

MINIMAT-E Screwdriver Spindles

Torque range from 0.3 - 4.8 Nm

The electric screwdriver with mechanical shut-off clutch. The solution where compressed air is not desired or there is no compressed air available.

- robust, long life cycle
 - highest shut-off accuracy
- brushless electric drive
 - highest process reliability
- lowest maintenance requirements

The stationary electric screwdriver series 342E with mechanical shut-off clutch is the optimal solution for work stations where compressed air is not desired or there is no compressed air available. This expansion of the spindle screwdriver range has set a new standard: There is now a DEPRAG screwdriving solutions available for every application case.

The strength of the MINIMAT-E spindle screwdriver lies in the screw assembly torque range of 0.3 Nm to 4.8 Nm. High speeds of 650 up to 2000 rpm guarantee short cycle times.



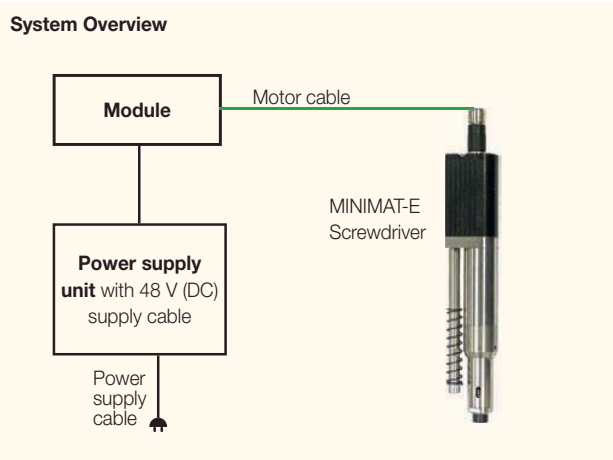
MINIMAT-E SCREWDRIVER SPINDLE

Working Principle

The MINIMAT-E screwdriver operates using the well-established principle of the mechanical MINIMAT shut-off clutch. Using the shut-off clutch guarantees torque accuracy of 3% standard deviation, irrespective of the screw joint.

However, in many cases even better accuracy can be achieved so that under certain conditions a machine capability index of ≥ 1.67 can be attained even with a tolerance requirement of $\pm 10\%$.

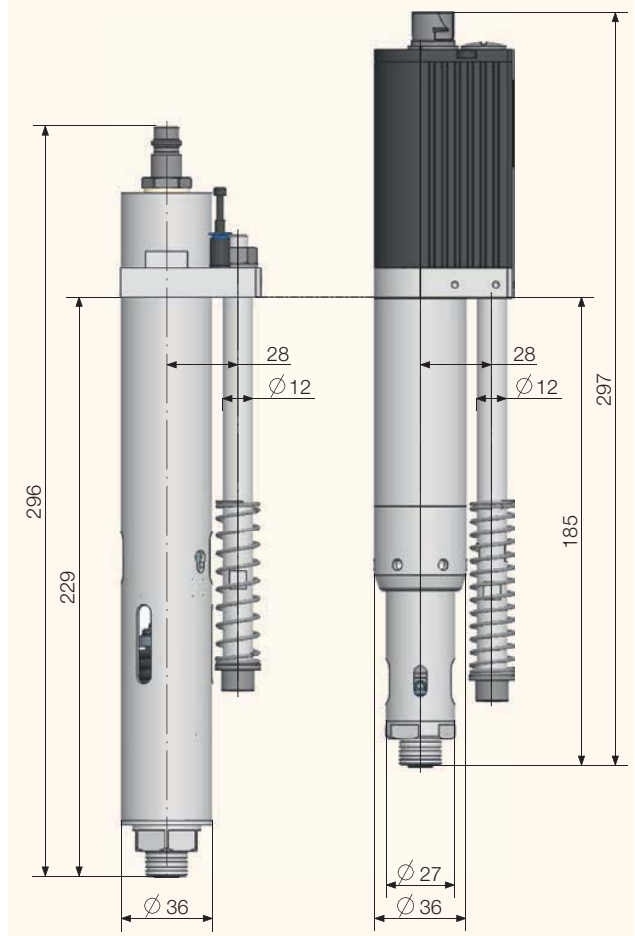
This means that the error rate is less than 0.6 per million screw assemblies. For further enhancement of the processing reliability the screw-in depth and screwdriver shut-off can additionally be monitored.



The MINIMAT-E screwdriver spindle in comparison to the pneumatic screwdriver of the DEPRAG series MINIMAT, motor size 3

MINIMAT
pneumatic screwdriver spindle,
motor size 3

MINIMAT-E
electric screwdriver spindle
with mechanical shut-off clutch



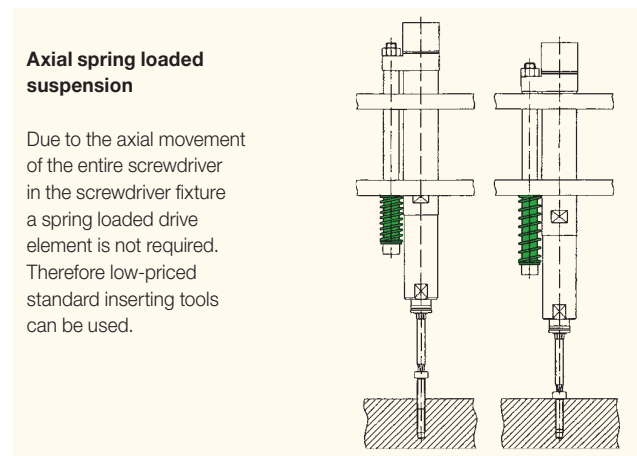
Depending on application case very short cycle times can be achieved as this screwdriver runs at maximum speed right up to the shut-off point of the clutch. Whereas in order to reach the stated accuracy other controlled screwdrivers are subject to a speed reduction before shut-off.

The screwdriver is designed for tough industrial use with high quality, robust system components guaranteeing reliability and a long life-span.

The maintenance free brushless EC drive provides outstanding dynamics and high maximum torque which is ideal for screw tightening.

The screwdriver is available with push-to-start or remote start PLC signal. As well as screw assembly to torque, the remote start version can carry out screw assembly to designated screw-in depth (with optional depth sensor) or a defined loosening procedure via reversal of the screwdriver.

The options for inserting tools and additional components such as guide sleeves or vacuum connections are designed in the same way as the DEPRAG MINIMAT pneumatic screwdriver motor size 2 so that identical accessories may be used.



TECHNICAL DATA

MINIMAT-E screwdriver, stationary, straight spindle form

Spindle, push to start		Type	342EA36-0009-200	342EA36-0009-100	342EA36-0009-65	342EA36-0018-200	342EA36-0018-100	342EA36-0018-65
Part no.			304001A	304001B	304001C	304004A	304004B	304004C
Spindle, remote start		Type	342EF36-0009-200	342EF36-0009-100	342EF36-0009-65	342EF36-0018-200	342EF36-0018-100	342EF36-0018-65
Part no.			305001A	305001B	305001C	305004A	305004B	305004C
Torque min.	Nm/in.lbs		0.3 / 2.65			0.5 / 4.4	0.4 / 3.5	
Torque max.	Nm/in.lbs		0.9 / 8				1.8 / 16	
Speed	rpm		2000	1000	650	2000	1000	650
Diameter	mm/in.		36 / 1.4	36 / 1.4	36 / 1.4	36 / 1.4	36 / 1.4	36 / 1.4
Length	mm/in.		283 / 11	283 / 11	283 / 11	283 / 11	283 / 11	283 / 11
Weight	kg/lbs		1 / 2.2	1 / 2.2	1 / 2.2	1 / 2.2	1 / 2.2	1 / 2.2
Noise level	dB (A)		68	68	68	68	68	68
Line voltage (DC)	V		48	48	48	48	48	48
Internal hex. drive DIN ISO 1173			F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")
Suitable inserting tools and connection parts with inserting end DIN ISO 1173			E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")
Spindle, push to start		Type	342EA36-0024-100	342EA36-0024-65	342EA36-0036-65	342EA36-0048-100	342EA36-0048-65	
Part no.			304002A	304002B	304003A	304005A	304005B	
Spindle, remote start		Type	342EF36-0024-100	342EF36-0024-65	342EF36-0036-65	342EF36-0048-100	342EF36-0048-65	
Part no.			305002A	305002B	305003A	305005A	305005B	
Torque min.	Nm/in.lbs		0.4 / 3.5		0.5 / 4.4	0.4 / 3.5	0.3 / 2.65	
Torque max.	Nm/in.lbs		2.4 / 21.24		3.6 / 31.86	4.8 / 42.48		
Speed	rpm		1000	650	650	1000	650	
Diameter	mm/in.		36 / 1.4	36 / 1.4	36 / 1.4	36 / 1.4	36 / 1.4	
Length	mm/in.		283	283	283	283	283	
Weight	kg/lbs		1 / 2.2	1 / 2.2	1 / 2.2	1 / 2.2	1 / 2.2	
Noise level	dB (A)		68	68	68	68	68	
Line voltage (DC)	V		48	48	48	48	48	
Internal hex. drive DIN ISO 1173			F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	
Suitable inserting tools and connection parts with inserting end DIN ISO 1173			E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	

Required accessories

Motor cable , length 2 m/6.56 ft., suitable for all screwdriver spindles	Part no.	151515A
Power supply unit suitable for types 342EA/EF36-0009/0024/0036-xxx	Type / Part no.	NG18 / 101067
Power supply unit suitable for types 342EA/EF36-0018/0048-xxx	Type / Part no.	NG20 / 101069
Power supply cable (EU) , length 2 m/6.56 ft., suitable for power supply unit NG18/NG20	Type / Part no.	KN-C13/EU / 833790
alternative		
Power supply cable (USA) , length 2 m / 6.56 ft.	Type / Part no.	KN-C13/US / 833791
Power supply cable (UK) , length 2 m / 6.56 ft.	Type / Part no.	KN-C13/UK / 833792
Power supply cable (China) , length 2.5 m / 8.2 ft.	Type / Part no.	KN-C13/CN / 832927
Power supply cable (Brazil) , length 1.8 m / 5.9 ft.	Type / Part no.	KN-C13/BR / 207388
Module suitable for spindle with remote start	Part no.	100901A function: supply of the signals - screwdriver running - screwdriver start and reverse
Module suitable for spindle with push to start	Part no.	100901B function: supply of the signal - screwdriver running

Optional equipment

Spring sleeve cpl.	Part no.	364672A
Spring sleeve cpl., with vacuum connection (in connection with finder, see leaflet: Inserting tools D3320E)	Part no.	364672C

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