Air drills and tappers

Air tappers

- **Tapping capacity:** from Ø 6 to 18 mm (on mild steel)
- **For stud bolts and inserts**
- **Type of grip:** straight and pistol models

1949 1999 50

Fiam
INDUSTRIAL AIR TOOLS

Choosing the right air tapper

Fiam air tappers

Air tappers are the best solution for manual machine tapping, being fast to use and easy to handle, even when high quality standards are required.
Fiam tappers **combine an excellent power to weight ratio** with tremendous ease of handling and versatility, making them the perfect answer to every work situation.
Fiam's range offers a choice of tappers all of which are reversible and available with straight or pistol grip.

Choosing the right tapper

The main technical parameters to consider **are the diameter of the tap being used and the material on which one is working**. The table on the left shows the maximum capacities of the different Fiam models available in relation to the material concerned. According to the different work situations one can choose one of the solutions described below.

MODEL	MATERIAL BEING TAPPED		
	Compound steel	Cast iron and mild steel	Alluminium - Bronze - Brass
	Ø max thread mm	Ø max thread mm	Ø max thread mm
MAS6...	4	6	10
MAS8...	6	8	12
MAY10...	8	10	13
MAY12...	10	12	14
MAO16...	-	16	20
MAO18...	-	18	22

Tappers with chuck for tap holder

● **Models: MAS..., MASE...P, MAY..., MAY...P, MAO...P**
These tappers are fitted with a quick-change chuck which makes it easy to change tap holders. Every tap size required should be used with the corresponding tap holder, keeping in mind the size of the shank of the tap and the square drive (see page 8). The taps allowing a limited clearance between tap and chuck, support manual applications where the operator considers it wise that the tap is self-centered on the hole to be tapped.

Tappers with chuck for high-precision tap holder

● **Models: MAS...B, MASE...PB, MAY...B, MAY...PB**
These tappers are also fitted with quick-change chuck which makes it easy to change the holder.
Each tap size required should be used with the corresponding high-precision tap holders, keeping in mind the size of the shank of the tap and the square drive (see page 8). At the same time the high-precision tap holders are fitted with a chuck for quick replacement of tap in case of breakage and wear. The high-precision tap holders used in these tappers assure that the tap turns perfectly centered in relation to the tool: a solution which should therefore be chosen when very high tapping quality is required and when the tapper is mounted in a tapping machine or pantograph arms.
When tapping dead holes it is advisable to use a **tapper with a high-precision tap-holder** and integral clutch. When the tap reaches the bottom of the dead hole the clutch slips, stopping the tap from rotating and thereby avoiding breakages.
The automatic reverse system also makes it possible to extract the tap without difficulty.

Tappers with high-precision ch

● **Models: MAS...J, MASE...PJ, MA**
The high-precision chuck, con… the operator to work with different tap… using the tap-locking plate scr…
Therefore … as in the above versions. T… pping machines due to the high… higher quality in the tapping oper… ming tapping operations of different dian… ange often the dimensions of the chuck. Finally, it shou… ed that only with tappers with high-precision chuck one can … thout problems taps which with the same thread have different diamet… or shank and square drive.

OUT OF PRODUCTION!

Type of grip

As a rule, it is advisable to use straight grip tappers for vertical tapping operations and pistol grip tappers when working horizontal position.
Pistol grip is always advisable when one is tapping holes of above 6-8 mm, since they are better suited to contrast the torque reaction on the hand; in these situations it is advisable to use the auxiliary side grip or balancing arm.
In order to contrast any eventual torque reaction on the operator's wrist, Fiam has equipped **all the straight and pistol tappers with an auxiliary grip** (standard prEN792 1-12). MAO... tappers are fitted with twin grips, given that they are mainly used for more heavy operations.

Idle speed

From 140 to 1700 r.p.m.

Reversibility

All MAS and MAY models incorporate are equipped with a convenient device of automatic reversing of the direction of rotation at the end of the cycle.
To extract the tap from the hole one needs simply to pull on the tool, which will then automatically invert the direction of rotation and simultaneously double its speed.
MAO tappers are reversed by operating the special control lever.

Starting system

Fiam tappers are started using the related lever (straight models) or pushbutton (pistol models) and can be started at slow speed to facilitate initial insertion of the tap in the workpiece.

Ergonomic factors

Ergonomic factors play an important role in operator comfort and safety as well as in improving the working environment; these are the conditions necessary to reduce production stops and the number of rejects, and also to improve finished product quality.
Fiam tappers have efficacious silencing systems of the noise caused by the exhaust air and meet the international standards in force.
Besides they are designed keeping into consideration all the factors which give the best comfort to the operator.

Special tappers

In case of particular situations of manual tapping and tapping machines applications, Fiam designs and manufactures special tappers with control top for remote control, with clutch for dead holes, with smooth or flanged body, in a very wide range of speeds.
Consult the **Fiam Technical Assistance Service** to find the best solution.

MAS... and MAY... straight air tappers

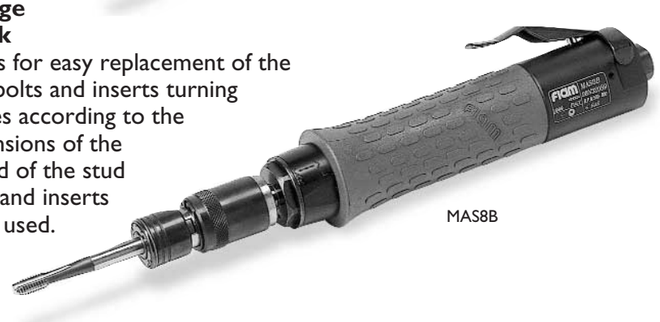
Quick and efficient tapping operations

Fiam tappers MAS... and MAY... offer speed and efficiency in manual tapping for diameters of 6-12 mm (on steel, see table on page 2).
Three versions are available: tappers with tap-holder chuck, with high-precision tap-holder chuck (identity code ...B), or with high-precision chuck (identity code ...J).
These air tappers are provided with **an easy to use automatic inversion device with increased reverse speed** for rapid extraction of the tap.
Another significant **advantage** is the possibility of **starting at a low number of revolutions,** making it easier to insert the tap into its appropriate hole.
MAS... and MAY... tappers are also ideal when **threaded inserts or stud bolts are used in assembly** (for example in the furniture industry or the automotive sector generally).
Insertion of the stud bolts or threaded inserts is effortless and quick, with a considerable reduction of assembly times.
The **quick-change chuck** allows for easy replacement of the stud bolts and inserts turning bushes according to the dimensions of the thread of the stud bolts and inserts to be used.


MAS8

MAY10J


MAY10B


MAS8B

Type of grip:
straight models

Idle speed:
forward: from 220 to 1000 r.p.m.
back: from 470 to 1700 r.p.m.

Starting system:
lever + push

Reversibility:
for all models

Fiam tappers are designed for use with either lubricated or unlubricated compressed air.

MAS8J

MAY10

TYPE OF TAPPER		GRIP	TAP CAPACITY	IDLE SPEED r.p.m.		STARTING SYSTEM	REVERSIBILITY	WEIGHT	DIMENSIONS (mm)	COMPRESSED AIR CONSUMPTION	NOISE LEVEL	VIBRATIONS LEVEL
Model	**Code**	**Type**	**Ø mm**	**Forward**	**Back**	**Type**	**Type**	**kg**	**Ø x l**	**l/s**	**dBA**	**m/sec²**
MAS6	134610106		6	1000	1700			0,980	40x240	9	74	< 2,5
MAS6B	134612106		6	1000	1700			0,980	40x240	9	74	< 2,5
OUT OF PRODUCTION → MAS6J	134613106		6	1000	1700			0,980	40x240	9	74	< 2,5
MAS8	134610108		8	500	800			0,980	40x240	9	74	< 2,5
MAS8B	134612108		8	500	800			0,980	40x240	9	74	< 2,5
OUT OF PRODUCTION → MAS8J	134613108		8	500	800			0,980	40x240	9	74	< 2,5
MAY10	136309028		10	450	930			1,820	46x335	11	78	< 2,5
MAY10B	136309026		10	450	930			1,870	46x330	11	78	< 2,5
OUT OF PRODUCTION → MAY10J	136313110		10	450	930			1,680	46x340	11	78	< 2,5
MAY12	136309016		12	220	470			1,820	46x335	11	78	< 2,5
MAY12B	136309031		12	220	470			1,870	46x330	11	78	< 2,5
OUT OF PRODUCTION → MAY12J	136313112		12	220	470			1,680	46x340	11	78	< 2,5

- MAS..., MAY... = models with chuck for tap holder.
- MAS...B, MAY...B = models with chuck for high-precision tap holder.
- MAS...J, MAY...J = models with high-precision chuck.

To choose the right tapper see p. 2.

REVERSIBILITY:
All models can invert rotation simply by pulling on the tool.

STARTING SYSTEM
LEVER + PUSH

The models highlighted in black are usually available from stock.

- The capacity indicated in the chart is referred to the maximum diameter of threading on steel (for other materials see chart on page 2).
- The figures shown are measured at a pressure of 6,3 bar (ISO 2787), the recommended operating pressure.
- Noise level has been measured in accordance with ISO 3744 and ISO/DIS-prEN ISO 15744.
- Vibrations level has been measured in accordance with ISO 8662 standard.
- The code number must be used when ordering.

The data given in the table are indicative and can be changed without prior notice. The values indicated for noise levels were obtained in the laboratory, performing tests that comply with the standards stated, but alone are not sufficient for calculating risks. Values measured in the single work places may be higher than those stated. The values of actual exposure and consequent risks are specific and depend on the operator's method of work, the type of work piece and the work place, as well as the operator's time of exposure and his physical conditions.
Fiam cannot be held responsible for any consequences deriving from the use of the information in the table when evaluating risks in the work place over which Fiam has no control. For all further details, please apply to the **Fiam Technical Assistance Service**.

Other technical features

Models	Air inlet	Recommended hose bore
MAS...	1/4" gas	Ø 8 mm
MAY...	1/4" gas	Ø 8 mm

Standard equipment (supplied with the tool)
- For MAS...: chuck code 659411001, drive J1.
- For MAS...B: chuck code 659411002, drive J1.
- For MAS...J: chuck code 659411004, drive J1.
- For MAY...: chuck code 659611001, drive J2.
- For MAY...B: chuck code 659511002, drive J2.
- For MAY...J: chuck code 659519003, drive J2.
- Hanging ring.
- Auxiliary grip (standard prEN792-1-12).
- Eco-friendly packaging. • Use and maintenance manual.

Accessories available upon request
See p. 8.

Pistol air tappers MASE...P, MAY...P and MAO...P

NOVELTY NEW MASE...P

Efficient answers to all job requirements

As well as the straight tappers, Fiam offers a wide range of pistol tappers for horizontal tapping and provided with an easy to use automatic inversion device with increased reverse speed for rapid extraction of the tap.
The **new pistol version MASE...P** presents the following advantageous ergonomic features:

- **new built in silencer**, plus control of the air exhaust and conveyance connections, reducing noise levels to a minimum;
- **new start button** requiring 30% **less effort** when starting and 50% less while working;
- **newly-designed hanging ring**, for easier and **more versatile use** of the tool;
- the tool can be used by both right and left-handed operators;
- ergonomic grip;
- use of recyclable materials.

Fiam tappers are also ideal when **threaded inserts or stud bolts are used in assembly** (for example in the furniture industry or the automotive sector generally). Insertion of the stud bolts or threaded inserts is effortless and quick; **the automatic inversion device with increased return speed** considerably reduces the length of the assembly cycle.
The quick-change chuck allows for easy replacement of the stud bolts and inserts according to the dimensions of the thread of the studs and inserts to be used.

MASE8P

MAY10PB

MAY10P

MASE8PB

MASE6PJ

MAY12P with stud bolt holder.

MAY12P with insert holder.

Type of grip:
pistol models

Idle speed:
forward: from 140 to 1000 r.p.m.
back: from 140 to 1700 r.p.m.

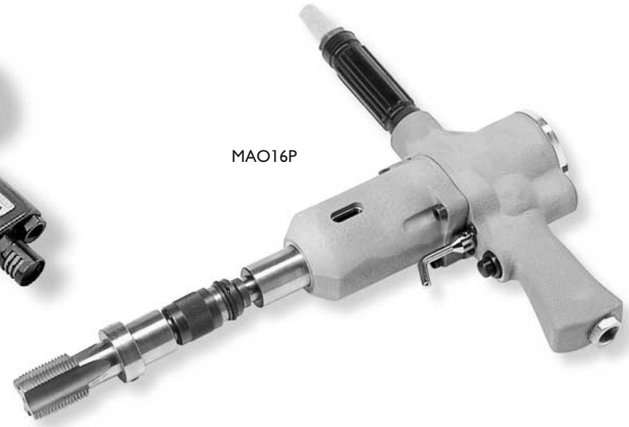
Starting system:
push button + push to start,
push button

Reversibility:
for all models

Fiam tappers are designed for use with either lubricated or unlubricated compressed air.

MAY12PJ

MAO16P



	TYPE OF TAPPER		GRIP	TAP CAPACITY	IDLE SPEED r.p.m.		STARTING SYSTEM	REVERSIBILITY	WEIGHT	DIMENSIONS (mm)	COMPRESSED AIR CONSUMPTION	NOISE LEVEL	VIBRATIONS LEVEL
	Model	**Code**	**Type**	**Ø mm**	**Forward**	**Back**	**Type**	**Type**	**kg**	**Ø x l x h**	**l/s**	**dBA**	**m/sec²**
	MASE6P	134610516		6	1000	1700			1,000	38x230x155	9	78	< 2,5
	MASE6PB	134612516		6	1000	1700			1,000	38x230x155	9	78	< 2,5
OUT OF PRODUCTION →	MASE6PJ	134613516		6	1000	1700			0,920	38x230x155	9	78	< 2,5
	MASE8P	134610518		8	500	800			1,000	38x230x155	9	78	< 2,5
	MASE8PB	134612518		8	500	800			1,000	38x230x155	9	78	< 2,5
OUT OF PRODUCTION →	MASE8PJ	134613518		8	500	800			0,920	38x230x155	9	78	< 2,5
	MAY10P	136310510		10	450	930			2,080	46x289x147	11	78	< 2,5
	MAY10PB	136312510		10	450	930			2,130	46x289x147	11	78	< 2,5
OUT OF PRODUCTION →	MAY10PJ	136313510		10	450	930			1,940	46x289x147	11	78	< 2,5
	MAY12P	136310512		12	220	470			2,080	46x289x147	11	78	< 2,5
	MAY12PB	136312512		12	220	470			2,130	46x289x147	11	78	< 2,5
OUT OF PRODUCTION →	MAY12PJ	136313512		12	220	470			1,940	46x289x147	11	78	< 2,5
	MAO16P	137210116		16	470	470		*	4,000	65x305x360	14	91	< 2,5
	MAO18P	137210118		18	140	140		*	4,580	65x335x360	14	91	< 2,5

- MASE...P, MAY...P, MAO...P = models with chuck for tap holder.
- MASE...PB, MAY...PB = models with chuck for high-precision tap holder.
- MASE...PJ, MAY...PJ = models with high-precision chuck.

To choose the right tapper see p. 2.

REVERSIBILITY: MASE... and MAY... models can invert rotation by simply pulling on the tool.
* MAO... models invert rotation by using the appropriate lever.

PUSH BUTTON + PUSH TO START

PUSH BUTTON

The models highlighted in black are usually available from stock.

- The capacity indicated in the chart is referred to the maximum diameter of threading on steel (for other materials see chart on page 2).
- The figures shown are measured at a pressure of 6,3 bar (ISO 2787), the recommended operating pressure.
- Noise level has been measured in accordance with ISO 3744 and ISO/DIS-prEN ISO 15744.
- Vibrations level has been measured in accordance with ISO 8662 standard.
- The code number must be used when ordering.

The data given in the table are indicative and can be changed without prior notice. The values indicated for noise levels were obtained in the laboratory, performing tests that comply with the standards stated, but alone are not sufficient for calculating risks. Values measured in the single work places may be higher than those stated. The values of actual exposure and consequent risks are specific and depend on the operator's method of work, the type of work piece and the work place, as well as the operator's time of exposure and his physical conditions.
Fiam cannot be held responsible for any consequences deriving from the use of the information in the table when evaluating risks in the work place over which Fiam has no control. For all further details, please apply to the **Fiam Technical Assistance Service**.

Other technical features

Models	Air inlet	Recommended hose bore
MASE...P	1/4" gas	Ø 8 mm
MAY...P	1/4" gas	Ø 8 mm
MAO...P	3/8" gas	Ø 13 mm

Standard equipment (supplied with the tool)
- For MAY...P: chuck code 659611001, drive J2.
- For MAY...PB: chuck code 659511002, drive J2.
- For MAY...PJ: chuck code 659519003, drive J2.
- For MAO...: chuck, wedge, pin, o-ring, expulsion wedge.
- Hanging ring (except MAO...). • Auxiliary grip (standard prEN792-1-12). • Eco-friendly packaging. • Use and maintenance manual.

Accessories available upon request
See p. 8.

Accessories for air tappers

CHUCKS

● CHUCK FOR TAP HOLDERS

For tappers series	Code
MAS..., MASE...P	**659411001**
MAY..., MAY...P	**659611001**
MAO...P	**659911001**

● CHUCK FOR PRECISION TYPE AND CLUTCH TYPE TAP HOLDER

For tappers series	Code
MAS...B, MASE..PB	**659411002**
MAY...B, MAY...PB	**659511002**

● PRECISION CHUCK

For tap	de
MAS	**1004**
MAY	**19003**

OUT OF PRODUCTION!

The codes highlighted in black refer are usually available from stock.

TAP HOLDERS

● TAP HOLDERS

They permit to work rapidly with different size taps. Each tap size requires a specific tap holder (see page 2).
These tap holders have to be used with:
MAS..., MASE...P
(chuck code 659411001),
MAY..., MAY...P
(chuck code 659611001),
MAO...P
(chuck code 659911001).

Dimensions of the tap		Code	Dimensions of the tap		Code
Shank ø mm	⊿ drive mm		Shank ø mm	⊿ drive mm	
2,8	2,1	**655211028**	8	6,2	**655621080**
3	2,4	**655241030**	8,5	7	**655701085**
3,5	2,7	**655271035**	9	7	**655701090**
4	3	**655301040**	9,4	7	**655701094**
4,5	3,4	**655341045**	10	8	**655801101**
5	3,8	**655381050**	11	9	**655901110**
6	4,9	**655491060**	12,1	9,1	**655911121**
6,3	5	**655501062**	14,1	11,1	**655111141**
6,5	4,9	**655491065**	16,2	12,3	**655010160**
7	5,5	**655551070**	18,2	14,8	**655900182**
7,3	5,5	**655551073**			

● PRECISION TAP HOLDERS

These tap holders permit to work rapidly and with high precision with different tap sizes.
Each tap size requires the corresponding high precision tap holder (see page 2).
They have to be used with:
MAS...B, MASE...B
(chuck code 659411002),
MAY...B, MAY...PB
(chuck code 659511002).

For MAS...B, MASE...PB tappers			For MAY...B, MAY...PB tappers		
Dimensions of the tap		Code	Dimensions of the tap		Code
Shank ø mm	⊿ drive mm		Shank ø mm	⊿ drive mm	
2,5	2,1	655212025	2,8	2,1	655213028
2,8	2,1	655212028	3,15	2,5	655253031
3,15	2,5	655252031	3,5	2,7	655273035
3,5	2,7	655272035	4	3	655303040
4	3	655302040	4,5	3,4	655343045
4,5	3,4	655342045	5	4	655403050
5	4	655402050	6	4,9	655493060
6	4,9	655492060	6,3	5	655503063
6,3	5	655502063	7	5,5	655553070
7	5,5	655552070	8	6,3	655633080
8	6,3	655632080	9	7,1	655713090
			10	8	655813100
			11	9	655903110

The codes highlighted in black are usually available from stock.

● PRECISION TAP HOLDERS WITH INTEGRAL CLUTCH

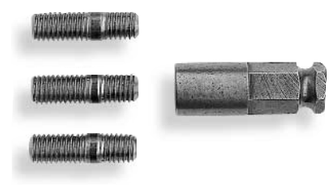
These tap holders are used for high precision tappings in dead holes to avoid the tap breakage. They permit to work rapidly also with different size taps. Each tap requires a specific tap holder.
These tap holders have to be used with:
MAS...B, MASE...PB
(chuck code 659411002),
MAY...B, MAY...PB
(chuck code 659511002).

For MAS...B, MASE...PB tappers			For MAY...B, MAY...PB tappers		
Dimensions of the tap		Code	Dimensions of the tap		Code
Shank ø mm	⊿ drive mm		Shank ø mm	⊿ drive mm	
2,5	2,1	655214025	2,8	2,1	655215028
2,8	2,1	655214028	3,15	2,5	655255031
3,15	2,5	655254031	3,5	2,7	655275035
3,5	2,7	655274035	4	3	655305040
4	3	655304040	4,5	3,4	655345045
4,5	3,4	655344045	5	4	655405050
5	4	655404050	6	4,9	655495060
6	4,9	655494060	6,3	5	655505063
6,3	5	655504063	7	5,5	655555070
7	5,5	655554070	8	6,3	655635080
8	6,3	655634080	9	7,1	655715090
			10	8	655815100
			11	9	655905110

The codes highlighted in black are usually available from stock.

STUD BOLT HOLDER

Stud bolt Ø mm	M3	M4	M5	M6	M8	M10	M12
Code 656031...	**...030**	**...040**	**...050**	**...060**	**...080**	**...100**	**...120**

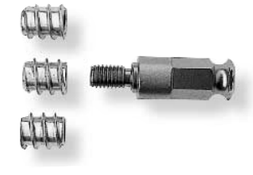


The codes highlighted in black are usually available from stock.

Stud bolts are not supplied.

INSERT HOLDER

Insert Ø mm	M4	M5	M6	M8	M10	M12	5/16x14	7/16x14
Code 657031...	...040	...050	...060	...080	...100	...120	657070516	657071716



The codes highlighted in black are usually available from stock.

Inserts are not supplied.

COLLETS

● SPRING COLLETS FOR PRECISION TAP HOLDERS

They are used with high-precision chucks to fix different tap sizes.
They are used with:
MAS...J, MASE...PJ
(chuck code 659411004),
MAY...J, MAY...PJ
(chuck code 659519003).

For tappers series	g capacity Ø mm	Code
MAS...J, MA	5	659990450
MAS...	5	659990650
MAY...J	3,5÷6,5	659990651
MAY...J,	6,4÷9,7	659990970

OUT OF PRODUCTION!

The codes highlighted in black are usually available from stock.

Compressed air systems accessories

FRL GROUP - Filter, pressure regulator, lubricator

The FRL group is recommended for filtering, regulating and lubricating the compressed air supply for air tools. This system eliminates solids and humidity while supplying a precise air flow and suitable lubrication.
Where necessary, it is indicated for obtaining the required torque values by adjusting the pressure of the air supply.

Hose ø mm	Flow l/s	Complete assembly code	Filter code	Pressure regulator code	Lubricator code	Assembly kit code *	Gauge code
1/4" gas	1,7÷8,4	**697331015**	**697031015**	697131015	697281015	697339015	697312060
3/8" gas	4,2÷15	**697351015**	**697051015**	697151015	697291015	697339015	697312060
1/2" gas	8,4÷25	**697371015**	**697071015**	697171015	697301015	697339015	697312060

* N.B.: 2 assembly kits are needed for each FRL assembly (see items outlined).

The codes highlighted in black are usually available from stock.

SPIRAL SUPPLY HOSES - with couplings

Polyurethane spiral supply hoses with a maximum extended length of 8 m.
Extremely flexible and resistant, they take up less space thanks to their reduced external diameters.
To choose the most suitable supply hose, refer to the recommended hose bore given in the Catalogue.

Ø internal = recommended hose bore

Polyurethane hose (green) Ø internal x Ø esternal mm	Length mm	Swivelling male coupling	Fixed female coupling	Code
8x12	1140÷8000	1/4" gas	1/4" gas	**693011020**

The codes highlighted in black are usually available from stock.

RUBBER SUPPLY HOSES - with couplings

Rubber supply hoses for models MAO...P.
Rubber supply hoses with coupling made with inner duct in synthetic rubber and high resistance reinforced textile chase.
They can be used with compressed air, water, cutting oil and antifreeze liquids. They are extremely flexible and versatile and above all safe and resistant in time.

Upon request, hoses of other dimensions are available: please apply to the **Fiam Technical Assistance Service**.

Hose mm ø internal x ø esternal	Length mm	Swivelling male coupling	Fixed female coupling	Code
9,5 x 15,9	3000	1/4" gas M	1/4" gas M	693511022
9,5 x 15,9	3000	3/8" gas M	3/8" gas M	693511023

To choose the most suitable supply hose see pages 5 and 7.

QUICK COUPLINGS

To choose the most suitable quick coupling, refer to the air inlet and the recommended hose bore in the Catalogue.


Male


Female

Recommended hose bore	Air inlet threading	Male quick coupling code	Female quick coupling code
Ø 8÷10 mm	1/4" gas	**695411114**	**695431114**
Ø 13 mm	3/8" gas	695411138	695431138

The codes highlighted in black are usually available from stock.

QUICK NIPPLES

To choose the most suitable quick nipples, refer to the air inlet and the recommended hose bore in the Catalogue.


Male


Female

Recommended hose bore	Air inlet threading	Male quick coupling code	Female quick coupling code
Ø 8÷10 mm	1/4" gas	**695311114**	**695331114**
Ø 13 mm	3/8" gas	695311138	695331138

The codes highlighted in black are usually available from stock.

FLEXIBLE COUPLINGS

These light and compact couplings improve the operators' working conditions; they prevent twisting of supply hoses and reduce vibrations.

Model	Coupling F/M	Code
RS 25 FM	1/4"	**695091015**
RS 30 FM	3/8"	**695091020**

The codes highlighted in black are usually available from stock.

EXHAUST AIR HOSE CONVEYORS

Used to drive away the tool exhaust air from the operator and therefore making the workplace more ergonomical.

For air tappers series	Code	
MAS..., MAS...B, MAS...J	**693751006**	
MASE...P, MASE...PB, MASE...PJ	693751009	
MAY..., MAY...B, MAY...J MAY...P, MAY...PB, MAY...PJ	693751003	

Compressed air systems accessories

OFFSET AIR CONVEYORS

Recommended to convey the exhaust air to special suction systems.
(Exhaust air hose conveyors to be ordered separately).
For more information please contact **Fiam Technical Assistance Service**.

For air tappers	Code
MAS..., MAS...B, MAS...J	693751008

AUXILIARY GRIP

The use of the auxiliary grip is recommended to permit a considerable reduction of the fatigue to the operator.
For more information please contact **Fiam Technical Assistance Service**.

The codes highlighted in black are usually available from stock.

ø internal (mm)	For series	Code
40	MAS... MAS...B MAS...J	681041230
36	MASE...P MASE...PB MASE...PJ	681041200
46	MAY... MAY...P, MAY...B, MAY...PB, MAY...J, MAY...PJ	681041002

LUBRICATING OIL FOR AIR TOOLS

Used to lubricate the internal components of the motor group.

The codes highlighted in black are usually available from stock.

Code
699011001

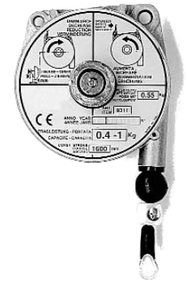
BALANCER

The use of the balancer allows the operator to work in safety and without effort, at the same time guaranteeing the maximum care of the tool.

The codes highlighted in black are usually available from stock.

In conformity with Machine Directives (Law 89/392/EEC)

Capacity min - max	Cable lenght mm	Code
0,4÷1	1600	**690011160**
1÷2	1600	**690021160**
2÷4	2000	**690041200**
4÷6	2000	**690061200**
6÷8	2000	**690081200**
8÷10	2500	**690101250**



BALANCER WITH BUILT-IN SUPPLY HOSE

Particularly indicated to support and to feed at the same time straight air tools. The balancer is provided with a hose that can be connected directly to the main air feed so that the tool is supplied directly.

The codes highlighted in black are usually available from stock.

Capacity min - max	Length mm	Male coupling	Code
1,2÷2,5	1350	1/4" gas	**691021202**

BA10 BALANCING ARM

OUT OF PRODUCTION!

The BA10 balancing arm is ideal when working at the bench. It suspends the tool in the required position for tightening, drilling, tapping, etc. with no torque reaction on the operator's hand. This makes work safer and m
comfortable, without fatigue.

Max. work range	0 mm
Min. work	mm
Ma	
	1,6 kg
	360°
	1/4" gas
e	ø 9 mm

Model	Code
BA10 balancing arm	692031002

Compressed air systems accessories

BA15 BALANCING ARM

The BA15 balancing arm, for tools with a maximum of 15 Nm tightening torque, can be adapted very easily to tools of different diameters varying from 25 to 50 mm.
The BA15 balancing arm ensures very high precision work since the tool is kept perfectly perpendicular to the piece being assembled.
Work can also be carried out horizontally or on two axes at the same time, simply by choosing the specific adapter.
It can be used with both air and electric screwdrivers or drills, tapping and riveting machines, etc.

Furthermore, its great manoeuvrability considerably reduces the operator's fatigue.
The arm with standard springs can support up to 1 kg. weight; to support a weight up to 2.5 kg., the standard springs must be replaced with the reinforced ones.

Max. work range	850 mm
Min. work range	450 mm
Max. torque	15 Nm
Max. load (with standard springs)	1 kg
Max. load (with reinforced springs)	2.5 kg
Max. rotation angle	360°
Ø max. tool	from 25 to 50 mm

Model	Code
BA15 bal	

Standard equipment
• Reinforced spring code 692059010

OUT OF PRODUCTION!

Adapters for BA15 avai ered separately)

• Adapters to work on vertical axis

	Code	Ø internal adjustable mm
	692059008	25÷40
30/50	**692059009**	30÷50

The codes highlighted in black are usually available from stock.

• Adapter to work on the horizontal axis

Adapter	Code	Ø mm
AD 36	**692059014**	36

The codes highlighted in black are usually available from stock.

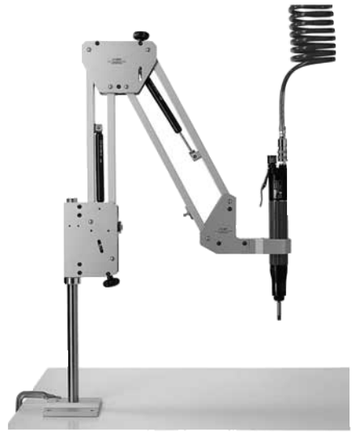
• Adapter to work on two axis

Adapter	Code	Ø max mm
AD 36/2AX	**692059015**	36

For adapter with different diameter, please contact Fiam Technical Assistance Service.

BA50 BALANCING ARM

To avoid undesirable effects on the operator's wrist, arm or shoulder movements and for minimum fatigue during manual operations, Fiam has designed the BA50 balancing arm to complete the range of other models with different capacities. This balancing arm can be used with air and electric tools (screwdrivers, drills, tapping machines, nutrunner motors) for tightening torque of maximum 50 Nm and weight from 0.7 to 2.25 kg.
If it is necessary to fit a heavier tool, weighing up to a maximum of 4.5 kg., special reinforced springs are available upon request. This system guarantees extreme working precision because the tool is kept perfectly perpendicular to the piece being machined thanks to the specific adjustable adapter supplied with the balancing arm.
Furthermore it is simple to use and ensures excellent manoeuvrability.
The stand is supplied complete with a fixing plate.



Max. work range	1000 mm
Min. work range	600 mm
Max. torque	50 Nm
Max. load (with standard springs)	2.25 kg
Max. load (with reinforced springs)	4.5 kg
Max. rotation angle	360°
Ø max. tool	50 mm

Model	Code
BA50	692031008

Accessories available upon request
• To support tools of up to 4.5 kg max. it is necessary to order 2 reinforced springs (code 692059022).

For balancing arm that must support weights of more than 4.5 kg., please contact Fiam Technical Assistance Service.

SL60 LEVER SUPPORT

This lever bench support for use in particular assembly operations permits to hold the various types of air and electric tools (screwdrivers, drills, tapping machines, nutrunner motors, etc.) in a perfectly perpendicular position which considerably reduces operator's fatigue.

Max. torque	40 Nm
Max. stroke	60 mm
Ø max. tool	46 mm

• A specific adapter must be ordered with the support for each type of tool used (see table at the side). Versions are available upon request for starting the tool by means of a cam or button placed on the lever.

Model	Code
SL60	692051001

Adapter code	Ø internal mm
692059012	40
692059013	45,8

March 2002 - 41 Printed on recycled paper for the safeguard of the environment

FIAM

INDUSTRIAL AIR TOOLS

Fiam Utensili Pneumatici spa
Viale Crispi, 123 - 36100 Vicenza / Italy
Tel. +39.0444.385000 - Fax +39.0444.385002
customerservice@fiamairtools.com
www.fiamairtools.com

Quality Certification
UNI EN ISO 9001 / ICIM 0250

Environmental Management System Certificate
UNI EN ISO 14001 / ICIM 0002A