



Donaldson
FILTRATION SOLUTIONS

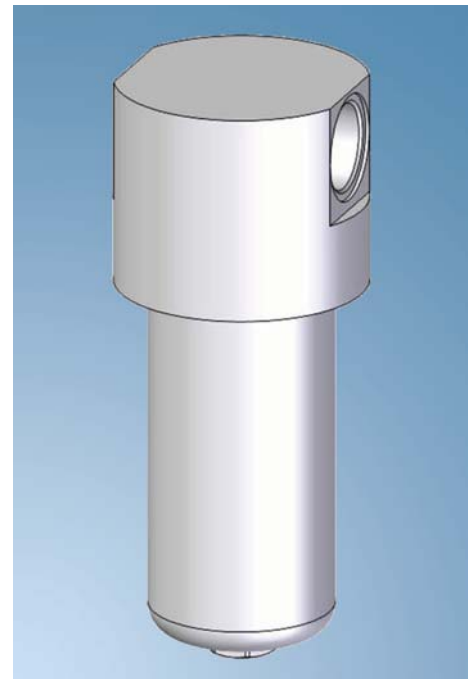
Compressed Air Filtration

Filter for special applications

DFX

MAIN FEATURES & BENEFITS:

- Innovative Filtration technology, high retention rate, low pressure loss
- Filter housing made of aluminium, designed for operating pressure up to 25 bar and operating temperatures from -20°C up to +120°C
- For the purification of non-corrosive gases of fluid group 2 (non-dangerous gases) and selected non-corrosive gases of fluid group 1 (dangerous gases) acc. to Pressure Equipment Directive 97/23/EC
- Flow-optimized design (saving of energy costs)



INDUSTRIES:



- Chemical and pharmaceutical industry



- Gas industry



- Surface finishing



- Machine building industry and
plant engineering / construction



- Energy and power generation

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Donaldson®
Ultrafilter

PRODUCT DESCRIPTION

The DFX filters are intended for the processing of compressed air or gases in industrial applications. The special construction of filter housing and filter elements as well as the used materials allow the use under extreme operating conditions. The DFX filters cover applications at high and low operating temperatures as well as ambient conditions with mechanical stresses, like vibrations or impacts.

With 7 sizes the DFX filter covers a performance range up to 600 Nm³/h flow rate (for compressed air) at an operating pressure of 25 bar. The housing connections cover a range from 3/8" up to 2".

Validated performance data acc. to ISO 12500-1 and ISO 12500-3 for reliable achievement of compressed air quality suitable to the application acc. to ISO 8573-1.



The DFX filter element is designed and developed for the following applications:

- **Special applications:**

- High temperature
- Low temperature
- Heavy duty / Outdoor

- **Special gases:**

- Selected, non-corrosive gases of fluid group 1 + 2
- Natural gas / Biogas

- **Technical gases:**

- Gas manufacturing
- Gas processing
- Gas storage
- Gas transportation
- Laboratory

PRODUCT SPECIFICATIONS

| Features: | Benefits: |
|--|---|
| Validated performance data acc. to ISO 12500-1 and ISO 12500-3 | Reliable achievement of compressed air quality acc. to ISO 8573-1 |
| Intelligent overall concept | Flow range, filtration grades, efficiencies as well as housing and element design meet requirements of compressed air purification and a multitude of technical gases |
| Fine thread connection between filter head and filter bowl with radial sealing-up O-ring | Very rugged construction with excellent sealing characteristics |
| Flow-optimized design | Low pressure losses, thereby saving of energy costs |
| Element can be removed together with filter bowl | Service friendly construction - easy installation and montage, easy filter exchange |
| Little installation height for the filter element exchange | Compact, space-saving construction - installation within smallest space possible |
| Filter housing anodised | Ensures long-term corrosion protection against environmental influences |

| DFX Application Specifications | | | |
|---|--------------------|--|------------------|
| Fluid | Operating pressure | Operating temperature | Gasket materials |
| Technical Gases Fluid Group 2, non-corrosive * | | | |
| Air Nitrogen N ₂ Carbon Dioxide CO ₂ (dry) Helium He Argon Ar Neon Ne | ≤ 25 bar | -20°C.....+120°C (dry condition) > 0°C.....+100°C (wet condition) | Viton |
| Technical Gases Fluid Group 1, non-corrosive * | | | |
| Butane C ₄ H ₁₀ Carbon Monoxide CO Ethane C ₂ H ₆ Ethylene C ₂ H ₄ Hydrogen H ₂ Methane CH ₄ Natural gas (dry) Propane C ₃ H ₈ Propylene C ₃ H ₆ (on request) | ≤ 25 bar | -20°C.....+120°C (dry condition) > 0°C.....+100°C (wet condition) | Viton |

* Applicable operating conditions for certain fluids on request

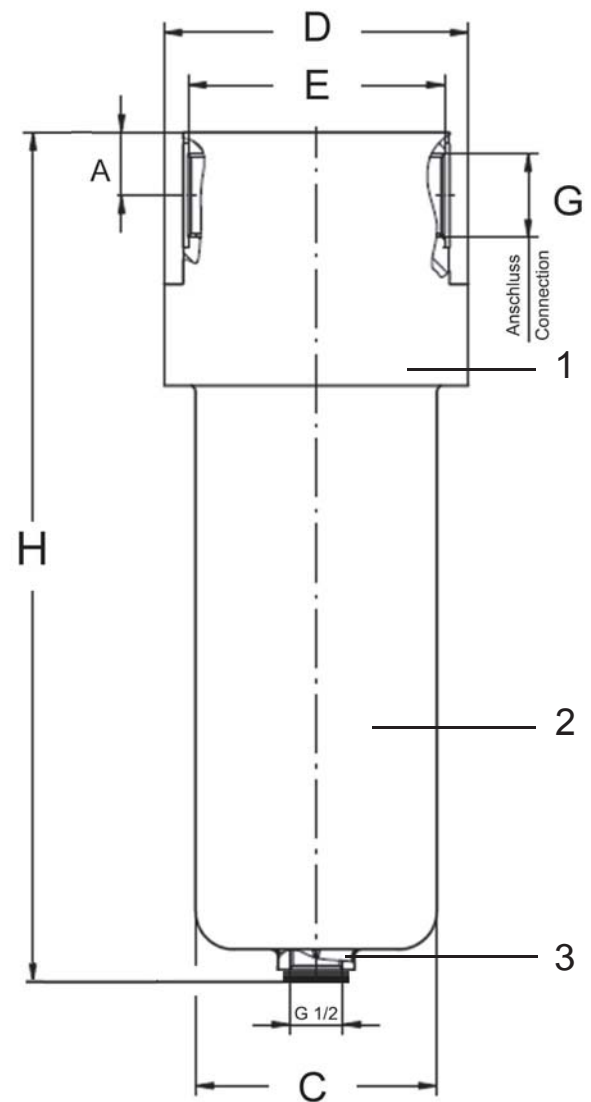
MATERIALS/ DIMENSIONS

| Pos. | Pcs. | Description |
|------|------|-------------|
| 1 | 1 | Filter head |
| 2 | 1 | Filter bowl |
| 3 | 1 | Plug |

| Materials filter housing | |
|--------------------------|-----------|
| Filter housing | Aluminium |
| Sealings | Viton |

| Operating data | |
|-----------------------------|----------------|
| Design pressure | 25 bar |
| Test pressure | 35,75 bar |
| Perm. operating temperature | -20°C / +120°C |

| Classification acc. 97 / 23 / EC for fluids | | |
|---|----------------|----------------|
| Fluid | Group 1* | Group 2* |
| DFX 0035-DFX 0120 | Art. 3, par. 3 | Art. 3, par. 3 |
| DFX 0210-DFX 0320 | Cat. 1 | Art. 3, par. 3 |
| DFX 0450-DFX 0600 | Cat. 2 | Cat. 1 |
| * only fluids of group 1 + 2 as described in table "DFX Application Specifications" on page 3 | | |



| DFX | Volume l | Weight kg * | Dimensions | | | | | | Element MX/SX VX/AX |
|------|-------------|----------------|------------|-----------|-----------|---------|---------|---------|---------------------------|
| | | | A mm | C ø mm | D ø mm | E mm | H mm | G | |
| 0035 | 0,19 | 0,7 | 12,0 | 60 | 75 | 67 | 144 | G 3/8 | 0035 |
| 0070 | 0,54 | 1,6 | 16,5 | 72 | 100 | 90 | 212 | G 1/2 | 0070 |
| 0120 | 0,54 | 1,6 | 18,5 | 72 | 100 | 90 | 217 | G 3/4 | 0120 |
| 0210 | 1,20 | 2,9 | 23,0 | 95 | 120 | 108 | 296 | G 1 | 0210 |
| 0320 | 1,20 | 3,6 | 30,0 | 95 | 130 | 113 | 310 | G 1 1/2 | 0320 |
| 0450 | 2,50 | 6,5 | 30,0 | 120 | 160 | 146 | 383 | G 1 1/2 | 0450 |
| 0600 | 2,50 | 8,8 | 38,0 | 120 | 180 | 161 | 396 | G 2 | 0600 |

* without filter element