



# FILTER ELEMENT – Mattei

Alternative filter elements for Mattei

Series: FM series

## DESCRIPTION

These filter elements have been developed for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air.



## FILTER ELEMENT RATING ACCORDING TO ISO 8573-1

Filtration grade	Solid particles class	Water class	Oil class
C3	6	/	/
C2	2	/	2
C1	1	/	1
CC	1*	/	0/1

Validated according to ISO12500-1, ISO12500-2 and ISO12500-3

\* Valid if "X" filter cartridge is installed upstream

## TECHNICAL SPECIFICATION

	C3	C2	C1	CC
Operating temperature	1,5 - 65 °C/ 35 - 149 °F	1,5 - 65 °C/ 35 - 149 °F	1,5 - 65 °C/ 35 - 149 °F	1,5 - 45 °C/ 35 - 113 °F
Operating pressure	0 - 16 barg/ 0 - 232 psi			
Differential pressure (dry)	10 mbar/ 0,145 psi	50 mbar/ 0,725 psi	80 mbar/ 1,160 psi	60 mbar/ 0,870 psi
Differential pressure (wet)	20 mbar/ 0,290 psi	120 mbar/ 1,740 psi	190 mbar/ 2,756 psi	/
Particle retention (nominal)	99,99% (3 µm)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	/
Particle retention rate ISO <sup>(3)</sup>	95 %	99,98 %	99,9994 %	/
Residual oil content <sup>(4)</sup>	/	< 0,1mg/m <sup>3</sup>	< 0,01mg/m <sup>3</sup>	< 0,005mg/m <sup>3</sup>
Flow Direction	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE
Capacity (ISO12500-2) <sup>(5)</sup>	/	/	/	20 min

<sup>(3)</sup>Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 P, MPPS-(5µm) ; 06050 M, S, MPPS-(0,3µm)

<sup>(4)</sup>Tested according to ISO12500-1, 06050 M, S Oil aerosol viscosity 32mm<sup>2</sup>/s, inlet concentration 10mg/m<sup>3</sup>

<sup>(5)</sup>Tested according to ISO12500-2, 06050 A, tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

## CORRECTION FACTORS

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).

$$\text{CORRECTED CAPACITY} = \text{NOMINAL FLOW CAPACITY} \times C_{OP}$$

### OPERATING PRESSURE

[bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
C <sub>OP</sub>	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13



## MATERIALS

	C3	C2	C1	CC
Filter media	Acrylic fibers, cellulose	Borosilicate micro fibers	Borosilicate micro fibers	Borosilicate micro fibers
Protection media	Polyester fleece	Polyester fleece	Polyester fleece	Polyester fleece
Drainage media	/	Polyester needle felt	Polyester needle felt	/
Adsorption media	/	/	/	Activated carbon granulate
Support (inner-outer)	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301
Bonding	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Endcaps	PA6 with 30% glass fibers			
Sealing	NBR	NBR	NBR	NBR

## SIZES

Model	Diameter [mm]	Height [mm]	Flow Capacity [Nm <sup>3</sup> /h]	Flow Capacity [scfm]	Fits into filter housing
MAT 0005	40	43	31	18	FM 0005
MAT 0010	48	64	59	35	FM 0010
MAT 0018	48	108	121	71	FM 0018
MAT 0030	48	146	180	106	FM 0030
MAT 0035	60	114	204	120	FM 0035
MAT 0050	60	144	301	177	FM 0050
MAT 0072	60	185	432	254	FM 0072
MAT 0095	60	224	569	335	FM 0095
MAT 0125	82	210	749	441	FM 0125
MAT 0165	82	312	1019	600	FM 0165
MAT 0190	82	398	1140	671	FM 0190
MAT 0220	82	482	1439	847	FM 0220
MAT 0280	121	484	1680	989	FM 0280
MAT 0350	121	636	2100	1236	FM 0350
MAT 0440	121	760	2640	1554	FM 0440

\*Filter cartridge names consist of cartridge size and filtration grade. Place filtration grade designation after filter size (e.g. MAT 0005 C3).

## MAINTENANCE

C3, C2, C1 - Replace filter element at least once per year or when pressure drop reaches 350mbar

CC - Replace filter element at least every 6 months



## Strength

- We export to almost 100 countries.
- We have more than 2000 global customers.
- We can provide a total filtration solution.

- Filter-Online & Nordic Filtration offers a wide selection of filtration products for Domestic and Industrial Application.

- You can buy our products on our websites or by contacting us by phone or e-mail. Information about our products as well as brochures and manuals can be found on our websites:

[www.filter-online.com](http://www.filter-online.com) for Domestic Products

[nordicfiltration.com](http://nordicfiltration.com) for Industrial Products

We distribute many of our products from our stock in Denmark. Some products are shipped from remote stock.



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