

Electric nutrunner DE1

DE1*plus* with additional torque angle function



The latest generation of our electric nutrunner – **DE1**



We have given the DE1 a new control system which includes voltage monitoring and speed sensing. This allows you to complete your bolting with even greater precision and reliability. As it reliably offsets any voltage fluctuations and changes in temperature, this new tool delivers superior torque accuracy. The DE1 switches automatically to the main available frequency (e.g. 50 Hz or 60Hz).

The digital multifunction display (O)-LED allows the user outstanding ease of use and a comprehensive range of values.

- The intuitive operating menu largely dispenses with text.
- The two-digit torque setting 00-99 can be adjusted using the corresponding buttons.
- The values measured for mains voltage, mains frequency and the motor temperature are indicated on the display.
- Another option is to display the torque value (as listed in the enclosed torque table).
- A host of additional features are available in the symbol navigation menu (e.g. key lock, loosening mode and locking of individual setting steps).

The benefits

The standard version of the electric nutrunner DE1 comes with a large variety of features.

Optimised gearbox

Designed to sustain a constant load, the gearbox is now slimmer, shorter and lighter.

Multi-function display

The digital multifunction display (O)-LED allows the user outstanding ease of use and a comprehensive range of values.

Maximum safety

The motor temperature is monitored constantly. When overheating, the motor is switched off automatically.

Perfect handling

The highly advanced ergonomic design and the low vibration technology of the tool reduces strain on your hands and joints (HAVS).



Exceptional flexibility

The drive rotates 360°.

Silicon display protector
included



The angle version

The compact solution for installation operations in tight spaces.

The angle version works effortlessly even in the most hard to reach places. The tool is perfectly balanced and has a secure feel in the operator's hands, due to its angular design.



The **DE1plus**: Torque angle feature



The software controlling Plarad nutrunners – greater precision and intelligence!

The newly developed DE1plus expands the range of functions offered on the standard version. The innovative software adds additional features that expand the capabilities of the various bolting procedures. Key among these capabilities is the new torque/angle mode (combined procedure), which can be executed simultaneously. An alternative option is to complete two separate steps: application of the snug torque first followed by the application of the tightening angle in pure torque angle mode.

The torque/angle procedure produces uniform, accurately repeatable and, thus, exceptionally precise bolting results. The extensive Plus package widens the DE1's field of application by additional use options in the areas of installation and service.



Putting the Plus in the **DE1plus**

Its highly advanced operating concept allows for a quick and easy selection of the different bolting modes, which can be selected simply by choosing the corresponding symbol from the menu options.



Torque mode

- Two digit torque setting 00-99 can be adjusted using the corresponding buttons
- Another option is to display the torque value (as listed in the enclosed torque table)



Angle mode

- Option to limit the maximum overall torque when applying angle tightening (this protects the tool and the bolt which is being tightened)
- Setting the snug torque at 100 increments according to torque table (00 to 99)
- Continuous adjustment of the torque angle from 0 to 999°



Torque/angle mode

- Snug torque can be set via the torque chart – 100 individual settings (00-99)
- Angle can be set at any angle from 0 to 999°



Angle counting mode

- Torque-controlled cut-off of the nutrunner
- The angle is counted starting with the minimum torque (level 00) of the respective performance category, serving as a control variable



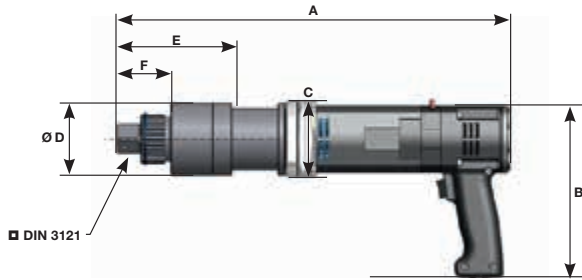
Test mode

- Check of the pretightened bolts without overtightening

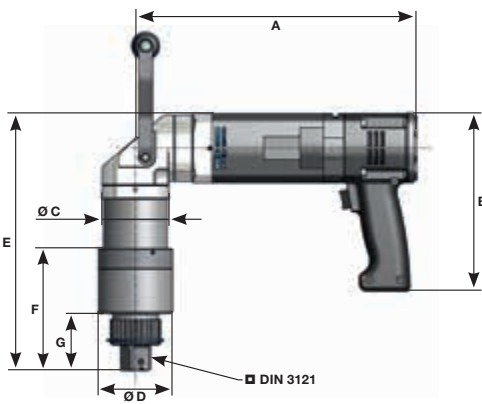
Feature set of the models

Type	Functions				
	Torque mode	Angle mode	Torque angle mode	Angle counting mode	Test mode
DE1-10 - 110V / 230V	X				
DE1plus-10 - 110V / 230V	X	X	X	X	
DE1-20 - 110V / 230V	X				
DE1plus-20 - 110V / 230V	X	X	X	X	
DE1-30 - 110V / 230V	X				
DE1plus-30 - 110V / 230V	X	X	X	X	
DE1-36 - 110V / 230V	X				
DE1plus-36 - 110V / 230V	X	X	X	X	X*
DE1-48 - 110V / 230V	X				
DE1plus-48 - 110V / 230V	X	X	X	X	X*

* only available for standard 230V versions (no angular gearbox)

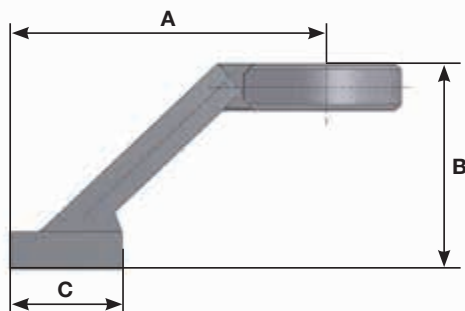


Type	Torque range (Nm)	Speed n (U/min)*	A (mm)	B (mm)	C (mm)	Ø D (mm)	E (mm)	F (mm)	■ = Output	Weight (kg)
DE1-10 / DE1plus-10 - 110V	150-1.000	16,8	425	192	85	68,5	145,5	60,5	¾ "	5,7
DE1-10 / DE1plus-10 - 230V	150-1.000	19,6	425	192	85	68,5	145,5	60,5	¾ "	5,7
DE1-20 / DE1plus-20 - 110V	250-2.000	9,0	449	192	85	80	132	61,5	1 "	6,8
DE1-20 / DE1plus-20 - 230V	250-2.000	12,0	449	192	85	80	132	61,5	1 "	6,8
DE1-30 / DE1plus-30 - 110V	450-3.000	5,9	465	192	85	80	132	61,5	1 "	7,2
DE1-30 / DE1plus-30 - 230V	450-3.000	8,0	449	192	85	80	132	61,5	1 "	6,8
DE1-36 / DE1plus-36 - 110V	500-3.600	4,5	465	192	85	80	132	61,5	1 "	7,2
DE1-36 / DE1plus-36 - 230V	500-3.600	5,2	465	192	85	80	132	61,5	1 "	7,2
DE1-48 / DE1plus-48 - 110V	700-4.800	3,5	497	192	85	86	161	83,5	1 ½ "	9,0
DE1-48 / DE1plus-48 - 230V	700-4.800	4,6	497	192	85	86	161	83,5	1 ½ "	9,0



Type	Torque range (Nm)	Speed n (U/min)*	A (mm)	B (mm)	C (mm)	Ø D (mm)	E (mm)	F (mm)	G (mm)	■ = Output	Weight (kg)
DE1-10-W / DE1plus-10-W - 110V	150-1.000	16,8	303	192	72	68,5	253	145,5	60,5	¾ "	7,1
DE1-10-W / DE1plus-10-W - 230V	150-1.000	16,8	303	192	72	68,5	253	145,5	60,5	¾ "	7,1
DE1-20-W / DE1plus-20-W - 110V	250-2.000	9,0	303	192	72	80	277,5	132	61,5	1 "	8,3
DE1-20-W / DE1plus-20-W - 230V	250-2.000	9,0	303	192	72	80	277,5	132	61,5	1 "	8,3
DE1-30-W / DE1plus-30-W - 110V	450-3.000	5,9	303	192	72	80	293,5	132	61,5	1 "	8,6
DE1-30-W / DE1plus-30-W - 230V	450-3.000	5,9	303	192	72	80	293,5	132	61,5	1 "	8,6
DE1-36-W / DE1plus-36-W - 110V	500-3.600	4,5	303	192	72	80	293,5	132	61,5	1 "	8,6
DE1-36-W / DE1plus-36-W - 230V	500-3.600	4,5	303	192	72	80	293,5	132	61,5	1 "	8,6
DE1-48-W / DE1plus-48-W - 110V	700-4.800	3,5	303	192	72	86	326	161	83,5	1 ½ "	9,2
DE1-48-W / DE1plus-48-W - 230V	700-4.800	3,5	303	192	72	86	326	161	83,5	1 ½ "	9,2

Standard reaction arms



Type	A (mm)	B (mm)	C (mm)	Weight (kg)
DE1-10	150	100	90	1,5
DE1-20	150	100	90	1,85
DE1-30	190	110	90	2,4
DE1-36	190	110	90	2,4
DE1-48	210	130	90	3,25

Optional accessories

Various accessories including fittings, extensions, sockets, steel rings which can be welded or reaction arms are available both as standard and custom models.



Mobile measuring unit **TC1**

The TC1 monitors the applied torque and thus the on-site bolting process. The system operates without cable during the bolting process and can be fitted with ease on the bolting tool.



Type	Measurement range min. - max.		Compatible with
	Nm	ft-lbs	
TC1 - 11	110 - 1.100	81 - 811	DE1-10 DE1plus-10
TC1 - 41	410 - 4.100	302 - 3.024	DE1-20, -30, -36 DE1plus-20, -30, -36
TC1 - 55	550 - 5.500	406 - 4.056	DE1-48 DE1plus-48



... a successful connection!

Maschinenfabrik Wagner GmbH & Co. KG
Birrenbachshöhe · 53804 Much · Germany

Tel. national: (02245) 62-0
Fax national: (02245) 62-66
Phone international: +49 (0)2245 62-10
Fax international: +49 (0)2245 62-22

info@plarad.de · www.plarad.de