

FILTER ELEMENT – ODO DF

(Particulate, Coalescing, Oil vapour removal)

DESCRIPTION

ODO DF filter elements have been developed 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⁾ 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
P/P	Class 6	-	-
V/R	Class 3	-	-
M/M	Class 2	-	Class 2
S/S	Class 1	-	Class 1
A/A	Class 1	-	Class 0/1

Validated according to ISO12500-1, ISO12500-2 and ISO12500-3

TECHNICAL SPECIFICATION

Filtration grade name	P/P ⁽⁶⁾	V/R ⁽⁶⁾	M/M ⁽⁶⁾	S/S ⁽⁶⁾	A/A ⁽⁶⁾
Operating temperature			1,5 - 65 °C 35 - 149 °F		1,5 - 45 °C 35 - 113 °F
Differential pressure (dry)	10 mbar 0,145 psi	20 mbar 0,290 psi	50 mbar 0,725 psi	80 mbar 1,160 psi	60 mbar 0,870 psi
Differential pressure (wet)	20 mbar 0,290 PSI	40 mbar 0,580 PSI	120 mbar 1,740 PSI	190 mbar 2,756 PSI	/
Particle retention (nominal)	99,99% (3 µm)	99,9999% (1 µm)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	/
Particle retention rate ISO ⁽³⁾	95 %	99,8 %	99,98 %	99,998 %	/
Residual oil content ⁽⁴⁾	/	/	< 0,1mg/m ³	< 0,01mg/m ³	< 0,005mg/m ³
Capacity (ISO12500-2) ⁽⁵⁾	/	/	/	/	20 min

⁽³⁾ Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 P/P, MPPS-(5µm); 06050 V/R,M/M,S/S, MPPS-(0,3µm)

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

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

⁽⁶⁾ Cross reference Omega Air – Zander filtration grades: P=P/P=P, R=V/R=V, M=M/M=M, S=S/S=S, A=A/A=A

FILTER CARTRIDGE NAMES

Filter cartridge names consist of cartridge size and filtration grade. Place filtration grade designation after filter size instead of dash.

E.g. ODO DF 0320 M/M

SIZES

PLASTIC END CAPS	DIMENSIONS [mm]	FLOW CAPACITY [Nm ³ /h]	FLOW CAPACITY [scfm]
DF 0035	Ø=40; h=63	19,7	11,59
DF 0070	Ø=51; h=81	47,2	27,78
DF 0120	Ø=51; h=125	90,4	53,2
DF 0210	Ø=69,1; h=141,5	191,5	112,7
DF 0320	Ø=69,1; h=200,5	361,2	212,6
DF 0450	Ø=94,4; h=226,5	627,1	369
DF 0600	Ø=94,4; h=260,5	900,9	530
DF 0750	Ø=94,4; h=300,5	882,0	519
DF 1100	Ø=94,4; h=420,5	1295,2	762

Ø=Diameter; h=Height

MATERIALS

	P/P	V/R	M/M	S/S	A/A
Filter media	Acrylic fibers, cellulose	Borosilicate micro fibers	Borosilicate micro fibers	Borosilicate micro fibers	
Adsorption media					Activated carbon granulate PES (Polyester)
Drainage media	/			Polyester based polyurethane	
Support (inner-outer)			Stainless Steel 1.4301		Stainless Steel 1.4301
Bonding				Polyurethane	
Endcaps				PA6 with 30% glass fibers	
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 P/P, V/R, M/M, and S/S at least once per year or when pressure drop reaches 350mbar.

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

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