

# FILTER ELEMENT - MS<sup>2</sup>

(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.



## APPLICATIONS<sup>(2)</sup>

- General industrial application
- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- Medical, Dental
- Breathing air

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

<sup>(2)</sup>MS<sup>2</sup> grade 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 (Class 1*)	Water Class 2*	Oil -
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\*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
Particle retention (nominal)	99,9999% (0,1 µm)	
Particle retention rate ISO <sup>(3)</sup>	99,98 %	
Pressure dew point (nominal)*	-40	
Differential pressure*	< 50 mbar	
Max. inlet oil content	Class 1 (ISO 8573-1)	
Flow direction	INSIDE to OUT	

<sup>(3)</sup>Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 A<sup>2</sup>, Most penetrating particle size MPPS 0,3µm

## MATERIALS

Adsorption material	Molecular sieve
Filter media	Borosilicate micro fibers
Drainage media	Polyester based polyurethane
Support	Stainless Steel 1.4301
Bonding	Polyurethane
Endcaps	PA6
Sealing	NBR

**SIZES**

FILTER ELEMENT SIZE	DIMENSIONS [mm]	NOMINAL FLOW <sup>(4)</sup> [Nm <sup>3</sup> /h]	TOTAL CAPACITY <sup>(5)</sup> [Nm <sup>3</sup> ]	FITS INTO FILTER HOUSING	MS CONTENT [g]
07050 MS <sup>2</sup>	∅=51;h=70	0,0864	2,6	AF 0076	28
14050 MS <sup>2</sup>	∅=51;h=140	0,374	9,8	AF 0106	105
12075 MS <sup>2</sup>	∅=75;h=125	0,432	11,1	AF 0186	119
22075 MS <sup>2</sup>	∅=75;h=225	1,411	31,3	AF 0306	336
32075 MS <sup>2</sup>	∅=75;h=325	2,390	53,5	AF 0476	574
50075 MS <sup>2</sup>	∅=75;h=505	4,176	95,3	AF 0706	1022

∅=Diameter;h=Height

<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>

**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.

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