



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 2014/68/EU
- 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 Nm<sup>3</sup>/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 <sub>2</sub> Carbon Dioxide CO <sub>2</sub> (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 <sub>4</sub> H <sub>10</sub> Carbon Monoxide CO Ethane C <sub>2</sub> H <sub>6</sub> Ethylene C <sub>2</sub> H <sub>4</sub> Hydrogen H <sub>2</sub> Methane CH <sub>4</sub> Natural gas (dry) Propane C <sub>3</sub> H <sub>8</sub> Propylene C <sub>3</sub> H <sub>6</sub> (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

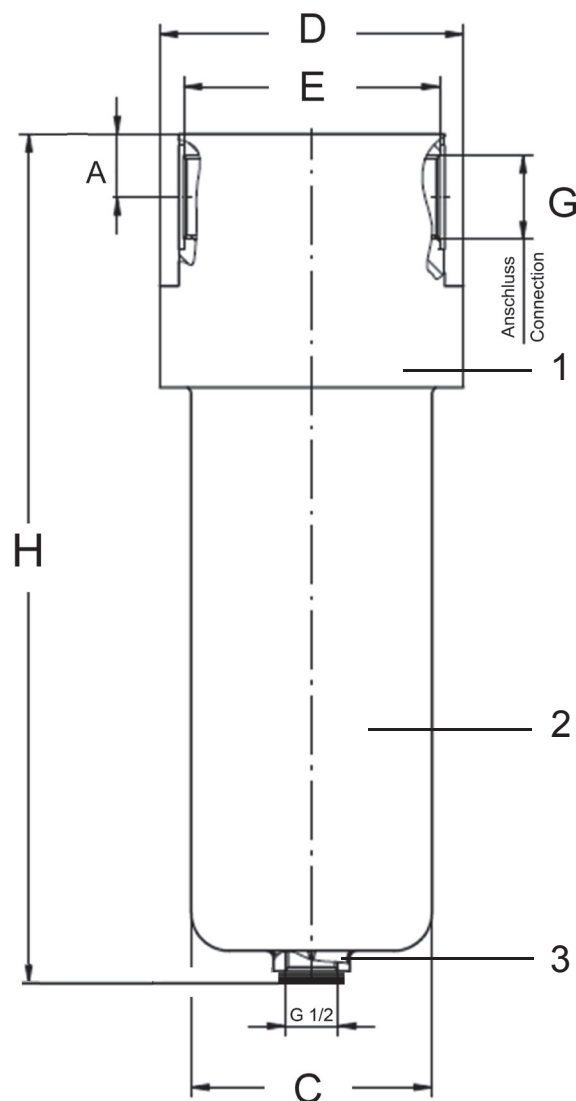
Pos.	Pcs.	Description
1	1	Filter head
2	1	Filter bowl
3	1	Plug

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. 2014 / 68 / EU 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	13,0	60	75	67	144	G 3/8	0035
0070	0,54	1,6	16,5	72	100	90	208	G 1/2	0070
0120	0,54	1,6	18,5	72	100	90	213	G 3/4	0120
0210	1,20	2,9	23,0	95	120	108	294	G 1	0210
0320	1,20	3,6	30,0	95	130	113	309	G 1 1/2	0320
0450	2,50	6,5	30,0	120	160	146	381	G 1 1/2	0450
0600	2,50	8,8	38,0	120	180	161	395	G 2	0600

\* without filter element