FILTER ELEMENT – OSMC

(Particulate, Coalescing, Oil vapour removal)

DESCRIPTION

We have designed OSMC filter elements for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air[1].
OSMC filter elements will fit into SMC filter housings

APPLICATIONS [2]

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

[1] For any other technical gas please contact us or your local dealer
[2] OSMC filter element can be used in variety of applications. For applications not listed please contact us or your local dealer.

FILTER ELEMENT RATING ACCORDING TO ISO8573-1

	Solid particles	Water	Oil
AFF/P	Class 6	-	-
AM/M	Class 2	-	Class 2
AMD/S	Class 1	-	Class 1
AMF/A	Class 1	-	Class 0/1
AMG/WS			

Validated according to ISO12500-1 and ISO12500-3

TECHNICAL SPECIFICATION

Filtration grade name	AFF/P[6]	AM/M[6]	AMD/S[6]	AMF/A[6]	AMG/WS
Operating temperature		1,5 - 65 °C 35 - 149 °F		1,5 - 45 °C 35 - 113 °F	
Differential pressure (dry)	10 mbar 0,290 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	N/A	
Particle Retention (nominal)	99,99% (3 µm)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	N/A	
Particle retention rate ISO[3]	95 %	99,98 %	99,998 %	N/A	
Residual oil content[4]	N/A	< 0,1mg/m	< 0,01mg/m 3	<0,005mg/m^3	
Capacity (ISO12500-2)[5]		N/A		20 min	

[3] Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 AFF/P, MPPS-(5μm); 06050 AM/M, AMD/S, MPPS-(0,3μm)
[4] Tested according to ISO12500-1, 06050 AFF/M and AMD/S Oil aerosol viscosity 32mm^2/s, inlet concentration 10mg/m^3
[5] Tested according to ISO12500-2, 06050 AMF/A, tested with n-Hexane, test concentration 100mg/kg, 80% Saturation
[6] Cross reference Omega Air – SMC filtration grades: P=AFF/P=AFF, M=AM/M=AM, S=AMD/S=AMD, A=AMF/A=AMF, WS=AMG/WS=AMG

FILTER CARTRIDGE NAMES

Filter cartridge names consist of cartridge size and filtration grade: “OSMC 150 Q/P AL”.

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SIZES

SIZES	DIMENSIONS [mm]	FLOW CAPACITY [Nm³/h]	[scfm]	FITS INTO FILTER HOUSING
OSMC 150_/_	Ø = 49; h = 42	12	7,1	150
OSMC 250 _/_	Ø = 58; h = 52	30	17,7	250
OSMC 350 _/_	Ø = 70; h = 78	60	35,3	350
OSMC 450 _/_	Ø = 81; h = 87	120	70,6	450
OSMC 550 _/_	Ø = 95; h = 118	210	123,6	550
OSMC 650 _/_	Ø = 122; h = 144	360	212	650
OSMC 850 _/_	Ø = 142; h = 223	720	424	850

ø=Diameter; h=Height

MATERIALS

	AFF/P	AM/M	AMD/S	AMF/A	AMG/WS
Filter media	Acrylic fibers, cellulose	Borosilicate micro fibers	Borosilicate micro fibers	Glass fiber, borosilicate microfibres	Needle felt
Drainage media	Polyester	Polyester based polyurethane	Polyester based polyurethane		
Protection media	Polyester	Polyester	Polyester		
Adsorption media	/	/		Activated carbon granulate PES (Polyester)	
Support (inner-outer)	Stainless steel 1.4301				
Bonding	Polyurethane				
Endcaps	Aluminium				
Sealing	NBR				

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).
CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x 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_{OP}	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

MAINTENANCE

Replace filter element grade AFF/P, AM/M and AMD/S at least once per year or when pressure drop reaches 350mbar.

Replace filter element grade AMF/A at least every 6 months.

INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE

BUREAU VERITAS	Our quality management system is certified by BUREAU VERITAS in conformity with ISO 9001:2008 Reg. number: 200285	

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