

**M & S Filter**

Cross section depth filter with SEM micrograph of the filter media

The M and S Coalescing depth filter elements for the removal of water, oil aerosols and solid particles from compressed air and gases with absolute retention efficiency.

Aircel M and S filter elements are designed for high quality filtration of compressed air and gas in industrial applications. M/S element performance has been validated in accordance with ISO 12500, which assures that your application will receive compressed air quality as specified by ISO 8573-1.

The combination of flow channel design optimized through the use of computational fluid dynamics software, careful selection of filtration media, and advanced production technology give the M/S element a very low pressure drop while maintaining a high separation efficiency.

M/S elements utilize a three-dimensional polyester microfiber fleece media, which is ideal for coalescing and draining away oil and water aerosols in the airstream. In addition, this media will capture and retain particulate contaminants through direct impaction, sieving and diffusion.

### M & S Series Features

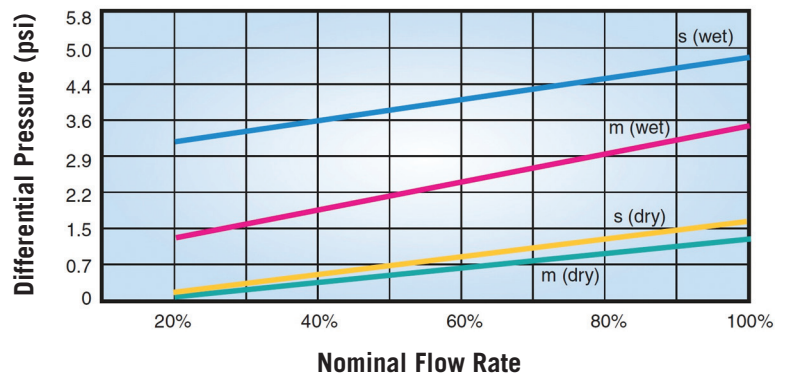
- Performance validated in accordance with ISO 12500
- “Total filter” design concept
- Optimized flow channels
- Pleated filter media
- Stainless steel inner and outer support cores
- Coalescing sleeve bound to outer SS support core

### M & S Series Benefits

- Reliable filtration of compressed air in accordance with quality specifications of ISO 8573-1
- Every aspect of filter designed, optimized and selected to yield flow capacities, filtration grades and efficiencies in line with industry requirements
- Minimizes pressure drop, resulting in energy savings
- High filtration surface area of low pressure drop and high dirt-holding capacity
- Protection against pressure shock in either direction; no corrosion for long element life
- No inflation of sleeve, assuring constant contact with main filter body for optimized drainage of coalesced water and oil

### M & S SERIES Differential Pressure Performance

Differential pressure of M or S filter element in dry and wet condition at 116 psi absolute



# M & S SERIES

## TECHNICAL SPECIFICATIONS



### M & S Model Comparison

#### Specifications

**Validation:** Validation of high-efficiency filters to ISO 12500

**Residual oil content at an inlet concentration of 3 ppm:** M = 1.0 ppm  
S = < 0.01 ppm

**Retention rate related to particles of 0.01 µm:** M = 99.9999%  
S = 99.99998%

#### Materials

**Coalescing Sleeve:** Polyester fleece

**Filter Medium:** Borosilicate glass fiber fleece

**Bonding:** Polyurethane

**End Caps:** Glass fiber reinforced polymer

**O-Rings:** Perbunan – Siliconfree and free of parting compound (standard)

**Support Sleeves:** 304 Stainless steel (inner and outer)

#### M & S Series Applications

- Chemical
- Petrochemical
- Pharmaceutical
- Plastics
- Paint
- Food
- Beverage
- General Machine Fabrication
- Air Conditioning Technology
- Instrumentation and Control Air

Operating Pressure psi	Conversion Factor CF
15	0.25
30	0.36
45	0.50
60	0.60
75	0.75
90	0.90
100	1.00
115	1.10
130	1.20
150	1.40
160	1.50
175	1.60
190	1.75
200	1.90
220	2.00
250	2.10

Element Type	Flow Rate 100 psi (cfm)*
0035	20
0070	41
0120	70
0210	123
0320	188
0450	264
0600	353
0750	441
1100	647

#### Sizing Example for Pressure Which Deviates from Nominal Pressure:

$V_{nom} = 200$  cfm, operating pressure = 130 psi  
 $V_{corr} = V_{nom}/fp$   
 $V_{corr} = 200 \text{ cfm}/1.25 = 165$  cfm  
 Calculated Size: Type 0320

\*cfm related to 15 psi abs. and 68°F



Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.