

Tensor DS

Tightens customer satisfaction



Atlas Copco

Controlled tightening in all your assembly operations.

TENSOR DS

All industries with assembly operations have one thing in common – demanding customers who insist on quality and value for money.

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

Five different tool designs and a tools range spanning from 1-2000 Nm give you the possibility to use Tensor DS for all non-safety critical applications. Since every joint in your product has a bearing on quality, this will have a major impact on customer satisfaction.

The possibility to control your tightening operations also means you avoid costly reworking down the line.



Flextronics on the island of Gotland in Sweden is a contract supplier to Ericsson for products such as radio base stations for mobile telephone networks. Since there is a demand for very high accuracy in the application, Tensor DS4 electric nutrunners with a torque level as low as 1.0 Nm are used during assembly. This lightweight and easily manoeuvrable handheld tool is highly appreciated by operators.



Atlet in Mölnlycke, Sweden, manufacture forklifts. Looking for a power tool for the application they tested various alternatives of different types. Finally they decided on a Tensor DS7 from Atlas CopcoTools. The DigiTork concept gives the accuracy and functionality needed for this application.



Logistik-Magazin Saarlouis GmbH, LMS, Germany, mates engines with gearboxes to form complete drive modules for Ford Focus cars. LMS recently replaced its own & slow 8 electric nutrunners with torque-controlled Tensor DS tools. The frequency modulated compact drive in Tensor DS electric nutrunners is four times faster than conventional synchronous motors. The tools also surpass the level of tightening accuracy demanded by Ford.

Increase quality with Tensor DS.



Green light for quality.

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

Batch counting (n x OK) is now standard in both versions, Basic (D302) and Advanced (D312).

The basic tools for the all electric assembly plant.

Runs without compressor, no oil leakage, less energy consumption – go for the all electric assembly plant. You not only get a clean environment – you also drastically reduce your operating costs. Less wear also reduces your maintenance costs.

Utilize the benefit of the inbuilt functions and replace up to eight conventional tools with one Tensor DS.

High productivity combined with operator comfort.

Compared to the conventional nutrunners the Tensor DS tools offers higher speed, less weight, greater accuracy. The programmable Ergo-Ramp function decreases operator strain.



One Tensor DS can substitute eight different conventional tools and it counts all fasteners!

Performance with simplicity.

Go electric for quality, performance and simplicity!

Set your target torque using the \ominus \oplus buttons on the Drive keypad. Press set and start producing. The programming of the DS Drive is automatically done through the Auto Set function. You do not have to use Tensor DS in complex applications to take full advantage of its benefits. The simplicity of installation combined with superior torque control, speed, ergonomic design and long service life means this tool can replace traditional nutrunners to your advantage in a wide range of tightening operations.

With Tensor DS you reap the benefits of "doing it right – first time"

Because the tool is programmed to give the green light, you avoid the risk of a bad joint not being discovered until further on down the line, or even not at all!

Two major benefits of electrical power: flexibility and low energy consumption.

Tensor tools give you complete flexibility – you can connect them wherever there is a power outlet. And because they are powered electrically, the energy costs are negligible.

DigiTork.

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

CONVENTIONAL



- Easy torque set
- Torque information
- Tamper proof

CONVENTIONAL



- Easy torque set
- Torque information
- Tamper proof

TENSOR DS

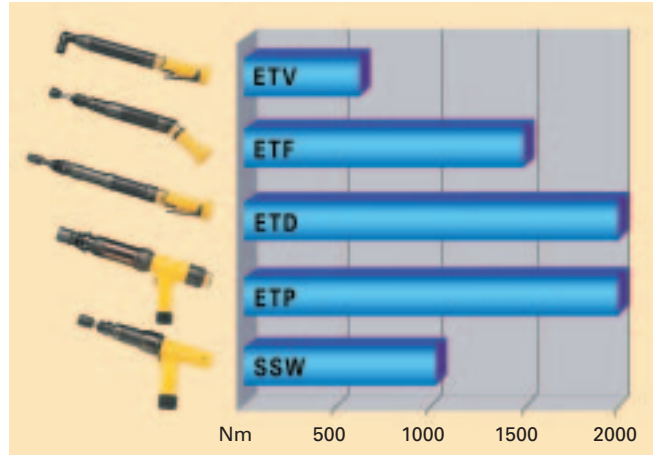


- Easy torque set
- Torque information
- Tamper proof

Tensor DS facts.

Tensor DS offers the lowest weight and highest speed available.

A smart down shift enables Tensor DS to run at speeds way ahead of existing alternatives and at a very low sound level (50-60 dBA). As a matter of fact there is only one tool on the market more potent, the transducer feedback Tensor S. Operators and ergonomists will simply love Tensor DS as weight is the highest prioritised ergonomic factor. The combination of speed, weight and low sound level directly translates into reduced costs and increased productivity, essential for any competitive assembly industry.



Five different tool designs.

The Tensor DS tools come in five different designs: the angle nutrunner (ETV), the straight fixtured nutrunner (ETF), the straight nutrunner (ETD), the pistol grip nutrunner (ETP), and the swivelling nutrunner (SSW).



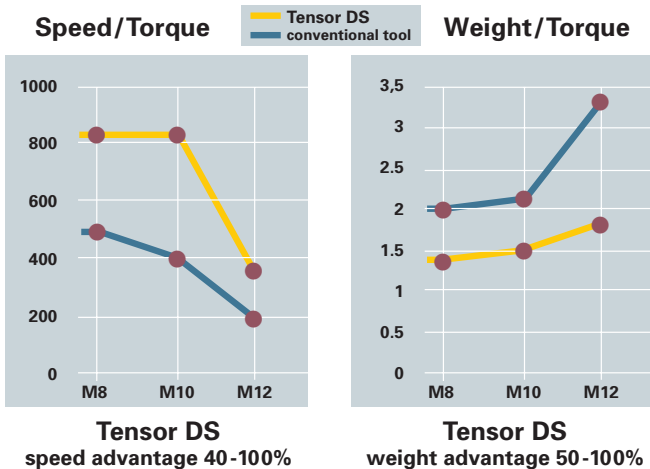
Signal lights

100% ergonomically correct grip

Quick connection cable



The DS Drive with tool for single-handed operations.



Potent for advanced applications.

Tensor DS offers feedback, productivity, ergonomics, reliability, low service costs, multi torque capability and unsurpassed joint control compared to conventional tools. Tensor DS is also perfectly suited for use in fixtured applications.

This means that the superior performance of Tensor DS now can be applied to a wide range of applications.

Line Control, Batch Count or not...

There are two models of the DS Drive. There is one Drive for multi torque applications, capable of handling up to 8 different parameter sets. With this Drive (Advanced D312) one tool can handle 8 different jobs. This Drive also has built in Line Control, Batch Counting and "PLC functions".

For applications where multi torque capability is not needed there is a DS Drive (Basic D302) version capable of performing one parameter set.

Both versions share the following features:

- Easy to install
- Operator feedback
- Batch Counting
- 6 buttons keypad

No more missing bolts.

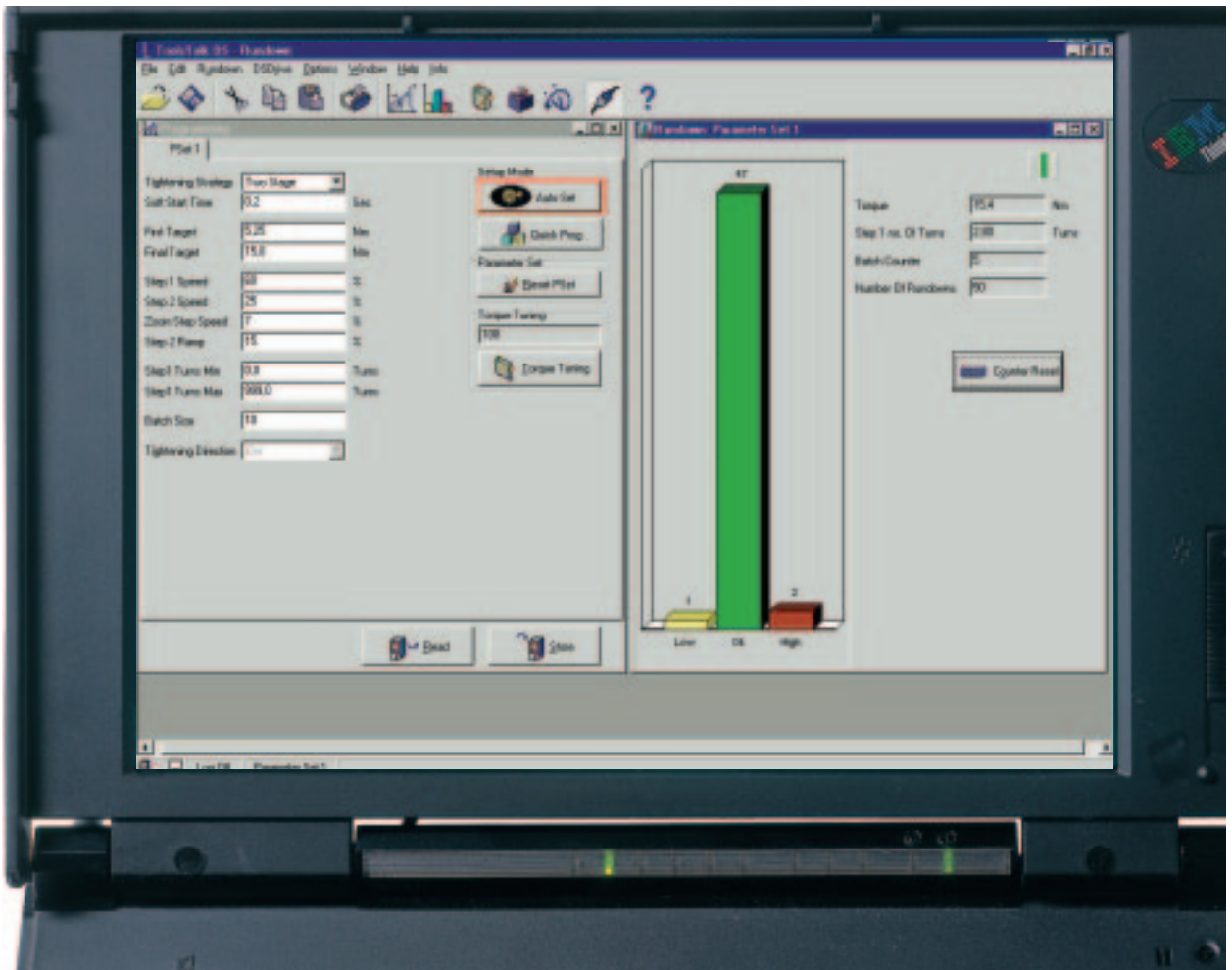
With the Line Control functions in the DS Drive the problem with missing bolts is reduced and the Line Control alarm helps in preventing faulty parts from being passed on down the assembly line or to the next assembly station.

Multi savings in multi torque pre-assembly stations.

If you have multi torque applications, you should definitely consider the benefits of Tensor DS. With eight different parameter sets you as much as halve your initial investment cost. You also benefit from lower installation costs and reduced back-up inventory costs.



Modern torque adjustment. Connect your laptop and program the DS Drive in a Windows environment. Automatically log all your tool settings.



ToolsTalk DS.

Through the ToolsTalk DS program you set access to all the possibilities and capabilities of the Tensor DS, in three different steps: Auto Set, Quick and Full programming, all according to your needs. Connect your PC to the Drive and enter the ToolsTalk DS program, this puts you automatically into the Quick Programming mode. A window will ask you to enter two values:

- Target torque
- Hardness of the joint

Just enter these values and you are ready to start producing with your DS tool.

The ToolsTalk DS software automatically

does all other programming required to run the tool effectively. You do not have to be a computer wizard to program your DS system.

Should you want to make further adjustments you can choose Full Programming, which allows you to set up the system exactly as you prefer.

The ToolsTalk DS software runs in a Windows 95/98® or NT® environment and has a logical, easy to follow structure. The software includes a Torque Tuning function which ensures accurate torque on joints of all types.

Joint control.

A correct fastening today is much more than just slamming down a fastener to a momentary torque. With Tensor DS joint control you can program the speeds and ramps throughout the entire tightening cycle to suit the needs of your joint (e.g. to compensate for relaxation). You can also monitor angle to detect crossthreads or rehits. The quality of a handheld operation will

always depend on the operator. To optimize ergonomics you can choose a strategy that fits the operator, work posture and joint conditions: Quick Step, Two Stage or Ergoramp.

If you want to simplify and speed up installation use Quick Programming – set target torque and run. Installation and training count in minutes.

Tensor DS-ETV

Angle electric nutrunners



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

Tensor DS-ETD

Straight electric nutrunners



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

Tensor DS-ETF

Fixtured electric nutrunners



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

Tensor DS-ETP

Pistol grip electric nutrunners



Model	Square drive in	Torque Nm	Torque ft lb	Speed r/min	Weight kg	Weight lb	Length mm	CS dist mm	Ordering No.
ETP DS4									
DS4-05-06S	1/4	2 - 5	1.5 - 3.6	1310	1.1	2.5	193	21.5	8433 0708 76
DS4-10-06S	1/4	3.5 - 12	2.5 - 8.8	660	1.1	2.5	193	21.5	8433 0708 92
DS4-10-10S	3/8	3.5 - 12	2.5 - 8.8	660	1.1	2.5	193	21.5	8433 0709 06
ETP DS4 Female Hex									
DS4-05-I06S	1/4	2 - 5	1.5 - 3.6	1310	1.1	2.5	201	21.5	8433 0708 61
DS4-07-I06S	1/4	2.1 - 7	1.5 - 5.1	905	1.1	2.5	201	21.5	8433 0708 80
DS4-10-I06S	1/4	3.5 - 12	2.5 - 8.8	660	1.1	2.5	201	21.5	8433 0708 83
ETP DS7									
DS7-20-10S	3/8	6 - 2	4.4 - 14.5	1240	1.6	3.6	273	22	8433 0726 36
DS7-30-10S	3/8	10 - 35	7.3 - 25	750	1.6	3.6	273	22	8433 0726 53
DS7-50-13S	1/2	17 - 55	12 - 40	540	1.9	4.2	318	21.5	8433 0726 87
DS7-70-13S	1/2	21 - 70	15 - 51	370	2.1	4.7	340	21.5	8433 0727 01
DS7-90-13S	1/2	28 - 95	21 - 69	275	2.1	4.7	340	21.5	8433 0727 19
DS7-120-13S	1/2	38 - 125	28 - 91	220	2.1	4.7	340	21.5	8433 0727 47
ETP DS7 Telescopic									
DS7-70-13ST	1/2	21 - 70	15 - 51	370	2.2	4.9	367	22.5	8433 0727 05
ETP DS7 Swivelling									
DS7-70-13SSW	1/2	21 - 70	15 - 51	370	2.2	4.9	339	29.5	8433 0727 09
DS7-90-13SSW	1/2	28 - 9	21 - 69	275	2.2	4.9	339	29.5	8433 0727 28
DS7-120-13SSW	1/2	38 - 125	28 - 91	220	2.2	4.9	339	29.5	8433 0727 84
ETP DS9									
DS9-100-13S	1/2	40 - 100	29 - 73	790	3.8	8.5	378	32	8433 0765 39
DS9-150-13S	1/2	60 - 150	44 - 110	510	3.8	8.5	392	32	8433 0765 58
DS9-200-13S	1/2	80 - 200	58 - 146	375	3.8	8.5	392	32	8433 0766 05
DS9-270-20S	3/4	108 - 270	79 - 197	250	5.8	12.9	451	36	8433 0766 49
DS9-450-20S	3/4	180 - 450	131 - 328	140	7.4	16.5	487	40.5	8433 0767 52
DS9-600-20S	3/4	240 - 600	175 - 438	120	7.4	16.5	487	40.5	8433 0768 08
DS9-1000-25S	1	400 - 1000	292 - 730	76	12.0	27.0	615	47	8433 0768 66
DS9-2000-38S	1 1/2	800 - 2000	584 - 1460	40	22	48.9	630	68	8433 0769 20
ETP DS9 Telescopic									
DS9-2000-38ST	1 1/2	800 - 2000	584 - 1460	34	22.0	48.9	676	68	8433 0769 20
ETP DS9 Swivelling									
DS9-100-13SSW	1/2	40 - 100	29 - 73	790	3.9	8.7	394	32	8433 0765 41
DS9-150-13SSW	1/2	60 - 150	44 - 110	510	3.9	8.7	394	32	8433 0765 69
DS9-200-13SSW	1/2	80 - 200	58 - 146	375	3.9	8.7	394	32	8433 0766 12
DS9-270-20SSW	3/4	108 - 270	79 - 197	250	5.9	13.1	451	36	8433 0766 54
DS9-450-20SSW	3/4	180 - 450	31 - 328	140	7.5	16.7	487	40.5	8433 0767 61
DS9-600-20SSW	3/4	240 - 600	75 - 438	120	7.5	16.7	487	40.5	8433 0768 20

Functionality	Basic	Advanced
OK relay	x	x
NOK relay	x	x
nxOK relay	x	x
Reset batch input	x	x
Decrement batch input	x	x
Increment batch input	x	x
Autoset	x	x
Quick Programming	x	x
Torque Tuning	x	x
Tool signal lights	x	x
CCW tightening direction	x	x
Open end spanner	x	x
Service Indicator	x	x
RE-alarm		x
PLC functions		x
Line Control		x
Socket tray/Selector		x
Up to 12 I/O's		x
Lock on reject		x

Functionality	Basic	Advanced
Rundown monitoring		x
Self Tap		x
High speed rundown		x
Rotate spindle		x
I/O-bus		x

I/O
RS232 port
4 x digital inputs/outputs
I/O-bus
Remote start

Strategies and options
Torque Control/Angle Monitoring
Self Tap/PVT Monitoring
Rundown Angle Monitoring
Two Stage/Quick Step/Ergoramp
Auto Zoom Step

Tensor DS– In the centre of new technology

Atlas Copco is taking another step forward by applying new technology to make it even easier to program and use electric tool systems. Wireless communication is the future for more flexible and time saving production in relation to assembling.



ToolsTalk Palm DS

Wireless application No. 1

Tensor DS is now totally programmable through wireless communication with a handheld computer based on Palm OS. Using the new technology, it is now possible to make the programming, configurations and reading diagnostic with an infrared connection to the DS Drive. Install ToolsTalk Palm DS (TTP) on one handheld computer and make it possible to program all your DS system through one interface.

TTP–tightening control in your pocket!

- Quick and easy programming
- Read and Store in seconds
- No laptop needed
- No cables
- Cost and time savings

Wireless application No. 2

The Quality Assurance equipment ACTA 3000 can now perform a wireless adjustment of the torque (torque tuning) for the Tensor DS. ACTA 3000 first downloads the DS programming through an infrared connection. When Tensor DS performs tightenings, the ACTA calculates a new torque tuning value and sends it back, also via wireless connection.

- Secure the process of torque tuning
- No cables are needed
- Time savings



ACTA 3000



IR key

Wireless application No. 3

The IR key is a wireless device for infrared remote control, not bigger than a laser pointer. It enables the user to lock and unlock the keypad on the DS drive, which is traditionally used for programming of torque. The key is used to prevent any mistaken or erroneous programming by unauthorised persons.

Ordering information

Description	Ordering No.	Description	Ordering No.	
Drive units				
Basic				
D302-DS4	8433 0820 48			
D302-DS7	8433 0822 48			
D302-DS9	8433 0824 48			
Advanced				
D312-DS4	8433 0820 33		2 M cable	4220 1616 02
D312-DS7	8433 0822 33	5 M cable	4220 1616 05	
D312-DS9	8433 0824 33	7 M cable	4220 1616 07	
		10 M cable	4220 1616 10	
Selector 4	8433 0610 04	15 M cable	4220 1616 15	
		Extension cables DS standard		
Selector 8	8433 0610 08	5 M cable	4220 2047 05	
Socket selector pad 19 mm	4222 0492 01	10 M cable	4220 2047 10	
Socket selector pad 50 mm	4222 0492 05	15 M cable	4220 2047 15	
		Extension cables DS for fixtured applications		
RE-Alarm	8433 0560 03	5 M cable	4220 2046 05	
		10 M cable	4220 2046 10	
I/O Expansion box	8433 0564 38	15 M cable	4220 2046 15	
		I/O bus cable		
IR Key	8092 1141 00	0,5 M cable	4222 0470 00	
		1 M cable	4222 0470 01	
		3 M cable	4222 0470 03	
		5 M cable	4222 0470 05	
		10 M cable	4222 0470 10	
		15 M cable	4222 0470 15	
		ToolsTalk DS Software		
		ToolsTalk DS Software	8092 1138 42	
		<i>(includes RS232 cable)</i>		
		ToolsTalk Palm DS Software	8092 1148 00	
		I/O Termination plug		
		I/O Termination plug	4222 0443 00	
		Suspension Yoke		
		ETV & ETD (DS4/DS7)	4220 0987 85	
		Rotary selector	8433 0606 41	
		Selector adapter cable	4222 0417 00	
		<i>(Crowfoot and open end tools, please order separately leaflet Ordering No. 9833 1361 01)</i>		

