



COALESCING FILTER ELEMENTS

fits Donaldson DF housings

Process Filtration

Donaldson® V filter elements are designed for high quality filtration of compressed air and gas in industrial applications.

The element removes coarse contaminants including particles and oil/water aerosols from compressed air and gas. V coalescing filters can be used as stand-alone filters in industrial applications requiring low to moderate filtration levels, or as the first filter in a series of filters for production of clean, dry air in critical applications.

V filter elements are designed exclusively for use in Donaldson DF-series housings and compressed air flow rates up to 1104 m³/hr @ 6.9 bar (650 scfm @ 100 psig). The V elements feature a uniquely designed flow path developed specifically to reduce operating costs and save money. Donaldson's use of computational fluid dynamics software, filtration media, and advanced production methods ensures a filtration solution that is cost effective, energy saving, high performing, and reliable.



APPLICATIONS

V coalescing depth filter elements are ideal in the following industries and applications:

- Refrigerator/desiccant dryer protection
- Pneumatic valve and cylinder protection
- Pneumatic tool protection
- Pre-filter for sterile air filters
- Instrumentation and process control air purification
- Automotive and paint processes
- Technical gas filtration
- Bulk water removal for sand blasting
- Food packaging equipment

| FEATURES | BENEFITS |
|---|---|
| Performance validation | Independent verification of filtration performance in compliance with industry standard ISO 12500:1/3. |
| Reversible flow direction | Filter can be oriented for particulate (outside to inside flow) or coalescing/particulate (inside to outside flow) without removal of filter housing. |
| Inner and outer stainless steel media support | Media is supported fully in both flow directions against destructive transient pressure impulses. Stainless steel offers protection against corrosion which can blind filter. |
| Oleophobic/hydrophobic media | Aids in shedding water and oil from media. Liquid can be collected in filter bowl and drained away easily. |
| Fully bonded coalescing sleeve | Sleeve maintains full contact with media to efficiently drain liquids and will not separate from filter to potentially contaminate downstream processes. |
| Fiber reinforced polyamide end caps | Non-corrosive, disposable and high-strength support for filter media ensures trouble-free operation. |
| Low pressure drop | High void-volume media saves energy and lowers cost by minimizing pressure loss. |

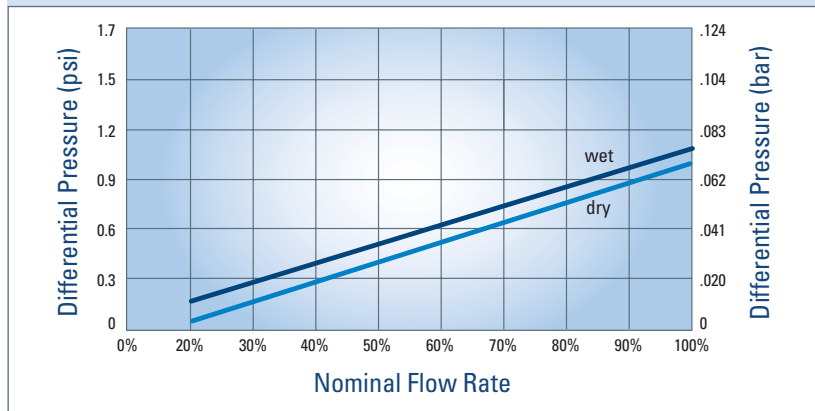
SPECIFICATIONS

| MATERIALS | |
|---------------------------|---|
| Filter Media | Polyester fiber fleece |
| Coalescing Sleeve | Polyester fleece |
| Bonding | Polyurethane |
| End Caps | Glass-fiber reinforced polymer |
| O-Rings | Viton®* silicone free and free of compound (standard) |
| Inner/Outer Support Cores | 304 SS |

* Viton is a registered trademark of DuPont Performance Elastomers L.L.C.

| ELEMENT TYPE | NOMINAL FLOW RATE | |
|--------------|-------------------|------|
| | m³/hr | scfm |
| 0035 | 36 | 21 |
| 0070 | 70 | 41 |
| 0120 | 121 | 71 |
| 0210 | 211 | 124 |
| 0320 | 319 | 188 |
| 0450 | 450 | 265 |
| 0600 | 600 | 353 |
| 0750 | 749 | 441 |
| 1100 | 1099 | 647 |

DIFFERENTIAL PRESSURE OF V FILTER ELEMENT in dry and wet conditions @ 6.9 bar (100 psig)



| FILTER TYPE | V | ELEMENT SIZE | 0035-1100 | | | | | | | |
|---|-------|--------------|--------------|------|------|------|------|------|------|------|
| Retention of oil aerosols acc. to ISO 12500-1 | | | | | | | | | | |
| Oil retention rate at 6.9 bar (100 psig) and 10 mg/m³ inlet concentration | | | 96% | | | | | | | |
| Residual oil concentration at inlet concentration of | | 10 mg/m³ | < 0.40 mg/m³ | | | | | | | |
| | | 30 mg/m³ | < 0.20 mg/m³ | | | | | | | |
| Retention of particles acc. to ISO 12500-3 | | | | | | | | | | |
| Particle diameter [µm] | lower | 0.19 | 0.24 | 0.36 | 0.52 | 0.81 | 1.16 | 1.78 | 2.74 | 3.92 |
| | lower | 0.24 | 0.36 | 0.52 | 0.81 | 1.16 | 1.78 | 2.74 | 3.92 | 6.00 |
| Particle retention rate at 6.9 bar (100 psig) [%] | | 17.1 | 22.3 | 31.7 | 50.9 | 83.1 | 98.5 | 100 | 100 | 100 |

Important Notice: Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, specifications, availability and data are subject to change without notice, and may vary by region or country.



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