

FILTER ELEMENT – ODO 90'

(Particulate, Coalescing, Oil vapour removal)

DESCRIPTION

We have designed ODO 90' filter elements for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air⁽¹⁾.

ODO 90' filter elements will fit into Donaldson - Ultrafilter 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⁾ DONALDSON 90' 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
SB/B	Class 7	-	-
PE	Class 6	-	-
PE/P	Class 6	-	-
FF/M	Class 2	-	Class 2
MF	Class 2	-	Class 1
SMF/S	Class 1	-	Class 1
AK/A	Class 1	-	Class 0/1

Validated according to ISO12500-1 and ISO12500-3

TECHNICAL SPECIFICATION

Filtration grade name	SB/B ⁽⁶⁾	PE ⁽⁶⁾	PE/P ⁽⁶⁾	FF/M ⁽⁶⁾	MF ⁽⁶⁾	SMF/S ⁽⁶⁾	AK/A ⁽⁶⁾
Operating pressure				0 - 16 bar (g) 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	50 mbar 0,725 psi	50 mbar 0,725 psi	80 mbar 1,160 psi	60 mbar
Differential pressure (wet)	N/A	20 mbar 0,290 psi	20 mbar 0,290 PSI	120 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% (0,1µm)	99,9999% (0,1µm)	99,9999% (0,01µm)	N/A
Particle retention rate ISO(3)	N/A	N/A	95 %	99,98 %	99,98 %	99,998 %	N/A
Residual oil content(4)	N/A	N/A	N/A	< 0,1mg/m ³	< 0,01mg/m ³	< 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 PE/P, MPPS-(5µm); 06050FF/M, SMF/S, MPPS-(0,3µm)

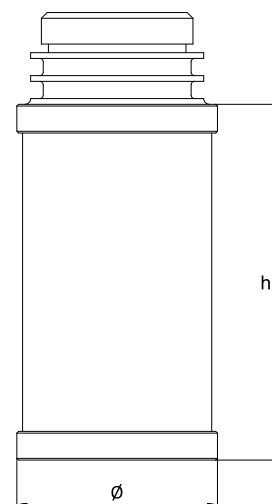
⁽⁴⁾ Tested according to ISO12500-1, 06050 FF/M and SMF/S Oil aerosol viscosity 32mm²/s, inlet concentration 10mg/m³

⁽⁵⁾ Tested according to ISO12500-2, 06050 AK/A, tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

⁽⁶⁾ Cross reference Omega Air – Donaldson filtration grades: B=SB/B=SB, P=PE/P, M=FF/M=FF, S=SMF/S=SMF, A=AK/A=A=AK

SIZES

SIZES	DIMENSIONS [mm]	FLOW CAPACITY		FITS INTO FILTER HOUSING
		[Nm ³ /h]	[scfm]	
ODO 0205 /	Ø=35;h=62	20-40	12-24	0002
ODO 0305 /	Ø=35;h=76	40-60	24-35	0004
ODO 0310 /	Ø=42;h=76	60-90	35-53	0006
ODO 0410 /	Ø=42;h=104	90-120	53-71	0009
ODO 0420 /	Ø=52;h=104	120-180	71-106	0012
ODO 0520 /	Ø=52;h=128	180-270	106-159	0018
ODO 0525 /	Ø=62;h=128	270-360	159-212	0027
ODO 0725 /	Ø=62;h=180	360-480	212-282	0036
ODO 0730 /	Ø=86;h=180	480-720	282-423	0048
ODO 1030 /	Ø=86;h=254	720-1080	423-635	0072
ODO 1530 /	Ø=86;h=381	1080-1440	635-847	0108
ODO 2030 /	Ø=86;h=508	1440-1920	847-1129	0144
ODO 3030 /	Ø=86;h=760	1920-2880	1129-1693	0192
ODO 3050 /	Ø=140;h=760	2880-4320	1693-2540	0288



ø=Diameter; h=Height, *For plastic endcaps leave empty.

FILTER CARTRIDGE NAMES

Filter cartridge names consist of cartridge size and filtration grade. For aluminium end caps add "/AL" at the end.

For plastic endcaps: "ODO 0205 SMF/S", for aluminium endcaps: "ODO 0205 SMF/S AL".

MATERIALS

	SB/B	PE	PE/P	FF/M	MF	SMF/S	AK/A
Filter media	Sintered bronze	Sintered polyethylene	Acrylic fibers, cellulose		Borosilicate micro fibers		Glass fiber, borosilicate microfibres
Drainage media	/	/	Polyester		Polyester based polyurethane		Adsorption media Activated carbon granulate PES (Polyester)
Support (inner-outer)	/	/			Stainless steel 1.4301		
Bonding					Polyurethane		
Endcaps					PA6 with 30% glass fibers OR 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 PE, PE/P, FF/M, MF and SMF/S at least once per year or when pressure drop reaches 350mbar.

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

INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE

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