



**ITALIAN
AEROSPACE
SOLUTIONS**



“ Italy has a tradition of excellence that is unrivalled anywhere in the world. In countless fields.

And this tradition can be seen even today in the ability to conceive, create and build solutions for manufacturing and industrial maintenance. Even at the most sophisticated end of the scale, namely for the aerospace industry.

Choosing Italian solutions from Fiam means choosing reliability, design, no-nonsense construction, and concern for operators, their safety and their productivity. ”



Fiam's aerospace solutions

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Air drills

STRAIGHT MODELS



- Drill capacity 1 ÷ 10 mm in Ø
- Free speed: 600 ÷ 22,000 rpm
- Watt: 130 ÷ 400 Watt
- Type: Self-locking chuck, keyed chuck, without chuck, with collet chuck

- Effective and with favourable power-to-weight ratio
- Ideal for drilling on horizontal surfaces
- Collet-type models for holding the accessory
- Quiet and compact
- Insulated non-slip grips
- Lever start, even at low speeds to help with seating the bit (for FZ,FY models)

The **30F models**, specific for the aerospace sector, are equipped with motors and epicyclic reduction gears that ensure effective performance even in heavy working conditions, as well as with sub-optimal supply pressures. Consumption is also optimised thanks to the latest generation air motor.

The 30F ergonomic drills can drill holes quickly, aided by **soft start**, and the design offers extremely compact dimensions and low weights.



Exhaust CAN BE REDIRECTED AT WILL: with the rotating device, the exhaust air can be vented away from the operator based on the position the drill is being used in.

MODEL	CODE	STARTING SYSTEM		CHUCK TYPE	CHUCK CAPACITY	POWER	FREE SPEED	COMPRESSED AIR CONSUMPTION		WEIGHT	DIMENSIONS (mm)
					mm	Watt	RPM	l/s	Kg	lb	ØxL
30F2200DC	124611130	🔌	2	Keyed chuck	0÷6	300	22000	8,5	0,58	1.27	35x190
30F620DA	124611141	🔌	2	Self-locking chuck	0÷8	300	6200	8,5	0,74	1.62	35x220
30F620DC	124611131	🔌	2	Keyed chuck	0÷8	300	6200	8,5	0,60	1.32	35x205
30F620D	124610101	🔌	2	Without chuck	0÷8	300	6200	8,5	0,47	1.03	35x175
30F420DA	124611142	🔌	2	Self-locking chuck	0÷8	300	4200	8,5	0,74	1.62	35x220
30F420DC	124611132	🔌	2	Keyed chuck	0÷8	300	4200	8,5	0,60	1.32	35x205
30F420D	124610102	🔌	2	Without chuck	0÷8	300	4200	8,5	0,47	1.03	35x175
30F300DA	124611143	🔌	2	Self-locking chuck	0÷8	300	3000	8,5	0,74	1.62	35x220
30F300DC	124611133	🔌	2	Keyed chuck	0÷8	300	3000	8,5	0,60	1.32	35x205
30F300D	124610103	🔌	2	Without chuck	0÷8	300	3000	8,5	0,47	1.03	35x175
30F200DA	124611144	🔌	2	Self-locking chuck	1÷10	300	2000	8,5	0,88	1.93	35x248
30F200DC	124611134	🔌	2	Keyed chuck	1÷10	300	2000	8,5	0,75	1.65	35x226
30F200D	124610104	🔌	2	Without chuck	1÷10	300	2000	8,5	0,53	1.16	35x190
30F120DA	124611145	🔌	2	Self-locking chuck	1÷10	300	1200	8,5	0,88	1.93	35x248
30F120DC	124611135	🔌	2	Keyed chuck	1÷10	300	1200	8,5	0,75	1.65	35x226
30F120D	124610105	🔌	2	Without chuck	1÷10	300	1200	8,5	0,53	1.16	35x190
30F60DA	124611147	🔌	2	Self-locking chuck	1÷10	300	600	8,5	0,88	1.93	35x248
30F60DC	124611137	🔌	2	Keyed chuck	1÷10	300	600	8,5	0,75	1.65	35x226
30F60D	124610107	🔌	2	Without chuck	1÷10	300	600	8,5	0,53	1.16	35x190
FZ45A	122309009	🔌		Self-locking chuck	0÷4	130	4500	6	0,48	1.05	32x185
FZ45C	122311145	🔌		Keyed chuck	0÷4	130	4500	6	0,43	0.94	32x178
FZ45	122309007	🔌	1	Without chuck	0÷4*	130	4500	6	0,35	0.77	32x153
FY8A	126311118	🔌		Self-locking chuck	1÷10	400	2600	11	1,33	2.92	46x270
FY8C	126309024	🔌		Keyed chuck	1÷10	400	2600	11	1,19	2.62	46x250
FY8	126309026	🔌	3	Without chuck	1÷10*	400	2600	11	0,97	2.13	46x213
FY10A	126311110	🔌		Self-locking chuck	1÷10	400	1800	11	1,33	2.92	46x270
FY10C	126309078	🔌		Keyed chuck	1÷10	400	1800	11	1,19	2.62	46x250
FY10	126309023	🔌	3	Without chuck	1÷10*	400	1800	11	0,97	2.13	46x213

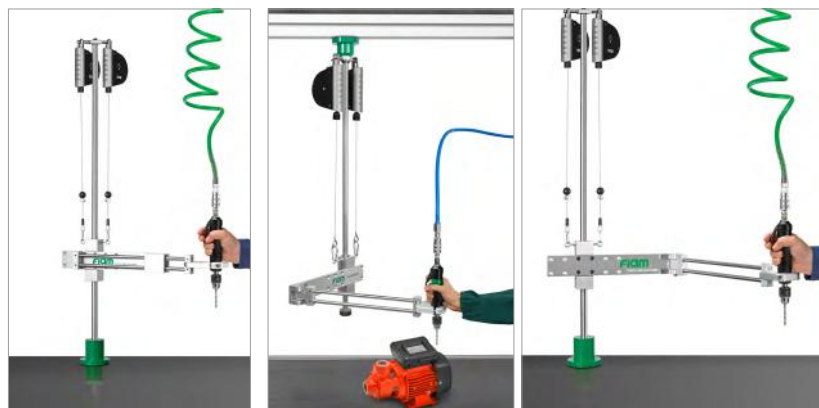
30F, FZ, FY...A = Self-locking chuck

30F, FZ, FY...C = Keyed chuck

30F, D, FZ, FY... = Models without chuck

* **Chuck capacity:** The capacity given is the maximum recommended.

OUTPUT SHAFT: 1: J 0 taper - 2: Threaded 3/8" x 24 UNF. - 3: Threaded 1/2" x 20 UNF.



**Accessories?
You can find
them here.**



Air drills

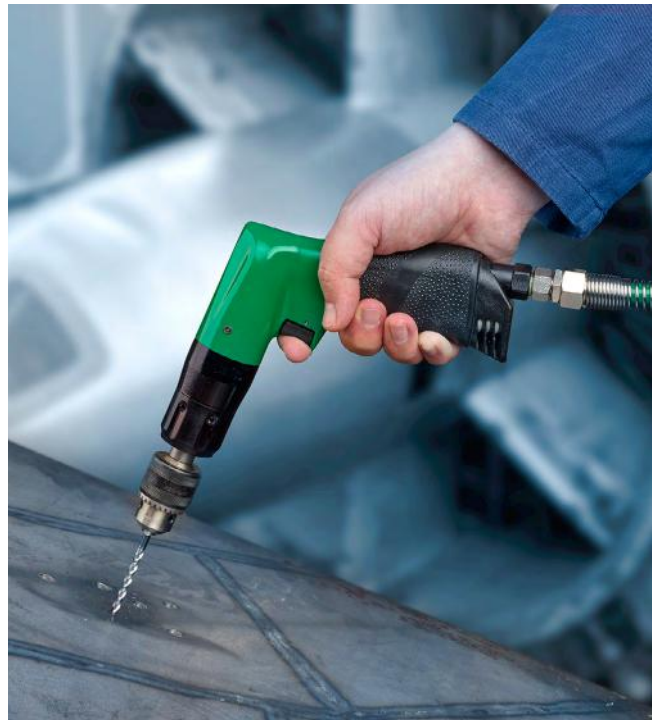
PISTOL MODELS



- Drill capacity 1÷13 mm in Ø
- Free speed: 600 ÷ 22,000 rpm
- Watt: 130 ÷ 400 Watt
- Type: Self-locking chuck, keyed chuck, without chuck, with collet chuck

- Effective and with favourable power-to-weight ratio
- Ideal for drilling on vertical surfaces
- Collet-type models for holding the accessory
- Quiet and compact
- Insulated non-slip grips
- Geometries designed to guide the bit accurately and safely to avoid harmful flexing of the wrist
- The pistol grip is always the best option for holes greater than 6-8 mm in diameter because it is better suited to applying the right driving force

The **30F models**, specific for the aerospace sector, are equipped with motors and epicyclic reduction gears that ensure effective performance even in heavy working conditions, as well as with sub-optimal supply pressures. Consumption is also optimised thanks to the latest generation air motor.



The 30F ergonomic drills can drill holes quickly, aided by **soft start**, and the design offers extremely compact dimensions and low weights.

MODEL	CODE	STARTING SYSTEM		CHUCK TYPE	CHUCK TYPE	POWER	FREE SPEED	COMPRESSED AIR CONSUMPTION		WEIGHT	DIMENSIONS (mm)
					mm	Watt	RPM	l/s	Kg	lb	ØxLxH
30F2200PC	124611570		2	Keyed chuck	0÷6	300	22000	8,8	0,80	1.76	35x200x155
30F620PA	124611581		2	Self-locking chuck	0÷8	300	6200	8,8	0,97	2.14	35x225x155
30F620PC	124611571		2	Keyed chuck	0÷8	300	6200	8,8	0,83	1.83	35x210x155
30F620P	124610561		2	Without chuck	0÷8	300	6200	8,8	0,70	1.54	35x180x155
30F420PA	124611582		2	Self-locking chuck	0÷8	300	4200	8,8	0,97	2.14	35x225x155
30F420PC	124611572		2	Keyed chuck	0÷8	300	4200	8,8	0,83	1.83	35x210x155
30F420P	124610562		2	Without chuck	0÷8	300	4200	8,8	0,70	1.54	35x180x155
30F300PA	124611583		2	Self-locking chuck	0÷8	300	3000	8,8	0,97	2.14	35x225x155
30F300PC	124611573		2	Keyed chuck	0÷8	300	3000	8,8	0,83	1.83	35x210x155
30F300P	124610563		2	Without chuck	0÷8	300	3000	8,8	0,70	1.54	35x180x155
30F200PA	124611584		2	Self-locking chuck	1÷10	300	2000	8,8	1,10	2.43	35x250x155
30F200PC	124611574		2	Keyed chuck	1÷10	300	2000	8,8	0,97	2.14	35x230x155
30F200P	124610564		2	Without chuck	1÷10	300	2000	8,8	0,75	1.65	35x193x155
30F120PA	124611585		2	Self-locking chuck	1÷10	300	1200	8,8	1,10	2.43	35x250x155
30F120PC	124611575		2	Keyed chuck	1÷10	300	1200	8,8	0,97	2.14	35x230x155
30F120P	124610565		2	Without chuck	1÷10	300	1200	8,8	0,75	1.65	35x193x155
30F60PA	124611587		2	Self-locking chuck	1÷10	300	600	8,8	1,10	2.43	35x250x155
30F60PC	124611577		2	Keyed chuck	1÷10	300	600	8,8	0,97	2.14	35x230x155
30F60P	124610567		2	Without chuck	1÷10	300	600	8,8	0,75	1.65	35x193x155
FDE60PA	124611550			Self-locking chuck	1÷10	280	6000	10	1,08	2.37	38x223x155
FDE60PC	124611560			Keyed chuck	1÷10	280	6000	10	0,94	2.07	38x200x155
FDE60P	124610550		1	Without chuck	1÷10*	280	6000	10	0,72	1.58	38x165x155
FDE49PA	124611551			Self-locking chuck	1÷10	280	4900	10	1,08	2.37	38x223x155
FDE49PC	124611561			Keyed chuck	1÷10	280	4900	10	0,94	2.07	38x200x155
FDE49P	124610551		1	Without chuck	1÷10*	280	4900	10	0,72	1.58	38x165x155
FDE33PA	124611552			Self-locking chuck	1÷10	280	3300	10	1,08	2.37	38x223x155
FDE33PC	124611562			Keyed chuck	1÷10	280	3300	10	0,94	2.07	38x200x155
FDE33P	124610552		1	Without chuck	1÷10*	280	3300	10	0,72	1.58	38x165x155
FDE26PA	124611553			Self-locking chuck	1÷10	280	2600	10	1,08	2.37	38x223x155
FDE26PC	124611563			Keyed chuck	1÷10	280	2600	10	0,94	2.07	38x200x155
FDE26P	124610553		1	Without chuck	1÷10*	280	2600	10	0,72	1.58	38x165x155
FY6PA	126311556			Self-locking chuck	1÷10	400	3200	11	1,54	3.38	46x222x170
FY6PC	126309103			Keyed chuck	1÷10	400	3200	11	1,40	3.08	46x200x170
FY6P	126309036		2	Without chuck	1÷10*	400	3200	11	1,18	2.59	46x165x170
FY8PA	126311558			Self-locking chuck	1÷10	400	2600	11	1,54	3.38	46x222x170
FY8PC	126309019			Keyed chuck	1÷10	400	2600	11	1,40	3.08	46x200x170
FY8P	126309020		2	Without chuck	1÷10*	400	2600	11	1,18	2.59	46x165x170
FY10PA	126311560			Self-locking chuck	1÷10	400	1800	11	1,54	3.38	46x222x170
FY10PC	126309015			Keyed chuck	1÷10	400	1800	11	1,40	3.08	46x200x170
FY10P	126309018		2	Without chuck	1÷10*	400	1800	11	1,18	2.59	46x165x170
FY13PA	126311563			Self-locking chuck	1÷13	400	750	11	2,00	4.4	46x263x170
FY13PC	126309007			Keyed chuck	1÷13	400	750	11	1,84	4.05	46x238x170
FY13P	126309021		2	Without chuck	1÷13*	400	750	11	1,48	3.26	46x195x170
FY14PA	126311564			Self-locking chuck	1÷13	400	450	11	2,00	4.4	46x263x170
FY14PC	126309030			Keyed chuck	1÷13	400	450	11	1,84	4.05	46x238x170
FY14P	126309035		2	Without chuck	1÷13*	400	450	11	1,48	3.26	46x195x170
FO12P	127011512		3	Without chuck	—	800	2000	14	3,05	6.71	65x200x360
FO16P	127011516		3	Without chuck	—	800	950	14	3,60	7.92	65x236x360
FO20P	127011520		3	Without chuck	—	800	600	14	3,60	7.92	65x236x360
FO3P	127011530		3	Without chuck	—	800	170	14	4,18	9.19	65x272x360

30F, FDE, FY ...A = Self-locking chuck
30F, FDE, FY ...C = Keyed chuck
30F, FDE, FY, FO ... = Models without chuck

* **Chuck capacity:** The capacity given is the maximum recommended.

OUTPUT SHAFT:

1: J 0 taper - 2: Threaded 3/8" x 24 UNF. - 3: Threaded 1/2" x 20 UNF.

Accessories?
You can find
them here.



Air drills

ANGLE MODELS



- Drill capacity 1 ÷ 13 mm in Ø
- Free speed: 500 ÷ 4,500 rpm
- Watt: 130 ÷ 400 Watt
- Type: Self-locking chuck, keyed chuck, without chuck, with collet chuck

- Ideal for drilling in small, hard-to-reach spaces, such as against walls or near profiles and shaped sections
- Rugged 30° and 90° angle drilling heads
- Fast and with favourable power-to-weight ratio
- Collet-type models for holding the accessory
- Quiet and compact
- Insulated non-slip grips

The **30F models**, specific for the aerospace sector, are equipped with motors and epicyclic reduction gears that ensure effective performance even in heavy working conditions, as well as with sub-optimal supply pressures. Their consumption is also optimised thanks to the latest generation air motor.

The 30F ergonomic drills can drill holes quickly, aided by **soft start**, and the design offers extremely compact dimensions and low weights.



Exhaust CAN BE REDIRECTED AT WILL: with the rotating device, the exhaust air can be vented away from the operator based on the position the drill is being used in.

MODEL	CODE	STARTING SYSTEM		CHUCK TYPE	CHUCK CAPACITY	POWER	FREE SPEED	COMPRESSED AIR CONSUMPTION		WEIGHT	DIMENSIONS (mm)
					mm	Watt	RPM	l/s	Kg	lb	ØxLxH
30F420A90A	124691142		1	Self-locking chuck	0÷6	300	4200	8,5	0,87	1.92	35x254x90
30F420A90C	124691132		1	Keyed chuck	0÷6	300	4200	8,5	0,73	1.61	35x254x76
30F420A90P	124695152		1	Collet chuck	1÷7	300	4200	8,5	0,60	1.32	35x254x47
30F420A90	124699122		1	Without chuck	0÷6	300	4200	8,5	0,60	1.32	35x254x47
30F300A90A	124691143		1	Self-locking chuck	0÷6	300	3000	8,5	0,87	1.92	35x254x90
30F300A90C	124691133		1	Keyed chuck	0÷6	300	3000	8,5	0,73	1.61	35x254x76
30F300A90P	124695153		1	Collet chuck	1÷7	300	3000	8,5	0,60	1.32	35x254x47
30F300A90	124699123		1	Without chuck	0÷6	300	3000	8,5	0,60	1.32	35x254x47
30F200A90A	124691144		1	Self-locking chuck	1÷8	300	2000	8,5	0,93	2.05	35x267x90
30F200A90C	124691134		1	Keyed chuck	1÷8	300	2000	8,5	0,79	1.74	35x267x76
30F200A90P	124695154		1	Collet chuck	1÷7	300	2000	8,5	0,66	1.46	35x267x47
30F200A90	124699124		1	Without chuck	1÷8	300	2000	8,5	0,66	1.46	35x267x47
30F120A90A	124691145		1	Self-locking chuck	1÷10	300	1200	8,5	1,02	2.25	35x267x105
30F120A90C	124691135		1	Keyed chuck	1÷10	300	1200	8,5	0,88	1.94	35x267x83
30F120A90P	124695155		1	Collet chuck	1÷7	300	1200	8,5	0,66	1.46	35x267x47
30F120A90	124699125		1	Without chuck	1÷10	300	1200	8,5	0,66	1.46	35x267x47
30F420A30A	124631142		1	Self-locking chuck	0÷6	300	4200	8,5	0,87	1.92	35x306x52
30F420A30C	124631132		1	Keyed chuck	0÷6	300	4200	8,5	0,73	1.61	35x295x46
30F420A30P	124635152		1	Collet chuck	1÷7	300	4200	8,5	0,60	1.32	35x270x32
30F420A30	124639122		1	Without chuck	0÷6	300	4200	8,5	0,60	1.32	35x270x32
30F300A30A	124631143		1	Self-locking chuck	0÷6	300	3000	8,5	0,87	1.92	35x306x52
30F300A30C	124631133		1	Keyed chuck	0÷6	300	3000	8,5	0,73	1.61	35x295x46
30F300A30P	124635153		1	Collet chuck	1÷7	300	3000	8,5	0,60	1.32	35x270x32
30F300A30	124639123		1	Without chuck	0÷6	300	3000	8,5	0,60	1.32	35x270x32
30F200A30A	124631144		1	Self-locking chuck	1÷8	300	2000	8,5	0,93	2.05	35x320x52
30F200A30C	124631134		1	Keyed chuck	1÷8	300	2000	8,5	0,79	1.74	35x310x46
30F200A30P	124635154		1	Collet chuck	1÷7	300	2000	8,5	0,66	1.46	35x285x32
30F200A30	124639124		1	Without chuck	1÷8	300	2000	8,5	0,66	1.46	35x285x32
30F120A30A	124631145		1	Self-locking chuck	1÷10	300	1200	8,5	1,02	2.25	35x330x58
30F120A30C	124631135		1	Keyed chuck	1÷10	300	1200	8,5	0,88	1.94	35x316x50
30F120A30P	124635155		1	Collet chuck	1÷7	300	1200	8,5	0,66	1.46	35x285x32
30F120A30	124639125		1	Without chuck	1÷10	300	1200	8,5	0,66	1.46	35x285x32
FZ31/30P	122335132			Collet chuck	1÷5	130	3100	6	0,500	1.1	31x235x35
FZ31/90P	122395132			Collet chuck	1÷5	130	3100	6	0,500	1.1	31x228x47
FY8/90A	126309060			Self-locking chuck	1÷10	400	1600	10	1,820	4	46x320x125
FY8/90C	126391101			Keyed chuck	1÷10	400	1600	10	1,700	3.74	46x320x103
FY8/90	126309062		2	Without chuck	1÷10*	400	1600	10	1,480	3.25	46x320x65
FY10/90A	126309104			Self-locking chuck	1÷10	400	1200	10	1,820	4	46x320x125
FY10/90C	126391102			Keyed chuck	1÷10	400	1200	10	1,700	3.74	46x320x103
FY10/90	126309064		2	Without chuck	1÷10*	400	1200	10	1,480	3.25	46x320x65
FY13/90A	126309071			Self-locking chuck	1÷10	400	500	10	2,020	4.44	46x350x125
FY13/90C	126391103			Keyed chuck	1÷10	400	500	10	1,900	4.18	46x350x103
FY13/90	126309082		2	Without chuck	1÷10*	400	500	10	1,680	3.69	46x350x65

30F, FZ, FY...A = Self-locking chuck

30F, FZ, FY...C = Keyed chuck

30F, FZ, FY... = Models without chuck

* **Chuck capacity:** The capacity given is the maximum recommended.

OUTPUT SHAFT:

1: Threaded 3/8" x 24 UNF. - 2: Threaded 1/2" x 20 UNF.

Accessories?
You can find
them here.



Air drills

MODULAR MODELS

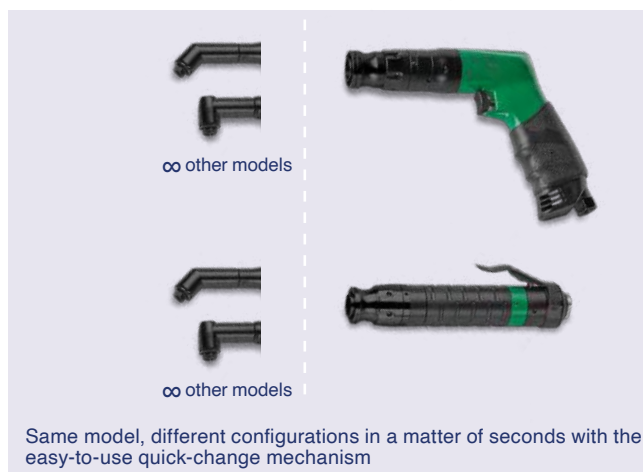


- Straight and pistol motors/drills
- Free speed: 1,200÷6,200 rpm
- Watt: 300 Watt
- Quick change to get different configurations in a matter of seconds

The 30F 300 Watt air drills are extremely versatile because **the same motor/drill can be combined with different drilling heads** so that the same tool can provide different operating configurations, such as those demanded in the aerospace industry.

Moreover, their new-generation motors and epicyclic reduction gears ensure effective performance even in heavy working conditions, as well as with sub-optimal supply pressures. These fast and ergonomically designed drills have a **soft-start feature for easier drilling**. Consumption is also optimised thanks to the new kinematic mechanisms of the air motor.

- 30° and 90° angle heads
- **Special drilling heads and clamping collets on request**
- Extremely compact dimensions
- Low weights
- Pistol-grip models with balanced handles and non-slip grip
- Use 2 codes when ordering: tool code + head code



Exhaust CAN BE REDIRECTED AT WILL: with the rotating device, the exhaust air can be vented away from the operator based on the position the drill is being used in (straight models).

MODEL	CODE	STARTING SYSTEM	POWER	FREE SPEED	COMPRESSED AIR CONSUMPTION	WEIGHT	DIMENSIONS (mm)
			Watt	RPM	l/s	Kg lb	ØxLxH

MODULAR STRAIGHT DRILLS

30F620M	124691201		300	6200	8,8	0,45 0.99	35x170
30F420M	124691202		300	4200	8,8	0,45 0.99	35x170
30F300M	124691203		300	3000	8,8	0,45 0.99	35x170
30F200M	124691204		300	2000	8,8	0,51 1.12	35x184
30F120M	124691205		300	1200	8,8	0,51 1.12	35x184

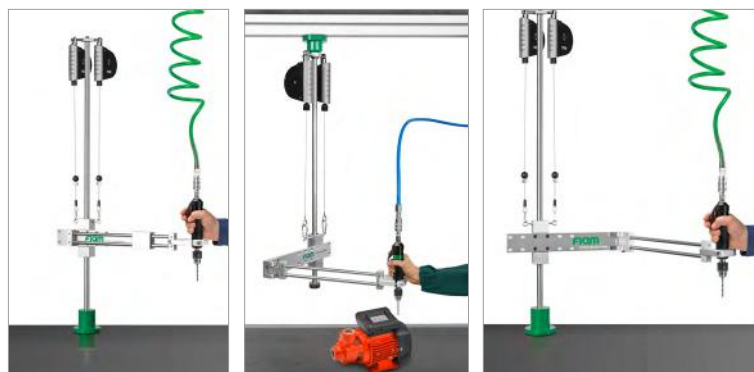
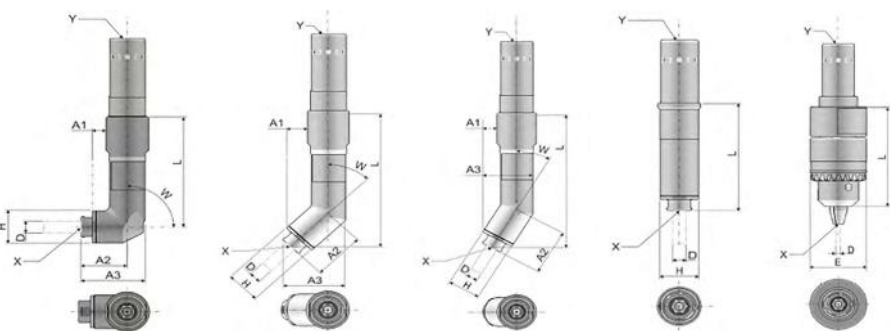
MODULAR PISTOL-GRIP DRILLS

30F620MP	124691301		300	6200	8,8	0,68 1.50	35x117x155
30F420MP	124691302		300	4200	8,8	0,68 1.50	35x175x155
30F300MP	124691303		300	3000	8,8	0,68 1.50	35x175x155
30F200MP	124691304		300	2000	8,8	0,73 1.61	35x190x155
30F120MP	124691305		300	1200	8,8	0,73 1.61	35x190x155

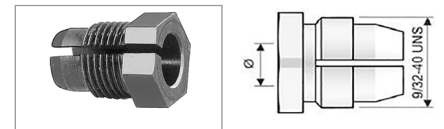
OUTPUT SHAFT: Threaded 3/8" x 24 UNF.

COMPATIBLE DRILLING HEADS

DESCRIPTION	CODE	DIMENSIONS mm							OUTPUT TYPE
		Ø D	Ø H	A1	A2	A3	L	W	
HEAD 90° - 1/4	654380001	8	17	11,6	21,6	29,85	58	90	1/4-28 UNF-2B
HEAD 90° - 9/32	654380006	5	17	11,6	21,6	29,85	58	90	9/32-40 UNS
HEAD 45° - 1/4	654380002	8	17	10	25,5	20	73,5	45	1/4-28 UNF-2B
HEAD 45° - 9/32	654380007	5	17	10	25,5	20	73,5	45	9/32-40 UNS
HEAD 30° - 1/4	654380003	8	17	7,2	25,5	25,5	77,6	30	1/4-28 UNF-2B
HEAD 30° - 9/32	654380008	5	17	7,2	25,5	25,5	77,6	30	9/32-40 UNS
		Ø D		H		L			
STRAIGHT HEAD - 1/4	654380004	8		17		84,5		1/4-28 UNF-2B	
STRAIGHT HEAD - 9/32	654380009	5		17		84,5		9/32-40 UNS	
		Ø H		Ø D	Ø E	L			
HEAD FOR CHUC 0-8"	654380005	0,5-8		8	29,5	95		Chuck Ø 0-8	



DRILLING HEAD COLLETS FOR MODULAR DRILLS



CAPACITY	CODE	CAPACITY	CODE
1,0	*	3,1	*
1,1	*	3,2	*
1,2	*	3,3	*
1,3	*	3,4	*
1,4	*	3,5	*
1,5	*	3,6	*
1,6 (1/16")	*	3,7	*
1,7	*	3,8	*
1,8	*	3,9	*
1,9	*	4,0 (5/32")	*
2,0	*	4,1	*
2,1	*	4,2	*
2,2	*	4,3	*
2,3	*	4,4	*
2,4 (3/32")	*	4,5	*
2,5	*	4,6	*
2,6	*	4,7	*
2,7	*	4,8 (3/16")	*
2,8	*	4,9	*
2,9	*	5,0	*
3,0	*		

Accessories for ergonomically sound workplaces?



Air tappers

STRAIGHT AND PISTOL MODELS



- For tapping from 4 to 22 mm in diameter (on steel)
- Free speed:
from 140 to 1,000 rpm.
return: from 470 to 1,700 rpm
- Reversible models

For quick and effortless tapping operations by hand with machine taps, even where high standards of quality are demanded, such as those demanded in manufacturing facilities within the aerospace industry. Designed to deliver ease of handling and versatility of use no matter what the job.

- **Automatic reverse device**, automatically reversing rotation with increased return speed (lever operated on MAO models) so that the tap can be removed quickly
- Also ideal for **fitting threaded inserts/studs**
- **Quick-change chuck** for collets (taps/studs/threaded inserts)
- **Starts even at low rpm** to help with seating the tap in the hole to be tapped
- Shaped non-slip grips
- Favourable power-to-weight ratio
- **Straight models**: for work on horizontal surfaces, for diameters from 6 to 12 mm
- **Pistol-grip models**: for work on vertical surfaces, especially for tapping exceeding 6-8 mm



- **Collet chuck models**: collets, by allowing limited play between tap and chuck, are better for manual jobs where allowing the tap to self-centre in the hole to be tapped is considered the best option
- **Models with precision collet chucks**: so that the tap is perfectly centred relative to the tool as it turns — for higher-quality tapping, and when the tapping gun is fitted on a tapping machine or on pantograph arms.

	MODEL	CODE	MAX. TAPPING CAPACITY	STARTING SYSTEM	FREE SPEED		REVERSIBILITY
					FORWARD	RETURN	
			ø mm	type	RPM	RPM	type
STRAIGHT MODELS	MAS6	134610106	6	↓	1000	1700	↺
	MAS6B	134612106	6	↓	1000	1700	↺
	MAS8	134610108	8	↓	500	800	↺
	MAS8B	134612108	8	↓	500	800	↺
	MAY10	136309028	10	↓	450	930	↺
	MAY10B	136309026	10	↓	450	930	↺
	MAY12	136309016	12	↓	220	470	↺
	MAY12B	136309031	12	↓	220	470	↺
PISTOL MODELS	MASE6P	134610516	6	↵	1000	1700	↺
	MASE6PB	134612516	6	↵	1000	1700	↺
	MASE8P	134610518	8	↵	500	800	↺
	MASE8PB	134612518	8	↵	500	800	↺
	MAY10P	136310510	10	↵	450	930	↺
	MAY10PB	136312510	10	↵	450	930	↺
	MAY12P	136310512	12	↵	220	470	↺
	MAY12PB	136312512	12	↵	220	470	↺
	MAO16P	137210116	16	↵	470	470	↺
	MAO18P	137210118	18	↵	140	140	↺

• All feature quick-change chuck and automatic rotation reverse device

MAS..., MAY..., MASE...P, MAY...P, MAO...P models with collet chuck

MAS...B, MAY...B, MASE...PB, MAY...PB models with precision collet chuck

For more information about the features of the range,
refer to the online catalogue:

[Air tappers](#)

Accessories?
You can find
them here.



Air grinders and sanders

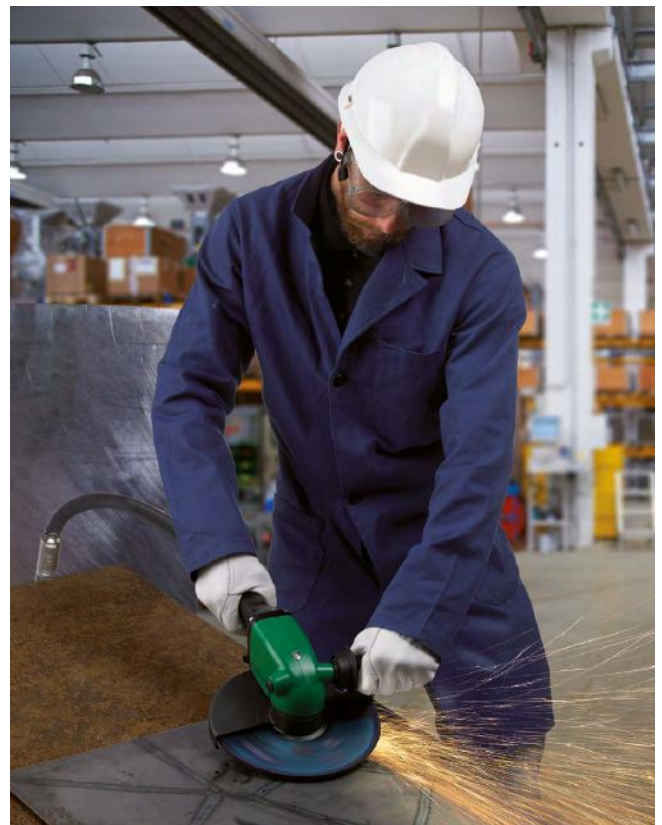
STRAIGHT, ANGLE AND TURBINE MODELS



- Free speed: 1,700 ÷ 24,000 rpm
- Power: 50 ÷ 4,500 Watt
- Turbine technology

For grinding, deburring, chamfering, grooving, removing material, sanding, cutting, polishing, roughing and lapping any material, you need tools that are durable, reliable and, above all, **safe and designed to make the operators' job easier.**

- **Powerful:** for work in different applications
- **Safe:** no accidental starts
- **Rugged:** low maintenance and continuous efficiency
- **Quick and light**



TURBINE MODELS:

- **Amazing power** for any industry, even in the most extreme demanding conditions
- **Keep going for 24-hour shifts, 7 days a week**

		MODEL	CODE	POWER	FREE SPEED	MAX. ACCESSORY SIZE
				Watt	RPM	Ø mm
GRINDERS	STRAIGHT	 T SMT10D/CC	140113005	50	70.000	10
		 9SM03DT	149561016	90	100.000	4 ÷ 6
		 11SM10D	149561006	110	55.000	10
		 SMZ15D	142313001	130	22.000	15
		 SMS30DC	144613001	300	22.000 ÷ 24.000	30
		 SMS30DCZ	144613002	300	22.000	30
		 SMS30DZ	144613003	300	22.000	30
		 SMY50DC2	146313006	400	15.000	50
		 SMY50D2	146313007	400	15.000	50
	ANGLE	 SMLES135	144693001	300	13.500	30
		 SMS100A	144691001	300	13.500	100 x 5 x 16*
		 SMY115A	146395012	400	9.000	115 x 6,5 x 22*
		 T 220SMT125A	149561024	2.200	12.000	125 x 3-4-6 x 22
		 100SM125A	149561038	1.000	12.200	125 x 3-4-6 x 22
		 T 450SMT180A	149561034	4.500	8.500	180 x 10 x 22
		 250SM180A	149561039	2.500	8.400	180 x 10 x 22
		 T 450SMT230A	149561033	4.500	6.600	230 x 10 x 22
		 240SM180V	149561004	2.400	8.500	180 x 6-8-10 x 22
SANDERS	ANGLE	 240SM230V	149561005	2.350	6.000	230 x 6-8-10 x 22
		 250SM230A	149561040	2.500	6.500	230 x 10 x 22
		 SMLES135	144693001	300	13.500	60
		 LES45	144695400	300	4.500	75
		 LES34	144695300	300	3.400	75
		 LEN42	146095400	375	4.200	180
		 LEN22	146095200	375	2.200	180
		 LEN17	146095100	375	1.700	180
		 LEN17U	146095103	375	1.700	200
	STRAIGHT	 LES30SP	144631101	300	3.000	80

T = TURBINE MODELS

* Maximum recommended size of discs for grinding with radial wheels (wheel Ø x thickness x mounting hole Ø)

For more information about the features of the range,
refer to the online catalogue:
[Air grinders and sanders](#)

Accessories?
You can find
them here.



Air screwdriver with automatic shut off

STRAIGHT MODELS



- 0.4 ÷ 103 Nm
- Free speed: 150 ÷ 2,000 rpm
- Reversible models
- Lever start or Push to start

Accurate and reliable screwdrivers with torque control system featuring instant automatic air shutoff

- Excellent torque repeatability on both hard and soft joints
- Quick chuck
- Clutch adjustment system: safe, practical and quick
- **Low-speed models:** suitable for assembling with critical joints made from delicate materials that are prone to deformation
- Ergonomic grips
- Non-slip collars
- Lightweight and compact
- Models with threaded drive for screw suction systems (pick-and-place tightening operations) (*)



MODEL	CODE	STARTING SYSTEM	TIGHTENING TORQUE ON SOFT JOINT		FREE SPEED	REVERSIBILITY	COMPRESSED AIR CONSUMPTION	HOSE BORE	WEIGHT		DIMENSIONS (mm)
			Nm	in lb	RPM		l/s	ø mm	Kg	lb	øxL
15C2A*	112514372	↓	0,4÷2	3.5÷17.7	2000	↺	4	5	0,58	1.28	38x230
15C3A*	112514373	↓	0,4÷3,5	3.5÷31	1400	↺	5,5	5	0,59	1.30	38x230
15C4A*	112514374	↓	0,4÷4,5	3.5÷39.8	950	↺	5,5	5	0,59	1.30	38x230
15C5A*	112514375	↓	0,4÷5	3.5÷44.2	650	↺	5,5	5	0,59	1.30	38x230
15C5A250*	112509851	↓	0,4÷5	3.5÷44.2	250	↺	5,5	5	0,65	1.43	38x240
15C5A150*	112509935	↓	0,4÷5	3.5÷44.2	150	↺	5,5	5	0,65	1.43	38x240
15C2AL*	112514382	↑	0,4÷2	3.5÷17.7	2000	↻	4	5	0,59	1.30	38x228
15C3AL*	112514383	↑	0,4÷3,5	3.5÷31	1400	↻	5,5	5	0,60	1.32	38x228
15C4AL*	112514384	↑	0,4÷4,5	3.5÷39.8	950	↻	5,5	5	0,60	1.32	38x228
15C5AL*	112514385	↑	0,4÷5	3.5÷44.2	650	↻	5,5	5	0,60	1.32	38x228
15C5AL250*	112509921	↑	0,4÷5	3.5÷44.2	250	↻	5,5	5	0,66	1.45	38x242
15C5AL150*	112509925	↑	0,4÷5	3.5÷44.2	150	↻	5,5	5	0,66	1.45	38x242
26C4A*	114814350	↓	0,4÷4	3.5÷35.4	2000	↺	4,5	8	0,80	1.76	40x235
26C5A*	114814351	↓	0,4÷5	3.5÷44.2	1350	↺	6	8	0,80	1.76	40x235
26C8A	114814352	↓	3,5÷8	31÷70.8	1000	↺	6	8	0,90	1.98	40x255
26C10A	114814353	↓	3,5÷9,5	31÷84.1	850	↺	6	8	0,90	1.98	40x255
26C12A	114814354	↓	3,5÷12	31÷106.2	400	↺	6	8	0,90	1.98	40x255
26C12A250	114807596	↓	3,5÷12	31÷106.2	250	↺	6	8	0,99	2.18	40x269
26C12A150	114807595	↓	3,5÷12	31÷106.2	150	↺	6	8	0,99	2.18	40x269
26C4AL*	114814950	↑	0,4÷4	3.5÷35.4	2000	↻	6	8	0,85	1.87	40x234
26C5AL*	114814951	↑	0,4÷5	3.5÷44.2	1350	↻	6	8	0,85	1.87	40x234
26C8AL	114814952	↑	3,5÷8	31÷71	1000	↻	6	8	0,93	2.05	40x254
26C10AL	114814953	↑	3,5÷9,5	31÷84	850	↻	6	8	0,93	2.05	40x254
26C12AL	114814954	↑	3,5÷12	31÷106.2	400	↻	6	8	0,93	2.05	40x254
26C12AL250	114807597	↑	3,5÷12	31÷106.2	250	↻	6	8	1,02	2.25	40x268
26C12AL150	114807353	↑	3,5÷12	31÷106.2	150	↻	6	8	1,02	2.25	40x268
CDE5RA	114814310	↓	3÷5	26.5÷44.2	2000	↺	9	8	1	2.2	40x250
CDE7RA	114814311	↓	3÷7	26.5÷61.9	1200	↺	9	8	1	2.2	40x250
CDE12RA	114814312	↓	3÷12	26.5÷106.2	700	↺	9	8	1	2.2	40x250
CDE5LRA	114814130	↑	3÷5	26.5÷44.2	2000	↻	10	8	1,020	2.24	40x250
CDE7LRA	114814131	↑	3÷7	26.5÷61.9	1200	↻	10	8	1,020	2.24	40x250
CDE12LRA	114814132	↑	3÷12	26.5÷106.2	700	↻	10	8	1,020	2.24	40x250
CY9AM	116309039	↓	7÷18	61.9÷159.3	800	↺	10	8	1,500	3.30	46x315
CY11AM	116309037	↓	7÷24	61.9÷212.4	550	↺	10	8	1,500	3.30	46x315
CY9RAM-WP	116514109	↑	7÷16	61.9÷159.3	700	↻	10	8	1,670	3.67	46x345
CY11RAM-WP	116514911	↑	7÷24	61.9÷212.4	450	↻	10	8	1,670	3.67	46x345
CG25LRA-Q3/8	114807203	↑	12÷25	106.2÷221.2	600	↻	10	10	2,200	4.84	40X340
CG40LRA-Q3/8	114809907	↑	18÷40	159.3÷354	400	↻	10	10	2,300	5.06	40X341
CG100LRA-Q1/2	114807586	↑	20÷103	177÷911.5	150	↻	16	10	4	8.8	60x422

Air inlet: 1/4" | Accessories drive: ◊ F 1/4", ◻ M 3/8" per CG..., ◻ M 1/2" per CG100...

* Models that can be used for pick-and-place tightening systems, see page 34

For more information about the features of the various ranges of screwdrivers, refer to the online catalogue:

[15C screwdrivers](#)

[26C screwdrivers](#)

[CDE screwdrivers](#)

[CY screwdrivers](#)

Accessories for ergonomically sound workplaces? You can find them here.



Air screwdriver with automatic shut off

PISTOL MODELS



- 0.4 ÷ 24 Nm
- Free speed: 150 ÷ 2,200 rpm
- Reversible models
- Push-button start
- 4 different types of grip

Accurate and reliable screwdrivers with torque control system featuring instant automatic air shut-off.

- Excellent torque repeatability on both hard and soft joints
- Quick chuck
- Clutch adjustment system: safe, practical and quick
- **Low-speed models:** suitable for assembling with critical joints made from delicate materials that are prone to deformation
- Different grips based on the operating layout
- Easy to handle, insulated, lightweight and compact



	MODEL	CODE	STARTING SYSTEM		TIGHTENING TORQUE ON SOFT JOINT	FREE SPEED	REVERSIBILITY	COMPRESSED AIR CONSUMPTION	HOSE BORE		WEIGHT	DIMENSIONS (mm)
				Nm	in lb	RPM		l/s	ø mm	Kg	lb	ØxLxH
PISTOLS MODELS	15C2AP	112514532	↺	0,6÷2,2	5.3÷19.5	2200	↻	6	5	0,70	1.540	37x209x157
	15C3AP	112514533	↺	0,4÷3,5	3.5÷31	1400	↻	6	5	0,72	1.584	37x209x157
	15C4AP	112514534	↺	0,4÷4,5	3.5÷39.8	950	↻	6	5	0,72	1.584	37x209x157
	15C5AP	112514535	↺	0,4÷5	3.5÷44.2	650	↻	6	5	0,72	1.584	37x209x157
	15C5AP250	112307250	↺	0,4÷5	3.5÷44.2	250	↻	6	5	0,78	1.72	37x221x157
	15C5AP150	112507063	↺	0,4÷5	3.5÷44.2	150	↻	6	5	0,78	1.72	37x221x157
	26C4AP	114814576	↺	0,4÷4	3.5÷35.4	2000	↻	7	8	0,87	1.76	38x190x155
	26C5AP	114814577	↺	0,4÷5	3.5÷44.2	1300	↻	7	8	0,87	1.76	38x190x155
	26C8AP	114814578	↺	3,5÷8	31÷70.8	1000	↻	7	8	0,97	1.98	38x210x155
	26C10AP	114814579	↺	3,5÷9,5	31÷84	800	↻	7	8	0,97	1.98	38x210x155
	26C12AP	114814580	↺	3,5÷12	31÷106.2	400	↻	7	8	0,97	1.98	38x210x155
	26C12AP250	114807599	↺	3,5÷12	31÷106.2	250	↻	7	8	1,06	2.16	38x224x155
	26C12AP150	114807312	↺	3,5÷12	31÷106.2	150	↻	7	8	1,06	2.16	38x224x155
	CDE5PRA	114814560	↺	3÷5	26.5÷44.2	2000	↻	9	8	1,10	2.42	38x225x155
	CDE7PRA	114814561	↺	3÷7	26.5÷61.9	1200	↻	9	8	1,10	2.42	38x225x155
	CDE12PRA	114814562	↺	3÷12	26.5÷106.2	700	↻	9	8	1,10	2.42	38x225x155
	CY9PRAM	116514609	↺	7÷16	61.9÷141.6	700	↻	10	8	1,75	3.85	46x265x175
	CY11PRAM	116514611	↺	7÷24	61.9÷212.4	450	↻	10	8	1,75	3.85	46x265x175
	CY9PRAM-WP	116509066	↺	7÷16	61.9÷141.6	700	↻	10	8	1,75	3.85	46x265x175
	CY11PRAM-WP	116509202	↺	7÷24	61.9÷212.4	450	↻	10	8	1,75	3.85	46x265x175
FORWARD PISTOL GRIP	15C2APA	112514522	↺	0,6÷2,2	3.5÷44.2	2200	↻	6	5	0,70	1.540	31x178x156
	15C3APA	112514523	↺	0,4÷3,5	5.3÷19.5	1400	↻	6	5	0,72	1.584	31x178x156
	15C4APA	112514524	↺	0,4÷4,5	3.5÷31	950	↻	6	5	0,72	1.584	31x178x156
	15C5APA	112514525	↺	0,4÷5	3.5÷39.8	650	↻	6	5	0,72	1.584	31x178x156
	15C5APA250	112509831	↺	0,4÷5	3.5÷39.8	250	↻	6	5	0,78	1.72	31x190x156
	15C5APA150	112509990	↺	0,4÷5	3.5÷39.8	150	↻	6	5	0,78	1.72	31x190x156
	26C4APA	114814586	↺	0,4÷4	3.5÷35.4	2000	↻	7	8	0,95	2.09	39x195x160
	26C5APA	114814587	↺	0,4÷5	3.5÷44.2	1300	↻	7	8	0,95	2.09	39x195x160
	26C8APA	114814588	↺	3,5÷8	31÷70.8	1000	↻	7	8	1,05	2.31	39x210x160
	26C10APA	114814589	↺	3,5÷9,5	31÷84.1	800	↻	7	8	1,05	2.31	39x210x160
	26C12APA	114814590	↺	3,5÷12	31÷106.2	400	↻	7	8	1,05	2.31	39x210x160
	26C12APA250	114807598	↺	3,5÷12	31÷106.2	250	↻	7	8	1,14	2.51	39x224x156
	26C12APA150	114807370	↺	3,5÷12	31÷106.2	150	↻	7	8	1,14	2.51	39x224x156
	CDE5PARA	114814570	↺	3÷5	26.5÷44.2	2000	↻	9	8	1,19	2.62	38x230x160
	CDE7PARA	114814571	↺	3÷7	26.5÷61.9	1200	↻	9	8	1,19	2.62	38x230x160
	CDE12PARA	114814572	↺	3÷12	26.5÷106.2	700	↻	9	8	1,19	2.62	38x230x160
UP GRIP PISTOL	26C4APU	114814584	↺	0,4÷4	3.54÷35.4	2000	↻	7	8	1,05	1.98	39x194x160
	26C5APU	114814585	↺	0,4÷5	3.5÷44.2	1300	↻	7	8	1,05	1.98	39x194x160
	26C8APU	114814581	↺	3,5÷8	31÷70.8	1000	↻	7	8	1,05	1.98	39x215x160
	26C10APU	114814582	↺	3,5÷9,5	31÷84.1	800	↻	7	8	1,05	1.98	39x215x160
	26C12APU	114814583	↺	3,5÷12	31÷106.2	400	↻	7	8	1,05	1.98	39x215x160

Air inlet: 1/4" | Accessory drive: ◻ F 1/4"

For more information about the features of the various ranges of screwdrivers, refer to the online catalogue:

[15C screwdrivers](#)

[26C screwdrivers](#)

[CDE screwdrivers](#)

[CY screwdrivers](#)

Accessories for ergonomically sound workplaces? You can find them here.



PISTOL MODEL WITH REVERSIBILITY NEXT TO THE START BUTTON

MODELL	CODE	STARTING SYSTEM	TIGHTENING TORQUE ON SOFT JOINT		FREE SPEED	REVERSIBILITY	COMPRESSED AIR CONSUMPTION	HOSE BORE	WEIGHT		DIMENSIONS (mm)
			Nm	in lb	RPM		l/s	ø mm	Kg	lb	øxLxH
15C2APA-2200-R	112514551		0,6÷2,2	5.3÷19.5	2200		6	5	0,75	1.65	37x186x155
15C3APA-1400-R	112514552		0,4÷3,5	3.5÷31	1400		6	5	0,77	1.69	37x186x155
15C4APA-950-R	112514553		0,4÷4,5	3.5÷39.8	950		6	5	0,77	1.69	37x186x155
15C5APA-650-R	112514554		0,4÷5	3.5÷44.2	650		6	5	0,77	1.69	37x186x155
15C5APA-250-R	112507064		0,4÷5	3.5÷44.2	250		6	5	0,82	1.80	37x198x155
15C5APA-150-R	112507065		0,4÷5	3.5÷44.2	150		6	5	0,82	1.80	37x198x155
26C4APA-2000-R	114814601		0,4÷ 4	3.5÷35.4	2000		7	8	0,93	2.05	37x207x155
26C5APA-1300-R	114814602		0,4÷5	3.5÷44.2	1300		7	8	0,93	2.05	37x207x155
26C8APA-1000-R	114814603		3,5÷8	31÷70.8	1000		7	8	1,06	2.33	37x234x155
26C10APA-800-R	114814609		3,5÷9,5	31÷84	800		7	8	1,06	2.33	37x234x155
26C12APA-400-R	114814610		3,5÷12	31÷106.2	400		7	8	1,06	2.33	37x234x155
26C12APA-250-R	114807601		3,5÷12	31÷106.2	250		7	8	1,15	2.53	37x248x155
26C12APA-150-R	114807602		3,5÷12	31÷106.2	150		7	8	1,15	2.53	37x248x155

Air inlet: 1/4" | Accessory drive:  F 1/4"

For more information about the features of the range of screwdrivers, refer to the online catalogue:

[15C screwdrivers](#)

[26C screwdrivers](#)



The reversibility switch can be positioned on the right or left of the start button

Accessories for ergonomically sound workplaces? You can find them here.



PISTOL MODELS WITH 3-POSITION AIR INLET

MODELL	CODE	STARTING SYSTEM	TIGHTENING TORQUE ON SOFT JOINT		FREE SPEED	REVERSIBILITY	COMPRESSED AIR CONSUMPTION	HOSE BORE	WEIGHT		DIMENSIONS (mm)
			Nm	in lb	RPM		l/s	ø mm	Kg	lb	ØxLxH
15C2APA3I	112514529		0,6÷2,2	5.3÷19.5	2200		6	5	0,76	1.67	37x190x155
15C3APA3I	112514528		0,4÷3,5	3.5÷31	1400		6	5	0,78	1.72	37x190x155
15C4APA3I	112514527		0,4÷4,5	3.5÷39.8	950		6	5	0,78	1.72	37x190x155
15C5APA3I	112514526		0,4÷5	3.5÷44.2	650		6	5	0,78	1.72	37x190x155
15C5APA-250-3I	112507066		0,4÷5	3.5÷44.2	250		6	5	0,83	1.83	37x121x155
15C5APA-150-3I	112507067		0,4÷5	3.5÷44.2	150		6	5	0,83	1.83	37x121x155
26C4APA3I	114814595		0,4÷ 4	3.5÷35.4	2000		7	8	0,94	2.07	37x212x155
26C5APA3I	114814594		0,4÷5	3.5÷44.2	1300		7	8	0,94	2.07	37x212x155
26C8APA3I	114814593		3,5÷8	31÷70.8	1000		7	8	1,07	2.35	37x233x155
26C10APA3I	114814592		3,5÷9,5	31÷84	800		7	8	1,07	2.35	37x233x155
26C12APA3I	114814591		3,5÷12	31÷106.2	400		7	8	1,07	2.35	37x233x155
26C12APA-250-3I	114807603		3,5÷12	31÷106.2	250		7	8	1,16	2.56	37x247x155
26C12APA-150-3I	114807604		3,5÷12	31÷106.2	150		7	8	1,16	2.56	37x247x155

Air inlet: 1/4" | Accessory drive:  F 1/4"

For more information about the features of the range of screwdrivers, refer to the online catalogue:

[15C and 26C screwdrivers with 3-position air inlet](#)



Accessories for ergonomically sound workplaces? You can find them here.



Air screwdriver with automatic shut off

ANGLE MODELS



- 0.8 ÷ 60 Nm
- Free speed: 150 ÷ 2,000 rpm
- Reversible models
- Lever start
- Angle heads: 30° and 90°
- AF open-end flat-head models for hex nuts ranging from 8 to 22 mm in diameter

Ideal for tightening of all kinds, including high-torque and heavy-duty operations. The rugged heads are designed to tighten accurately and reliably even in tight and hard-to-reach spaces.

AF models tighten NUTS inside pipes/conduits and have a range of different output gear types.

- Excellent torque repeatability on both hard and soft joints
- Quick chuck
- Clutch adjustment system: safe, practical and quick
- Low-speed models: suitable for assembling with critical joints made from delicate materials that are prone to deformation
- Different heads based on the operating layout



AF Models:

- Blind or through output gears, which are also useful for untightening, rotating the tool 180°
- Custom output gears (extended or different geometries)
- Start lever: controls both tightening and realignment of the output gear

ANGLE MODELS

MODELL	CODE	STARTING SYSTEM	TIGHTENING TORQUE ON SOFT JOINT		FREE SPEED	REVERSIBILITY	COMPRESSED AIR CONSUMPTION	HOSE BORE	WEIGHT		DIMENSIONS (mm)
			Nm	in lb	RPM		l/s	ø mm	Kg	lb	øxL
15C2A30	112533942	30° 	0,8÷2	7.1÷17.7	2000		4	5	0,70	1.54	32x270
15C3A30	112533943	30° 	0,8÷3	7.1÷26.5	1400		5,5	5	0,70	1.54	32x270
15C4A30	112533944	30° 	0,8÷4	7.1÷35.4	950		5,5	5	0,70	1.54	32x270
15C5A30	112533945	30° 	0,8÷5	7.1÷44.2	650		5,5	5	0,70	1.54	32x270
15C2A90	112593942	90° 	0,8÷2	7.1÷17.7	2000		4	5	0,70	1.54	32x276
15C3A90	112593943	90° 	0,8÷3	7.1÷26.5	1400		5,5	5	0,70	1.54	32x276
15C4A90	112593944	90° 	0,8÷4	7.1÷35.4	950		5,5	5	0,70	1.54	32x276
15C5A90	112593945	90° 	0,8÷5	7.08÷44.25	650		5,5	5	0,70	1.54	32x276
15C5A90-250	112507027	90° 	0,8÷5	7.1÷44.2	250		5,5	5	0,76	1.67	32x288
15C5A90-150	112509924	90° 	0,8÷5	7.1÷44.2	150		5,5	5	0,76	1.67	32x288
AD6RA1	114893986	90° 	2,5÷6	22.1÷53.1	1150		10	8	1,200	2.64	40x304,5
AD9RA1	114893989	90° 	2,5÷9	22.1÷79.6	900		10	8	1,200	2.64	40x304,5
AD14RA1	114893994	90° 	3÷14	26.5÷123.9	600		10	8	1,400	3.08	40x334
AD26RA1	114893996	90° 	11,5÷26	101.8÷230.1	350		10	8	1,450	3.19	40x331
AG40RA	114893975	90° 	18÷40	159.3÷354	400		13	10	2,050	4.51	40x419
AG60RA	114893980	90° 	29÷60	256.6÷531	300		13	10	2,300	5.06	40x438
A6RSA1	114893924	FLAT 	3,5÷11,5	31÷101.8	600		9	8	1,700	3.74	40x415
A10RYA	116300012	FLAT 	12÷33	106.2÷292	250		9	8	2,750	6.05	46x520

Air inlet: 1/4" gas, 1/4" NPT (50C...)

Accessories drive:  M1/4" (15C...),  M 3/8" (AD..., AG 40...),  M 1/2" (AG60..., 50C...),  F 1/4" (A6RSA1),  F 14 mm (A10RYA)

WITH IN LINE TUBENUT OPEN HEAD

MODELL	CODE	STARTING SYSTEM	TIGHTENING TORQUE ON SOFT JOINT		FREE SPEED	REVERSIBILITY	COMPRESSED AIR CONSUMPTION	HOSE BORE	WEIGHT		DIMENSIONS (mm)
			Nm	in lb	RPM		l/s	ø mm	Kg	lb	øxL
26A8AF8B	114807330	FLAT 	3÷8	26.5÷70.8	500		9	 F 8	1,50	3.30	
40A17AF11B	114807160	FLAT 	7÷17	61.9÷150.4	300		9	 F11	1,90	4.10	
40A17AF12B	114899930	FLAT 	7÷17	61.9÷150.4	300		9	 F12	1,90	4.10	
40A17AF13B	114899931	FLAT 	7÷17	61.9÷150.4	300		9	 F13	1,90	4.10	
40A17AF14B	114807188	FLAT 	7÷17	61.9÷150.4	300		9	 F14	1,90	4.10	
40A17AF15B	114899932	FLAT 	7÷17	61.9÷150.4	300		9	 F15	1,90	4.10	
40A17AF15T	114807149	FLAT 	7÷17	61.9÷150.4	300		9	 F15	1,90	4.10	
40A17AF16B	114807179	FLAT 	7÷17	61.9÷150.4	300		9	 F16	1,90	4.10	
40A17AF17B 7,5	114807162	FLAT 	7÷17	61.9÷150.4	300		9	 F17	1,90	4.10	
40A20AF14B	114899934	FLAT 	7÷20	61.9÷177	240		10	 F14	1,90	4.10	
40A20AF15B	114899933	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	
40A20AF16B	114899935	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	
40A20AF19B 7,5	114807493	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	
40A20AF12B	upon request	FLAT 	7÷20	61.9÷177	240		10	 F12	1,90	4.10	
40A20AF13B	upon request	FLAT 	7÷20	61.9÷177	240		10	 F13	1,90	4.10	
40A20AF17B...	upon request	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	
40A20AF18B...	upon request	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	
40A20AF20B...	upon request	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	
40A20AF21B...	upon request	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	
40A20AF22B...	upon request	FLAT 	7÷20	61.9÷177	240		10	 F15	1,90	4.10	

40 = Screwdriver power (400 watt) • A = Angle screwdriver • 17 = Maximum torque expressed • A = Screwdriver with automatic air-shut off • F = Flat (flat head drive) • 12 = Hexagonal drive used • B/T = Type of end gear (Blind or Through) - (version T or B = 40A17AF12B or 40A17AF12T) • 7,5 = Extended hexagon size, the size can be from 7.5 mm to "n", depending on the need.

For more information about the features of the various ranges of screwdrivers, refer to the online catalogue:

[15C screwdrivers](#)

[AD, AG, AF screwdrivers](#)

Accessories for ergonomically sound workplaces? You can find them here.



Electric screwdrivers with mechanical clutch and automatic shut off

STRAIGHT, PISTOL AND ANGLE MODELS

oTensil
Fiam Electric Tightening Solutions



- 0.3 ÷ 4.5 Nm
- Free speed: 170 ÷ 2,000 rpm
- 4 types of start without changing mechanical setup
- Cutting-edge brushless technology: no pollution in production sites
- ESD certified

SMART solutions for reliable and highly versatile tightening. The clutch adjustment system is safe, practical and quick, while the ergonomic design makes it easier to work with.

- All models are designed to accommodate screw suction systems (pick-and-place tightening operations) (*)
- Extended warranty: 2 years or 1 million cycles
- Modular structure and low TCO.



POWER SUPPLY UNIT: TPU-1 / TPU-2

- Continuous monitoring of the tool and tightening process/cycle status
- Provide access to functions, programming and personalization of the operating cycle
- 2 rotational speeds LOW/HIGH, in both tightening and untightening mode

POWER SUPPLY AND MONITORING UNIT: TPU-M1

- Display of tightening results
- Exclusive “Smart Pro” programming built into the tool
- Parametrisable rotational and untightening speeds
- Screw counting
- Log
- 8 process control programs
- Interfacing with work station
- Program selection via I/O (remotely)
- Soft Start
- Acceleration ramp
- 4 tightening strategies

	MODEL	CODE	TIGHTENING TORQUE		range with TPU M1 RPM	Low-L / High-H with TPU1 and TPU2 RPM	FREE SPEED	STARTING SYSTEM	REVERSIBILITY	WEIGHT		DIMENSIONS (mm)
			Nm	in lb						Kg	lb	LxØ
STRAIGHT MODELS	E8C1A-1200	111712011	0,3 ÷ 1,6	2,6 ÷ 14.1	590 ÷ 1180	980 / 1180	4 types*	↺	↻	0,78	1.72	275x39
	E8C1A-900	111712012	0,3 ÷ 1,6	2,6 ÷ 14.1	435 ÷ 870	740 / 870	4 types*	↺	↻	0,78	1.72	275x39
	E8C1A-650	111712013	0,3 ÷ 1,6	2,6 ÷ 14.1	320 ÷ 640	530 / 640	4 types*	↺	↻	0,78	1.72	275x39
	E8C2A-2000	111712000	0,6 ÷ 2,5	5,3 ÷ 22.1	1000 ÷ 2000	1650 / 2000	4 types*	↺	↻	0,78	1.72	275x39
	E8C3A-1200	111712001	0,6 ÷ 3,0	5,3 ÷ 26.5	590 ÷ 1180	980 / 1180	4 types*	↺	↻	0,78	1.72	275x39
	E8C3A-900	111712002	0,6 ÷ 3,5	5,3 ÷ 31.0	435 ÷ 870	740 / 870	4 types*	↺	↻	0,78	1.72	275x39
	E8C4A-650	111712003	0,6 ÷ 4,0	5,3 ÷ 35.4	320 ÷ 640	530 / 640	4 types*	↺	↻	0,78	1.72	275x39
	E8C5A-350	111712004	0,6 ÷ 4,5	5,3 ÷ 39.8	170 ÷ 340	285 / 340	4 types*	↺	↻	0,78	1.72	275x39
MODELS WITH EXTERNAL CLUTCH ADJUSTMENT	E8C1ARE-1200	111712076	0,3 ÷ 1,6	2,6 ÷ 14.1	590 ÷ 1180	980 / 1180	1	↺	↻	0,84	1.85	275x39
	E8C1ARE-900	111712077	0,3 ÷ 1,6	2,6 ÷ 14.1	435 ÷ 870	740 / 870	1	↺	↻	0,84	1.85	275x39
	E8C1ARE-650	111712078	0,3 ÷ 1,6	2,6 ÷ 14.1	320 ÷ 640	530 / 640	1	↺	↻	0,84	1.85	275x39
	E8C2ARE-2000	111712070	0,6 ÷ 2,5	5,3 ÷ 22.1	1000 ÷ 2000	1650 / 2000	1	↺	↻	0,84	1.85	275x39
	E8C3ARE-1200	111712071	0,6 ÷ 3,0	5,3 ÷ 26.5	590 ÷ 1180	980 / 1180	1	↺	↻	0,84	1.85	275x39
	E8C3ARE-900	111712072	0,6 ÷ 3,5	5,3 ÷ 31.0	435 ÷ 870	740 / 870	1	↺	↻	0,84	1.85	275x39
	E8C4ARE-650	111712073	0,6 ÷ 4,0	5,3 ÷ 35.4	320 ÷ 640	530 / 640	1	↺	↻	0,84	1.85	275x39
	E8C5ARE-350	111712074	0,6 ÷ 4,5	5,3 ÷ 39.8	170 ÷ 340	285 / 340	1	↺	↻	0,84	1.85	275x39
90° ANGLE MODELS	E8C2A90-2000	111712030	0,6 ÷ 2,5	5,3 ÷ 22.1	1000 ÷ 2000	1650 / 2000	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C3A90-1200	111712031	0,6 ÷ 3,0	5,3 ÷ 26.5	590 ÷ 1180	980 / 1180	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C3A90-900	111712032	0,6 ÷ 3,5	5,3 ÷ 31.0	435 ÷ 870	740 / 870	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C4A90-650	111712033	0,6 ÷ 4,0	5,3 ÷ 35.4	320 ÷ 640	530 / 640	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C5A90-350	111712034	0,6 ÷ 4,5	5,3 ÷ 39.8	170 ÷ 340	285 / 340	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C2A90-2000-BITS	111712040	0,6 ÷ 2,5	5,3 ÷ 22.1	1000 ÷ 2000	1650 / 2000	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C3A90-1200-BITS	111712041	0,6 ÷ 3,0	5,3 ÷ 26.5	590 ÷ 1180	980 / 1180	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C3A90-900-BITS	111712042	0,6 ÷ 3,5	5,3 ÷ 31.0	435 ÷ 870	740 / 870	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C4A90-650-BITS	111712043	0,6 ÷ 4,0	5,3 ÷ 35.4	320 ÷ 640	530 / 640	↗ 90°	↺	↻	0,84	1.85	327x39
	E8C5A90-350-BITS	111712044	0,6 ÷ 4,5	5,3 ÷ 39.8	170 ÷ 340	285 / 340	↗ 90°	↺	↻	0,84	1.85	327x39
30° ANGLE MODELS	E8C2A30-2000	111712035	0,6 ÷ 2,5	5,3 ÷ 22.1	1000 ÷ 2000	1650 / 2000	↘ 30°	↺	↻	0,84	1.85	327x39
	E8C3A30-1200	111712036	0,6 ÷ 3,0	5,3 ÷ 26.5	590 ÷ 1180	980 / 1180	↘ 30°	↺	↻	0,84	1.85	327x39
	E8C3A30-900	111712037	0,6 ÷ 3,5	5,3 ÷ 31.0	435 ÷ 870	740 / 870	↘ 30°	↺	↻	0,84	1.85	327x39
	E8C4A30-650	111712038	0,6 ÷ 4,0	5,3 ÷ 35.4	320 ÷ 640	530 / 640	↘ 30°	↺	↻	0,84	1.85	327x39
	E8C5A30-350	111712039	0,6 ÷ 4,5	5,3 ÷ 39.8	170 ÷ 340	285 / 340	↘ 30°	↺	↻	0,84	1.85	327x39

Comes complete with cable for connection to power supply unit (code 686903834).

DC power supply: 32 volts | Accessories drive: ☐ F ¼" (straight models); ☐ M (angle models).

BITS = female hexagonal output drive for inserting tools

For more information about the features of the eTensil range, refer to the online catalogue: [Electric screwdrivers eTensil with mechanical clutches](#)



Pistol grip

code 681041029

To convert straight screwdrivers into pistol models.

Also with connecting cable with 90° angled fitting (code 686903841)

Accessories for ergonomically sound workplaces? You can find them here.



Power supply unit

Green LED: comes on when the motor is stopped due to clutch being triggered

Red LED: stalled motor. Comes on when start mode is on

Red LED: external stop. (for TPU-2 model only) Tool not enabled

Status LED (system on/off)

On light button

Power cord socket



TPU-1 / TPU-2



S1 - Enabled on TPU2 model, indicates emergency warning light triggered by external signal

S2 - Signals that the tool is ready to use

S3 - Signals that the tool is running (run)

Button to select the speed (low/high) of the tool

Port for connecting the supply cable to the tool

I/O connector found on TPU2 model. Features the following signals:

- Inputs
- 1 - L/H speed
 - 2 - Stop motor
 - 3 - Reverse
 - 4 - Emergency
 - 5 - Start
- Outputs
- 1 - Ready
 - 2 - Stalled motor
 - 3 - Run
 - 4 - Reverse
 - 5 - Clutch engaged

MODEL	CODE	SPEED	NR. OF CONNECT. TOOLS	TOOL SUPPLY VOLTAGE	FEED INPUT	I/O	VISUAL INDICATORS	WEIGHT		DIMENSIONS (mm)
								Kg	lb	LxLxH
TPU-1	686200100	LOW/HIGH slow/fast	1	32 VDC	230 Vac $\pm 10\%$ 50-60 Hz	-	6 LED	0,6	1.32	185 x150x63
TPU-1- 120V	686200102	LOW/HIGH slow/fast	1	32 VDC	120 Vac $\pm 10\%$ 50-60 Hz	-	6 LED	0,6	1.32	185 x150x63
TPU-2	686200101	LOW/HIGH slow/fast	1	32 VDC	230 Vac $\pm 10\%$ 50-60 Hz	5 inputs/ 5 outputs	6 LED	0,6	1.32	185 x150x63
TPU-2- 120V	686200103	LOW/HIGH slow/fast	1	32 VDC	120 Vac $\pm 10\%$ 50-60 Hz	5 inputs / 5 outputs	6 LED	0,6	1.32	185 x150x63

Accessories

LED Indicator for TPU-2 power supply

code 686990034

Featuring three LED lights, to be connected to units with the 1.5m-long cable provided. Its indicator lights provide an immediate visual update on tightening process status. Can be fastened to the workbench.

Fixing plate

code 692080000

Fixing plate for fastening the TPU power supply unit on any surface. It is supplied complete with screws, and can be anchored vertically or on a horizontal support.

The TPU-2 power supply unit can be used in conjunction with the TOM monitoring unit to monitor the process and control the tightening sequences. There is also the option of connecting up to 8 screwdrivers using the additional Multi-connector accessory. Multi-dock Connector accessory (code 685001066).

Connection cable for TPU-2/TOM. Code 685001093

Monitoring unit

4 TIGHTENING STRATEGIES

- Torque control by mechanical clutch
- Torque control by mechanical clutch with tightening time monitoring
- Time control (Stop-by-time tightening)
- Angle control and tightening time monitoring

MANAGEMENT OF TIGHTENING SITUATIONS WITH CRITICAL JOINTS

Poka Yoke System to manage flexible gaskets, or components made of rubber or other materials: **it is possible to verify that such gaskets are in place during tightening process.**



TPU-M1



LED LIGHTS

Immediate visual update on process status.

Red LED = Nok

Yellow LED = End of cycle

Green LED = Cycle progress (tightened screws) based on number of screws set

8 MONITORING PROGRAMS

The programs can be managed remotely in single mode or with binary combination.

Also, with each program, there can set both the number of screws to tighten and the timeframe window to conclude the tightening cycle.

PRE-AUTO UNTIGHTENING

It is possible to set the **untightening angle and pause time between untightening and the subsequent tightening.**

POST-AUTO UNTIGHTENING

The **untightening angle** is adjustable as well as the time pause of left rotation start after the tightening end.

STOP-BY-TIME TIGHTENING

When it is necessary to **tighten in depth and not to defined torque**, by controlling the cycle with set tightening time.

- 8 programs for tightening process control
- 1 programmable sequence up to a maximum of 8 steps
- Automatic tool recognition and configuration
- Screw counter - Poka Yoke system
- OK/ NOK: display of tightening results
- Min/Max tightening time control - Poka Yoke system
- Parametrisable untightening speed
- Password: with 2 levels of protection — for saving set parameters or locking down the system
- Serial communication (RS232)
- Language selection (IT, EN, DE, FR, ES)
- Log of last 99 tightenings
- Interfacing with working stations
- 8 + 8 programmable I/O (21 + 22 signal types)
- Program selection via I/O (remotely)
- Min/Max tightening angle control - Poka Yoke system

SMART PRO EVO PROGRAMMING

- 4 start modes can be selected via the unit
- Soft Start - Acceleration ramp
- Parametrisable rotation speed
- Pre-Auto untightening (can be activated with all tightening strategies)
- Post-Auto untightening (can be activated with all tightening strategies)

AVAILABLE TIGHTENING STRATEGIES

- Torque control by mechanical clutch
- Torque control with mechanical clutch and tightening time monitoring
- Angle control and tightening time monitoring

MODEL	CODE	SPEED	NR. OF CONNECT. TOOLS	TOOL SUPPLY VOLTAGE	FEED INPUT	I/O	VISUAL INDICATORS	WEIGHT		DIMENSIONS (mm)
								Kg	lb	LxLxH
TPU-M1	686200109	Adjustable Min-/Max.	1	32 VDC	230 Vac $\pm 10\%$ 50-60 Hz	8 inputs 8 outputs	7 LED	0,8	1.76	185x150x105
TPU-M1 120V	686200110	LOW/HIGH slow/fast	1	32 VDC	120 Vac $\pm 10\%$ 50-60 Hz	8 inputs 8 outputs	7 LED	0,8	1.76	185x150x105

Accessories

LED Indicator

code 686990039

With three LED lights and 1.5m-long connection cable. Provides an immediate visual update on tightening process status.

Tower-light with audible buzzer

code 686990040

Featuring three lights and audible device. To be connected to the TPU-M1 unit with the 3m-long cable provided. Its indicator lights and audible alarms provide an immediate visual update on tightening process status.

Socket and Program Selector

code 687010055

Multiple connector for I/O

code 692079193

Kit Fiam HyperTerminal

code 686200913

Designed to connect all Personal Computers, and hence network systems, with Fiam units featuring.

Fixing plate

code 692080000

Electric screwdrivers with torque/angle current control

STRAIGHT, PISTOL AND ANGLE MODELS

oTensil

Flam Electric Tightening Solutions



- Adjustable torque range: $0.3 \div 8 \text{ Nm}$
- Adjustable Free speed: $170 \div 2,000 \text{ rpm}$
- 4 types of start without changing mechanical setup
- Cutting-edge brushless technology: no pollution in production sites
- ESD certified

Versatile SMART tightening systems that **can adjust the torque during the assembly steps** simply by varying the corresponding parameter on the coupled power supply and control unit. **The torque is obtained by measuring the current absorbed by the motor, while the angle is measured by dedicated integrated Hall-effect sensors.**

- Models designed to accommodate screw suction systems (pick-and-place tightening operations) (*)
- Extended warranty: 2 years or 1 million cycles
- Modular structure and low TCO.



TPU-C1 CONTROL UNIT

- Display of tightening results
- Immediate process control
- Screw counting
- 2 tightening strategies

TPU-C3 CONTROL UNIT

- Display of tightening results
- Immediate process control
- Screw counting
- Resolves critical assemblies
- 6 tightening strategies

	MODEL	CODE	TIGHTENING TORQUE		SPEED	STARTING SYSTEM	REVERSIBILITY	WEIGHT		DIMENSIONS (mm)
			Nm	in lb	RPM			Kg	lb	LxØ
STRAIGHT MODELS	E8CC2A-2000	111712100	0,3 ÷ 2,0	2.6 ÷ 17.7	300 ÷ 2000	4 types *	↺	0,76	1.68	275x39
	E8CC3A-1200	111712101	0,3 ÷ 3,0	2.6 ÷ 26.5	180 ÷ 1200	4 types *	↺	0,76	1.68	275x39
	E8CC4A-900	111712102	0,3 ÷ 4,0	2.6 ÷ 35.4	135 ÷ 900	4 types *	↺	0,76	1.68	275x39
	E8CC5A-650	111712103	0,3 ÷ 5,0	2.6 ÷ 44.2	100 ÷ 650	4 types *	↺	0,76	1.68	275x39
	E8CC7A-350	111712104	0,4 ÷ 7,0	3.5 ÷ 61.9	55 ÷ 350		↺	0,76	1.68	275x39
30° ANGLE MODELS	E8CC2A30-2000	111712135	0,3 ÷ 2,0	2.6 ÷ 17.7	300 ÷ 2000	↵ 30°	↺	0,76	1.68	327x39
	E8CC3A30-1200	111712136	0,3 ÷ 3,0	2.6 ÷ 26.5	180 ÷ 1200	↵ 30°	↺	0,76	1.68	327x39
	E8CC4A30-900	111712137	0,3 ÷ 4,0	2.6 ÷ 35.4	135 ÷ 900	↵ 30°	↺	0,76	1.68	327x39
	E8CC5A30-650	111712138	0,3 ÷ 4,5	2.6 ÷ 39.8	100 ÷ 650	↵ 30°	↺	0,76	1.68	327x39
90° ANGLE MODELS	E8CC2A90-2000	111712130	0,3 ÷ 2,0	2.6 ÷ 17.7	300 ÷ 2000	↵ 90°	↺	0,76	1.68	327x39
	E8CC3A90-1200	111712131	0,3 ÷ 3,0	2.6 ÷ 26.5	180 ÷ 1200	↵ 90°	↺	0,76	1.68	327x39
	E8CC4A90-900	111712132	0,3 ÷ 4,0	2.6 ÷ 35.4	135 ÷ 900	↵ 90°	↺	0,76	1.68	327x39
	E8CC5A90-650	111712133	0,3 ÷ 4,5	2.6 ÷ 39.8	100 ÷ 650	↵ 90°	↺	0,76	1.68	327x39
	E8CC8A90-250	111712134	0,5 ÷ 8,0	4.4 ÷ 70.8	40 ÷ 250	↵ 90°	↺	0,93	2.05	334x39
	E8CC2A90-2000-BITS	111712140	0,3 ÷ 2,0	2.6 ÷ 17.7	300 ÷ 2000	↵ 90°	↺	0,76	1.68	327x39
	E8CC3A90-1200-BITS	111712141	0,3 ÷ 3,0	2.6 ÷ 26.5	180 ÷ 1200	↵ 90°	↺	0,76	1.68	327x39
	E8CC4A90-900-BITS	111712142	0,3 ÷ 4,0	2.6 ÷ 35.4	135 ÷ 900	↵ 90°	↺	0,76	1.68	327x39
	E8CC5A90-650-BITS	111712143	0,3 ÷ 4,5	2.6 ÷ 39.8	100 ÷ 650	↵ 90°	↺	0,76	1.68	327x39

Comes complete with cable for connection to power supply unit (code 686903834).

DC power supply: 32 volts | Accessories drive: ☐ F 1/4" (straight models); ☐ M 1/4 (angle models), M 3/8 (E8CC8A90-250 model);

For more information about the features of the eTensil range, refer to the online catalogue:

[eTensil electric screwdrivers with torque/angle current control](#)



Pistol grip

code 681041029

To convert straight screwdrivers into pistol models.

Also with connecting cable with 90° angle fitting (code 686903841)

Accessories for ergonomically sound workplaces? You can find them here.



Control unit

TPU-C1 - Basic model

DISPLAY OF THE TIGHTENING RESULTS

- OK/NOK
- Torque value result can be given in Nm or other unit of measurement
- Tightening time result

TIGHTENING STRATEGIES

- Torque control
- Torque control with tightening time monitoring



TPU-C1



LED LIGHTS

Immediate visual update on process status.

Red LED = Nok

Yellow LED = End of cycle

Green LED = Cycle progress (tightened screws) based on number of screws set

SCREW COUNTING

Powerful Poka Yoke method, aided also by an immediate display of the sequence of screws tightened with the LED lights above the unit display.

“SMART THREAD” FUNCTION

For processing of selfthreading, self-tapping, self-drilling screws, or else where the **final torque value is lower than thread forming torque**.

SMART SPEED” FUNCTION

Useful for speeding up the production process.

It is possible to create a “two-phase” tightening strategy:

- The first with a highspeed screwdriver rotation until reaching the set angle
- The second with a pre-defined speed that allows to maintain the accuracy of the result.

- 1 program for tightening process control
- Automatic tool recognition and configuration
- Screw counter - Poka Yoke system
- OK/NOK and torque value result displayed in Nm or other unit of measurement
- “Smart Thread” Function
- “Smart Speed” Function
- Min/Max tightening time control - Poka Yoke system
- Parametrisable untightening speed
- Clockwise or Counterclockwise tightening
- Password: with 2 levels of protection - for saving set parameters or locking down the system
- Unit calibration
- Selecting unit of measurement options Nm/lb/in/kgf.cm
- Serial communication (RS232)
- Language selection (IT, EN, DE, FR, ES)
- Log of last 99 tightenings
- Interfacing with working stations.
- 8+8 freely programmable I/O (9+11 types of signals)

SMART PRO EVO PROGRAMMING

- 4 start-up modes can be selected via the unit
- Soft Start - Acceleration ramp
- Parametrisable rotation speed

MODEL	CODE	SPEED	NR. OF CONNECT. TOOLS	TOOL FEED TENSION	FEED INPUT	I/O	VISUAL INDICATORS	WEIGHT		DIMENSIONS (mm)
								Kg	lb	LxLxH
TPU-C1	686200105	Adjustable Min-/Max.	1	32 VDC	230 Vac $\pm 10\%$ 50-60 Hz	8 inputs / 8 outputs 9+11 signal types	7 LED DISPLAY	0,8	1.76	185x150x105
TPU-C1-120V	686200106	Adjustable Min-/Max.	1	32 VDC	120 Vac $\pm 10\%$ 50-60 Hz	8 inputs / 8 outputs 9+11 signal types	7 LED DISPLAY	0,8	1.76	185x150x105

Accessories

LED Indicator

code 686990039

With three LED lights and 1.5m-long connection cable. Provides an immediate visual update on tightening process status.

Tower-light with audible buzzer

code 686990040

Featuring three lights and audible device. To be connected to the TPU-M1 unit with the 3m-long cable provided. Its indicator lights and audible alarms provide an immediate visual update on tightening process status.

Kit Fiam HyperTerminal

code 686200913

Designed to **connect all Personal Computers, and hence network systems**, with Fiam units featuring RS-232 serial ports.

Multiple connector for I/O

code 692079193

To be connected to 25-pin I/O ports on Fiam units. Makes I/O signals available on 3 connectors, hence allowing for the parallel connection of 3 devices. With cable for connection between unit and Multi-connector with relevant power supply unit.

Fixing plate

code 692080000

Control unit

TPU-C3 - Advanced model

DISPLAY OF THE TIGHTENING RESULT

- OK/NOK
- Torque value result can be given in Nm or other unit of measurement
- Tightening time result
- Angle value result



LED LIGHTS

Immediate visual update on process status.

Red LED = Nok

Yellow LED = End of cycle

Green LED = Cycle progress (tightened screws) based on number of screws set

TPU-C3



SOLVE TIGHTENING WITH CRITICAL JOINTS

A **Poka Yoke system** to manage assembly with elastic gaskets or components made of rubber or other materials: **to verify that gaskets are in place**

TIGHTENING STRATEGIES

- Torque control
- Torque control with tightening time monitoring
- Torque control with tightening angle monitoring
- Torque control with tightening time and angle monitoring
- Tightening angle control and torque monitoring
- Time-based control and torque monitoring (Timed tightening)

PRE-AUTO UNTIGHTENING

It is possible to set the **untightening angle and pause time between untightening and the subsequent tightening.**

POST-AUTO UNTIGHTENING

The **untightening angle** is adjustable as well as the **time pause** of left rotation start after the tightening end.

STOP-BY-TIME TIGHTENING

When it is **necessary to tighten in depth and not to defined torque**, by controlling the cycle with set tightening time.

- 8 programs to control the tightening process

- 1 programmable sequence up to a max of 8 steps

- Automatic tool recognition and configuration

- Screw counter - Poka Yoke system

- OK/NOK and torque value result displayed in Nm or other unit of measurement

- "Smart Thread" Function

- "Smart Speed" Function

- Min/Max tightening time control - Poka Yoke system

- Parametrisable untightening speed

- Clockwise or Counterclockwise tightening

- Password with 2 levels of protection: for saving set parameters or locking down the system

- Unit calibration

- Selecting unit of measurement options Nm/lb/in/kgf.cm

- Serial communication (RS232)

- Language selection (IT, EN, DE, FR, ES)

- Log of last 99 tightenings

- Interfacing with working stations

- 8+8 freely programmable I/O (21+22 types of signals)

- Program selection via I/O (remotely)

- Min/Max tightening angle control - Poka Yoke system

SMART PRO EVO PROGRAMMING

- 4 start modes can be selected via the unit

- Soft Start - Acceleration ramp

- Parametrisable rotation speed

- Pre-Auto untightening (can be activated with all tightening strategies)

- Post-Auto untightening (can be activated with all tightening strategies)

MODEL	CODE	SPEED	NR. OF CONNECT. TOOLS	TOOL FEED TENSION	FEED INPUT	I/O	VISUAL INDICATORS	WEIGHT	DIMENSIONS (mm)
TPU-C3	686200107	Adjustable Min-/Max.	1	32 VDC	230 Vac $\pm 10\%$ 50-60 Hz	8 inputs / 8 outputs 21+22 signal types	7 LED DISPLAY	Kg lb	LxLxH
TPU-C3-120V	686200108	Adjustable Min-/Max.	1	32 VDC	120 Vac $\pm 10\%$ 50-60 Hz	8 inputs / 8 outputs 21+22 signal types	7 LED DISPLAY	0,8 1.76	185x150x105

Accessories

LED Indicator

code 686990039

With three LED lights and 1.5m-long connection cable. Provides an immediate visual update on tightening process status.

Tower-light with audible buzzer

code 686990040

Featuring three lights and audible device. To be connected to the TPU-M1 unit with the 3m-long cable provided. Its indicator lights and audible alarms provide an immediate visual update on tightening process status.

Socket and Program Selector

code 687010055

Kit Fiam HyperTerminal

code 686200913

Designed to **connect all Personal Computers, and hence network systems**, with Fiam units featuring RS-232 serial ports.

Multiple connector for I/O

code 692079193

To be connected to 25-pin I/O ports on Fiam units. Makes I/O signals available on 3 connectors, hence allowing for the parallel connection of 3 devices. With cable for connection between unit and Multi-connector with relevant power supply unit.

Fixing plate

code 692080000

Electric cordless screwdrivers with automatic shut off

PISTOL MODELS



- 0.8 ÷ 3 Nm
- Free speed: 200 ÷ 1,550 rpm
- Brushless technology
- Lithium-ion batteries

Practical solutions for tightening at points that are awkward to reach with electric cables or air hoses. Featuring automatic shutoff control system: the power supply cuts out as soon as the preset torque value is reached.

- Ergonomically designed **soft grip**
- **Reversing can be operated with buttons** located near the thumb on both the right and left of the tool. Also ideal for left-handed operators
- Lighting LEDs illuminate the working point
- **Adjustable audible and visual** signal to aid the operator
- **Timed foolproof start button** that prevents



repeat starts on screws that have already been tightened

- **Automatic return to tightening** mode after untightening (programmable function)
- Programmable tightening
- Programmable untightening
- Programmable speed

LEDs AND AUDIBLE WARNINGS



BLUE = LEFT-HAND ROTATION (untightening)



GREEN = CYCLE OK



RED +  LONG BEEP = CYCLE NOK



FLASHING YELLOW +  5 BEEPS = BATTERY RUNNING LOW



YELLOW +  LONG BEEP = BATTERY FLAT



MODEL	CODE	GRIP	TIGHTENING TORQUE ON SOFT JOINT		FREE SPEED RPM	STARTING SYSTEM	REVERSIBILITY	WEIGHT		DIMENSIONS (mm)	ACCESSORIES DRIVE
			Nm	in lb				Kg	lb		
20CBB3P-H1	119551011		0,8 ÷ 3	7÷27	500 - 1550			1	2.2	48Øx203Lx238H	⬡ F 1/4"
20CBB3P	119551012		0,8 ÷ 3	7÷27	200 - 500			1	2.2	48Øx203Lx238H	⬡ F 1/4"
20CBB6P	119551013		1,5 ÷ 6	13÷53	300 - 1000			1	2.2	48Øx203Lx238H	⬡ F 1/4"
20CBB9P	119551014		2 ÷ 9	18÷80	300 - 800			1	2.2	48Øx203Lx238H	⬡ F 1/4"
20CBB12P	119551015		2,5 ÷ 12	22÷106	250 - 800			1	2.2	48Øx203Lx238H	⬡ F 1/4"

DC power supply: 20 Volt

The screwdriver does NOT come with batteries (sold separately)

2.5 AH rechargeable lithium-ion battery - code **676011007**

5.0 AH rechargeable lithium-ion battery - code **676011008**

Battery charger - code **676011005**

**Accessories?
You can find
them here.**



Pick-and-place tightening systems

FOR MANUAL USE



- Customised screw suction heads
- Vacuum pumps
- Screw feeders for every need

These systems make assembly cycles extremely productive since they eliminate the manual screw pick-up and placement on the screwdriver bit: the operator will **just pick the screw up from**

the screw feeder selection channel with the screwdriver, leaving the other hand free to hold the workpiece in position for assembly. Cycle time reduction by over 24%. They can be used on all pneumatic and electric eTensil **straight screwdrivers** by fitting the tool with a **special head** connected to a vacuum pump, which allows the screw to be suctioned from the pick-up point of the connected screw feeder.



Screw suction head

Equipped with a nozzle customised by Fiam to suit the screws in question or the part to be assembled. Fiam will also assess the bits to determine the best solution for the screw type.

POSITION	TYPE	CODE
1	Nozzle	Standard or customized
2	Screw suction head supplied with a suction hose to be connected to the vacuum pump	682119050
3	Connection kit for screw suction head and eTensil screwdrivers	681041036
4	Bit	Standard or customized
5/6	Type of tool it can be paired with: electric eTensil or air tool marked with an * in the tables herein	



SSU



SSU-E

Vacuum pump

Designed and manufactured by Fiam, required for screw suction. Supplied with power cable. The SSU-E model is specifically designed for eTensil electric tightening systems:

detects when there is a screw on the suction head and switches on/off depending on actual use in order to optimize energy and noise levels. The LED device on the front indicates that the unit is operating during the suction stage.

	MODEL	POWER SUPPLY INPUT	CODE
	SSU - Vacuum pump	230Vac-50Hz	676000120
	SSU - Vacuum pump	120Vac-60Hz	676000132
	SSU-E - Vacuum pump	230Vac-50Hz	676000121
	SSU-E - Vacuum pump	120Vac-60Hz	676000133
	DB15/M connection cable - L.: 3 m • For connecting SSU-E to TPU 2		686990058
	DB25/M connection cable - L.: 3 m • For connecting SSU-E to: TPU-C1, TPU-C3, TPU-M1 or to the customer's PLC		686990059

Automatic screw presenter

NJ Models

- For magnetisable screws with **PHILLIPS** or **(POZIDRIV)** recesses
- For different screws (shank diameters from 2 to 5 mm and maximum shank length of 18 mm), by simply replacing the linear guides that are quick and easy to install.



MODEL	CODE	FOR SCREWS WITH SHANK Ø mm	RAIL MODEL	RAIL CODE
NJ23-R20	199923020	2	R/RR20	649021001
NJ23-R23	199923023	2,3	R/RR23	649021002
NJ23-R26	199923026	2,6	R/RR26	649021003
NJ23-R30	199923030	3	R/RR30	649021004
NJ45-R35	199923035	3,5	R/RR35	649021005
NJ45-R40	199923040	4	R/RR40	649021006
NJ45-R50	199923050	5	R/RR50	649021007



NJR Models

- **For screws made of any material, even non-magnetisable**
- For any screw/recess type, including those with Torx or hexagonal recesses
- They can be used with different screws (shank diameters from 2 to 5 mm and maximum shank length of 18 mm), by replacing the linear guides that are quick and easy to install.
- The **convenient pick-up point** has a screw detection sensor with a signal output cable. The built-in cable provides a signal (on/off) that indicates if there is a screw in the pick-up area.

MODEL	CODE	FOR SCREWS WITH SHANK Ø mm
NJR23-RR20	199923120	2
NJR23-RR23	199923123	2,3
NJR23-RR26	199923126	2,6
NJR23-RR30	199923130	3
NJR45-RR35	199923135	3,5
NJR45-RR40	199923140	4
NJR45-RR50	199923150	5

RAIL MODEL	RAIL CODE
RR20	649021101
RR23	649021102
RR26	649021103
RR30	649021104
RR35	649021105
RR40	649021106
RR50	649021107



OM models for manual and automatic Pick-and-Place with rotary screw selection system

- **For magnetisable steel screws only** from M2 to M6, with under-head lengths up to 25 mm
- **Convenient pick-up point on the rotary selector**, equipped with a screw detection sensor with a signal output cable. The built-in cable provides a signal (on/off) that indicates if there is a screw in the pick-up area.

MODEL	CODE	FOR SCREWS WITH SHANK Ø mm	RAIL MODEL	RAIL CODE
OM-26M20	*	2,0	OMM20SET	*
OM-26M23	199924023	2,3	OMM23SET	649021042
OM-26M26	*	2,6	OMM26SET	*
OM-26M30	199924030	3,0	OMM30SET	649021044
OM-26M35	199924035	3,5	OMM35SET	649021045
OM-26M40	*	4,0	OMM40SET	*
OM-26M50	199924050	5,0	OMM50SET	649021047
OM-26M60	199924060	6,0	OMM60SET	649021048

* on request



Measuring and testing instruments

TORQUE READERS



- For tools with a torque range of 0.15 to 30 Nm
- Built-in static transducer
- Accuracy: $\pm 1\%$
- ESD certified
- Measuring modes:
 - Track (track or continuous)
 - Dial (peak torque)
 - Click (for click torque wrenches)

Digital instruments for testing and calibrating air and electric screwdrivers. They read, display and transfer the data measured by the built-in static transducer through the built-in Micro USB 2.0 port, which is also used for supplying power.

Comes with user-friendly **software** with **15 test programs** for setting:

torque value, tolerance, unit of measurement, reading mode. The software can be upgraded remotely and can be downloaded from Fiam's Reserved Area.

Interconnectivity and data analysis

The built-in Micro USB 2.0 port also offers simultaneous transfer of measured data to a PC using the **Data Collection Software** (that can be downloaded free of charge from the **Fiam Reserved Area**). The data can then be analysed identify precision KPIs (e.g. statistical analysis of range calculation, Cm, CmK, etc.).

CODE	MODEL	TORQUE RANGE		TRANSDUCER CONNECTION TYPE	MAX CAPACITY		TRANSDUCER AXIS
		Nm	in lb		Nm	in lb	
686002000	TT 3 torque readers	0,15 ÷ 3	0,15 ÷ 26.5	⬡ M1/4"	3,6	31.8	Vertical
686002001	TT 10 torque readers	0,5 ÷ 10	4.45 ÷ 88.5	⬡ M1/4"	12	106.2	Vertical
686002002	TT 33 torque readers	1,5 ÷ 30	13.27 ÷ 265.5	⬡ 10 mm	36	318.6	Horizontal

Standard equipment:

- Operation and maintenance manual
- Carrying case
- USB cable
- Joint simulator
- Connection cable and adapter with universal plug
- Key/Adapter: TT 3 model with adapter: 1/4" ⬡ F to 1/4" F □
TT 10 model with adapter: 1/4" ⬡ F to 1/4" F □
TT 30 model with adapter: 10 mm ⬡ F to 3/8" F □
- Calibration document not accredited by a certified body

Accessories available on request:

- **Calibration certificate issued by an accredited body:**
to be requested in the purchase order or by sending the reader to Fiam after purchase.



Sign up to the Fiam Reserved Area.

You can download the following free of charge:

- Data Collection Software to read the data from the reader on your PC and produce calibration documents (or certificates if the reader is purchased with CERTIFIED CALIBRATION)
- The driver to read the reader from the PC (for PCs with Windows 7)
- Any updates for the software integrated in the reader

Write to info@fiamgroup.com stating the model and serial number of the tool purchased to request the access credentials to the Reserved Area.



Measuring and testing instruments

TORQUE AND TORQUE/ANGLE READERS DYNAMIC ROTARY TRANSDUCERS



- For tools (including hydraulic pulse tools) with torque ranging from 2 to 500 Nm
- Colour TOUCH SCREEN interface, also displays torque and angle curves
- Reading mode: Track (track or continuous) - Dial (peak torque)
- Available strategies: Torque control, torque control and angle monitoring, angle control and torque monitoring



Easy Touch is designed to analyse the characteristics of air and electric screwdrivers, as well as torque wrenches, directly on production lines with the in-process mode, namely during the tightening process, by pairing it with the relevant dynamic rotary transducer.

With in-process mode, the quality of assembly can be checked more accurately and reliably since:

- it is operator independent (the torque transducer is located between the screwdriver

and joint, while the operator works just the screwdriver)

- results are not affected by joint relaxation as the torque measured is exactly the torque applied by the screwdriver

The reader automatically recognizes the transducers it is paired with, has a log with 20,000 results, 20,000 records, 1,000 settable programs, and comes with a USB cable for downloading data and the tightening curves. Compatible for reading all analogue transducers (mV/V).

CODE	MODEL
686000542	Easy Touch torque and torque/angle reader

Standard equipment:

- Use and maintenance manual
- Neck strap for carrying
- 3.6V lithium-ion rechargeable battery
- Cable for connection to PC (2 m long)

Torque dynamic rotary transducer

CODE	MODEL	TORQUE CAPACITY	DRIVE	EXIT
		Nm	in lb	
686000518	RMC 2 Dynamic rotary transducer	2	17.7	○ M1/4" ○ F 1/4"
686000519	RMC 5 Dynamic rotary transducer	5	44.2	○ M1/4" ○ F 1/4"
686000520	RMC 10 Dynamic rotary transducer	10	88.5	○ M1/4" ○ F 1/4"
686000522	RMC 20 Dynamic rotary transducer	20	177	○ M1/4" ○ F 1/4"
686000523	RMC 25 Dynamic rotary transducer	25	221.2	□ F3/8" □ M3/8"
686000524	RMC 75 Dynamic rotary transducer	75	663.8	□ F3/8" □ M3/8"
686000525	RMC 180 Dynamic rotary transducer	180	1593.1	□ F1/2" □ M1/2"
686000526	RMC 250 Dynamic rotary transducer	250	2212.6	□ F3/4" □ M3/4"
686000527	RMC 500 Dynamic rotary transducer	500	4425.3	□ F3/4" □ M3/4"

Torque/angle dynamic rotary transducers

686000528	RMC TA 2 Dynamic rotary transducer	2	17.7	○ M1/4" ○ F 1/4"
686000529	RMC TA 5 Dynamic rotary transducer	5	44.2	○ M1/4" ○ F 1/4"
686000530	RMC TA 10 Dynamic rotary transducer	10	88.5	○ M1/4" ○ F 1/4"
686000532	RMC TA 20 Dynamic rotary transducer	20	177	○ M1/4" ○ F 1/4"
686000533	RMC TA 25 Dynamic rotary transducer	25	221.2	□ F3/8" □ M3/8"
686000534	RMC TA 75 Dynamic rotary transducer	75	663.8	□ F3/8" □ M3/8"
686000535	RMC TA 180 Dynamic rotary transducer	180	1593.1	□ F1/2" □ M1/2"
686000536	RMC TA 250 Dynamic rotary transducer	250	2212.6	□ F3/4" □ M3/4"
686000537	RMC TA 500 Dynamic rotary transducer	500	4425.3	□ F3/4" □ M3/4"

Torque measurement accuracy: +/- 0.5% of detected value

Torque range: 10% - 100%

Angle measurement accuracy: +/- 1° over 360°

Standard equipment:

- Use and maintenance manual
- Accredia Calibration Certificate (clockwise)

Cables

CODE	MODEL	LENGTH
		mt
686000538	RMC 1.5 Cable for dynamic rotary Transducer	1,5
686000539	RMC 3 Cable for dynamic rotary Transducer	3
686000540	RMC TA 1.5 Cable for dynamic rotary Transducer	1,5
686000541	RMC TA 3 Cable for dynamic rotary Transducer	3



For more information about the features of the range refer to the online catalogue: [Torque readers](#)



Find out how to improve your tightening processes:

- Basic tightening principles
- The poka yoka devices
- Tightening torque accuracy indicators
- Workplace ergonomics
- The adequate design for the automation of the assembly

click here to request the Fiam eBooks!

Fiam Headquarter



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