

FILTER ELEMENT – ODO Silicon Free

(Particulate, Coalescing, Oil vapour removal)

DESCRIPTION

ODO SF filter elements are intended for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air⁽¹⁾ in applications, where silicon and grease free operation is required.

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 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 |
|--------|-----------------|-------|-----------|
| PEP/P | Class 6 | - | - |
| FFP/M | Class 2 | - | Class 2 |
| MFP | | | |
| SMFP/S | Class 1 | - | Class 1 |
| AKP/A | Class 1 | - | Class 0/1 |

Validated according to ISO12500-1 and ISO12500-3

TECHNICAL SPECIFICATION

| Filtration grade name | PEP/P ⁽⁶⁾ | FFP/M ⁽⁶⁾ | MFP ⁽⁶⁾ | SMFP/S ⁽⁶⁾ | AKP/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 | 50 mbar 0,725 psi | 50 mbar 0,725 psi | 80 mbar 1,160 psi | 60 mbar |
| Differential pressure (wet) | 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) | 99,99% (3 µm) | 99,9999% (0,1µm) | 99,9999% (0,1µm) | 99,9999% (0,01µm) | N/A |
| Particle retention rate ISO(3) | 95 % | 99,98 % | 99,98 % | 99,998 % | N/A |
| Residual oil content(4) | 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 P, MPPS-(5,1µm) ; 06050 R,M,S, MPPS-(0,3µm)

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

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

⁽⁶⁾Cross reference Omega Air – Donaldson filtration grades: P=PEP/P=PEP, M=FFP/M=FFP, S=SMFP/S=SMF, A=AKP/A=AKP

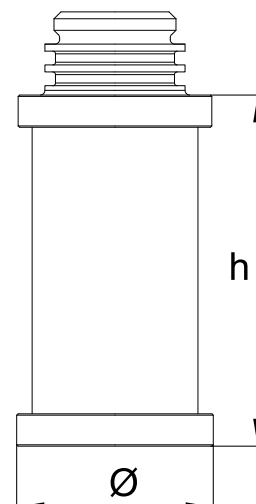
FILTER CARTRIDGE NAMES

Filter cartridge names consist of cartridge size and filtration grade. Example:

ODO 0205 SMFP.

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.

MATERIALS

| | PEP/P | FFP/M | MFP | SMFP/S | AKP/A |
|-----------------------|---------------------------|-------|--|--------|--|
| Filter media | 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 PEP/P, FFP/M and SMFP/S at least once per year or when pressure drop reaches 350mbar.

INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE

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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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