Fine Filter GDF-V

The depth filter for the removal of water, oil aerosols and solid particles from compressed air and gases with validated retention rate acc. ISO 12500-1 and ISO 5011.

The filter elements type V are designed for the processing of compressed air or gases in industrial applications.Validated performance data acc. to ISO 12500-1 for reliable achievement of compressed air quality suitable due to the application acc. to ISO 8573-1.By a flow-optimised design of the filter element as well as by the assigned filter media and the advanced production technology, the differential pressure is minimized and a continuously high separation efficiency is ensured.The filter elements type V possess the three-dimensional micro fibre fleece made of polyester, which works oil and water-rejecting. By utilising various filtration mechanisms such as retention by direct impact, sieve effect and diffusion effect, liquid aerosols and solid particles are being retained in the filter.

Element Type	Flowrate at 7 bar g m^3/h *
0045	45
0085	85
0140	140
0240	240
0350	350
0510	510
0680	680
0860	860
1200	1200

Sizing example for pressure which deviates from nominal pressure:

$\dot{V}_{nom}$ = 350 m^3/h, operating pressure = 9 bar (g)

$$\dot{V}_{corr} = \frac{\dot{V}_{nom}}{f_p}$$

$$\dot{V}_{corr} = \frac{350\ m^3/h}{1.25} = 280\ m^3/h$$

Calculated Size: Type 0350

Operating Pressure bar g	Pressure conversion factor f_p
1	0.25
2	0.38
3	0.50
4	0.63
5	0.75
6	0.88
7	**1.00**
8	1.13
9	1.25
10	1.38
11	1.50
12	1.63
13	1.75
14	1.88
15	2.00
16	2.13

* m^3/h related to 1 bar abs. and 20°C

Applications

The depth filter is for example being utilised in the following industries:

. Pre-filtration upstream fridge and adsorption dryers

. Pre-filter for the removal of larger amounts of liquids

. Applications with expected high particle intake

. After-filter downstream adsorption dryers

GARDNER DENVER

Experience Proven Results™

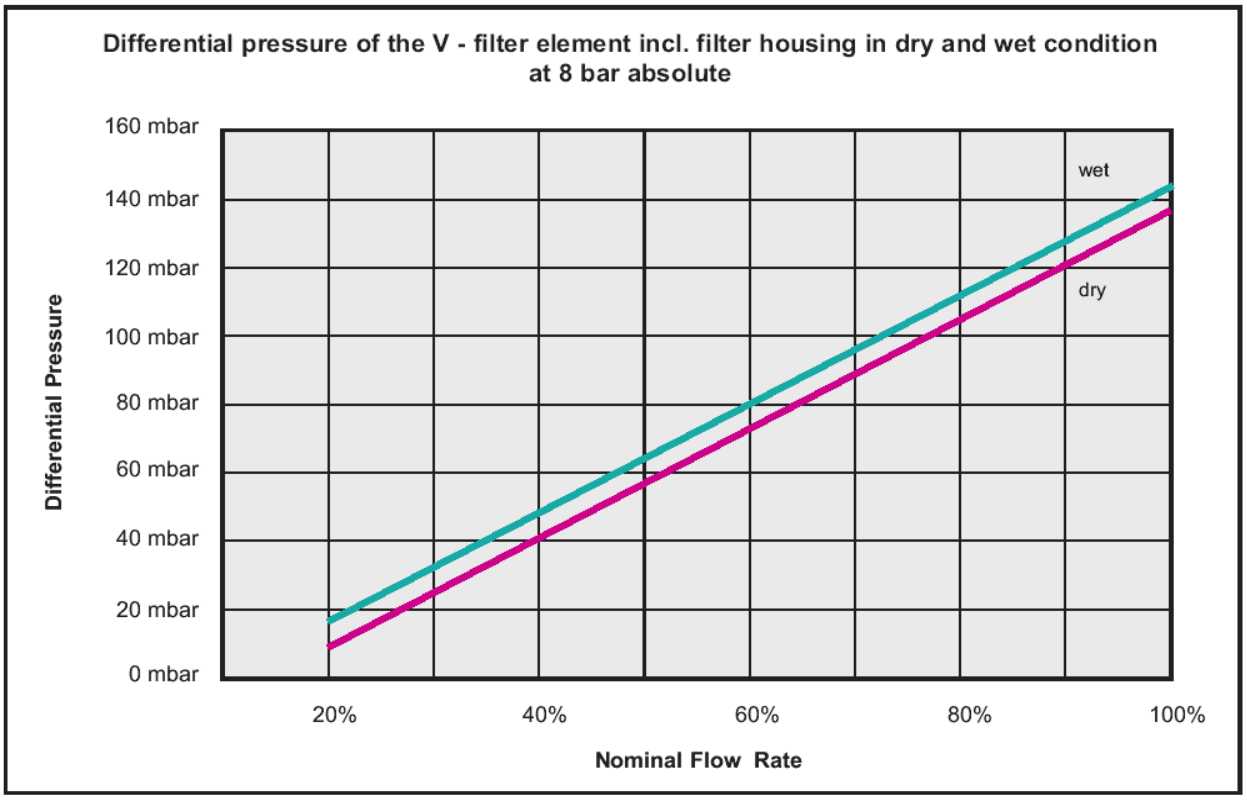
Technical Data

Features:	Benefits:
Validated performance data acc. to ISO 12500-1	Reliable reaching of the compressed air quality according to ISO 8573-1
Intelligent total concept	Flow range, filtration grades, efficiencies and available options perfectly meet requirements of air purification
Flow optimised design	Minimum pressure losses, thereby savings of energy costs
Coalescence sleeve fixed by outside support sleeve	No inflation of the coalescence sleeve; flow area between element and housing guaranteed at any time; optimised drainage function by constant stabile structure of the coalescence sleeve
Support sleeve made of stainless steel meshed grid	Protection of the filter media against pressure shocks
Use of stainless steel material with glass fiber reinforced polyamide	Optimal corrosion protection

Materials:	
Filter media	Polyester fibre fleece
Coalescense sleeve	Polyester fleece
Inner and outer support sleeves	Stainless steel 1.4301 / 304
End caps	Glass fibre reinforced polymer
O-Rings	Viton: silicone free and free of compound (Standard)
Bonding	Polyurethane

Validation:
Validation of high-effiency filters acc.to ISO 12500-1 (oil) and ISO 5011 (particles)

Particle retention rate related to particles			Oil retention rate acc. to ISO 12500-1	Residual oil content at inlet concentration		
≥ 1 µm	≥ 5 µm	≥ 9 µm			10 mg/Nm³	3 mg/Nm³
η (V) = 99,65%	η (V) = 99,90%	η (V) = 100%	η (V) = 96%	$\dot{m}_{Öl}$ (V) [mg/Nm³]	< 0,5	< 0,2



For additional information please contact Gardner Denver or your local representative.

Gardner Denver

gdcompressors.eu@gardnerdenver.com

www.gardnerdenverproducts.com