

Gas Filter GF Serie

Main Features



Gas filter for the protection against blockage of devices and fittings connected downstream.

GF Serie Gas Filters According to 2016/68/EU directive.

- High filtration efficiency
- Low pressure loss
- High dust accumulation
- Easily replaceable filter cartridge
- Outdoor version as standard
- Optionally available with differential pressure measurement (differential pressure gauge with limit switch)

Technical Features



Maximum allowable pressure –PS	2 – 6 bar
Ambient temperature –TS ⁽¹⁾	-20 °C to +70 °C
	Threaded conn. according to EN 10226 or NPT ASME 1/2" 3/4" 1" 1 1/4" 1 1/2" 2"
	Flanged Conn. According to EN 1092-1 or ANSI 150 DN25 DN32 DN40 DN50 DN65 DN80 DN100 DN125 DN150 DN200 DN250 DN300
Connection	
Grade of filtration	10 µm 20 µm 50 µm
Connections	Threaded Rp EN or NPT ASME

⁽¹⁾ Low temperature version -40°C: available on request

Metarials

Body	Aluminium
Covers	Aluminium
Filter Element	Polypropylen fleece, Metallic grid
Seals	NBR
Pressure Test Points	Brass

Gas Filter, GF Serie

Standards and certificates

Applied directives:

Pressure Equipment Directive –PED

(EU) EU/2014/68



- UkrSepro Technical Regulations for Pressure Equipment UA.TR.012C.0368



The relevant valid edition of the standards can be found in the declaration of conformity!

Use

General Gases :

Natural gas, town gas, propane, butane, air, nitrogen or all non-corrosive gases

Suitable for use with fluids, it is mainly used for medium and low pressure natural gas systems.

Hydrogen Ready :

Suitability of natural gas-hydrogen mixtures or pure hydrogen.

When using the GF series, a manufacturer's declaration and notified body reports can be provided on request.

Biogas or Biomethane Version :

Suitable for biogases and recycling gases

– up to maximum 1% by volume H₂S, dry

– up to maximum 1% by volume NH₃,

dry No non-ferrous metals (except in very small quantities found in the plastic components)

Biogas version of GF Series are also designed for slightly aggressive, dry gases.

Gases according such as biogases, landfill gases, sewage gases, other recycled gases, process gases, and air. The chemical composition and aggressiveness of each biogas or recycled gas is different, not constant, and dependent on several factors.

The aggressiveness of the gas notably increases:

- as the hydrogen sulfide content H₂S increases
- with the moisture content of the gas, condensation is not permitted inside the filter

In consultation with Gastech, users must decide whether the materials used for the GF Series are suitable for the intended types of recycling gas. These gases can vary in terms of both their composition and the respective concentration of the components.

As a result, it is not possible to make any warranties or definitive statements regarding service life. An assessment should be carried out to determine the suitability of the gas used.

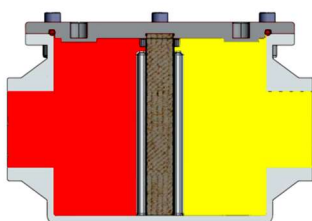


For safety reasons, we strongly recommend

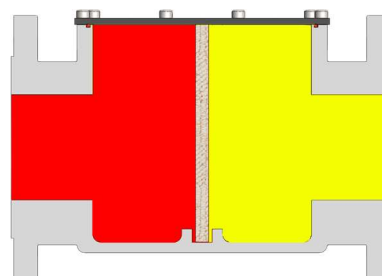
- the installation of a main gas valve for inlet pressure
- a visual inspection of the GF Serie filter at intervals of 3 to 6 months
- Function and leakage tests

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Desing, Operational Diagram

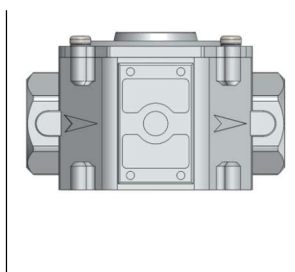


Threaded Connection Gas Filter

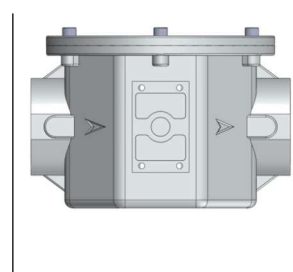


Flanged Connection Gas Filter

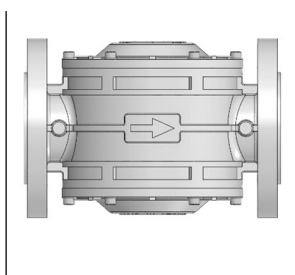
Configurations



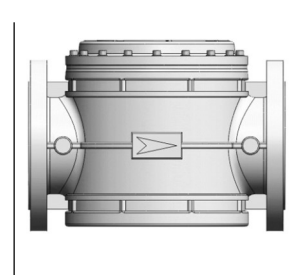
Gas Filter
1/2" – 3/4" – 1"



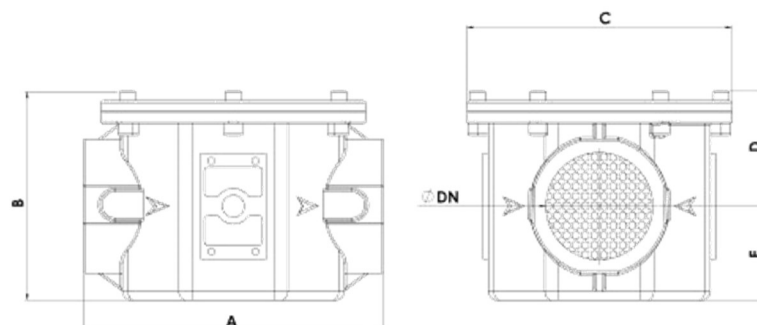
Gas Filter
1 1/4" – 1 1/2" – 2"



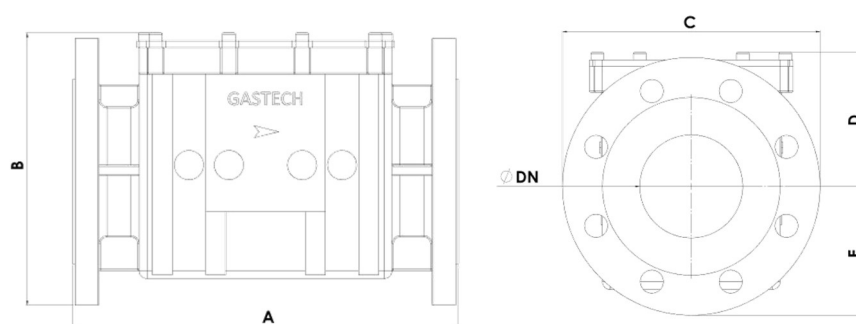
Gas Filter
DN25 – DN50



Gas Filter
DN125 – DN300

Gas Filter, GF Serie
Dimensions and Weights
GF Serie- Threaded Connection


DN	A	B	C	D	E
Rp. 1/2"	120	72	92	42	30
Rp. 3/4"	120	72	92	42	30
Rp. 1"	120	72	92	42	30
Rp. 1 1/4"	160	110	140	60	50
Rp. 1 1/2"	160	110	140	60	50
Rp. 2"	160	110	140	60	50

GF Serie- Flanged Connection


DN	A	B	C	D	E
DN 25	235	158	165	79	79
DN 40	235	158	165	79	79
DN 50	235	158	165	79	83
DN 65	290	204	185	83	93
DN 80	290	204	200	83	100
DN 100	320	234	220	104	109
DN 125	420	210	300	104	132
DN 150	420	310	300	125	132
DN 200	730	560	400	357	203
DN 250	730	560	400	357	203
DN 300					

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Capacity Tables
GS Serie- Threaded Connection --50µm Cartridge

Diameter DN	ΔP Differential Pressure (mbar)										
	0.5	1	2	3	5	10	20	30	50	100	200
Rp. 1/2"	7	9	14	16	20	28	30	50	62	78	130
Rp. 3/4"	12	17	22	28	35	50	70	84	105	160	210
Rp. 1"	17	22	30	38	49	68	95	120	160	205	290
Rp. 1 1/4"	27	34	48	59	76	107	160	185	240	330	540
Rp. 1 1/2"	35	60	88	105	140	195	280	320	420	500	840
Rp. 2"	48	67	95	120	155	206	300	360	460	560	900
DN 25 Flg.	17	22	30	38	49	68	95	120	160	205	290
DN 40 Flg.	35	60	88	105	140	195	280	320	420	500	840
DN 50 Flg.	48	67	95	120	155	206	300	360	460	560	900
DN 65 Flg.	90	140	190	220	295	400	580	700	900	1400	1850
DN 80 Flg.	140	190	260	310	410	595	820	1000	1400	1800	2600
DN 100 Flg.	180	245	330	400	520	740	1100	1350	1800	2300	3100
DN 125 Flg.	390	550	790	950	1300	1900	2500	3000	3900	5300	7200
DN 150 Flg.	390	550	790	950	1300	1900	2500	3000	3900	5300	7200
DN 200 Flg.	700	950	1400	1800	2100	3000	4050	5000	6800	9000	14000
DN 250 Flg.	900	1400	1900	2200	2900	4000	6000	7000	9000	14000	18000
DN 300 Flg.	1400	1940	2800	3100	4000	6000	8000	10000	14000	18000	25000



Only 6bar versions can be used at 100mbar and 200mbar pressure loss.

Capacity values are for 50 micron cartridge. Please contact us for the capacity values of 10 and 20 micron cartridge types.

Correction factor for non-natural gas applications

The flow rates are indicated for a 0.6 specific gravity gas. To determine the volumetric flow rate for gases other than natural gas, multiply or calculate the values in the capacity tables using the sizing equations with a correction factor. The table below lists correction factors for some common gases:

Gas Type	Density ratio to air	Conversion factor
Air	1.00	0.77
Butane	2.00	0.55
Propane	1.52	0,63
Propane+Air Mix	1.2	0,71
Hydrogen	0.07	2.94
Nitrogen	0.97	0.79
Carbondioxide	1.52	0.63

Use the following formula to calculate the correction factor for gases not listed above. In the formula, d is the specific gravity of the gas.

$$\text{Conversion factor} = \sqrt{\frac{0.6}{d}}$$

Stm3 /h /reference conditions 15 °C, 1 barg

Stm3 /h x 0.94795 = Nm3 /h

Nm3 /h reference conditions 0 °C, 1 barg

Gas Filter, GF Serie

Color of Products

Standard Colors Natural Aluminium

Optional Colors

You can choose one or more of the following colors.

Part	RAL Code	Color
All Parts	1021	
All Parts	3000	
All Parts	9005	
All Parts	6011	
All Parts	5010	

 delivery times and price may vary in optional color options.

Gas Filter, GF Serie**NOTES**

For more information, contact your local sales representative or agency.



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For more information, contact your local sales representative or agency.

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