

Gas-Air-Filter (GLF - Series)

Compactors (Compressors), fans (blowers/exhausters) and vacuum pumps should be protected from contaminants in the form of solids entering the system with the aspirated medium. By appropriate filtration, contamination and consequent wear and disruption in the system can be avoided. Our filters of the **GLF-Series** are specially designed for this case. They can be installed in a closed pipe system and can be used on the suction side and on the pressure side.

They consist of a container (optionally made of steel, stainless steel V2A or V4A) and a replaceable filter cartridge. Depending on the requirement, the filters may e.g. be provided with supporting claws, feet, grounding lugs and differential pressure equipment.

In suction conveyors for dusty goods, in pneumatic sludge conveying, in sewage gas treatment plants, in mixing machines for powdery and granular materials and in extraction systems (for example flour conveying systems) and in heating plants, these filters have been proven for many years.



as well as the local and system-specific conditions.

Functionality

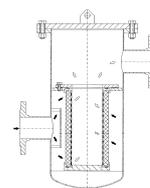
The medium to be cleaned passes through the inlet nozzle into the filter. Through an even distribution in the housing, an optimal loading of the filter surface is ensured. The flow takes place from outside to inside. The solids are separated or taken up by the filter cartridge. The filtrate enters the upper expansion chamber and exits through the outlet nozzle. As the saturation level of the cartridge increases also the resistance and the pressure drop in the filter increase. When the maximum pressure drop is reached, the cartridge is removed and cleaned or replaced.

Filter sizes and designs

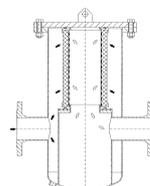
Depending on the volume flow, a suitable filter size and design are selected, taking into account the medium and application, the desired filter fineness (filter class), the operating pressure and the operating temperature

Type	max. performance (Filter class M5)	Type	max. performance (Filter class M5)
GLF 3	300 m ³ /h	GLF 60	6.000 m ³ /h
GLF 5	500 m ³ /h	GLF 80	8.000 m ³ /h
GLF 10	1.000 m ³ /h	GLF 100	10.000 m ³ /h
GLF 15	1.500 m ³ /h	GLF 125	12.500 m ³ /h
GLF 20	2.000 m ³ /h	GLF 150	15.000 m ³ /h
GLF 30	3.000 m ³ /h	GLF 175	17.500 m ³ /h
GLF 45	4.500 m ³ /h	GLF 200	20.000 m ³ /h

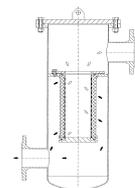
- Design I.
(with height shifted input / output, max. 25 mbar differential pressure in pure state)



- Design II.
(Input / output at the same height, max. 25 mbar differential pressure in pure state)



- Design III.
(with height shifted input / output, extended housing with relaxation space, max. 10 mbar differential pressure in pure state)



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Filter cartridges

Depending on the filter size, the cartridges have the following filter surfaces.

Type	Filter area	Type	Filter area
GLF 3	0,23 m ²	GLF 60	4,50 m ²
GLF 5	0,35 m ²	GLF 80	5,60 m ²
GLF 10	0,63 m ²	GLF 100	6,75 m ²
GLF 15	1,05 m ²	GLF 125	11,25 m ²
GLF 20	1,50 m ²	GLF 150	12,25 m ²
GLF 30	2,14 m ²	GLF 175	14,00 m ²
GLF 45	2,84 m ²	GLF 200	15,00 m ²



All cartridges will be suitable for the container with a support core made of stainless steel or galvanized sheet steel. The seal is made on both sides via a sealing lip. At the same time, grounding strands can also be incorporated.

The cleaning takes place in dismantled condition. Depending on the filter material, the cartridges can be cleaned by blowing out with compressed air, knocking, shaking, cleaning with steam, cleaning with petrol or by rinsing with water at approx. 60 °C and adding detergents.

Filter material and finishing

Filter type	Filter material	Filter class ⁽³⁾	Operating temperature	Performance factor ⁽⁵⁾
PE 320 M5 ⁽¹⁾	Impregnated Polyester-Needle Felt	M5	max. 150 °C	1,0
PE 320 AS M5 ⁽¹⁾	Impregnated Polyester-Needle Felt with antistatic finish	M5	max. 150 °C	1,0
PE 450 F7 ⁽¹⁾	Impregnated Polyester-Needle Felt	F7	max. 150 °C	0,8
PE 500 F8 ⁽¹⁾	Impregnated Polyester-Needle Felt	F8	max. 150 °C	0,6
GP 175 F9	Glass Fiber-Polyester-Fleece	F9	max. 150 °C	0,4
PO 130 E10	Polypropylene-Fleece	E10	max. 90 °C	0,34
AR 350 F7	Impregnated Aramid-Needle Felt	F7	max. 200 °C	0,8
MF 700 M5	Metal Fiber-Needle Felt	M5	max. 250 °C	1,0
PV 210 LM F7 ⁽²⁾	Polyester-Fleece	F7	max. 150 °C	0,8
PV 180 LM E11 ⁽²⁾	Polyester-Fleece with PTFE-Membranes	E11	max. 120 °C	0,22
PV 270 LM H13 ⁽²⁾	Polyester-Fleece with PTFE-Membranes	H13	max. 120 °C	0,07

- (1) The filter cartridges made of impregnated polyester-needle felt are also with a water repellent finish (A37) available
- (2) The filter cartridges marked LM are suitable for use in the food industry
- (3) The classifications of the filter materials in the specified filter classes of the standards DIN EN 779:2012 and EN 1822-1:2009 were made on the basis of experience and comparative values
- (4) The selected filter material influences the max. performance. With finer material, the possible volume flow decreases while maintaining the differential pressure in the pure state.
- (5) The performance factor is multiplied by the performance rating of the desired filter type from the size table to determine the maximum performance for the total filter.
(Eg GLF 30 and PE 500 F8 - 3,000 m³/h x performance factor 0.6 results in a maximum output of 1,800 m³/h)