# SCALA FILTRATION



FILTERS, ACCESSORIES AND CYCLONE SEPARATORS



# **FILTERS F SERIES**

The compressed air contains harmful solid, liquid and vaporous contaminants that can damage pneumatic equipment, control and instruments.

The removal of these contaminants is necessary to sustain the equipment life and keep the production operations efficient.





Compressed air contains normally high concentrations of dust, oil, moisture and other impurities. These contaminants can be the cause for high costs long maintenance stops production till damages of machineries and products. F series Filters have been specifically designed to prevent these problems, by offering a wide range of filters for compressed air able to satisfy the most various industry needs. The secret of F series filter is the high efficiency of the elements which is able to offer a high capability of retention (99,999%) and very low pressure drops. The Final result is an extremely purified compressed air and low operating costs.

#### Features:

- wide range of models and filtration level for every kind of industry application
- certified performances
- the body configuration, with an innovative design, is able to reduce pressure drops assuring high energy savings
- increase of efficiency and reduction of productions stops
- reductions of maintenance costs
- tools and machinery protection

Filtration Grades			Filters			
			Solid	Oil		
P		Filtration by interception	For particles up to 3 micron. P is the degree specifically designed to remove of dust before and after the dryer			
М		Filtration by coalescence principle	For particles up to 1 micron	For concentration up to 0,1 mg/m <sup>3</sup>		
н		Filtration by coalescence principle	For particles up to 0,01 micron	For concentration up to 0,01mg/m <sup>3</sup>		
С		Filtration by adsorption process	For particles up to 0,01 micron	Maximum concentration up to 0,003 mg/m³		

Standard reference conditions ISO8573-1



# The differential pressure gauge shows the level of element saturation.

Separator body in aluminum, chromo phosphated and externally powder painted.

The closure provided by seal can not be opened while the filter is under pressure, offering additional protection.

All filters are available with a complete accessories list: differential gauge, all kind of drains, as automatic, manual, timed, and the exclusive thermodinamic drain. The zero loss drain, completes range of accessories for F Series filters.

In order to keep quality standards of compressed air, filter elements have to be replaced with original elements every 6/12 months depending on the ambient and compressor. Replacements of filter elements are fundamental to assure:

#### img 1 – filter

- 1. Differential pressure gauce
- 2. O-ring bowl seal
- **3.** Diecasting aluminium housing chromated with polyester epoxy powder coating for corrosion resistance
- 4. Large capacity reservoir allow large condensate volume
- 5. Auto drain
- 6. Drainage layer
- 7. High efficiency filtration media
- 8. Support cylenders
  - the maintenance of high performances
  - quality of compressed air in compliance with international standard
  - low operating costs
  - protection of components and process downstream.
    Omitted replacement of elements causes an increase of pressure drop through system and subsequently an increase of operating cost

Ρ	General filtration	Removal of liquid and solid particles, protection of vacuum pump; blowers; refrigerant dryers; pneumatic tools
P+M	Fine filtration	Pneumatic tools and actuators; air conveyors; compressed air engines; sandblasting; naval storage and freight; filtration downstream vacuum pump; automotive; refinery; machining; prefiltration of adsorption dryer (oil-free)
P+M+H	Oil free filtration	Air conveyors; painting; packaging air; transport; instruments; manometers; pneumatic precision instruments; electronical instruments; prefiltration of adsorption dryers (oil-free)
P+M+ H+C*	Critical filtration	Medical; pharmacology; membrane production; not critical breathable air (without removal of CO/CO2); critical instrumentation; removal of smell and taste; food and drink production or packaging of food and drink; beer production; dairy production

\* The combination is not always adequate for critical use: For example this solution is not enough to obtain sterile air.

#### TENICICAL DATA

Model	Flow-Rate			Connections	Dimensions	Element
	l/min	m³/h	scfm	BSP-F	W x H [mm]	Model
F0020	570	34	20	1/2"	95 x 210	0020E
F0045	1280	77	45	1/2"	95 x 210	0045E
F0070	1980	119	70	3/4"	95 x 270	0070E
F0100	2830	170	100	3/4"	95 x 270	0100E
F0125	3540	212	125	1"	125 x 300	0125E
F0180	5100	306	180	1"	125 x 300	0180E
F2650	7510	451	265	1.1/2"	125 x 380	2650E
F0370	10480	629	370	1.1/2"	125 x 380	0370E
F0515	14590	875	515	2"	170 x 500	0515E
F0745	21110	1267	745	2"	170 x 680	0745E
F1060	30000	1800	1060	2.1/2"	200 x 870	1060E
F1280	36270	2176	1280	3"	200 x 870	1280E
F1650	46750	2805	1650	3"	200 x 980	1650E
FL0745	21110	1267	745	DN65	170 x 680	0745FE
FL1060	30000	1800	1060	DN80	200 x 870	1060FE
FL1280	36270	2176	1280	DN80	200 x 870	1280FE
FL1650	46750	2805	1650	DN80	200 x 980	1650FE

#### Carbon Steel

Model	Flow-Rate		Connections	Dimensions	Element	
	l/min	m³/h	scfm	DN	W x H [mm]	Model
FL1400	42000	2520	1483	100	525 x 980	0745FE x 2
FL2200	63000	3780	2224	125	523 x 1003	0745FE x 3
FL2900	84000	504 <b>0</b>	2965	150	577 x 1064	0745FE x 4
FL3700	105000	6300	3707	150	651 x 1123	0745FE x 5
FL4400	126000	7560	4448	200	651 x 1180	<b>0745FE</b> x 6
FL5100	147000	8820	5189	200	718 x 1246	0745FE x 7
FL6600	189000	11340	6672	200	784 x 1262	0745FE x 9
FL7400	210000	12600	7413	250	784 x 1317	0745FE x 10
FL8500	242000	14520	8543	250	834 x 1483	0776FE x 11
FL10000	286000	17160	10096	300	876 x 1540	0776FE x 13
FL11600	330000	19800	11649	300	998 x 1586	0776FE x 15

#### Data refer to the following nominal conditions: – ambient temperature: 25°C

- inlet air pressure: 7 barg
  inlet air temperature: 20°C

# *Max. working condition:* – inlet air temperature: 100°C

- inlet pressure: 16 barg

### 01. Accessories – Differential pressure gauge

Model	Combination	Code	Max Pressure	Max Temperature
			bar	°C
D-Gauge 0	Available on all filters model F0020 F1650	ADG.00000	16	90
D-Gauge 1	Available on all filters model F1400 F11600	ADG.00001	16	90



#### 02. Accessories – Manual Drain

Model	Combination	Code	Max Pressure	Connection
			bar	BSP-F
M-Drain	Available on all filters model F0020 F1650	AMD.00000	16	3/8″



#### **03. Accessories – Automatic Drain**

Model	Combination	Code	Max Pressure	Connection
			bar	
A-Drain 0	Available on all filters model F0020 F1650	AAD.00000	16	M14
A-Drain 1	Available on all filters model F0020 F1650	AAD.00001	16	M14



#### 04. Accessories – Electronic Timed Drain

Model	Code	Max Pressure	Connection
		bar	BSP-F
T-Drain 0	ATD.00000	16	3/8″
T-Drain 1	ATD.00001	16	1/2"

#### 05. Accessories – Thermodinamic drain

Model	Code	Max Pressure	Connection
		bar	BSP-F
H-Drain	ADD.00000	40	1/2″

#### **06. Accessories – No Loss Electronic Drain**

Model	Combination	Code	Max Pressure	Max Temperature
			bar	BSP-F
G-Drain 0	Available on all filters model F0020 F1650	AGD.00000	16	1/2″
G-Drain 1	Available on all filters model F1400 F11600	AGD.00001	16	1/2″







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## **CYCLONE SEPARATORS** FWA SERIES

The compressed air contains harmful solid, liquid and vaporous contaminants that can damage pneumatic equipment, control and instruments.

The removal of these contaminants is necessary to sustain the equipment life and keep the production operations efficient.



Compressed air is an essential energy source used for all industries because it guarantees a high level of security and flexibility.

Its advantages are achieved only if this important resource is used without its normal impurities. In fact, in the compressed air, there are a lot of polluting agents like: lube oil from the dryers, corrosive gas present in the atmosphere and due to pollution, water vapour, solid particles due to the decay of mechanical parts and distribution lines; Solid particles presents in the atmosphere and pumped by the compressor. Inside the compressor, these substances become acidic thanks to the high temperatures, creating a lot of problems to all pneumatic equipment.

The oil that penetrates the line loses its lubricant features and it creates damages to the equipment.

#### Features and functionality

#### Separator body:

- easy reading of the differential gauge and the obstruction indicator (if it is installed) to prove the filter efficiency
  in a protected position, the threaded part of the head
- and glass ensures the easy removal of the glass for the replacement of the filter element
- the wide section of the flow channels ensures a limited loss of load
- separator body in aluminum, chromo phosphated and externally powder painted
- the body is easily unscrewed thanks to the hexagonal termination

New cartridge separator:

- the cyclone profile increases the efficiency of the models
- the new structure offers the possibility to enter into the cyclone cartridge for inspection and maintenance

Model	Flow-Rate			Connection	Dimensions
	m3/h	l/min	scfm	BSP-F	W x L [mm]
F0045WA	78	1300	45	1/2"	95 x220x197
F0100WA	168	2800	100	3/4"	95 x280x257
F0180WA	306	5100	180	1"	125 x315x285
F0370WA	630	10500	370	1.1/2"	125 x 397x367
F0745WA	1266	21100	745	2"	170 x520x478
F1060WA	1800	30000	1060	2.1/2"	200 x 995
F10650WA	2805	46750	1650	3"	200 x 995

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