



DEPRAG

MICROMAT-F MINIMAT-F

**The intelligent Hand-Screwdriver.
With Multi-Function Control to guarantee
a quality control of your product.**

- According to application
 - straight handle
 - pistol-grip
 - angle head design
- Shut-off when torque is reached
- Counts screwdriving cycles
- Supervises assembly times
- Recognizes change of parts
- Supervises its own operation



With activation of the driver, the airflow is released through the newly designed and improved controller fc10 in connection with the pneumatic controller pc10. When the preset torque is reached, the driver shuts off using the highly accurate shut-off clutch of the screwdriver series MINIMAT. The integrated function-recognition reports the completion of the screwdriving cycle to the controller fc10.

The required assembly time is compared to a minimum and maximum allowable assembly time. If shut-off event and assembly times range within the pre-determined window, an O.K. signal is given.

Consequently is guaranteed, that the assembly was correctly completed and was not completed prematurely, because of hardware problems with product or screw to be assembled, premature release of driver from the screw location, trying to drive an already assembled screw a second time, or because screw thread stripped.

Additionally, the programmed amount of screw assemblies per product can be controlled.

However, on reversible F-type screwdrivers this counting function is not available. Therefore, we recommend to apply right-hand rotation drivers wherever possible, in order to assure best possible process quality.

A proximity switch recognizes the product change.

In short, the Screwdriver with Multi-Function Controller monitors itself and assures a 100% correctness of your assembly.

The MINIMAT-F Screwdriver incorporates the well-known advantages of the DEPRAG-MINIMAT Screwdriver series and oilfree operation is possible.

When connected to an automatic Screwfeeder, the feeding of the screw is controlled by the fc10. Here, the function of the feeder flow-sensor is supported by the flow-sensor of the controller pc10. The controller is connected to the Screwfeeder using an optionally available SZG-connection set.

Technical Data

DEPRAG-MICROMAT-F-Screwdriver straight

Screwdriver Style		Motor Size 0			
Driver right rotation	type order no.		345F-308 399400 A	345F-408 399400 B	345F-708 399400 C 345F-508 399400 D
Screws	up to		M3	M3	M3
Torque min.	Ncm / in.oz		2 / 3	2 / 3	2 / 3
Torque max. (soft pull-up)	Ncm / in.oz		50 / 70	55 / 78	70 / 97
Torque max. (hard pull-up)	Ncm / in.oz		60 / 83	55 / 78	70 / 97
Speed, idling	rpm		1600	1100	600
Internal hex. drive DIN 3126			B 3 (3 mm/.118")	B 3 (3 mm/.118")	B 3 (3 mm/.118")

Suitable tool inserts and connecting components with a drive as per DIN 3126 – A 3 (3 mm), see also in our brochure D 3320 E.

DEPRAG-MINIMAT-F-Screwdriver straight

Screwdriver Style		Motor Size 1				Motor Size 2			
Driver right rotation	type order no.	347F-218 397061 A	347F-318 397061 B	347F-518 397061 C	347F-618 397061 D	347F-228 386365 A	347F-328 386365 B	347F-428 386365 D	347F-528 386365 C
Screws	up to	M3	M3	M3	M3	M4	M4	M4	M5
Torque min.	Nm / in.lbs	0.3 / 3	0.3 / 3	0.2 / 2	0.2 / 2	0.5 / 5	0.4 / 4	0.4 / 4	0.3 / 3
Torque max. (soft pull-up)	Nm / in.lbs	1 / 9	1.4 / 12	2 / 18	2 / 18	1.8 / 16	3 / 26	4 / 35	5 / 44
Torque max. (hard pull-up)	Nm / in.lbs	1 / 9	1.4 / 12	2 / 18	2 / 18	2 / 18	3.2 / 28	4.5 / 40	5 / 44
Speed, idling	rpm	1900	1300	900	600	4000	1550	1000	680
Internal hex. drive DIN 3126		F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")
Screwdriver Style		Motor Size 2.5				Motor Size 3			
Driver right rotation	type order no.	345F-7258 401537 A	345F-3258 401537 B	345F-4258 401537 C		346F-238 396359 B	346F-738 396359 C	346F-338 396359 D	346F-438* 396359 E
Screws	up to	M5	M6	M6		M5	M6	M6	M8
Torque min.	Nm / in.lbs	1 / 9	1 / 9	1 / 9		2 / 18	2 / 18	2 / 18	2 / 18
Torque max. (soft pull-up)	Nm / in.lbs	5 / 44	10 / 88	12 / 106		5 / 44	8 / 71	14 / 123	20 / 177
Torque max. (hard pull-up)	Nm / in.lbs	6 / 53	10 / 88	12 / 106		6 / 53	9 / 80	14 / 123	20 / 177
Speed, idling	rpm	1100	680	310		2500	1400	750	400
Internal hex. drive DIN 3126		F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")		F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")

incl. 3 m / 10 ft. air supply hose (lengths up to 5 m / 16.4 ft. available)
further technical details see leaflet D 3430 E

* Use only with additional handle or parallelogram-stand

DEPRAG-MINIMAT-F-Screwdriver pistol-grip

Screwdriver Style			Motor Size 2				
Driver right rotation lower air-inlet	type order no.		347F-227 391735 A	347F-327 391735 B	347F-427 391735 D	347F-527 391735 C	
Driver right rotation upper air-inlet	type order no.		347F-227O 391473 A	347F-327O 391473 B	347F-427O 391473 D	347F-527O 391473 C	
Screws	up to		M3	M4	M4	M5	
Torque min.	Nm / in.lbs		0.4 / 4	0.4 / 4	0.4 / 4	0.3 / 3	
Torque max. (soft pull-up)	Nm / in.lbs		1.5 / 13	3 / 26	3.5 / 31	5 / 44	
Torque max. (hard pull-up)	Nm / in.lbs		1.8 / 16	3.2 / 28	4 / 35	5 / 44	
Speed, idling	rpm		4000	1550	1000	680	
Internal hex. drive DIN 3126			F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	
Driver reversible lower air-inlet	type order no.		347F-227U 395047 A	347F-327U 395047 B	347F-427U 395047 D	347F-527U 395047 C	
Driver reversible upper air-inlet	type order no.		347F-227OU 395052 A	347F-327OU 395052 B	347F-427OU 395052 D	347F-527OU 395052 C	
Screws	up to		M3	M4	M4	M5	
Torque min.	Nm / in.lbs		0.4 / 4	0.4 / 4	0.4 / 4	0.3 / 3	
Torque max. (soft pull-up)	Nm / in.lbs		1.5 / 13	3 / 26	3.5 / 31	5 / 44	
Torque max. (hard pull-up)	Nm / in.lbs		1.8 / 16	3.2 / 28	4 / 35	5 / 44	
Speed, idling	rpm		3000	1100	750	500	
Internal hex. drive DIN 3126			F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	
Screwdriver Style		Motor Size 2.5			Motor Size 3		
Driver right rotation	type order no.	345F-7257 394625 A	345F-3257 394625 B	345F-4257 394625 C	344F-737 395221 B	345F-337 394067 C	345F-437 394067 D
Screws	up to	M5	M6	M6	M6	M6	M8
Torque min.	Nm / in.lbs	1 / 9	1 / 9	1 / 9	2 / 18	2 / 18	2 / 18
Torque max. (soft pull-up)	Nm / in.lbs	5 / 44	10 / 88	12 / 106	8 / 71	14 / 124	24 / 212
Torque max. (hard pull-up)	Nm / in.lbs	6 / 53	10 / 88	12 / 106	9 / 80	14 / 124	24 / 212
Speed, idling	rpm	1025	525	270	1400	750	400
Internal hex. drive DIN 3126		F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")
Driver reversible	type order no.				344F-737U 395222 B	345F-337U 395058 C	345F-437U 395058 D
Screws	up to				M6	M6	M8
Torque min.	Nm / in.lbs				2 / 18	2 / 18	2 / 18
Torque max. (soft pull-up)	Nm / in.lbs				7 / 62	12 / 106	24 / 212
Torque max. (hard pull-up)	Nm / in.lbs				8 / 71	12 / 106	24 / 212
Speed, idling	rpm				1200	650	320
Internal hex. drive DIN 3126					F 6.3 (1/4")	F 6.3 (1/4")	F 6.3 (1/4")

incl. 3 m / 10 ft. air supply hose (lengths up to 5 m / 16.4 ft. available)

further technical details see leaflet D 3435 E

Suitable tool inserts and connecting components with a drive as per DIN 3126 – E 6.3 (1/4"), see also in our brochure D 3320 E.

DEPRAG-MINIMAT-F-Screwdriver angle-head design

Screwdriver Style		Motor Size 2			Motor Size 2.5	
Driver right rotation	type order no.	377F-321 389689 B	377F-421 389689 D	377F-521 389689 C	376F-7251 392061 A	376F-3251 392061 B
Screws	up to	M4	M5	M5	M6	M6
Torque min.	Nm / in.lbs	0.4 / 4	0.4 / 4	0.3 / 3	1.5 / 13	1.5 / 13
Torque max.	Nm / in.lbs	3.5 / 31	4.5 / 40	6.5 / 57	8 / 70	15 / 132
Speed, idling	rpm	820	530	380	810	410
External square drive DIN 3121		E 6.3 (1/4")	E 6.3 (1/4")	E 6.3 (1/4")	E 6.3 (1/4")	E 6.3 (1/4")
Screwdriver Style		Motor Size 3				
Driver right rotation	type order no.	377F-731 404085 C	377F-331 404085 D	377F-431 404085 E		
Screws	up to	M6	M8	M10		
Torque min.	Nm / in.lbs	4 / 35	4 / 35	4 / 35		
Torque max.	Nm / in.lbs	13 / 115	23 / 204	33 / 292		
Speed, idling	rpm	840	450	240		
External square drive DIN 3121		E 12.5 (1/2")	E 12.5 (1/2")	E 12.5 (1/2")		

incl. 3 m / 10 ft. air supply hose (lengths up to 5 m / 16.4 ft. available)

further technical details see leaflet D 3450 E

Suitable tool inserts and connecting components with a drive as per DIN 3121 – G 6.3 (1/4"), G 10 (3/8"), G 12.5 (1/2"), see also in our brochure D 3320 E.

Required Accessories

Function control	type order no. order no.	fc10 398883 A (230 V) 398883 B (115 V)
Amount of connectable Drivers		1
Voltage	V/Hz	230/50 (115/60)
Power Consumption	VA	30
Display		LCD-Display Alphanumeric 4-lines 16 digits per line
Membrane keyboard		yes
RS 232 interface		yes
PLC interface		yes
Dimension (W x H x D)	mm/ in.	120 x 120 x 60 / 4 ³ / ₄ x 4 ³ / ₄ x 2 ³ / ₈
Weight	kg/lbs.	0.52 / 1.1

The control is exemplified by a simple and safe operation. The integrated process-diagnosis (teach-mode) assures easy and fast programming of the control fc10. In connection with the pneumatic control pc10 the fc10 controller operates all available F-series screwdrivers.

The controller fc10 can also be used in connection with our electric handheld screw-drivers (D 3480 E). In this case, the pneumatic control pc10 is not required.

Pneumatic control	type order no.	pc10 387551 A
Supply air connection		1/4" (Plugs, nominal size 7.2 mm)
Operating pressure	bar / PSI	5 - 6.3 / 71- 90
Air flow	m³/min (cfm)	0.1-0.45 (3.5 - 16)
Screw feeder connection		4 pole connector
Parts control connection		4 pole connector
Dimension (W x H x D)	mm / in.	160 x 90 x 160 / 6 ⁵ / ₁₆ x 3 ⁹ / ₁₆ x 6 ⁵ / ₁₆
Weight	kg / lbs.	1.2 / 2.6



Optional equipment		
Power cord with integrated switch for fc10	order no.	385475 A
Proximity switch for parts control		
capacitive (2 m/6.6 ft. cable)	order no.	354841 A
inductive (2 m/6.6 ft. cable)	order no.	354906 A
Screwfeeder connection set cable length 1 m (3.3 ft.) / 2 m (6.6 ft.)	order no.	356850 C / 356850 D
Cable for connection of parts control (0.2 m/0.6 ft.) in combination with electric handheld screwdrivers	order no.	393373 A
Mounting angle for control fc10	order no.	388249 B
Mounting angle for control fc10 and pc10	order no.	388249 A

