

# Series MD filters

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with  $\varnothing$  6, 8 and 10 mm.

Modular assembly

Bowl with technopolymer cover and bayonet-type mounting



- » Removal of impurities and condensate
- » Visual blockage indicator
- » Condensate drain options: semi-automatic manual, automatic protected depressurisation, direct G1/8 exhaust
- » Bowl locking system reducing the risk of accidents
- » Additional air intakes with the same characteristics of the outlet air (line)

The Series MD air preparation product line is characterized by a modern and linear design as well as high performance. The technopolymer structure has allowed to create a simplified, product, lightweight and robust at the same time.

Thanks to the solution adopted for the pneumatic connection, it is possible to equip the same element with interchangeable cartridges that can either be threaded, or with an integrated super-rapid fitting, both types available in different sizes. Intermediate cartridges can be also integrated to join multiple functions or with derivation to draw air. An additional air intake, with the same characteristic of the outlet air, is available on the front side and on the rear one. This intake can be used by utilities with limited consumption.

## GENERAL DATA

|  |   |
|--|---|
| <b>Construction</b>  | modular, compact with filtering element in HDPE   |
| <b>Materials</b>   | see TABLE OF MATERIALS on the following page  |
| <b>Ports</b>   | with interchangeable cartridges: 1/8, 1/4 and 3/8 threaded or integrated with super-rapid fitting for tube with diameters of 6, 8 and 10 mm |
| <b>Condensate capacity</b>                                   | 24 cm <sup>3</sup>  |
| <b>Mounting</b>  | in-line;<br>wall-mounting by means of through holes in the body or with a support bracket;<br>panel mounting                                |
| <b>Operating temperature</b>                                 | -5°C ÷ 50°C up to 16 bar (with the dew point of the fluid lower than 2°C at the min. working temperature)                                   |
| <b>Condensate drain</b>                                      | semi-automatic manual, automatic, protected depressurisation, direct G1/8 exhaust   |
| <b>Quality of delivered air according to ISO 8573-1 2010</b> | Class 6.8.4 with 5 µm filtering element<br>Class 7.8.4 with 25 µm filtering element   |
| <b>Inlet pressure</b>  | 0.3 ÷ 16 bar ( with automatic drain 1 ÷ 9 bar )   |
| <b>Exit pressure</b>   | 0.5 ÷ 2bar    0.5 ÷ 4bar<br>0.5 ÷ 7bar    0.5 ÷ 10bar   |
| <b>Nominal flow</b>  | see FLOW DIAGRAMS on the following pages  |

**CODING EXAMPLE**

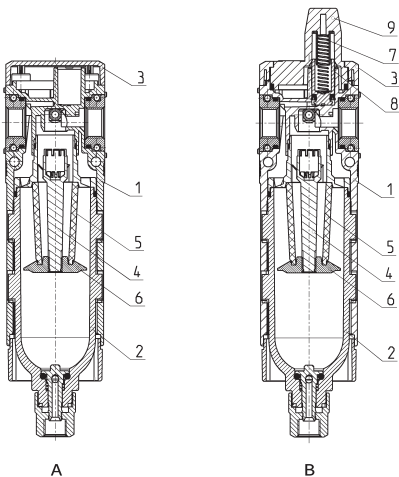
|           |          |          |          |          |          |          |          |            |
|-----------|----------|----------|----------|----------|----------|----------|----------|------------|
| <b>MD</b> | <b>1</b> | <b>-</b> | <b>F</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>-</b> | <b>1/8</b> |
|-----------|----------|----------|----------|----------|----------|----------|----------|------------|

|            |  |
|------------|--|
| <b>MD</b>  | SERIES   |
| <b>1</b>   | DIMENSION:<br>1 = 42 mm  |
| <b>F</b>   | FILTER   |
| <b>0</b>   | FILTERING ELEMENT (further details in the dedicated section):<br>0 = 25 µm<br>1 = 5 µm   |
| <b>0</b>   | DRAINING OF CONDENSATE (further details in the dedicated section):<br>0 = semiautomatic-manual drain<br>3 = automatic drain<br>5 = protected depressurisation<br>8 = direct G1/8 exhaust   |
| <b>0</b>   | VISUAL BLOCKAGE INDICATOR:<br>0 = not present<br>1 = present   |
| <b>1/8</b> | PORTS (IN - OUT)*:<br>= without cartridges<br>1/8 = G1/8<br>1/4 = G1/4<br>3/8 = G3/8<br>6 = tube Ø6<br>8 = tube Ø8<br>10 = tube Ø10<br><br>* NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated.<br>Example: MD1-F000-1/4-10 |

SERIES MD FILTERS

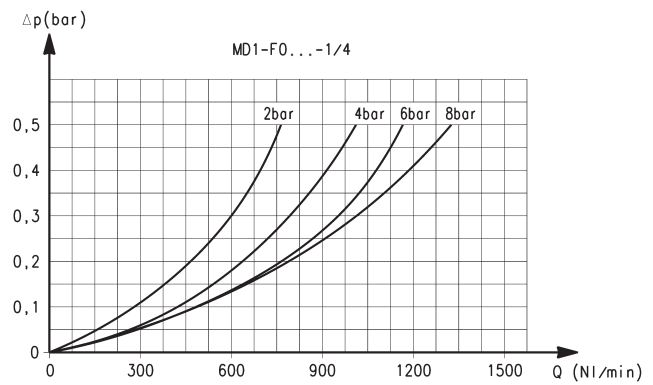
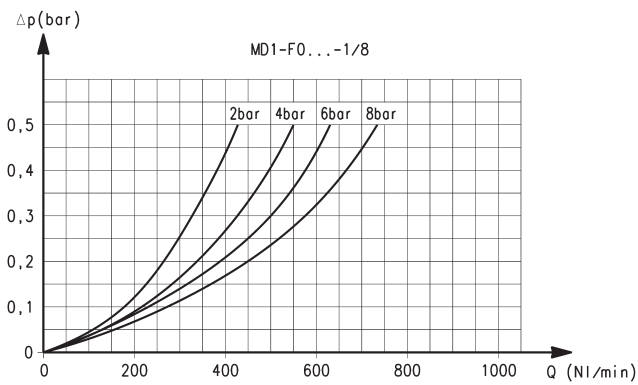
**Filters Series MD - materials**

A = filter  
B = filter with visual blockage indicator



| PARTS                         | MATERIALS          |
|-------------------------------|--------------------|
| 1 = Body                      | Polyamide          |
| 2 = Tank                      | Polycarbonate      |
| 3 = Covering                  | Polyamide          |
| 4 = Valve-guide               | Polyacetal         |
| 5 = Filtering element         | Polyethylene       |
| 6 = Separation deflector      | Polyacetal         |
| 7 = Upper spring              | Stainless steel    |
| 8 = Piston                    | Anodized aluminium |
| 9 = Visual blockage indicator | Polycarbonate      |
| Seals                         | NBR                |

**FLOW DIAGRAMS for models with 25 µm filtering element**



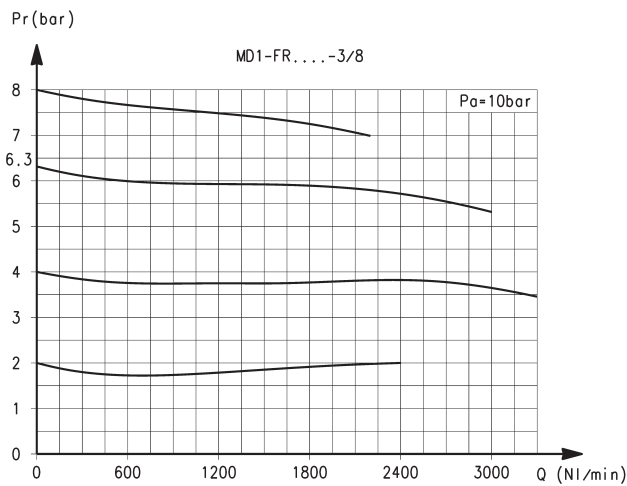
Ports with interchangeable 1/8 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

Ports with interchangeable 1/4 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

**FLOW DIAGRAM**



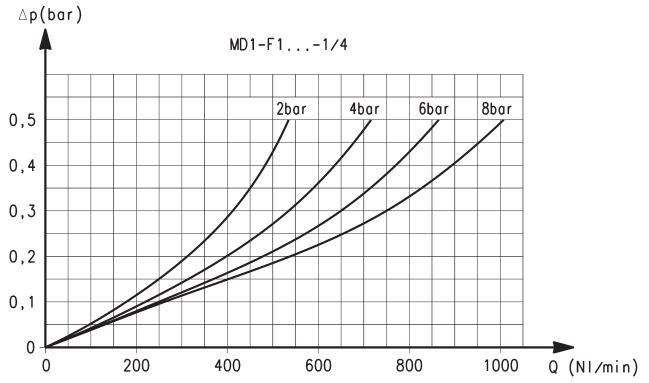
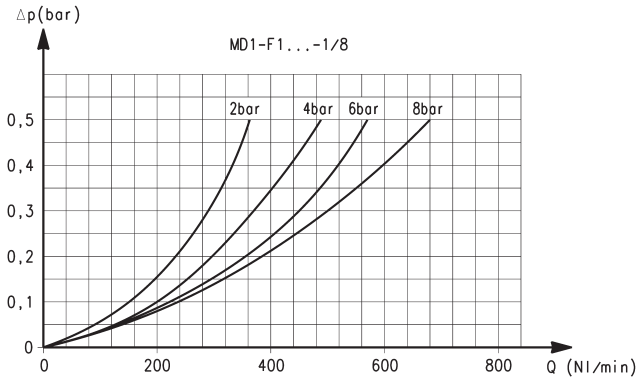
Ports with interchangeable G3/8 threaded cartridges

Pr = Regulated pressure (bar)  
Q = Flow (NL/min)

Pa = Inlet pressure (bar)

N.B: The version with automatic exhaust has a flow reduction of max

**FLOW DIAGRAMS for models with 5 µm filtering element**



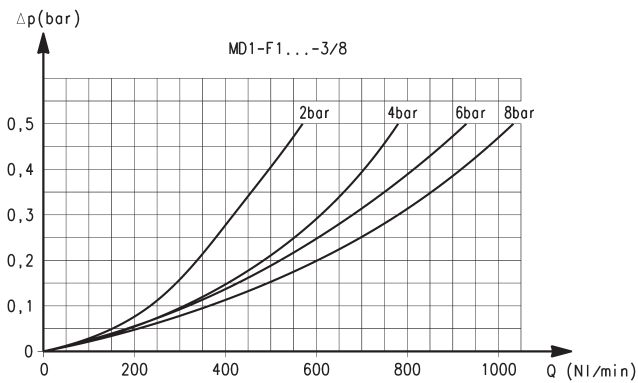
Ports with interchangeable 1/8 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

Ports with interchangeable 1/4 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

**FLOW DIAGRAM for models with 5 µm filtering element**



Ports with interchangeable 3/8 threaded cartridges

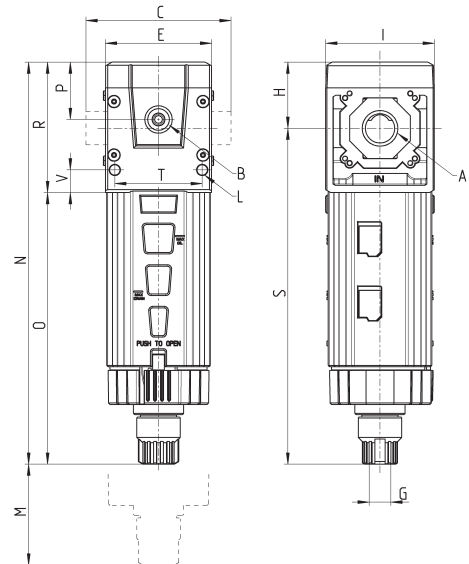
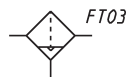
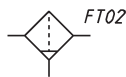
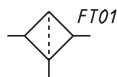
Δp = Pressure drop (bar)  
Q = Flow (NL/min)

N.B The version with automatic exhaust has a flow reduction of max 10%

**Series MD filters - dimensions**



FT01 = filter with direct G1/8 exhaust  
 FT02 = filter with semi-automatic manual drain  
 FT03 = filter with automatic/depressuring drain

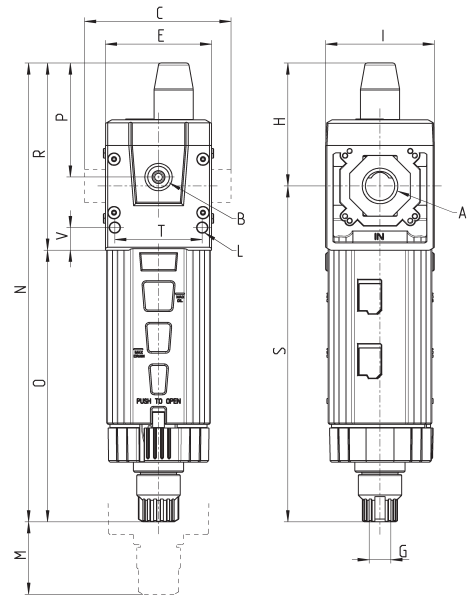
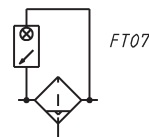
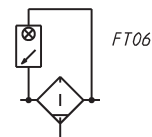
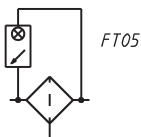


| DIMENSIONS   |      |      |    |    |       |      |    |    |    |       |       |      |      |       |      |   |             |
|--------------|------|------|----|----|-------|------|----|----|----|-------|-------|------|------|-------|------|---|-------------|
| Mod.         | A    | B    | C  | E  | G     | H    | I  | L  | M  | N     | O     | P    | R    | S     | T    | V | Weight (Kg) |
| MD1-F000     | -    | G1/8 | 42 | 42 | G1/8  | 26.2 | 43 | Ø4 | 90 | 159.4 | 107.7 | 22.7 | 51.7 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F000-1/8 | G1/8 | G1/8 | 42 | 42 | G1/8  | 26.2 | 43 | Ø4 | 90 | 159.4 | 107.7 | 22.7 | 51.7 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F000-1/4 | G1/4 | G1/8 | 42 | 42 | G1/8  | 26.2 | 43 | Ø4 | 90 | 159.4 | 107.7 | 22.7 | 51.7 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F000-3/8 | G3/8 | G1/8 | 42 | 42 | G1/8  | 26.2 | 43 | Ø4 | 90 | 159.4 | 107.7 | 22.7 | 51.7 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F000-6   | Ø6   | G1/8 | 47 | 42 | G1/8  | 26.2 | 43 | Ø4 | 90 | 159.4 | 107.7 | 22.7 | 51.7 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F000-8   | Ø8   | G1/8 | 62 | 42 | G1/8  | 26.2 | 43 | Ø4 | 90 | 159.4 | 107.7 | 22.7 | 51.7 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F000-10  | Ø10  | G1/8 | 67 | 42 | G1/8  | 26.2 | 43 | Ø4 | 90 | 159.4 | 107.7 | 22.7 | 51.7 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F030     | -    | G1/8 | 42 | 42 | M10x1 | 26.2 | 43 | Ø4 | 90 | 149   | 97.4  | 22.7 | 51.7 | 122.9 | 34.6 | 9 | 0.2         |

**Series MD filters with visual blockage indicator - dimensions**



FT05 = filter with direct G1/8 exhaust and visual blockage indicator  
 FT06 = filter with semi-automatic manual drain and visual blockage indicator  
 FT07 = filter with automatic/depressuring drain and visual blockage indicator



| DIMENSIONS   |      |      |    |    |       |      |    |    |    |       |       |      |      |       |      |   |             |
|--------------|------|------|----|----|-------|------|----|----|----|-------|-------|------|------|-------|------|---|-------------|
| Mod.         | A    | B    | C  | E  | G     | H    | I  | L  | M  | N     | O     | P    | R    | S     | T    | V | Weight (Kg) |
| MD1-F001     | -    | G1/8 | 42 | 42 | G1/8  | 48.7 | 43 | Ø4 | 90 | 181.9 | 107.7 | 45.2 | 74.2 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F001-1/8 | G1/8 | G1/8 | 42 | 42 | G1/8  | 48.7 | 43 | Ø4 | 90 | 181.9 | 107.7 | 45.2 | 74.2 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F001-1/4 | G1/4 | G1/8 | 42 | 42 | G1/8  | 48.7 | 43 | Ø4 | 90 | 181.9 | 107.7 | 45.2 | 74.2 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F001-3/8 | G3/8 | G1/8 | 42 | 42 | G1/8  | 48.7 | 43 | Ø4 | 90 | 181.9 | 107.7 | 45.2 | 74.2 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F001-6   | Ø6   | G1/8 | 47 | 42 | G1/8  | 48.7 | 43 | Ø4 | 90 | 181.9 | 107.7 | 45.2 | 74.2 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F001-8   | Ø8   | G1/8 | 62 | 42 | G1/8  | 48.7 | 43 | Ø4 | 90 | 181.9 | 107.7 | 45.2 | 74.2 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F001-10  | Ø10  | G1/8 | 67 | 42 | G1/8  | 48.7 | 43 | Ø4 | 90 | 181.9 | 107.7 | 45.2 | 74.2 | 133.2 | 34.6 | 9 | 0.2         |
| MD1-F031     | -    | G1/8 | 42 | 42 | M10x1 | 48.7 | 43 | Ø4 | 90 | 171.5 | 97.4  | 45.2 | 74.2 | 122.9 | 34.6 | 9 | 0.2         |