

# FILTER ELEMENT – MS<sup>2</sup>

**Series: AF Series**

**(Adsorption – Molecular sieve + Particulate)**



## DESCRIPTION

MS<sup>2</sup> two stage filter elements are designed for separating water vapour from small flows of compressed air<sup>(1)</sup> therefore for air drying. In first stage desiccant adsorbs water vapour from the air and in second stage depth fiber filter media intercepts all dust particles. Filtration grade MS2 is suitable for point of use applications. It is important that inlet air is free of liquid water and oil aerosols.

<sup>(1)</sup>For any other technical gas please contact us or your local dealer

## FILTER ELEMENT RATING ACCORDING TO ISO 8573-1

Solid particles class	Water class	Oil class
1*	2*	/

\*Typical result on assumption that inlet and operating conditions are within marginal conditions

## TECHNICAL SPECIFICATION

Operating temperature	1,5 - 45 °C / 35 - 113 °F
Operating pressure	0 - 16 barg / 0 - 232 psi
Differential pressure (dry)	50 mbar / 0,725 psi
Differential pressure (wet)	/
Particle retention (nominal)	99,9999% (0,1 µm)
Particle retention rate ISO <sup>(3)</sup>	99,98%
Residual oil content	/
Flow Direction	INSIDE to OUTSIDE
Max. inlet oil content	Class 1 (ISO 8573-1)
Pressure dew point (nominal)	-40

<sup>(3)</sup>Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 M, Most penetrating particle size MPPS 0,3mm

## MATERIALS

Filter media	Borosilicate micro fibers
Protection media	/
Drainage media	/
Adsorption media	Molecular sieve
Support (inner-outer)	Stainless steel 1.4301
Bonding	Polyurethane
Endcaps	PA6 with 30% glass fibers
Sealing	NBR
Chamber	Acryl

**SIZES**

Model	Diameter [mm]	Height [mm]	Nominal Flow <sup>(5)</sup> [Nm <sup>3</sup> /h]	Nominal Flow <sup>(5)</sup> [scfm]	Total Capacity <sup>(6)</sup> [Nm <sup>3</sup> ]	MS content [g]	Fits into filter housing
07050 MS <sup>2</sup>	51	70	0,0864	0,051	2,6	28	AF 0076
14050 MS <sup>2</sup>	51	140	0,374	0,220	9,8	105	AF 0106
12075 MS <sup>2</sup>	75	125	0,432	0,254	11,1	119	AF 0186
22075 MS <sup>2</sup>	75	225	1,411	0,830	31,3	336	AF 0306
32075 MS <sup>2</sup>	75	325	2,390	1,407	53,5	574	AF 0476
50075 MS <sup>2</sup>	75	505	4,176	2,458	95,3	1022	AF 0706

<sup>(4)</sup>Refers to 10s contact time at 7 barg operating pressure and 20°C.

<sup>(5)</sup>Refers to 20°C inlet temperature, 100% relative humidity and 20% wt desiccant load capacity.

**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<sub>OP</sub> x C<sub>OT</sub>

**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


**OPERATING TEMPERATURE**

[°C]	20	25	30	35	40	45
C <sub>OT</sub>	1	0,98	0,97	0,95	0,94	0,92

**MAINTENANCE**

Replace the cartridge every 12 months or sooner if required. Actual lifetime of filter cartridge depend on operating conditions.

**INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE**

	<p>Our quality management system is certified by BUREAU VERITAS in conformity with ISO 9001:2015</p>	
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