



Screwdriving technology

Automation

Air motors

Air tools

# DEPRAG

**Handheld Screwdriver  
electric**

## MINIMAT-EC-Cordless

**Cordless EC-Angle-head Nutrunners  
for assembly in restricted areas**

**Torque range from 2 to 50 Nm**

- flexible
- high shut-off accuracy
- data recording
- operator friendly
- powerful
- wireless communication
- energy efficient

Where compressed air hoses or electrical cables interfere with the assembly process, industry looks forward to a battery powered, cordless EC nutrunner solution! The proven DEPRAG precision screwdriving technology is now available in form of the new cordless, battery powered EC angle nutrunner. The new cordless angle nutrunner is an excellent solution for process control of

threaded fastener assemblies under restricted working conditions while offering all advantages of the MINIMAT family.

The high quality Li-Ion batteries have a very low self discharge and are not susceptible to the well known „battery memory effect“ during the charging process. The battery recharge cycle requires about 30 - 40 minutes.



## ADVANTAGES

### Flexible

The newly developed series fulfils the demands for precision and allows the processing of complex screwdriving cycles that are part of today's conventional torque/angle-controlled screwdriving strategies.

### High Shut-Off Accuracy

No matter whether screwdrivers are used in assembly of car interiors or travel-trailers, binding air hoses and electric cables hinder the work process in restricted areas.

For example, on assembly lines where a conveyor is moving, the use of battery-operated screwdriving tools provides major advantages.

Due to the high shut-off accuracy, this tool series reaches a Cmk-value of  $\geq 1.67$  and therefore meets the quality requirements demanded by the automotive industry.

### Data recording

Outstanding features of handheld EC screwdrivers are their high torque precision and the large range of control functions – perfect conditions for process security and control on highest level.

The integrated torque measurement as well as angle measurement enables precise control of the screw tightening procedure as well as documentation of important processing parameters.

### Operator friendly

The entire DEPRAG MINIMAT-EC screwdriver family is well-known by its truly ergonomic design and this new screwdriver series is no exception. The operator comfort is assured through the low weight of the tool and the integrated LED which illuminates the screw-location.

The tool can be programmed with eight multi-level screwdriving sequences. The easy and quick selection and initiation of a program is done directly on the tool's display-keypad. An additional selector-switch allows the fast activation of a reversing sequence, which is available for every screwdriving program.

### Powerful

This new cordless angle-head screwdriver series will be introduced to the market with four different models that have a torque range of 2 Nm to 50 Nm.

### Wireless Communication

Besides high torque accuracy the new cordless angle nutrunner offers other features for control and communication with networks or connection to a process computer:

Using a Bluetooth, wireless data-transmission, the screwdriver can stay in contact with an optionally available base-station. There, a graphic user interface allows the fast and easy generating of screwdriving

sequences. Additionally, it is possible to connect the base-station to a host PC that transmits screwdriver settings and can also receive and archive data from the screwdriver. It is possible to connect several tools to one base-station.

Thereby the best solutions are available for quality management and documentation.

### Energy efficient

The 36V Li-Ion battery that operates these new DEPRAG screwdrivers, offer a high energy- and performance density. The regenerative feedback of the braking-energy for the electric motor, translates into extremely efficient and low-cost energy consumption.

This efficiency and the sensor-controlled multi-level standby-mode permit a high number of screwdriving cycles per battery charge. The use of high-grade EC-electric motors that excel through power-density and output efficiency contribute to a low weight, powerful tool with a long service life.

## TECHNICAL DATA MINIMAT-EC-Cordless – Angle Nutrunner

Nutrunner	Type	318AWT-0120	318AWT-0210	318AWT-0320	318AWT-0500
Trigger/button start	Part no.	416000 A	416000 B	416000 C	416000 E
Torque min.	Nm / in.lbs	2 / 17.7	5 / 44.25	7 / 62	12 / 106.2
Torque max.	Nm / in.lbs	12 / 106.2	21 / 185.85	32 / 283.2	50 / 442.5
Speed min.	rpm	50	30	20	15
Speed max.	rpm	780	430	280	185
Length without / with battery	mm / in.	440/498 / 17.2/19.4	459/517 / 17.9/20.2	482/540 / 18.8/21.1	488/546 / 19/21.3
Weight	kg / lbs	1.35 / 2.97	1.45 / 3.19	1.60 / 3.52	1.65 / 3.63
Noise level	dB(A)	60	60	60	60
Operating voltage (DC)	V	36	36	36	36
Square drive DIN 3121		E10 (3/8")	E10 (3/8")	E10 (3/8")	E10 (3/8")
Suitable for bits and sockets designed according to DIN 3121					

## REQUIRED ACCESSORIES

<b>Battery</b>	<b>Type</b> Part no.	<b>Li-Ion 36V 54Wh</b> 833880	
Energy storage	Wh	54	<ul style="list-style-type: none"> <li>- Integrated electronics for communication with the nutrunner controller and optimized charge management</li> <li>- High current cells with high power density</li> <li>- Protection functions such as deep discharge, short circuit and overload</li> <li>- Optimized charging of individual battery cells</li> </ul>
Weight	kg / lbs	0.74 / 1.6	
<b>Charger</b>	<b>Type</b> Part no.	<b>Li-Ion 36V</b> 833881	
Operating voltage (AC)	V	100 - 240	<ul style="list-style-type: none"> <li>- Intelligent fast charger for 36V-Li-Ion batteries</li> <li>- Charge time approx. 40 minutes</li> <li>- Charge status indication via LED's</li> </ul>
Dimensions (W x D x H)	mm	124 x 200 x 108	
	in.	4.8 x 7.8 x 4.2	
Weight	kg / lbs	0.7 / 1.54	



## OPTIONAL ACCESSORIES

<b>Base Station</b> incl. Blue Tooth-Antenna up to 20 m range	<b>Type</b> Part no.	<b>ComCenter 10</b> 385582 A	
Power Supply (AC)	V (Hz)	100-240 (50/60)	<ul style="list-style-type: none"> <li>- For the creation and configuration of screwdriving programs and documentation of the screwdriving results via integrated Web Server</li> <li>- Graphical touch panel and control unit for display of screwdriving results and status messages</li> <li>- Up to 4 cordless nutrunners can be managed via one base station</li> <li>- Immediate screwdriving results (torque and angle) transmitted to the base station using Bluetooth</li> <li>- Automatic uploading of connected tool - parameters and data</li> <li>- Connection of external antenna to extend the communication range (optional)</li> <li>- Multi lingual user interface</li> </ul>
Power consumption	VA	45	
Display		TFT-Color-Display 4,3"	
Dimensions	mm	162 x 143 x 65	
	in.	6.3 x 5.6 x 2.5	
Weight	kg / lbs	1.5 / 3.3	
Table stand - base station	Part no.	416004 A	
BT-Antenna 40 m range	Part no.	385586 A	
Patch cable 2 m	Part no.	831902	
Touch-Pen	Part no.	832190	
<b>Machine Capability Study *)</b>			
<b>Torque</b>	Part no.	000717	<ul style="list-style-type: none"> <li>- Evaluation of 50 measured values</li> <li>- Idle speed, Average</li> <li>- Standard deviation, Cm-Value, Cmk-Value</li> </ul>
<b>Torque angle</b>	Part no.	000718	

\*) Additional services, e.g. calibration of screwdrivers, can be found in our catalog D3330 E.

# DEPRAG

**DEPRAG SCHULZ GMBH u. CO.**

P.O. Box 1352, D-92203 Amberg, Germany  
Carl-Schulz-Platz 1, D-92224 Amberg  
Phone (+49) 9621 371-0, Fax (+49) 9621 371-120  
[www.deprag.com](http://www.deprag.com)  
[info@deprag.de](mailto:info@deprag.de)

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