

CE

Edition
11/2010



**MAINTENANCE AND OPERATING MANUAL**  
**Compressed air filter**  
***type AF***



Dear Customer,

thank you for choosing our product. In order to get the best performances in the use of this product, please read carefully this manual. To avoid incorrect operations of the equipment and possible physical risks to the operator, please read and strictly follow the instructions contained in this manual. Note, these instructions are in addition to the safety rules that apply in the country where the filter is installed. This manual must be maintained available in any moment for future references and it has to be intended as inherent part of the relevant filter.

Due to the continuous technical evolution, we reserve the right to introduce any necessary change without giving previous notice.



Filter housing model	Pipe size	Flow rate Nm <sup>3</sup> /h	Dimensions [mm]				Mass kg	Flow rate SCFM	Dimensions [inch]				Mass lb
	inch		A	B	C	D			A	B	C	D	
AF 0056	3/8"	60	187	88	20	60	0,7	35	7 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1,54
AF 0076	1/2"	78	187	88	20	60	0,7	46	7 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1,54
AF 0106	3/4"	120	257	88	20	80	0,8	70	10 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1,76
AF 0186	1"	198	263	125	32	100	1,8	116	10 <sup>5</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>8</sub>	3,97
AF 0306	1"	335	363	125	32	120	2,5	197	14 <sup>1</sup> / <sub>4</sub>	4 <sup>15</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	5,51
AF 0476	1 1/2"	510	461	125	32	140	2,5	300	17 <sup>3</sup> / <sub>4</sub>	4 <sup>15</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	5,51
AF 0706	1 1/2"	780	640	125	32	160	3,2	459	25 <sup>5</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	7,05
AF 0946	2"	1000	684	163	43	520	5,1	588	27 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>2</sub>	11,25
AF 1506	2"	1500	935	163	43	770	7,1	882	36 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	30 <sup>5</sup> / <sub>16</sub>	15,65
AF 1756	2 1/2"	1680	935	163	43	770	6,9	990	36 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	30 <sup>5</sup> / <sub>16</sub>	15,21
AF 2006	3	2160	795	240	59	630	12,9	1270	31 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>4</sub>	28,44
AF 2406	3	2760	1000	240	59	780	14,0	1620	39 <sup>1</sup> / <sub>3</sub>	9 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	30 <sup>11</sup> / <sub>16</sub>	30,86

CORRECTION FACTORS																
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232	
Correction factor	0,38	0,52	0,63	0,75	0,88	1,00	1,13	1,26	1,38	1,52	1,65	1,76	1,87	2,00	2,14	

In the case of any troubles, or for further information, please do not hesitate to contact us.

#### INTENDED USE

Filters are designed for industrial compressed air filtration. This appliance must be used only for the purpose for which it was specifically designed. All other uses are to be considered incorrect and therefore unreasonable.

Specifically:

- the filter is not intended for human breathing without proper additional device.
- the filter can only be used for "GROUPE 2" fluids (PED 97/23).
- the filter can not be used for explosive, toxic, flammable, corrosive and "GROUPE 1" fluids (PED 97/23).
- the filter can not be used for oxygen filtration.

WARNING: internal corrosion can seriously reduce the safety of installation: check it during changing the cartridge.

The Manufacturer cannot be held responsible for any damage resulting from improper, incorrect or unreasonable use.

**Use only genuine parts. Any damage or malfunction caused by the use of unguenuine parts is not covered by Warranty or Product Liability.**

Cartridge size	Flow rate		Max. oper. pressure [bar/psi]	Max. operating temp. [°C/°F]	Filter's housing	B	P	R	M	S	A
	m <sup>3</sup> /h	SCFM				sintered 15 µm	prefilter 3 µm	prefilter 1 µm	microfilter 0,1 µm	microfilter 0,01 µm	active carbon
						bronze	yellow	blue	green	red	black
06050	60	35	16/232	65/149	AF 0056	06050 B15	06050 P	06050 R	06050 M	06050 S	06050 A
07050	78	46	16/232	65/149	AF 0076	07050 B15	07050 P	07050 R	07050 M	07050 S	07050 A
14050	120	70	16/232	65/149	AF 0106	14050 B15	14050 P	14050 R	14050 M	14050 S	14050 A
12075	198	116	16/232	65/149	AF 0186	12075 B15	12075 P	12075 R	12075 M	12075 S	12075 A
22075	335	197	16/232	65/149	AF 0306	22075 B15	22075 P	22075 R	22075 M	22075 S	22075 A
32075	510	300	16/232	65/149	AF 0476	32075 B15	32075 P	32075 R	32075 M	32075 S	32075 A
50075	780	459	16/232	65/149	AF 0706	50075 B15	50075 P	50075 R	50075 M	50075 S	50075 A
51090	1000	588	16/232	65/149	AF 0946	51090 B15	51090 P	51090 R	51090 M	51090 S	51090 A
76090	1500	882	16/232	65/149	AF 1506	76090 B15	76090 P	76090 R	76090 M	76090 S	76090 A
76090	1680	990	16/232	65/149	AF 1756	76090 B15	76090 P	76090 R	76090 M	76090 S	76090 A
51140	2160	1270	16/232	65/149	AF 2006	51140 B15	51140 P	51140 R	51140 M	51140 S	51140 A
75140	2760	1620	16/232	65/149	AF 2406	75140 B15	75140 P	75140 R	75140 M	75140 S	75140 A
						B	P	R	M	S	A
						solid particle size purification: down to 15 microns	3 microns	1 micron	0,1 micron	0,01 micron	-
						quality class - solids (ISO 8573-1)	4	3	2	1	-
						residual oil content [mg/m <sup>3</sup> / ppm]	-	-	-	0,1 / 0,08	0,01 / 0,01
						quality class - oils (ISO 8573-1)	-	-	-	2	1
						pressure drop - new element [mbar / psi]	30 / 0,43	40 / 0,58	<50 / 0,72	<80 / 1,16	120 / 1,74
						change filter cartridge at pressure drop [mbar / psi]	600 / 8,7	600 / 8,7	600 / 8,7	600 / 8,7	600 / 8,7
						filter material	sintered brass	acrole fibres, cellulose	borosilicate micro fibres		active carbon
						pleated version	-	+	+	+	-
						wrapped version	-	+	+	+	+
						sintered version	+	-	-	-	-

\* Filter elements "A" must be changed periodically to suit application but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.

**INSTALLATION**

**Operations should be performed only by qualified personnel. Never operate with plants under pressure. The user is responsible to ensure that the filter will never operate at pressure exceeding the nominal values. Eventual over-pressure could be dangerous and hazardous to the operator and the equipment.**

**Models AF 0056 to AF 0706**

The filter assembly and installation procedures are as follows :

- If provided, install the pressure drop indicator or the Differential Pressure Gauge (optional) on the filter head.
- Connect the filter head to the compressed air piping and check that the airflow corresponds to the direction of the arrow positioned on the filter head cap .
- Clean accurately the the piping and the filter head outlets, remove any shaving, slaver or scrap from tooling.
- Lubricate the O-ring and the sealing surfaces of the filter head and cartridge, use multipurpose grease (SILICONE FREE).
- Fit the filter cartridge on the filter head simply by pressing, tightness is ensured by one o-ring.
- Fit the filter bowl and tight it accurately.
- Filters must always be installed in a vertical position with sufficient space around. The minimum distance (C in the technical data table) has to be assured under the filter bowl, which is necessary for filter cartridge changing.
- Stick the adhesive label showing the month and year for the next filtering element change (max. one year) on the filter bowl .
- Pressurize the plant like shown at paragraph "Starting up" and check it for air leakage.

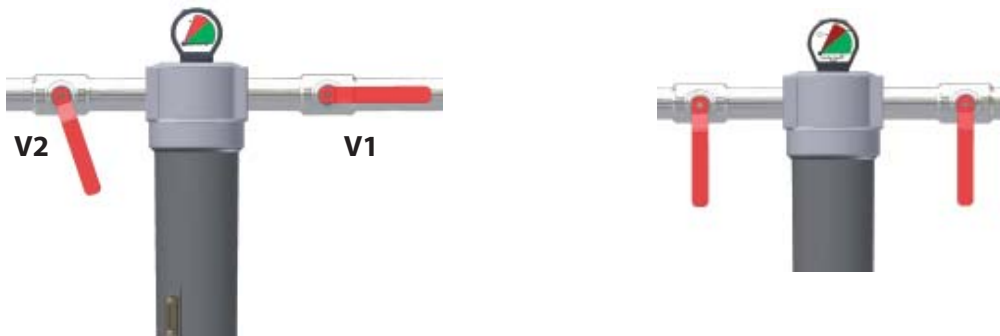
**Models AF 0946 to AF 2406**

The filter assembly and installation procedures are as follows :

- If provided, install the pressure drop indicator or the Differential Pressure Gauge (optional) on the filter head.
- Connect the filter head to the compressed air piping and check that the airflow corresponds the direction of the arrow positioned on the filter head cap .
- Clean accurately the the piping and the filter head outlets, remove any shaving, slaver or scrap from tooling.
- Lubricate the O-ring and the sealing surfaces of the filter head and cartridge. Use multi-purpose grease (SILICONE FREE).
- Fit the filter cartridge on the filter head centering the filter bottom hole with the screwed rod. Tight the hexagonal nut and fix the element.
- Fit the filter bowl and tight it accurately.
- Filters must always be installed in a vertical position with sufficient space around. The minimum distance (C in the technical data table) has to be assured under the filter bowl, which is necessary for filter cartridge changing.
- Stick the adhesive label showing the month and year for the next filtering element change (max. one year) on the filter bowl .
- Pressurize the plant like shown at paragraph "Starting up" and check for air leakage.

### Starting up

- Check that the operating data (pressure, temperature and flow-rate) do not exceed values on the specification plate.
- Close the on-off valve (V1) downstream of the filter, slowly open the on-off valve (V2) upstream to the filter, and let the air flow from the manual or automatic drain valve for a few minutes; close the drain valve and slowly open the on-off valve (V1) down-line from the filter.



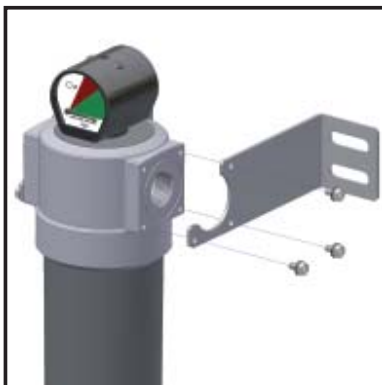
### Operation

- At least once a week (grade B, P, R, M, S) check if condensate drain operates regularly.
- If installed, at least once a week (grade B, P, R, M, S), check if pressure drop indicator or Differential Pressure Gauge is in the green area.

If a filter grade A is installed, check the good efficiency of the pre-filters, otherwise the presence of any oil and water aerosols make the absorption power of the filter void.

### Optional

#### Wall mounting kit



#### Series connection kit



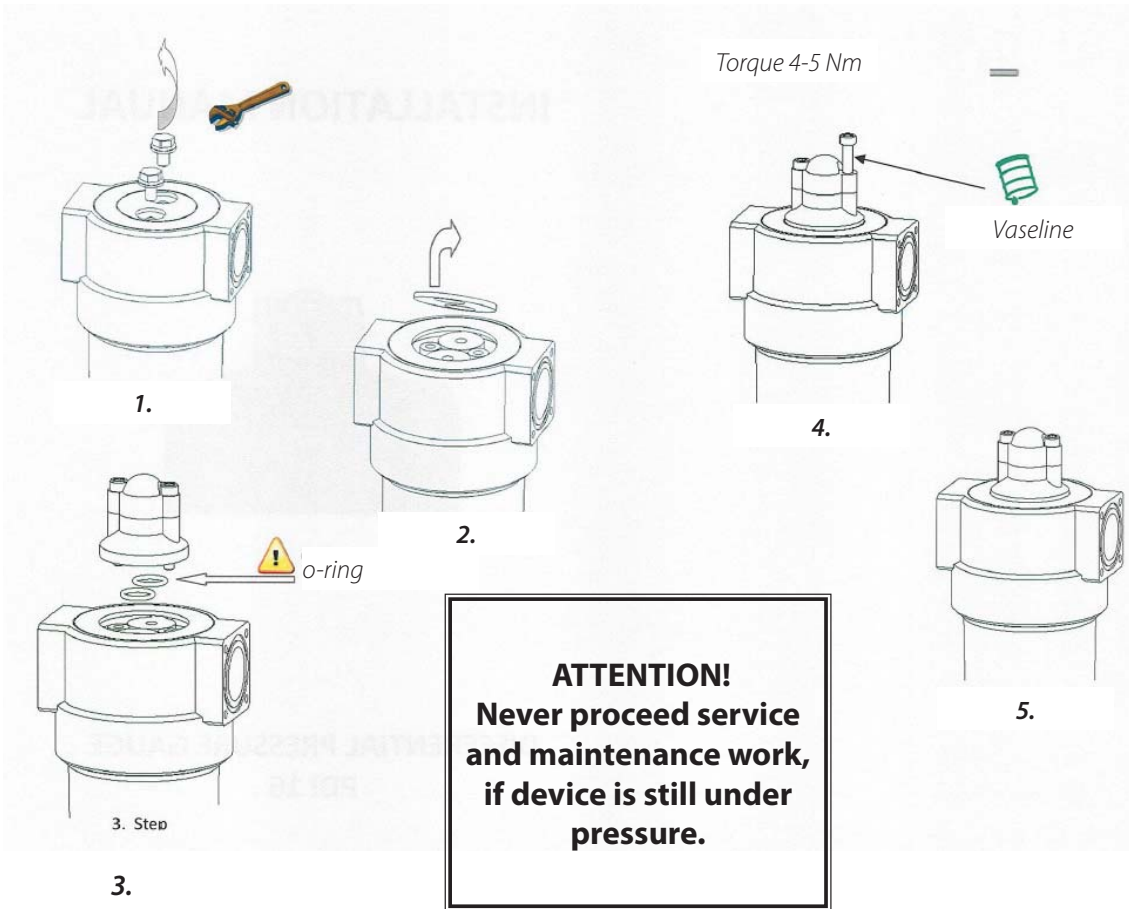
### Maintenance



Operations to be performed by qualified personnel. **Before any maintenance or service work on the filter, ensure, that all parts of the system have been depressurized.** A calibrated hole present in the filter head, warns the operator with a whistle of air, that the filter is still under pressure.

**Always respect the regulations regarding disposing of polluting materials such as filtering elements etc...**

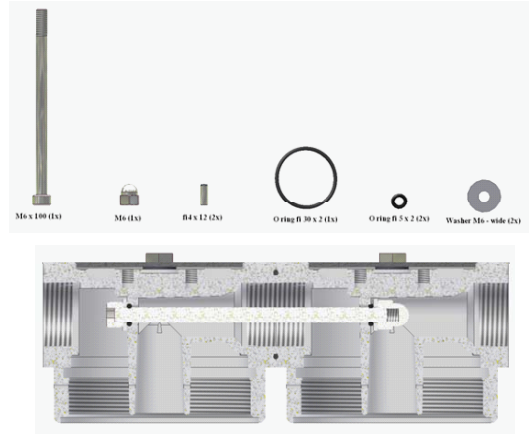
>>> Mounting of differential pressure indicator



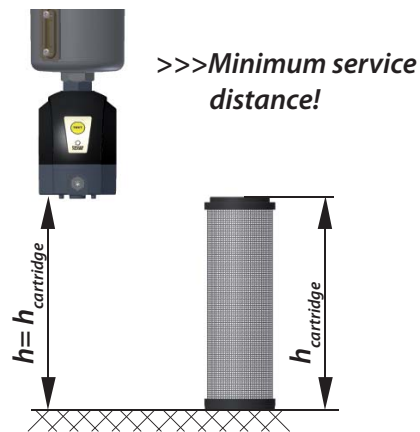
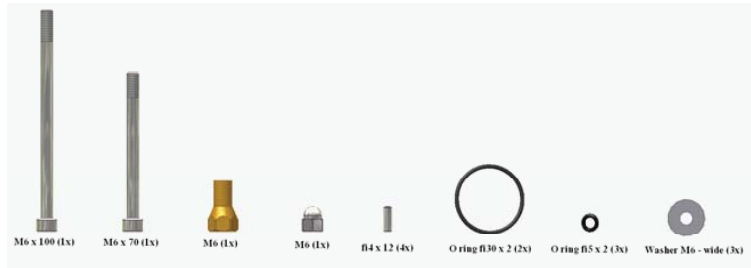
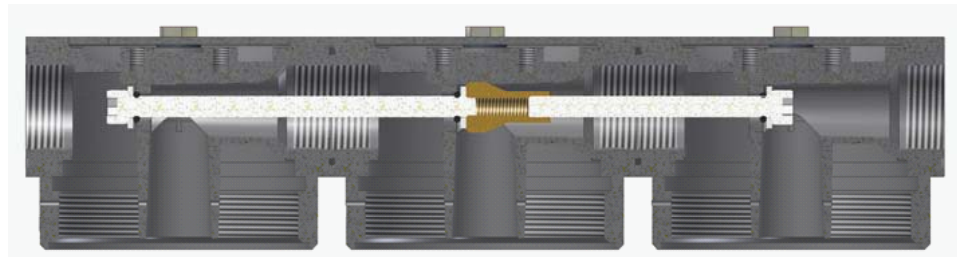
>>> Mounting of wall kit



>>> Mounting of connection kit for 2 filters



>>> Mounting of connection kit for 3 filters



Save the environment !!!





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