

FILTER ELEMENT - ODO

Alternative filter elements for Donaldson

DESCRIPTION

ODO filter elements have been developed for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air(1).

FILTER ELEMENT RATING ACCORDING TO ISO8573-1

Filtration grade	Solid particles class	Water class	Oil class
P-SMF/P-SMF	1	/	1
P-AK/P-AK	1	/	0/1
P-MF/P-MF	2	/	1
P-FF/P-FF	2	/	2
P-PE/P-PE	6	/	/
P-SB/P-SB	7	/	/
25µm/25µm	/	/	/
5µm/5µm	/	/	/

*Validated according to ISO12500-1 and ISO12500-3

TEHNIICAL SPECIFICATION

	P-SMF/P-SMF (5)	P-AK/P-AK (5)	P-MF/P-MF (5)	P-FF/P-FF (5)	P-PE/P-PE (5)	P-SB/P-SB (5)	25µm/25µm (5)	5µm/5µm (5)
Operating temperature	65		65	65	65	65	150	150
Operating pressure	1	0/1	1	2	/	/	/	/
Differential pressure (dry)	80		50	50	80	20		
Differential pressure (wet)	190		120	120	190			
Particle retention (nominal)	99.9999% (0.01 µm)		99.9999% (0.1 µm)	99.9999% (0.1 µm)	99.9999% (0.01 µm)	(25 µm)	(25 µm)	(5 µm)
Particle retention rate ISO (3)	99.998%		99.98%	99.98%	99.998%			
Residual oil content (4)	< 0.01		< 0.1	< 0.1	< 0.01			
Flow direction	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE

(3) Tested according to ISO12500-3, 1bar(a), nominal flow, 06050, MPPS - (5µm); 06050, , MPPS - (0,3µm)

(4) Tested according to ISO12500-1, 06050 and Oil aerosol viscosity 32mm²/s, inlet concentration 10mg/m³

(5) Cross reference Omega Air – Donaldson filtration grades: P-SMF=P-SMF/P-SMF=P-SMF, P-AK=P-AK/P-AK=P-AK, P-MF=P-MF/P-MF=P-MF, P-FF=P-FF/P-FF=P-FF, P-PE=P-PE/P-PE=P-PE, P-SB=P-SB/P-SB=P-SB, 25µm=25µm/25µm=25µm, 5µm=5µm/5µm=5µm

MATERIALS

	P-SMF/P-SMF	P-AK/P-AK	P-MF/P-MF	P-FF/P-FF	P-PE/P-PE	P-SB/P-SB	25µm/25µm	5µm/5µm
Filter media	Borosilicate micro fibres	Activated carbon granulate PES (Polyester)	Borosilicate micro fibres	Borosilicate micro fibres	Acrylic fibres, cellulose	Sintered bronze	Stainless steel mesh	Stainless steel mesh
Drainage media	/	/	/	/	/	/	/	/
Adsorption media	/	Activated carbon granulate	/	/	/	/	/	/
Protection media	Polyester fleece	Polyester fleece	Polyester fleece	Polyester fleece	Polyester fleece	/	/	/
Support	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	/	Stainless steel 1.4301	Stainless steel 1.4301
Endcaps	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Bonding	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Epoxy base liquid metal	Epoxy base liquid metal	Epoxy base liquid metal
Sealing	NBR	Viton	Viton	Viton	Viton	Viton	Viton	Viton

SIZES

Model	Ø [mm]	Height [mm]
ODO 0205	35	62

Ø - Diameter

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).

$$\text{CORRECTED CAPACITY} = \text{NOMINAL FLOW CAPACITY} \times \text{Cop}$$

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
Cop	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

P-SMF/P-SMF	-	Replace filter element at least once per year or when pressure drop reaches 600 mbar.
P-AK/P-AK	-	Replace filter element at least every 6 months or when pressure drop reaches 350 mbar
P-MF/P-MF	-	Replace filter element at least once per year or when pressure drop reaches 350 mbar
P-FF/P-FF	-	Replace filter element at least once per year or when pressure drop reaches 350 mbar
P-PE/P-PE	-	Replace filter element at least once per year or when pressure drop reaches 350 mbar
P-SB/P-SB	-	Filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depend on application.
25µm/25µm	-	Filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depend on application.
5µm/5µm	-	Filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depend on application.

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