.4	5.3	520	12	69.5	15	62	84	97	117.5	44	30	13	119	8436 0160 34
ETC ES61-40-13-LO3	16-40	12-29.5	692	2.5	5.6	485	13	68	18	25	47	62	82	44	31	14.5	83.3	8436 0160 35
ETC ES61-50-13-LO3	20-50	15-37	439	3.7	8.2	545	13	86	24	27	51	66	89	48	30	15	90	8436 0160 36
ETC ES61-70-17-LO3	28-70	21-52	370	3.75	8.3	537	17	81	27	31.8	55.8	72.3	94.8	48	33	16.5	96.3	8436 0160 37

Tensor ES Tube Nut

IN-LINE TUBE NUT TOOLS

Dimensions

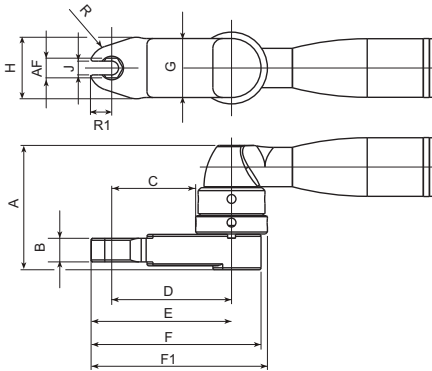


ETO ES

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R mm	R1 mm	Ordering No.
	Nm	ft lb		kg	lb														
ETO ES61																			
ETO ES61-18-10-LI3	7.2-18	5.3-13.3	1597	2.1	4.6	502	10	34	11	14.5	34.1	31.1	81.5	35	38	8	15	11.9	8436 0160 41
ETO ES61-20-10-LI3	8-20	5.9-14.7	1596	2.2	4.85	499	10	34	14	13	31.9	29.7	78.6	35	38	8	14	11.2	8436 0160 42
ETO ES61-28-12-LI3	11.2-28	8.24-20.6	807	2.6	5.8	547	12	43	11	17.5	43.7	29.3	96.5	40	50	10.4	31	15	8436 0160 43
ETO ES61-30-12-LI3	12-30	8.9-22.1	816	2.6	5.75	530	12	43	18	14	34.3	31.4	83	40	40	10.4	25	12.4	8436 0160 45
ETO ES61-30-13-LI3	12-30	8.9-22.1	815	2.6	5.7	533	13	43	18	14	34.3	31.4	83	40	40	10.4	25	12.4	8436 0160 47
ETO ES61-70-19-LI3	28-70	21-52	321	4.8	10.6	664	19	46	18	17	53.8	38.8	137.2	64	59	17	32	20.1	8436 0160 49

OFFSET TUBE NUT TOOLS

Dimensions



ETO ES

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R1 mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb															
ETO ES61																				
ETO ES61-28-13-LO3	11.2-28	8.24-20.6	1153	2.3	5.1	475	13	65	11	12.8	36.8	51.8	74.3	48	50	10.4	15	31	75.8	8436 0160 44
ETO ES61-30-13-LO5	12-30	8.9-22.1	692	2.5	5.5	511	13	72.5	18	53.3	75.3	87.7	108.2	44	40	10.4	12.4	25	109.7	8436 0160 46
ETO ES61-50-17-LO5	20-50	14.8-37	439	3.9	8.6	585	17	80	18	66.8	90.8	105.8	128.3	48	50	12	15	31	129.8	8436 0160 48

ETV ST

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



Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Height mm	Ordering No.
		Nm	ft lb		kg	lb				
ETV ST81										
ETV ST81-50-10	3/8	16-55	12-40	1090	1.8	3.9	473	18	48	8433 2051 55
ETV ST81-70-13	1/2	20-80	15-58	790	2.3	5.0	485	20	58	8433 2053 48
ETV ST81-100-13	1/2	20-100	15-80	540	2.7	5.9	522	22.5	60	8433 2056 82
ETV ST81-150-13	1/2	30-160	22-117	380	3.2	7.0	555	26	65	8433 2060 12
ETV ST81-180-13	1/2	35-180	26-133	310	3.2	7.0	555	26	65	8433 2062 31
ETV ST81-200-20	3/4	40-200	30-154	300	3.2	7.0	556	27	70	8433 2063 42
ETV ST81 Ball Retainer										
ETV ST81-70-B13	1/2	20-80	15-58	790	2.3	5.0	485	20	58	8433 2054 62
ETV ST81-100-B13	1/2	20-100	15-80	540	2.7	5.9	522	22.5	60	8433 2058 24
ETV ST81-150-B13	1/2	30-160	22-117	380	3.3	7.0	555	25.5	65	8433 2060 97
ETV ST81-180-B13	1/2	35-180	26-133	310	3.2	7.0	555	25.5	65	8433 2062 43
ETV ST81 Flush Socket										
ETV ST81-100-FS	-	20-100	15-80	540	2.7	5.9	522	23	51	8433 2058 68
ETV ST81-180-FS	-	35-180	26-133	310	3.2	7.0	555	26	58	8433 2062 50
ETV ST81-200-FS	-	40-200	30-154	300	3.2	7.0	557	28	58	8433 2064 59
ETV ST81 Hold & Drive										
ETV ST81-50-HAD	-	16-55	12-40	1090	2.3	5.0	473	18.5	62	8433 2052 80
ETV ST81-100-HAD	-	20-100	15-80	665	2.6	5.7	542	23	71	8433 2056 36
ETV ST81-100-HAD-HD	-	20-100	15-80	665	2.7	5.9	542	26	80	8433 2056 35
ETV ST81-120-HAD	-	30-130	22-100	540	2.8	6.0	560	26	80	8433 2058 65
ETV ST81-150-HAD	-	30-160	22-117	365	3.3	7.0	560	26	80	8433 2061 81
ETV ST81-180-HAD	-	35-180	26-133	310	3.3	7.0	560	26	80	8433 2062 60
ETV ST81-200-HAD	-	40-200	30-154	300	3.3	7.0	561	28	81	8433 2065 09
ETV ST101										
ETV ST101-100-13	1/2	20-100	15-74	920	4.2	9.3	572	22.5	44	8433 2080 10
ETV ST101-180-13	1/2	50-180	37-133	575	4.2	9.3	600	25.3	47	8433 2080 52
ETV ST101-200-20	3/4	50-200	37-147	485	4.4	9.7	602	27.5	47	8433 2080 92
ETV ST101-270-20	3/4	65-270	48-199	380	7.3	16.1	672	32.9	62	8433 2081 23
ETV ST101-370-20	3/4	90-370	66-273	280	7.3	16.1	672	32.9	62	8433 2082 26
ETV ST101-450-20	3/4	110-450	81-332	230	10.6	23.4	715	54.0	76	8433 2082 81
ETV ST101-600-25	1	150-600	111-443	151	10.6	23.4	715	54.0	76	8433 2083 56
ETV ST101 Fan										
ETV ST101-100-13-F	1/2	20-100	15-74	920	4.2	9.3	572	23	44	8433 2080 30
ETV ST101-180-13-F	1/2	50-180	37-133	575	4.2	9.3	600	25	47	8433 2080 63
ETV ST101-200-20-F	3/4	50-200	37-147	485	4.4	9.7	602	28	47	8433 2080 93
ETV ST101-270-20-F	3/4	65-270	48-199	380	7.3	16.1	672	33	62	8433 2081 45
ETV ST101-370-20-F	3/4	90-370	66-273	280	7.3	16.1	672	33	62	8433 2082 48
ETV ST101-450-20-F	3/4	110-450	81-332	230	10.6	23.4	715	54	76	8433 2082 90
ETV ST101-600-25-F	1	150-600	111-443	150	10.6	23.4	715	54	76	8433 2083 69
ETV ST101 Torque Multiplier										
ETV ST101-600-TM	3/4	150-600	111-443	132	7.6	16.8	613	34	143	8433 2083 62
ETV ST101-1000-TM	1	250-1000	184-734	77	11.3	24.3	679	40	191	8433 2084 05
ETV ST101-1500-25-TM	1	325-1500	240-1100	23	12	26	625	43	257	8433 2084 65
ETV ST101-1500-38-TM	1 1/2	325-1500	240-1100	48	19	42	719	71	233	8433 2084 70
ETV ST101-2000-38-TM	1 1/2	500-2000	370-1475	35	19	42	719	71	231	8433 2084 80
ETV ST101-4000-38-TM	1 1/2	1000-4000	734-2950	21.8	21.5	47	710	71	350	8433 2084 90
ETV ST101 Torque Multiplier/Fan										
ETV ST101-600-TM-F	3/4	150-600	111-443	132	7.6	16.8	613	34	143	8433 2083 96
ETV ST101-1000-TM-F	1	250-1000	184-734	77	11.3	24.3	679	40	191	8433 2084 10

ETD ST

- ETD ST inline tools.
- Torque range from 1 to 4000 Nm.
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 - Ergonomic design.
 - Excellent operator feedback.

**ETD ST**

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETD ST81										
ETD ST81-30-10	3/8	10-30	7-22	1700	1.8	4.0	450	24	– / 1	8433 2151 93
ETD ST81-50-13	1/2	16-50	12-37	1230	2.1	4.6	493	24	2 / 2	8433 2153 34
ETD ST81-70-13	1/2	15-70	12-51	880	2.5	5.5	510	26.5	2 / 2	8433 2156 03
ETD ST81-90-13	1/2	20-95	15-70	675	2.5	5.5	510	26.5	2 / 2	8433 2158 14
ETD ST81-120-13	1/2	25-125	19-91	505	2.5	5.5	510	26.5	2 / 2	8433 2160 25
ETD ST81 Telescopic										
ETD ST81-70-13-T25	1/2	15-70	12-51	880	2.6	5.8	538	26.5	3 / 5	8433 2154 98
ETD ST81-90-13-T25	1/2	20-95	15-70	675	2.6	5.8	538	26.5	3 / 5	8433 2157 25
ETD ST81-120-13-T25	1/2	25-125	19-91	505	2.6	5.8	538	26.5	3 / 5	8433 2159 53
ETD ST101										
ETD ST101-100-13	1/2	25-100	18-73	1043	3.2	7.0	631	30.5	-	8433 2179 00
ETD ST101-120-13	1/2	30-120	22-88	875	3.2	7.0	631	30.5	-	8433 2180 22
ETD ST101-150-20	3/4	30-150	22-109	685	4.3	9.3	706	33	-	8433 2181 36
ETD ST101-200-20	3/4	50-200	36-146	500	7.4	16.3	706	33	-	8433 2182 05
ETD ST101-300-20	3/4	70-300	51-221	345	7.4	16.3	706	33	-	8433 2182 70
ETD ST101-500-20	3/4	120-500	88-368	204	8.3	18.5	717	33	-	8433 2183 28
ETD ST101-750-25	1	150-750	109-553	143	9.1	20.3	681	45	-	8433 2184 40
ETD ST101-1000-25	1	250-1000	184-737	100	9.7	21.6	708	45	-	8433 2185 60
ETD ST101-1200-25-S	1	300-1200	220-885	81	12	26	787	47	7	8433 2196 10
ETD ST101 Fan										
ETD ST101-100-13-F	1/2	25-100	18-73	1043	3.2	7.0	631	30.5	-	8433 2179 05
ETD ST101-150-20-F	3/4	30-150	22-109	685	4.3	9.3	706	33	-	8433 2181 40
ETD ST101-200-20-F	3/4	50-200	36-146	500	7.4	16.3	706	33	-	8433 2182 10
ETD ST101-300-20-F	3/4	70-300	51-221	345	7.4	16.3	706	33	-	8433 2182 72
ETD ST101-500-20-F	3/4	120-500	88-368	204	8.3	18.5	717	33	-	8433 2183 30
ETD ST101-750-25-F	1	150-750	109-553	143	9.1	20.3	681	45	-	8433 2184 50
ETD ST101-1200-25-F	1	300-1200	220-885	81	12	26	787	47	-	8433 2186 10
ETD ST101-2000-38-F	1 1/2	500-2000	370-1475	48	17	37	742	68	-	8433 2187 22
ETD ST101-2000-38-S-F	1 1/2	500-2000	370-1475	48	17	37	742	68	8	8433 2197 22
ETD ST101-4000-38-F	1 1/2	1000-4000	735-2950	25	22	48	823	68	-	8433 2187 40
ETD ST101-4000-38-S-F	1 1/2	1000-4000	735-2950	25	22	48	823	68	8	8433 2197 40
ETD ST101 Telescopic										
ETD ST101-100-13-T25	1/2	25-100	18-73	1043	3.3	7.3	656	30.5	-	8433 2179 10
ETD ST101-120-13-T25	1/2	30-120	22-88	873	3.3	7.3	656	30.5	-	8433 2180 32
ETD ST101-150-20-T40	3/4	30-150	22-109	685	4.4	9.7	656	30.5	-	8433 2181 46
ETD ST101-200-20-T40	3/4	50-200	36-146	500	7.5	16.5	756	33	-	8433 2182 23
ETD ST101-300-20-T40	3/4	70-300	51-221	345	7.5	16.5	756	33	-	8433 2182 82
ETD ST101-500-20-T40	3/4	120-500	88-368	204	8.4	18.5	768	37	-	8433 2183 38
ETD ST101-750-25-T50	1	150-750	109-553	143	9.2	20.3	727	45	-	8433 2184 56
ETD ST101-1000-25-T50	1	250-1000	184-737	100	9.8	21.6	754	45	-	8433 2185 78
ETD ST101 Telescopic Fan										
ETD ST101-100-13-T25-F	1/2	25-100	18-73	1043	3.3	7.3	656	30.5	-	8433 2179 15
ETD ST101-120-13-T25-F	1/2	30-120	22-88	873	3.3	7.3	656	30.5	-	8433 2180 48
ETD ST101-150-20-T40-F	3/4	30-150	22-109	685	4.4	9.7	656	30.5	-	8433 2181 59
ETD ST101-200-20-T40-F	3/4	50-200	36-146	500	7.5	16.5	756	33	-	8433 2182 45
ETD ST101-300-20-T40-F	3/4	70-300	51-221	345	7.5	16.5	756	33	-	8433 2182 91
ETD ST101-500-20-T40-F	3/4	120-500	88-368	204	8.4	18.5	769	37	-	8433 2183 49
ETD ST101-750-25-T50-F	1	150-750	109-553	143	9.2	20.3	769	45	-	8433 2184 69
ETD ST101-1000-25-T50-F	1	250-1000	184-737	100	9.8	21.6	755	45	-	8433 2185 89
ETD ST101-1200-25-T50-F	1	300-1200	220-885	81	12	26	844	47	-	8433 2186 12
ETD ST101-1200-25-T50-S-F	1	300-1200	220-885	81	12	26	844	47	7	8433 2196 12
ETD ST101-2000-38-T50-F	1 1/2	500-2000	370-1475	48	17	37	840	68	-	8433 2187 20
ETD ST101-2000-38-T50-S-F	1 1/2	500-2000	370-1475	48	17	37	840	68	8	8433 2197 20
ETD ST101-4000-38-T50-F	1 1/2	1000-4000	735-2950	25	22	48	921	68	-	8433 2187 42
ETD ST101-4000-38-T50-S-F	1 1/2	1000-4000	735-2950	25	22	48	921	68	8	8433 2197 42

ETP ST

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



ETP ST

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	Height mm	Ordering No.
		Nm	ft lb		kg	lb			
ETP ST32									
ETP ST32-05-10	3/8	1-5	0.7-3.6	2820	0.75	1.7	197	179	8433 2211 03
ETP ST32-05-I06	-	1-5	0.7-3.6	2820	0.75	1.7	197	179	8433 2212 19
ETP ST32-10-10	3/8	3-11	2.2-8.0	1210	0.8	1.8	197	179	8433 2213 48
ETP ST32-10-I06	-	3-11	2.2-8.0	1210	0.8	1.8	197	179	8433 2214 63
ETP ST32-20-10	3/8	5-20	3.6-15.0	677	0.91	2	235	179	8433 2216 95
ETP ST32-20-I06	-	5-20	3.6-15.0	677	0.91	2	235	179	8433 2217 11
ETP ST32 with Barcode Scanner									
ETP ST32-05-I06BCR	-	1-5	0.7-3.7	2820	0.87	2	197	205	8433 2212 29
ETP ST32-10-I06BCR	-	3-11	2.2-8.0	1210	0.92	2.1	197	205	8433 2214 73
ETP ST32-20-I06BCR	-	5-20	3.6-15.0	677	1.03	2.3	237	205	8433 2217 26

Pistol Grip Models

Tensor ST Rev0

ST REVO

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



ETP ST Rev0

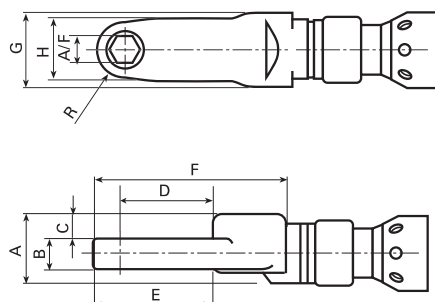
Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline	Ordering No.
		Nm	ft lb		kg	lb				
Model with fan										
ETP ST101-200-20-F	3/4	60-200	45-145	396	5.2	11.5	303	32.5	3	8433 2302 02
ETP ST101-300-20-F	3/4	90-300	66-221	293	5.2	11.5	303	32.5	3	8433 2303 02
ETP ST101-500-20-F	3/4	150-500	110-365	186	5.9	13	334	33.5	4	8433 2305 02
ETP ST101-750-25-F	1	220-750	160-550	132	6.2	13.7	353	33.5	5	8433 2307 52
ETP ST101-1000-25-F	1	300-1000	220-735	99	6.4	14.1	364	33.5	5	8433 2310 02
ETP ST101-1500-25-F	1	450-1500	332-1106	47	8.8	19.4	402	43.5	9	8433 2321 52
ETP ST101-2000-38-F	1 1/2	600-2000	442-1475	38	11.5	25.4	454	48	7	8433 2322 02
ETP ST101-3000-38-F	1 1/2	900-3000	664-2212	24	14.8	33	476	59	8	8433 2323 02
ETP ST101-4000-38-F	1 1/2	1200-4000	885-2950	20	15	33	481	59	8	8433 2324 02

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

Tensor ST Crowfoot

IN-LINE CROWFOOT TOOLS

Dimensions

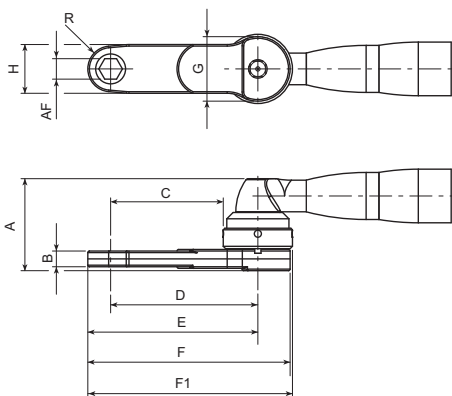


ETC ST

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

OFFSET CROWFOOT TOOLS

Dimensions

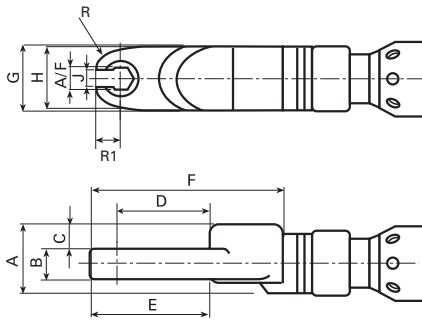


ETC ST

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

IN-LINE TUBE NUT TOOLS

Dimensions

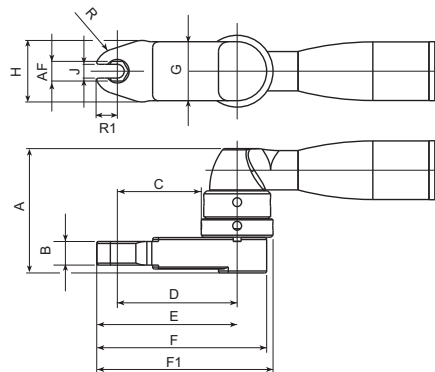


ETO ST

	Torque range		Speed	Weight		Length	A/F	A	B	C	D	E	F	G	H	J	R	R1	
Model	Nm	ft lb		r/min	kg														
ETO ST61																			
ETO ST61-8-8-LI3	3-8.5	2.2-6.2	2250	1.7	3.7	499	8	32	11	12.25	22.7	21.6	60	33.5	29	6	7.8	10	8433 2311 53
ETO ST61-12-8-LI3	4-12	3-9	1705	1.7	3.7	505	8	32	10	13	27.3	25.4	66.6	33.5	31	7	9.8	11.5	8433 2311 56
ETO ST61-15-8-LI3	4-14	3-10	1705	1.8	4	505	8	32	12	11	27.3	25.4	66.6	33.5	31	7	9.8	11.5	8433 2311 59
ETO ST61-15-10-LI3	4-15	3-11	1630	1.8	4	506	10	32	12	11	27.9	26.1	67.8	33.5	32	8	10.3	14	8433 2311 62
ETO ST61-18-10-LI3	5-18	3.6-13	1278	1.8	4	522	10	34	11	14.5	34.1	31.1	81.5	35	38	8	11.9	15	8433 2311 68
ETO ST61-20-10-LI3	5-20	3.7-14.7	1278	1.9	4.2	519	10	34	14	13	31.9	29.7	78.6	35	38	8	11.2	14	8433 2311 64
ETO ST61-28-12-LI3	6-28	4.4-20.6	767	2.3	5.1	558	12	43	11	17.5	43.7	29.3	96.5	40	50	10.4	15	31	8433 2311 77
ETO ST61-30-12-LI3	6-33	4.4-24.3	772	2.3	5.1	544	12	43	18	14	34.3	31.4	83	40	40	10.4	12.4	25	8433 2311 74
ETO ST61-35-16-LI3	6-35	4.4-25.8	761	2.5	5.5	578	16	46	11	20.8	52	47.3	113.7	45	55	12.5	17.2	32	8433 2311 83
ETO ST61-60-19-LI3	15-60	11-44	371	3.6	7.9	638	19	46	18	17	49.3	44.6	111	45	59	14	17.2	32	8433 2311 86
ETO ST61-80-19-LI3	21-80	15-59	267	4.1	9	662	19	46	18	17	53.8	38.8	137.2	64	59	17	20.1	32	8433 2311 92
ETO ST61-100-21-LI3	21-100	15.5-73.7	267	4.4	9.7	674	21	46	20	16	64.4	56.5	148.9	64	76	18	22.3	32	8433 2311 95
ETO ST81																			
ETO ST81-100-24-LI3	39-110	28-81	240	4.6	10.1	706	24	46	20	16	71.3	50.6	160.4	64	77	20.5	24.6	33	8433 2311 98

OFFSET TUBE NUT TOOLS

Dimensions



ETO ST

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

ETV STR

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



ETV STR

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

ETD STR

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



ETD STR

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETD STR31									
ETD STR31-05-10	3/8	1-5	0.7-3.6	3645	1.0	2.2	388	24	8436 6230 05
ETD STR31-10-10	3/8	2-10	1.4-7.3	1555	1.2	2.6	388	24	8436 6230 10
ETD STR61									
ETD STR61-15-10	3/8	4-16	3-12	2500	1.4	3.1	438	24	8436 6260 15
ETD STR61-20-10	3/8	5-22	3.6-16	1890	1.4	3.1	438	24	8436 6260 20
ETD STR61-30-10	3/8	6-35	4.4-25	1130	1.4	3.1	429	24	8436 6260 30
ETD STR61-50-13	1/2	10-55	7.3-40	819	2.0	4.4	474	24	8436 6260 50
ETD STR61-70-13	1/2	15-80	12-58	560	2.3	5.1	491	26.5	8436 6260 70
ETD STR61-90-13	1/2	20-95	15-70	440	2.3	5.1	491	26.5	8436 6260 90
ETD STR61 Telescopic									
ETD STR61-15-10-T25	3/8	4-16	3-12	2500	1.5	3.3	477	24	8436 6260 16
ETD STR61-20-10-T25	3/8	5-22	3.6-16	1890	1.5	3.3	477	24	8436 6260 21
ETD STR61-30-10-T25	3/8	6-35	4.4-25	1130	1.5	3.3	468	24	8436 6260 31
ETD STR61-50-13-T25	1/2	10-55	7.3-40	819	2.2	4.8	501	24	8436 6260 51
ETD STR61-70-13-T25	1/2	15-60	12-58	560	2.4	5.4	518	24	8436 6260 71
ETD-STR61-90-13-T25	1/2	20-95	15-70	440	2.4	5.4	518	24	8436 6260 91

ETP STR

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



ETP STR

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETP STR61									
ETP STR61-20-10	3/8	5-22	3.7-16.2	2100	1.3	2.87	244	24	8436 6360 20
ETP STR61-30-10	3/8	6-32	4.4-23.5	1530	1.3	2.87	244	24	8436 6360 30
ETP STR61-50-13	3/8	10-55	7.4-40.6	820	1.7	3.75	282	24	8436 6360 50
ETP STR61-70-13	1/2	14-80	10.3-59	560	2.0	4.41	298	26.5	8436 6360 70
ETP STR61-90-13	1/2	20-95	14.7-70.4	450	2.0	4.41	298	26.5	8436 6360 90
ETP STR61-120-13	1/2	24-125	17.7-89.4	380	2.0	4.41	298	26.5	8436 6360 12
ETP STR61 Cable On Top									
ETP STR61-120-13 COT	1/2	24-125	17.7-89.4	380	2.4	5.29	350	26.5	8436 6368 12
ETP STR61-20-10 COT	3/8	5-22	3.7-16.2	2100	1.7	3.75	296	24	8436 6368 20
ETP STR61-30-10 COT	3/8	6-32	4.4-23.5	1530	1.7	3.75	296	24	8436 6368 30
ETP STR61-50-13 COT	1/2	10-55	7.4-40.6	820	2.1	4.63	334	24	8436 6368 50
ETP STR61-70-13 COT	1/2	14-80	10.3-59	560	2.4	5.29	350	26.5	8436 6368 70
ETP STR61-90-13 COT	1/2	20-95	14.7-70.4	450	2.4	5.29	350	26.5	8436 6368 90
ETP STR61 Swiveling									
ETP STR61-70-13-SSW	1/2	14-80	10.3-59	560	2.0	4.41	298	26.5	8436 6361 70
ETP STR61-120-13-SSW	1/2	24-125	17.7-89.4	380	2.0	4.41	298	26.5	8436 6361 12

Tensor STR

Two Trigger

ETT STR

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

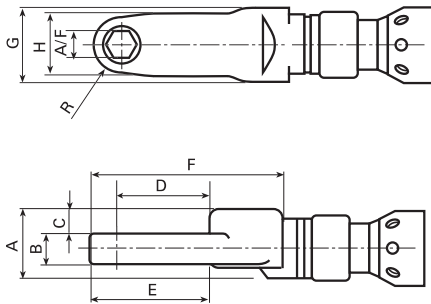


ETT STR

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

IN-LINE CROWFOOT TOOLS

Dimensions

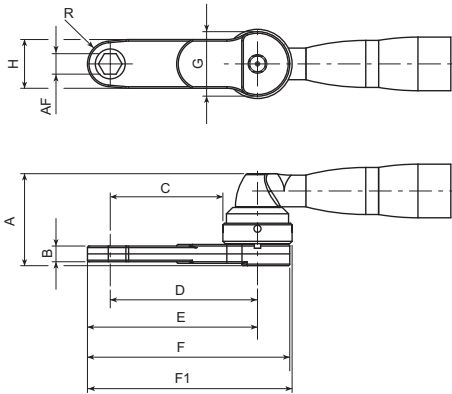


ETC STR

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
ETC STR61																	
ETC STR61-18-10-LI3	5-18	4-13	1588	1.9	4.2	523	10	34	15	12.5	36.7	59.2	82.2	35	22	10	8436 6730 31
ETC STR61-28-12-LI3	6-28	4 -20	850	1.9	4.2	526	12	34	15	12.5	45.5	71	94	35	30	13	8436 6730 33

OFFSET CROWFOOT TOOLS

Dimensions



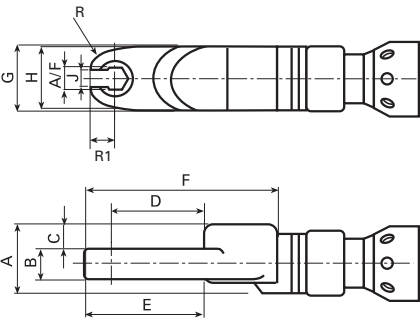
ETC STR

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb													
ETC STR61																		
ETC STR61-18-10-LO5	5-18	4-13	1130	1.7	3.8	500	10	61.8	15	47.4	65.6	75.6	90.6	36.5	22	10	94	8436 6730 32
ETC STR61-28-12-LO5	6-28	4-20	1220	2	4.4	533	12	69.5	15	62	84	97	117.5	44	30	13	119	8436 6730 34
ETC STR61-40-13-LO3	8-40	5.9-29.5	735	2.25	5	498	13	68	18	25	47	62	82	44	31	14.5	83.3	8436 6730 35
ETC STR61-50-13-LO3	13-64	10-47	530	2.6	5.7	511.5	13	86	24	27	51	66	89	48	30	15	90	8436 6730 36
ETC STR61-80-17-LO3	16-80	12-59	350	3.1	6.8	534	17	81	27	31.8	55.8	72.3	94.8	48	33	16.5	96.3	8436 6730 37

Tensor STR Tube Nut

IN-LINE TUBE NUT TOOLS

Dimensions

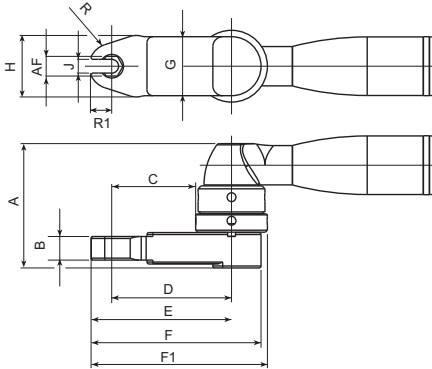


ETO STR

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R mm	R1 mm	Ordering No.
	Nm	ft lb		kg	lb														
ETO STR61																			
ETO STR61-18-10-LI3	5-18	3.6-13	1421	1.8	4	522	10	34	11	14.5	34.1	31.1	81.5	35	38	8	15	11.9	8436 6730 41
ETO STR61-20-10-LI3	5-20	3.7-14.7	1421	1.9	4.2	519	10	34	14	13	31.9	29.7	78.6	35	38	8	14	11.2	8436 6730 42
ETO STR61-28-12-LI3	6-28	4.4-20.6	850	2.3	5.1	556	12	43	11	17.5	43.7	29.3	96.5	40	50	10.4	31	15	8436 6730 43
ETO STR61-30-12-LI3	6-33	4.4-24.3	856	2.3	5.1	542	12	43	18	14	34.3	31.4	83	40	40	10.4	25	12.4	8436 6730 45
ETO STR61-30-13-LI3	6-33	4.4-24.3	850	2.3	5.1	542	13	43	18	14	34.3	31.4	83	40	40	10.4	25	12.4	8436 6730 47
ETO STR61-80-19-LI3	21-80	15-59	296	4.1	9	639	19	46	18	17	53.8	38.8	137.2	64	59	17	32	20.1	8436 6730 49

OFFSET TUBE NUT TOOLS

Dimensions



ETO STR

	Torque range		Speed	Weight		Length	A/F	A	B	C	D	E	F	G	H	J	R1	R	F1		
Model	Nm	ft lb	r/min	kg	lb	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Ordering No.
ETO STR61																					
ETO STR61-28-13-LO3	6-28	4.4-20.6	1220	1.9	4.2	488	13	65	11	12.8	36.8	51.8	74.3	48	50	10.4	15	31	75.8	8436 6730 44	
ETO STR61-30-13-LO5	7-33	5.2-24.3	478	2.1	4.6	524	13	72.5	18	53.3	75.3	87.7	108.2	44	40	10.4	12.4	25	109.7	8436 6730 46	
ETO STR61-50-17-LO5	10-50	7.3-37	345	2.8	6.2	552	17	80	18	66.8	90.8	105.8	128.3	48	50	12	15	31	129.8	8436 6730 48	

ETP SR31

The ETP SR is a pistol type electric nut-runner that delivers accurate, fast and error proof tightening with low reaction force. With TurboTight™ the ETP SR31 can handle one hand operations up to 25 Nm.

Delivers fully traceable results, has a low energy consumption and is simple to set up.

- Perfectly balanced and ergonomically designed handle.
- High free run speed (up to 2000 rpm's) and short tightening cycle (Up to 10 tightenings/min).
- Direct and robust gear box.
- The LED ring provides instant input to the operator and the incorporated speaker improve the operator feedback.
- Integrated function button, customized for your needs.



ETP SR



ETV SR



ETD SR

ETV SR

- SR angle tools are extremely fast, compact and easy to operate.
- ESD certified.
- Easy to configure the function button.
- Front LED's gives better operator feedback.
- Torque range from 2.5 to 30 Nm.

ETD SR

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

Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
	Nm	ft lb		kg	lb			
Angle models								
ETV SR21-12-10	2.5-12	1.9-8.9	1350	1.1	2.4	297	14	8436 4120 12
ETV SR21-25-10	5-25	3.7-18.5	1000	1.2	2.6	297	14	8436 4120 25
ETV SR21-30-10	6-30	4.4-22.1	663	1.2	2.6	299	15.5	8436 4120 30
Straight models								
ETD SR21-07-I06-PS	1.5-7	1.0-5.2	2090	0.9	1.9	259	24	8436 4220 07
ETD SR21-16-I06-PS	3.5-16	2.6-11.8	1460	1.0	2.2	276	24	8436 4220 16
ETD SR21-07-I06-T25	1.5-7	1.0-5.2	2090	0.9	1.9	353	24	8436 4224 07
ETD SR21-16-10-T25	3.5-16	2.6-11.8	1460	1.0	2.2	353	24	8436 4224 17
Pistol grip models								
ETP SR31-25-I06	5-25	3.7-18.4	2010	0.85	1.8	210	19.5	8436 4300 21
ETP SR31-25-10	5-25	3.7-18.4	2010	0.85	1.8	210	19.5	8436 4300 20

Optional Accessories

TENSOR ST/SR/STR

Model	Power Focus 4000 Ordering No.	Power Focus 6000 Ordering No.
Tool cable		
2 m	4220 2636 02	4220 4375 02
3 m	4220 2636 03	4220 4375 03
5 m	4220 2636 05	4220 4375 05
7 m	4220 2636 07	4220 4375 07
10 m	4220 2636 10	4220 4375 10
15 m	4220 2636 15	4220 4375 15
Cables with 90 degrees connector		
2 m	4220 3891 02	4220 5199 02
3 m	4220 3891 03	4220 5199 03
5 m	4220 3891 05	4220 5199 05
7 m	4220 3891 07	4220 5199 07
10 m	4220 3891 10	4220 5199 10
15 m	4220 3891 15	4220 5199 15
Spiral cable (length/stretched length)		
3 m / 4 m	4220 2757 03	
7 m / 8 m	4220 2757 07	
10 m / 12 m	4220 2757 10	
Cable protection 2 m	4220 2977 90	
Extension cable		
3 m		4220 4393 03
5 m	4220 1007 05	4220 4393 05
10 m	4220 1007 10	4220 4393 10
15 m	4220 1007 15	4220 4393 15
Extension cables for fixtured applications (flat)		
5 m	4220 1563 05	
10 m	4220 1563 10	
15 m	4220 1563 15	



ST/SR/STR Cable



ST/SR/STR Cable with 90 degrees connector



ST/SR/STR Spiral cable



ST/SR/STR Cable protection

TENSOR ES

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

Optional Accessories



TOOL EXTENSIONS

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

NOTE: All ETV ST tool extensions can also be used with equivalent ETV STB tools.



SUPPORTED EXTENSIONS (~154 MM)

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



COVERS FOR STANDARD SOCKETS

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

Optional Accessories

REACTION PLATE FOR FIXTURING

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



Reaction plate

LEVER TENSOR ST / SR

Model	Ordering No.
Lever, ST	4220 3511 81
Spoon lever, SR21	4220 4338 83
Extended lever, ST	4220 3511 85
Lock-off lever, STR	4220 5221 85
Lock-off lever, ST	4220 3511 83



Lock-off lever

REACTION BARS AND MOUNTING BRACKETS

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



Reaction bar



Mounting bracket



Triangular

Mounting bracket is included for some tool models.

Please match the number from the table with the tool tables.

Optional Accessories

SUSPENSION YOKES

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

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



Suspension yokes

DUAL TRIGGER FOR OPEN END

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 05-50	ST31, ST61 15-30	4220 3186 90
ST61-L	ST61 70-200	ST61 50-120	4220 3186 91
ST81-S	ST81 50	ST81 30	4220 3186 92
ST81-L	ST81 70-180	ST81 50-120	4220 3186 93
ST101	ST10 100-1000	ST10 100-1000	4220 3186 96
STR - L	STR61 70-200	STR61 70	8436 6199 12
STR - S	STR31 05-20, STR61 25-50	STR31 05-10, STR61 15-50	8436 6199 10



Lever trigger top

DUAL TRIGGER FOR OPEN END 135 DEG.

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	4220 3311 90
ST61-L	ST61 70-200	ST61 50-120	4220 3311 91
ST81-S	ST81 50	ST81 30	4220 3311 92
ST81-L	ST81 70-200	ST81 50-120	4220 3311 93
ST101	ST10 100-1000	ST10 100-1000	4220 3311 94
STR - L			8436 6199 22
STR - S			8436 6199 20



Lever trigger 135 deg.

Optional Accessories

FIXTURED EXTENSIONS

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



Fixtured extension

PROTECTIVE COVERS

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



Protective cover Tensor ST

OPERATOR HANDLE

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



Operator handle

SUPPORT HANDLE

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



Support handle

TORQUE MULTIPLIER (REACTION BAR INCLUDED)

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



Tool holder

TOOL HOLDER

Model	Ordering No.
ST32 ETP	4220 3584 80

Optional Accessories

BARCODE SCANNER



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

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	8433 0615 10
ST61-L	ST61 70-200	ST61 50-120	8433 0615 20
ST81-S	ST81 50	ST81 30	8433 0615 30
ST81-L	ST81 70-200	ST81 50-120	8433 0615 40
STR61 ETP			8436 0999 90
ST101 ETP			8433 0615 50
STR-S	STR 31 /61	STR 31 /61	8436 6199 00
STR-L	STR61	STR61	8436 6199 02

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



Barcode scanner

PARAMETER SET SELECTOR

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



Parameter set selector

TLS TOOL TAGS

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



TLS Tool tag

I/O DEVICE MODULE

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



I/O device module

Optional Accessories

PROTECTION

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



Scanner and TLS ST tag protection

FRONT BUTTON

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	4220 3184 90
ST61-L	ST61 70-200	ST61 50-120	4220 3184 91
ST81-S	ST81 50	ST81 30	4220 3184 92
ST81-L	ST81 70-200	ST81 50-120	4220 3184 93
ST101	ST10	ST10	4220 3184 94
STR-S	STR31/STR61 <50	STR31/STR61 <50	8436 6199 30
STR-L	STR61 >50	STR61 >50	8436 6199 32



Front button

ADJUSTABLE HEADLIGHTS

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	4220 3292 94
ST61-L	ST61 70-200	ST61 50-120	4220 3292 95
ST81-S	ST81 50	ST81 30	4220 3292 96
ST81-L	ST81 70-100	ST81 50-120	4220 3292 97
ST101	ST10	-	4220 3292 98
STR-S	STR31/STR61 <50	STR31/STR61 <50	8436 6199 40
STR-L	STR61 >50	STR61 >50	8436 6199 42



Adjustable headlights

TELESCOPIC FRONT PART

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

MOUNTING RINGS FOR STR

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

Optional Accessories

REACTION BARS

Spline dia mm	Square drive size mm/in	CC distance mm	Ordering No.
Steel bar			
Spline 1	268/36/18		4210 1798 01
Spline 2	270/35/10		4220 1903 00
Spline 3	400/56/12		4210 2219 80
Spline 4	500/62/15		4210 2183 80
Spline 5	500/62/15		4210 2726 80
Spline 6	560/80/15		4220 1200 01
Spline 7	500/100/20		4210 3899 02
Spline 8	500/150/20		4210 3899 03
Spline 9	500/85/20		4210 3899 80
Ø 26 mm	270/34/8		4220 3491 00
Square steel bracket			
Spline 3	100/50/12		4210 2219 03
Spline 4	125/65/16		4210 2183 01
Spline 5	125/65/16		4210 2726 01
Spline 6	200/100/15		4220 1200 00
Spline 7	250/150/20		4220 1445 00
Spline 8	250/160/20		4220 1972 91
Spline 9	150/85/20		4210 3899 01
Ø 24 mm	100/60/8		4220 1029 00
Ø 26 mm	100/60/8		4220 1029 02
Ø 28 mm	100/60/8		4220 1029 01
Triangular steel bracket			
Spline 2	73/72/14		4220 2137 02
Spline 3	82/80/15		4220 2137 03
Spline 6	112/109/15		4220 2137 06
Spline 6	150/145/20		4220 2137 16
Sliding drive reaction bar			
Spline 3	1/2	70-120	4210 4481 83
Spline 3	3/4	70-120	4210 4481 63
Spline 3	1/2	82-218	4210 4616 83
Spline 3	3/4	82-218	4210 4616 63
Spline 4	3/4	76-126	4210 4481 84
Spline 4	3/4	82-218	4210 4616 84
Spline 5	1	80-125	4210 4481 85
Spline 5	1	82-218	4210 4616 85
Spline 6	3/4	120-170	4210 4481 86
Spline 9	1	80-130	4210 4481 89
Spline 9	1	80-280	4210 4616 89
S-Type reaction bar			
Spline 3	110/18/12		4210 4480 03
Spline 4	120/22/15		4210 4480 04
Spline 5	130/25/15		4210 4480 05
Spline 6	125/25/15		4210 4480 06
Spline 7	170/40/20		4210 4480 07
Spline 8	200/65/20		4210 4480 08
Spline 9	160/40/20		4210 4480 09
L-Type aluminum bar			
Spline 3	266x300/29/15		4210 2219 08
Spline 4	144x150/42/15		4210 2183 08
Straight aluminum bar			
Spline 3	L = 400		4210 2219 01
Extended sliding drive reaction bar			
Spline 5	1	68-112	4210 4498 80
Extended sliding tube reaction bar			
Spline 5	1	68-112	4210 4498 82
Bracket stepped			
Spline 1	70/36/13		4210 1798 02
Spline 2	70/41/14		4210 2134 02

Steel bar



Square steel bracket



Triangular steel bracket



Sliding drive reaction bar



S-Type reaction bar



L-Type aluminum bar



Straight aluminum bar



Extended sliding drive reaction bar



Extended sliding tube reaction bar



Bracket stepped



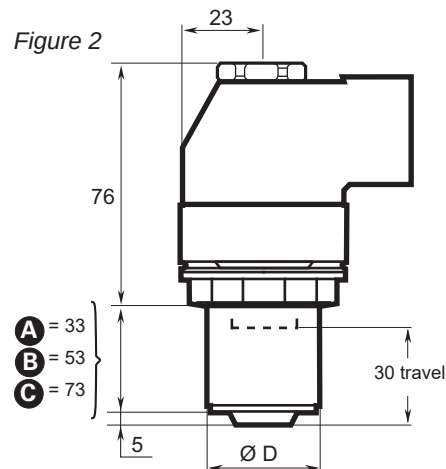
Optional Accessories for Hold and Drive tools

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

Nut socket (Fig. 2)

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

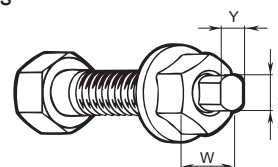
Measurements in mm



Screw holder – Two flats

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

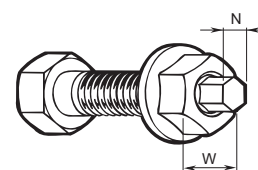
Two flats



Screw holder – Male hexagon

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

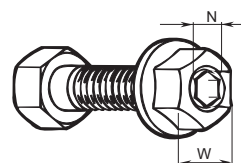
Male hexagon



Bit holder 1/4" – Female hexagon

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

Female hexagon



Optional Accessories for Flush socket tools

INTEGRATED SOCKETS

Model	Hexagon socket size AF mm / in	Socket extension mm	Ordering No.
ETV ES/ST/STR 61-30-FS			
	8	1.5	4220 4188 88
	10	1.5	4220 4188 90
	12	1.5	4220 4188 92
	13	1.5	4220 4188 93
	1/4	1.5	4220 4188 96
	5/16	1.5	4220 4188 98
ETV ES/ST/STR 61-40-FS, ETV ES/ST/STR 61-50-FS			
	10	2.5	4220 3987 90
	12	2.5	4220 3987 92
	13	2.5	4220 3987 93
	13	7	4220 4012 93
	13	15	4220 4013 93
	14	2.5	4220 3987 94
	14	15	4220 4013 94
	15	2.5	4220 3987 95
	16	2.5	4220 3987 96
	17	2.5	4220 3987 97
	18	2.5	4220 3987 98
	9/16	2.5	4220 3987 99
ETV ES/ST/STR 61-70-FS			
	10	3.5	4220 1621 04
	12	3.5	4210 2749 03
	13	3.5	4210 2749 01
	14	3.5	4210 2749 04
	15	1.5	4220 1621 01
	15	3.5	4210 2749 02
	15	16.5	4220 1621 00
	16	0.5	4220 1251 00
	16	11.5	4220 1621 03
	16	14.5	4220 1621 10
	16	16.5	4220 1621 08
	17	11.5	4220 1621 12
	17.5	6.5	4220 1621 06
	18	6.5	4220 1621 02
	18	10.5	4220 1621 09
	19	8.5	4220 1621 07
	19	10	4220 1621 11
	20	8.5	4220 1621 05
	7/16	3.5	4210 2749 06
	9/16	3.5	4210 2749 05
ETV ES/ST/STR 61 100/150/180/200 FS			
	18	4.5	4220 1595 02
	18	14.5	4220 1595 04
	14	5.5	4220 1595 07
	14.3	9	4220 1595 08
	17.5	7.5	4220 1595 09
	18	2	4210 3534 68
	18	8.5	4210 3534 18
	19	9.5	4210 3534 19
	21	10.5	4210 3534 21
	21	13.5	4220 1595 05
	21	24	4220 1595 06
	22	10.5	4210 3534 22
	24	10.5	4210 3534 24
	24	12.5	4220 1595 01
	25.4	13.5	4220 1595 03
	27	13.8	4210 3534 27

