

FILTER ELEMENT - ODT

(Particulate, Coalescing, Oil vapour removal)

DESCRIPTION

ODT filter elements have been specifically developed for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air ⁽¹⁾. ODT filter elements are designed to fit into Deltech filter 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⁾ ODT 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 |
|-------|-----------------|-------|-----------|
| DFD/R | Class 3 | - | - |
| PFD/M | Class 2 | - | Class 2 |
| HFD/S | Class 1 | - | Class 1 |
| CFD/A | - | - | Class 0/1 |

Validated according to ISO12500-1 and ISO12500-3

TECHNICAL SPECIFICATION

| | DFD/R ⁽⁶⁾ | PFD/M ⁽⁶⁾ | HFD/S ⁽⁶⁾ | CFD/A ⁽⁶⁾ |
|--|----------------------|-----------------------------|-------------------------|----------------------------|
| Operating temperature | | 1,5 - 65 °C/ 35 - 149 °F | | 1,5 - 45 °C/35 - 113 °F |
| Operating pressure | | 0 - 16 barg/ 0 - 232 psi | | |
| Differential pressure (dry) | 20 mbar 0,290 psi | 50 mbar/ 0,725 psi | 80 mbar/ 1,160 psi | 60 mbar/ 0,870 psi |
| Differential pressure (wet) | 40 mbar 0,580 PSI | 120 mbar/ 1,740 psi | 190 mbar/ 2,756 psi | N/A |
| Particle retention (nominal) | 99,9999% (1 µm) | 99,9999% (0,1 µm) | 99,9999% (0,01 µm) | N/A |
| Particle retention rate ISO ⁽³⁾ | 99,8 % | 99,98 % | 99,9994 % | N/A |
| Residual oil content ⁽⁴⁾ | N/A | < 0,1mg/m ³ | < 0,01mg/m ³ | < 0,005mg/m ³ |
| Capacity (ISO12500-2) ⁽⁵⁾ | N/A | N/A | N/A | 20 min |

⁽³⁾ Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 DFD/R, PFD/M, HFD/S, MPPS-(0,3µm)

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

⁽⁵⁾ Tested according to ISO12500-2, 06050 CFD/A, 07050 A² tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

⁽⁶⁾ Cross reference Omega Air – Deltech filtration grades: R=DFD/R=DFD, M=PFD/M=PFD, S=HFD/S=HFD, A=CFD/A=CFD

SIZES

| ALUMINIUM END CAPS | DIMENSIONS [mm] | FLOW CAPACITY [Nm ³ /h] | FLOW CAPACITY [scfm] | FITS INTO FILTER HOUSING |
|-----------------------|--------------------|--|-------------------------|-----------------------------|
| ODT 9 _/_ AL | Ø=42; h=62 | 30 | 51 | PF 9 |
| ODT 18 _/_ AL | Ø=42; h=62 | 60 | 102 | PF 18 |
| ODT 36 _/_ AL | Ø=42; h=111 | 120 | 204 | PF 36 |
| ODT 54 _/_ AL | Ø=55; h=132 | 180 | 306 | PF 54 |
| ODT 90 _/_ AL | Ø=55; h=245 | 300 | 510 | PF 90 |
| ODT 135 _/_ AL | Ø=80; h=192 | 450 | 765 | PF 135 |
| ODT 216 _/_ AL | Ø=80; h=312 | 720 | 1223 | PF 216 |
| ODT 285 _/_ AL | Ø=98; h=281 | 950 | 1614 | PF 285 |
| ODT 405 _/_ AL | Ø=98; h=427 | 1.350 | 2294 | PF 405 |
| ODT 540 _/_ AL | Ø=118; h=539 | 1.800 | 3058 | PF 540 |
| ODT 750 _/_ AL | Ø=118; h=666 | 2.500 | 4248 | PF 750 |
| 2 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 2.700 | 4587 | PF 810 |
| 3 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 4.050 | 6880 | PF 1215 |
| 4 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 5.400 | 9175 | PF 1620 |
| 5 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 6.750 | 11468 | PF 2025 |
| 6 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 8.100 | 13762 | PF 2430 |
| 9 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 12.150 | 20643 | PF 3645 |
| 12 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 17.550 | 29818 | PF 5265 |
| 16 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 21.600 | 36699 | PF 6480 |
| 18 x ODT 8113 _/_ AL | Ø=84; h=495 (750)* | 24.300 | 41286 | PF 7290 |

Ø=Diameter; h=Height; *HFDL grade other grades on request

MATERIALS

| | DFD/R | PFD/M | HFD/S | CFD/A |
|--------------------------|---------------------------|-------|--|-------|
| Filter media | Borosilicate micro fibers | | Glass fibre, borosilicate microfibers | |
| Drainage media | Polyurethane | | / | |
| Adsorption media | / | | Activated carbon granulate PES (Polyester) | |
| Support (inner-outer) | 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 DFD/R, PFD/M, HFD/S at least once per year or when pressure drop reaches 350mbar.

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

INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE

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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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