



STANDARD FEATURES



Cartridge Gas Filters GS Serie According to 2014/68/EU Directive, EN 13445 standard.

Type GS and cellular gas filters are designed for retaining gas impurities, such as dust, rust and other solid particles, in gas-carrying lines at a defined location. They are mainly used in gas pressure regulating and measuring stations, power plant and upstream of equipment, the function of which would be impaired by contaminants. The filters are suitable for gases in accordance with DVGW Code of Practice G 260 / G 262 and neutral non-corrosive gases. (Other gases on request). According to 2014/68/EU directive.

- High filtration efficiency
- Large particle chamber
- High flow capability
- Outdoor version as standard
- Wide range of accessories
- Replaceable cartridge structure
- Eco-friendly cartridge
- Easy maintenance

TECHNICAL FEATURES

Maximum allowable pressure –PS	25 bar
Allowable temperature –TS ⁽¹⁾	-20 °C to +60 °C
Inlet gas temperature	-20 °C to +60 °C
Nominal size –DN	DN25 DN32 DN40 DN50 DN65 DN80 DN100 DN125 DN150 It is possible to produce filters with different inlet and outlet diameters to order.
Connections ⁽²⁾	PN16, PN25 according to ISO 7005 Class 150 RF according to ASME B16.5 and
Filtration efficiency ⁽³⁾	Standard 99.9% of particle size > 2 µm
Limit for soiled filter insert	Δpmax = 500 mbar
Explosion protection	Mechanical components of filter do not contain a potential ignition source, thus do not fall in limits of ATEX 95 (94/9/EG). (Used electronic accessories comply with ATEX-demands.)

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

⁽²⁾ On request for other connection class

⁽³⁾ On request cartridge 5µm and 10µm

MATERIALS

Body ⁽¹⁾	DN25 – DN150 EN-GJS 500-7
Cartridge ⁽²⁾	Polyester
Filter basket ⁽³⁾	Steel perforated plate, galvanised
Seals	NBR

⁽¹⁾ on request A 216 WCB available

⁽²⁾ On request paper

⁽³⁾ On request stainless steel

APPLICATION

General Gases:

Natural gas, town gas, propane, butane, air, nitrogen or all non-corrosive gases Suitable for use with previously filtered gaseous fluids, it is mainly used for medium and low pressure natural gas distribution networks.

Hydrogen Ready:

Suitability of natural gas-hydrogen mixtures or pure hydrogen. When using the GS 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 GS 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

The Users must decide whether the materials used for the GS 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

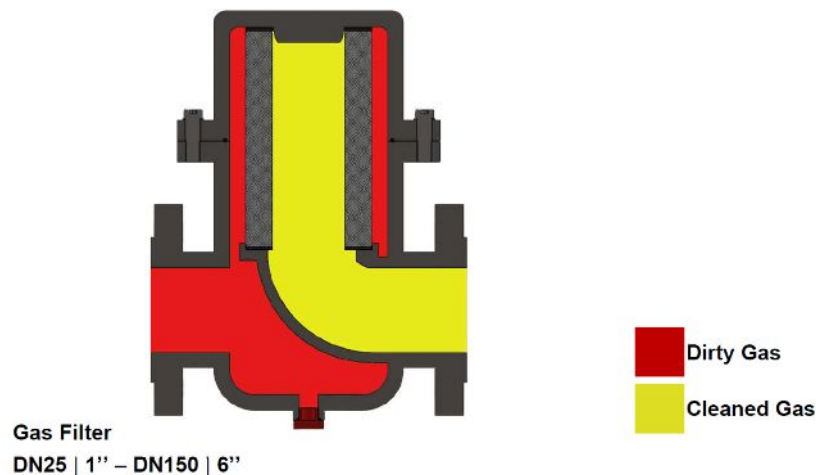
- a visual inspection of the GS Serie filter at intervals of 3 to 6 months

- Pressure loss and leakage tests

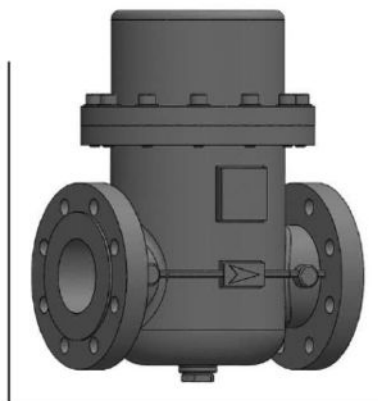
Desing, Operational Diagram

Main purpose; is to clean the gas by keeping the solid particles in the gas.

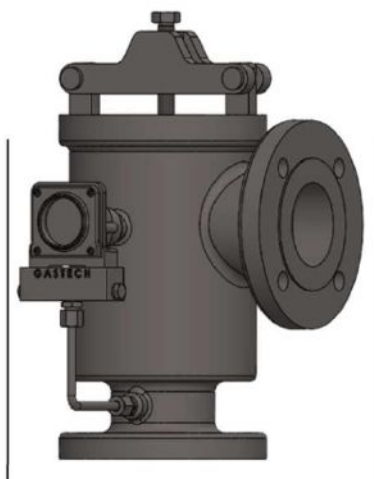
Gas velocity entering into the chamber of filter body is reduced, big solid particles falls into the stock chamber, the gas advancing with small particles encounters the cartridge. in the catridge, the gas filtration are starting again and the solid particle is kept.



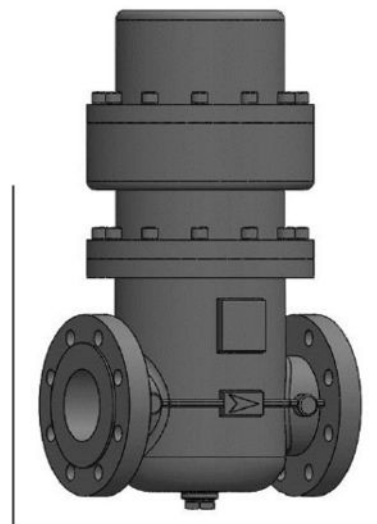
Configurations



GS Serie Standard Gas Filter
GS 25 - 150



GS Serie Gas Filter Angle
GS 25 - 150



**GS Serie Gas Filter
with Liquid Separator GS25 - 150**

Capacity Tables

Diameter	Capacity m3/h										
	Gas Pressure (bar)										
	0,5	1	2	3	4	5	6	10	12	19	25
DN25 1"	54	71	107	142	177	213	248	389	460	708	920
DN32 1 1/4"	88	117	175	233	290	348	406	638	754	1160	1507
DN40 1 1/2"	137	182	273	363	454	544	635	997	1178	1812	2355
DN50 2"	214	285	426	568	709	851	992	1558	1841	2831	3680
DN65 2 1/2"	362	481	720	959	1199	1438	1677	2633	3111	4785	6219
DN80 3"	548	729	1091	1453	1815	2178	2540	3988	4713	7248	9421
DN100 4"	856	1139	1705	2271	2837	3403	3968	6232	7364	11325	14720
DN125 5"	1338	1780	2664	3548	4432	5316	6201	9737	11506	17695	23000
DN150 6"	1926	2563	3836	5109	6383	7656	8929	14022	16568	25481	33120

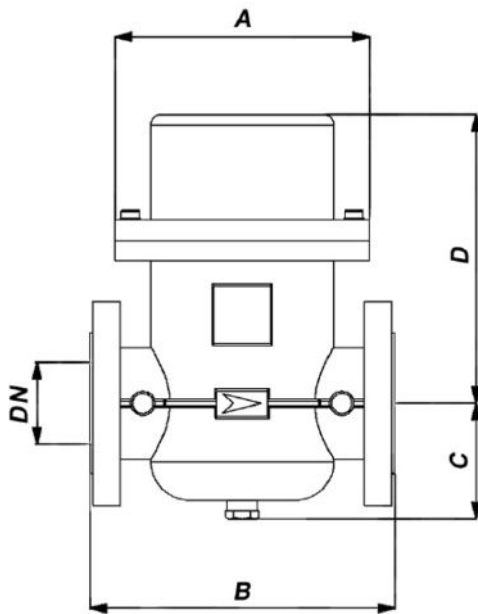
These values are valid for natural gas of $\rho_n = 0.61 \text{ kg/m}^3$ and $t = 15^\circ\text{C}$. $\Delta p = 50 \text{ mbar}$

Cartridge area

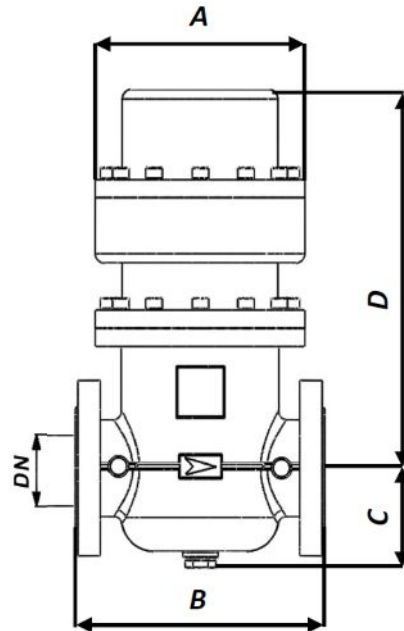
Diemension	G 0.5	G 1	G 1.5	G 2	G 2.5	G 3	G 4	G 5	G 6
Surface m ²	0.060	0.125	0.230	0.470	0.725	0.95	1.45	2.3	4.2

Dimensions drawings

**Standard Filters /
 High Flow Version**



**Standard Version
 with Liquid Separated**



Dimensions and Weights - Standard Filters

Diameter	A	B	C	D	Cartridge Surface	Cartridge Type	Internal Volume Lt	Wgt kg
DN25 1"	170	210	80	162	0,060	G 0.5	2,7	14
DN32 1 1/4"	170	210	80	162	0,060	G 0.5	2,7	16
DN40 1 1/2"	170	210	80	162	0,060	G 0.5	2,7	17
DN50 2"	170	210	80	162	0,060	G 0.5	2,7	18
DN65 2 1/2"	250	300	120	300	0,230	G 1.5	8,0	45
DN80 3"	250	300	120	300	0,230	G 1.5	8,0	47
DN100 4"	250	300	120	300	0,230	G 1.5	8,0	51
DN125 5"	280	450	205	320	0,725	G 2.5	15,0	130
DN150 6"	280	450	205	320	0,725	G 2.5	15,0	134

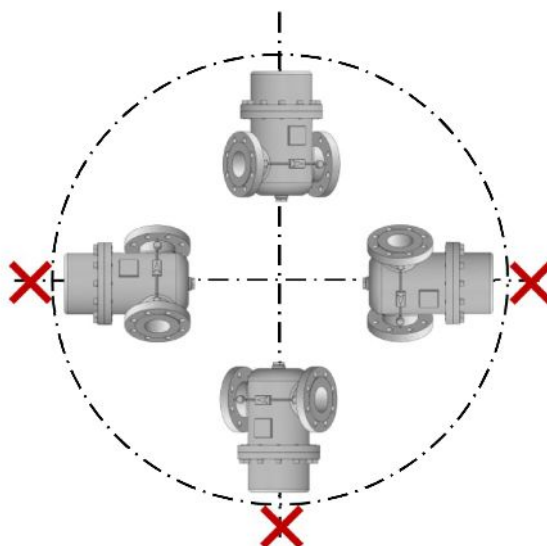
Dimensions and Weights - High Flow Version

Diameter	A	B	C	D	Cartridge Surface	Cartridge Type	Internal Volume Lt	Wgt kg
DN25 1"	170	210	80	280	0,060	G 0.5 x 2	4,0	18
DN32 1 1/4"	170	210	80	280	0,060	G 0.5 x 2	4,0	20
DN40 1 1/2"	170	210	80	280	0,060	G 0.5 x 2	4,0	21
DN50 2"	170	210	80	280	0,060	G 0.5 x 2	4,0	22
DN65 2 1/2"	250	300	120	510	0,230	G 1.5 x 2	13,5	80
DN80 3"	250	300	120	510	0,230	G 1.5 x 2	13,5	82
DN100 4"	250	300	120	510	0,230	G 1.5 x 2	13,5	88
DN125 5"	280	450	205	605	0,725	G 2.5 x 2	22,0	165
DN150 6"	280	450	205	605	0,725	G 2.5 x 2	22,0	171

Dimensions and Weights - Standard Version with Liquid Separated

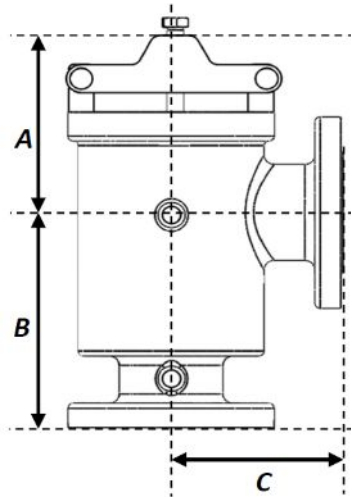
Diameter	A	B	C	D	Cartridge Surface	Cartridge Type	Internal Volume Lt	Wgt kg
DN25 1"	170	210	80	280	0,060	G 0.5 x 2	4,0	18
DN32 1 1/4"	170	210	80	280	0,060	G 0.5 x 2	4,0	20
DN40 1 1/2"	170	210	80	280	0,060	G 0.5 x 2	4,0	21
DN50 2"	170	210	80	280	0,060	G 0.5 x 2	4,0	22
DN65 2 1/2"	250	300	120	510	0,230	G 1.5 x 2	13,5	80
DN80 3"	250	300	120	510	0,230	G 1.5 x 2	13,5	82
DN100 4"	250	300	120	510	0,230	G 1.5 x 2	13,5	88
DN125 5"	280	450	205	605	0,725	G 2.5 x 2	22,0	165
DN150 6"	280	450	205	605	0,725	G 2.5 x 2	22,0	171

Mounting position

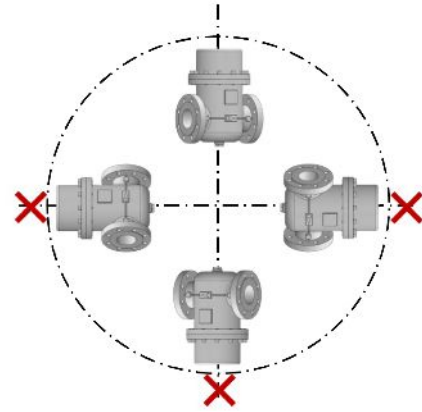


Dimensions and Weights - Angle Filters

Drawings



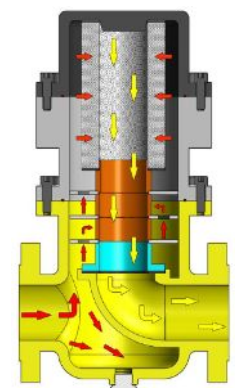
Mounting position



Diameter	A	B	C	Cartridge Surface	Cartridge Type	Internal Volume Lt	Wgt kg
DN25 1"	65	90	90	0,060	G 0.5	2,7	14
DN32 1 1/4"	65	90	90	0,060	G 0.5	2,7	16
DN40 1 1/2"	65	90	90	0,060	G 0.5	2,7	17
DN50 2"	200	150	150	0,060	G 0.5	2,7	18
DN65 2 1/2"	200	150	150	0,230	G 1.5	8,0	45
DN80 3"	210	200	200	0,230	G 1.5	8,0	47
DN100 4"	220	250	250	0,230	G 1.5	8,0	51
DN125 5"	280	350	350	0,725	G 2.5	15,0	130
DN150 6"	280	350	350	0,725	G 2.5	15,0	134

Gas Filter with Liquid Separator

Main function is to separate liquids with gas. Fluid velocity entering into the chamber is reduced, liquid falls into the stock chamber, in the separating plates, the gas velocities are increased again and the liquid is kept by condensation. For a special liquid holder filter design; the gas pressure, the capacity, the volume of the liquid to be kept should be known. When the special exproof level switch is placed in the filter body and the liquid is stored in the filter, it can be transferred to the system. Cast iron filters are effective when the amount of liquid from the system is less than 30ml/day.



Accessories (to be ordered separately)

Differential Pressure Gauge



Differential Pressure Gauge with Manifold



Standards and certificates

Applied directives:

Pressure Equipment Directive –PED

(EU) EU/2014/68



Compliance with the regulations of the applied directives is verified by the adherence to the following standards / regulations:

- Quality System Approval Certificate 2195 : PED : 2103302
- EU Desing Examination Certificate 2195 : PED-2103302 : T



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



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

NOTES

The gas filters presented in this catalog are manufactured in Turkey by Gastech Ltd. according to specifications:

