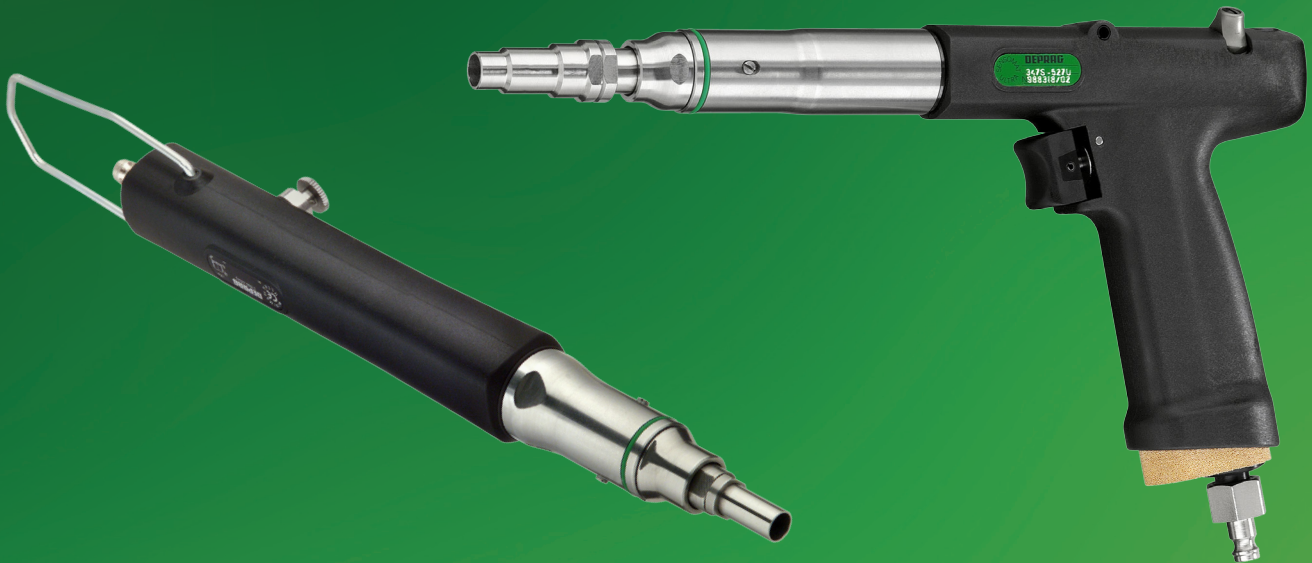


Handheld Screwdriver pneumatic



SENSOMAT The Screwdriver with regulated clutch function

straight design - seating torque from 0.3 - 5 Nm (3 - 44 in.lbs)

pistol grip design - seating torque from 0.3 - 5 Nm (3 - 44 in.lbs)

- Thread forming with maximum motor power
- Seating torque less than driving torque
- Thread forming instead of thread damaging
- ergonomic
- robust

Our pneumatic handheld screwdrivers SENSOMAT with mechanical clutch function are particularly suitable for applications such as:

- Sheet metal assemblies
- Wood assemblies
- Self-tapping through bolts

The SENSOMAT has been specially designed for screw joints where the screw-driving torque (forming torque) is close to or even higher than the shut-off torque due to high friction during assembly. In this way for example thread forming or thread cutting screws can be reliably processed with this screwdriver which is equipped with a mechanical clutch lock – there is no chance of damaging the screw by over-tightening.



ADVANTAGES

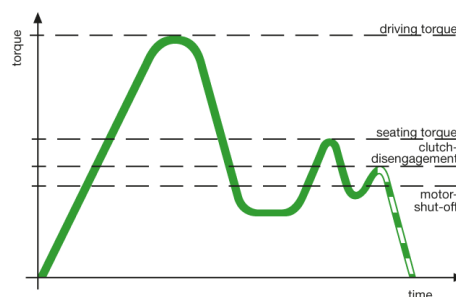
The SENSOMAT control screwdriver tightens the screw with full motor torque. Just before the base of the screw head is seated, the shut-off clutch is released and the screwdriver switches off exactly at the pre-set torque. The screw is completely screwed in without damaging the screw connection.

Torque accuracies of < 3% standard deviation and thus Cmk values of ≥ 1.67 with a tolerance of $\pm 15\%$ can be reached * with SENSOMAT handheld screwdrivers. Statistically speaking, the error rate is less than 0.6 per one million screw assemblies.

*) under suitable process conditions

SENSOMAT

driving torque > seating torque (thread forming screw)



Technical Data SENSOMAT - straight design

Screwdriver Style		Motor Size 1				Motor Size 2			Motor Size 3	
Driver reversible, right shut-off, Push-To-Start	Type Part no.	347S-218U 405158A	347S-318U 405158B	347S-518U 405158C	347S-618U 405158D	347S-328U 386542B	347S-428U 386542D	347S-528U 386542C	346S-238U 409114B	346S-738U 409114C
Screws	up to	M3	M3	M3	M3	M4	M4	M5	M5	M5
Seating-Torque, minimum	Nm / in.lbs	0.3 / 3	0.4 / 4	0.4 / 4	0.4 / 4	0.4 / 4	0.4 / 4	0.3 / 3	0.5 / 5	0.4 / 4
Seating-Torque, maximum	Nm / in.lbs	1 / 9	1.4 / 12	2 / 18	2 / 18	2.8 / 25	3.5 / 31	5 / 44	4.5 / 40	5 / 44
Driving-Torque, maximum	Nm / in.lbs	1.1 / 10	1.6 / 14	2.2 / 19	2.2 / 19	3.1 / 27	3.9 / 36	5.5 / 49	5 / 44	7 / 62
Speed, idling	rpm	1900	1300	900	600	1100	750	500	2300	1200
Air consumption	m ³ /min / cfm	0.23 / 8	0.23 / 8	0.23 / 8	0.23 / 8	0.3 / 11	0.3 / 11	0.3 / 11	0.4 / 14	0.4 / 14
Main body dia.	mm / in.	28 / 1 1/8	28 / 1 1/8	28 / 1 1/8	28 / 1 1/8	33 / 1 5/16	33 / 1 5/16	33 / 1 5/16	44 / 1 3/4	44 / 1 3/4
Length	mm / in.	218 / 8 19/32	218 / 8 19/32	218 / 8 19/32	218 / 8 19/32	250 / 9 7/8	250 / 9 7/8	250 / 9 7/8	274 / 10 3/4	290 / 11 7/16
Weight	kg / lbs	0.52 / 1.1	0.52 / 1.1	0.52 / 1.1	0.52 / 1.1	0.76 / 1.7	0.76 / 1.7	0.76 / 1.7	1.41 / 3.1	1.48 / 3.2
Noise level	dB (A)	62	62	62	62	67	67	67	74	74
Air hose dia.	mm / in.	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4
Drive hex. female DIN ISO 1173		1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
Quick change chuck, mounted		yes	yes	yes	yes	yes	yes	yes	yes	yes

Performance data relate to an air pressure of 6.3 bar (90 PSI)

Technical Data SENSOMAT - pistol grip design

Screwdriver Style		Motor Size 2			Motor Size 3	
Driver reversible, right shut-off	Trigger start	347S-327U 391486B	347S-427U 391486D	347S-527U 391486C	345S-237U 392773A	345S-737U 392773B
Lower air-inlet	Type Part no.					
Driver reversible, right shut-off	Trigger start	347S-327OU 391490B	347S-427OU 391490D	347S-527OU 391490C	-	-
Upper air-inlet	Type Part no.					
Screws	up to	M4	M4	M5	M5	M5
Seating-Torque, minimum	Nm / in.lbs	0.4 / 4	0.4 / 4	0.3 / 3	0.5 / 5	0.4 / 4
Seating-Torque, maximum	Nm / in.lbs	3 / 26	3.5 / 31	5 / 44	4.5 / 40	5 / 44
Driving-Torque, maximum	Nm / in.lbs	3.3 / 29	3.9 / 34	5.5 / 49	5 / 44	7 / 62
Speed, idling	rpm	1100	750	500	2300	1200
Air consumption	m ³ /min / cfm	0.3 / 11	0.3 / 11	0.3 / 11	0.4 / 14	0.4 / 14
Distance from spindle centre to side	mm / in.	14.5 / 9/16	14.5 / 9/16	14.5 / 9/16	22 / 7/8	22 / 7/8
Length	mm / in.	240 / 9 7/16	240 / 9 7/16	240 / 9 7/16	244 / 9 5/8	260 / 10 1/4
Weight	kg / lbs	0.82 / 1.8	0.82 / 1.8	0.82 / 1.8	1.5 / 3.3	1.6 / 3.5
Noise level	dB (A)	69	69	69	66	66
Air hose dia.	mm / in.	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4	6 / 1/4
Drive hex. female DIN ISO 1173		1/4"	1/4"	1/4"	1/4"	1/4"
Quick change chuck, mounted		yes	yes	yes	yes	yes

Performance data relate to an air pressure of 6.3 bar (90 PSI)

Included in delivery:

Hose coupling with nozzle and nipple · Torque adjustment tool · Assortment of clutch springs

Technical Data SENSOMAT - straight design - in combination with feeder

Screwdriver Style		Motor Size 2		
Driver in combination with feeder	Type	347SZ-328	347SZ-428	347SZ-528
	Part no.	391130B	391130C	391130D
Screws	up to	M4	M4	M5
Seating-Torque, minimum	Nm / in.lbs	0.4 / 4	0.4 / 4	0.3 / 3
Seating-Torque, maximum	Nm / in.lbs	3.2 / 28.3	4 / 35.4	5 / 44
Driving-Torque, maximum	Nm / in.lbs	3.5 / 31	4.5 / 39.8	5.5 / 49
Speed, idling	rpm	1550	1000	680
Air consumption	m ³ /min / cfm	0.3 / 11	0.3 / 11	0.3 / 11
Main body dia.	mm / in.	33 / 1 ⁵ / ₁₆	33 / 1 ⁵ / ₁₆	33 / 1 ⁵ / ₁₆
Length	mm / in.	234 / 9 ⁷ / ₃₂	234 / 9 ⁷ / ₃₂	234 / 9 ⁷ / ₃₂
Weight	kg / lbs	0.74 / 1.6	0.74 / 1.6	0.74 / 1.6
Noise level	dB (A)	70	70	70
Air hose dia.	mm / in.	6 / 1/4	6 / 1/4	6 / 1/4
Drive hex. female DIN ISO 1173		1/4"	1/4"	1/4"
Quick change chuck, mounted		yes	yes	yes

Performance data relate to an air pressure of 6.3 bar (90 PSI)

Required Accessories

Suitable for screwdriver		straight design	straight design/ pistol grip design	straight design/ pistol grip design
		Motor size 1	Motor size 2	Motor size 3
For combination bit and sensor sleeve				
Finder	Part no.	339982	339982	339982
Counter nut	Part no.	339983	339983	339983
For screw suction (bit and sensor sleeve)				
Spring sleeve	Part no.	401613A	401613B	-
For combination bit holder (magnetic), bit and sensor sleeve				
Finder	Part no.	343981	343981	343981
Counter nut	Part no.	343982	343982	343982
Sensor sleeve and bits see product catalog: Accessories D3320E, page 14 and 15.				

Optional Equipment

Suitable for screwdriver		straight design			pistol grip design	
		Motor size 1	Motor size 2	Motor size 3	Motor size 2	Motor size 3
Exhaust hose (1m/3.3ft.)	Part no.	402957D	389653A	328842	-	-
Exhaust hose (0.75m/2.5ft.) with air hose (2m/6.6ft.)	Part no.	-	-	-	-	330628A
Support ring	Part no.	-	389775A	-	-	-
Support ring for driver in combination with feeder	Part no.	-	394598	-	-	-
Adjustment bushing (for torque adjustment without sensor sleeve)	Part no.	461319	461319	461319	461319	461319



It is necessary to use a torque support (e.g. stand, handgrip) for maximum torque: over 4 Nm for straight design and over 10 Nm for pistol grip design. Suitable torque supports can be found in our product catalog D3345E.

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DEPRAG SCHULZ GMBH u. CO. KG

P.O. Box 1352 | D-92203 Amberg

Carl-Schulz-Platz 1 | D-92224 Amberg

Phone: +49 9621 371-0 | Fax: +49 9621 371-120

www.deprag.com | info@deprag.de

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