

Element SB / PE / VF / FF / MF / SMF / AK

(Particulate, Coalescing, Oil vapour removal)

Description

We have designed ultra.pure filter elements for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air⁽¹⁾.

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⁾ Filter element can be used in variety of applications. For applications not listed please contact us or your local dealer.

Filter Element Rating According ISO 8573-1

	Solid particles	Water	Oil
SB	Class 7	-	-
PE	Class 6	-	-
VF	Class 6	-	-
FF	Class 2	-	Class 3
MF	Class 2	-	Class 2
SMF	Class 2	-	Class 1
AK	Class 2	-	Class 0/1

Validated according to ISO12500-1 and ISO12500-3

Technical Specification

Element type	SB	PE	VF	FF	MF	SMF	AK
Operating pressure				0 - 16 barg 0 - 232 psi			
Operating temperature			1,5 - 65 °C 35 - 149 °F				1,5 - 45 °C 35 - 113 °F
Differential pressure (dry)	20 mbar 0,290 PSI	10 mbar 0,145 psi	10 mbar 0,145 psi	40 mbar 0,725 psi	50 mbar 0,725 psi	90 mbar 1,160 psi	60 mbar
Differential pressure (wet)	N/A	20 mbar 0,290 psi	20 mbar 0,290 PSI	90 mbar 1,740 PSI	120 mbar 1,740 PSI	190 mbar 2,756 PSI	N/A
Particle Retention (nominal)	25µm	N/A (25 µm)	99,99% (3 µm)	99,9999% (1µm)	99,9999% (0,1µm)	99,9999% (0,01µm)	N/A
Particle retention rate ISO ⁽³⁾	N/A	N/A	95 %	99,8 %	99,98 %	99,998 %	N/A
Residual oil content ⁽⁴⁾	N/A	N/A	N/A	< 0,3mg/m ³	< 0,1mg/m ³	< 0,01mg/m ³	<0,003mg/m ³
Capacity (ISO12500-2) ⁽⁵⁾				N/A			20 min

(3) Tested according to ISO12500-3, 1bar(a), nominal flow, VF 03/10, MPPS-(5µm); MF 03/10 & SMF 03/10 - MPPS-(0,3µm)

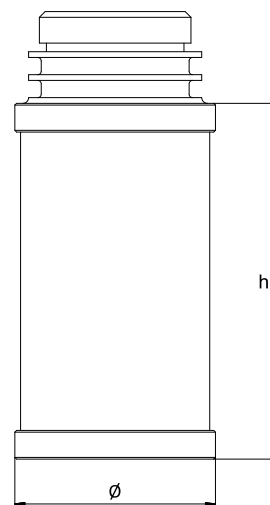
(4) Tested according to ISO12500-1, MF 03/10 & SMF 03/10 - Oil aerosol viscosity 32mm²/s, inlet concentration 10mg/m³

(5) Tested according to ISO12500-2, AK 03/10, tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

Sizes

Element-Sizes	Dimensions [mm]	Flow Capacity		Fits into Filter Housing
		[Nm³/h]	[scfm]	
X 02/05	Ø=35;h=62	20-40	12-24	0002
X 03/05	Ø=35;h=76	40-60	24-35	0004
X 03/10	Ø=42;h=76	60-90	35-53	0006
X 04/10	Ø=42;h=104	90-120	53-71	0009
X 04/20	Ø=52;h=104	120-180	71-106	0012
X 05/20	Ø=52;h=128	180-270	106-159	0018
X 05/25	Ø=62;h=128	270-360	159-212	0027
X 07/25	Ø=62;h=180	360-480	212-282	0036
X 07/30	Ø=86;h=180	480-720	282-423	0048
X 10/30	Ø=86;h=254	720-1080	423-635	0072
X 15/30	Ø=86;h=381	1080-1440	635-847	0108
X 20/30	Ø=86;h=508	1440-1920	847-1129	0144
X 30/30	Ø=86;h=760	1920-2880	1129-1693	0192
X 30/50	Ø=140;h=760	2880-4320	1693-2540	0288

Ø=Diameter; h=Height - X=Element type SB / PE / VF / FF / MF / SMF or AK



Materials

Element type	SB	PE	VF	FF	MF	SMF	AK			
Filter media	Sintered bronze	Sintered polyethylene	Acrylic fibers, cellulose	Glass fiber, borosilicate microfibers			Filter media Glass fiber, borosilicate microfibres inner & outer			
Drainage media	/	/	Polyester	Polyester based polyurethane			Adsorption media Activated carbon embedded			
							Drainage media PES (Polyester)			
Support (inner & outer)	/	/								
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 type SB / PE / VF / FF / MF and SMF at least once per year or when pressure drop reaches 350mbar.
Replace filter element type AK at least every 6 months.