

Fig. 1: Fine filter FME

### GENO®-fine filter FME 50, FME 65, FME 80, FME 100 Cold water, warm water and cooling water version

#### Designated application

The GENO®-fine filters FME are designed for the filtration of drinking and process water. They protect the water pipes and connected water-carrying system parts from disturbances and corrosion damage due to undissolved impurities (particles), such as rust particles, sand, etc.

The GENO®-fine filters FME can also be used for the filtration of well water. For process water, feed water, cooling and air-conditioning water, however, they should only be used in the partial flow. The GENO®-fine filters are suitable for application in the suction/pressure range.

The filters are not suitable for oils, greases, solvents, soaps and other lubricating media, nor for the separation of water soluble substances.

#### Function

The raw water flows into the filter tank via the raw water inlet and then flows from the outside in through the filter elements and to the pure water outlet. Depending on their size and due to the special conduction of flow, the coarse foreign substances will settle on the retaining plate.

All other foreign particles of a size > 80 µm (= 0.080 mm) will be retained at the exterior of the filter elements. (Special version > 100 and > 500 µm). The service life of the filter elements depends on the water's degree of pollution.

They must be replaced if - due to the increasing degree of pollution - the water pressure in the pipe network is no longer sufficient for the designated application or if a differential pressure of max. 0.8 bar has been reached.

After 6 months of operation, however, they must be replaced at the latest - irrespective of the degree of pollution (acc. to DIN EN 806, part 5).

The differential pressure may be determined by the values displayed at the pressure gauges on the raw and pure water side. By means of a differential pressure switch which is available as special accessory, a signal message can be tapped when the differential pressure has been reached. When using this unit, the required replacement of the filter elements can visually or acoustically be signalled as remote indication (to a central control station) by means of the corresponding electrical contactor.

The operator-friendly locking system of the cover ensures the trouble-free and quick replacement of the filter elements at only a short interruption of operation.

#### Design

- Filter tank made of high-quality stainless steel, in stainless steel optics.
- Raw water inlet and pure water outlet at the same height (flange connection PN 10 acc. to DIN 2642).

- Operator-friendly locking system.
- Aeration and deaeration can be operated manually.
- Draining by means of shut-off valve and hose nozzle.
- Pressure-resistant support body for the filter elements; filter elements (number: refer to "Technical specifications/ dimensions").
- One pressure gauge each on raw and pure water side to determine the degree of impurities by means of the differential pressure.

All water-contacting parts meet the requirements of the German Food and Feed Act (LFGB).

#### Scope of supply

GENO®-fine filter FME, complete, with two pressure gauges, aeration and deaeration as well as draining valve.

Counter flanges, screws and seals are not included in the scope of supply.

### Accessories

#### Differential pressure switch

With electric contactor (switching point 0.16 - 1.6 bar, continuously adjustable for visual and acoustic remote signal).

**Order no. 102 870**

#### Replacement filter elements (80 µm)

**Set for FME 50 -FME 100**

Packing unit:

2 pcs in cardboard box

**Order no. 103 077**

#### Replacement filter elements (500 µm)

**Set for FME 50 -FME 100**

Packing unit:

2 pcs in cardboard box

Filter fabric made of stainless steel

**Order no. 103 111**

#### Spare seal for stainless steel filter elements

Packing unit:

2 pcs in cardboard box

**Order no. 102 607e**

#### Installation requirements

Please observe local installation directives, general guidelines and technical specifications.

The installation site must be frost-proof. Furthermore, a drain connection (floor drain) should be available. The filters should be installed in pipes of the same dimensions as the nominal diameters of the filters.

Components mounted above the intended installation site of the filter must be installed at a sufficient distance in order to ensure the trouble-free replacement of the filters.

In cases where the water supply must be maintained during the replacement of the filter element, either a filter with a lower flow capacity must be installed in the bypass pipe or 2 GENO®-fine filters FME (each covering 50 % of the max. flow capacity) must be switched in parallel.

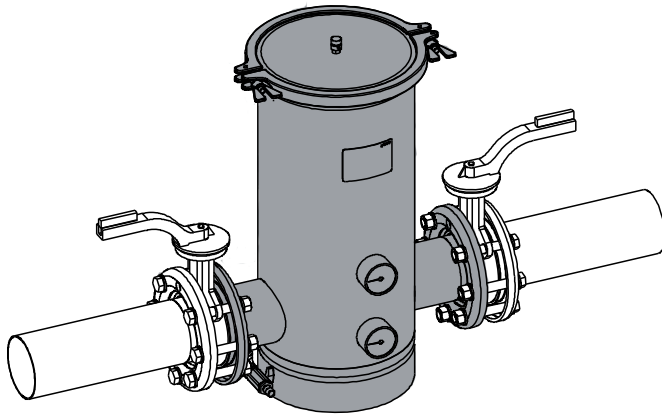


Fig. 2: Installation diagram

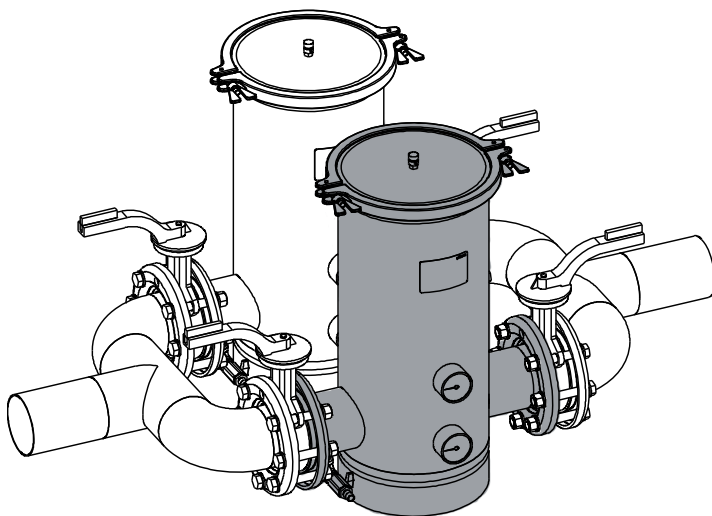


Fig. 3: Parallel switching

Technical specifications		GENO®-fine filter FME			
<b>Connection data</b>					
Nominal connection diameter	[DN]	50	65	80	100
<b>Performance data</b>					
Flow capacity at 0.2 bar $\Delta p$	[m <sup>3</sup> /h]	30	40	50	70
Filter fineness cold, warm water/cooling water	[ $\mu$ m]	80 / 500			
Nominal pressure		PN 10			
<b>Dimensions and weights</b>					
A Total height	[mm]	715	705	680	
B Installation height above centre of connection	[mm]	525	515	520	
C Installation height lower edge of filter to centre of connection	[mm]	190			160
D Installation length without counter flanges acc. to DIN 2642	[mm]	360			485
E Min. distance from wall to centre of connection	[mm]	175			205
F Clearance required for replacement of filter element	[mm]	400			
Filter elements (number)		2		3	5
Operating weight, approx.	[kg]	45	46	47	70
Empty weight, approx.	[kg]	22	23	23.5	32.5
<b>Ambient data</b>					
Max. water/ambient temperature	[°C]	cold water			30/40
	[°C]	warm water			90/40
Max. admissible differential pressure	[bar]	0.8			
<b>Order no. (cold water version)</b>		<b>102 190</b>	<b>102 290</b>	<b>102 390</b>	<b>102 490</b>
<b>Order no. (warm water version)</b>		<b>102 185</b>	<b>102 285</b>	<b>102 385</b>	<b>102 485</b>
<b>Order no. (cooling water version)</b>		<b>102 195</b>	<b>102 295</b>	<b>102 395</b>	<b>102 495</b>

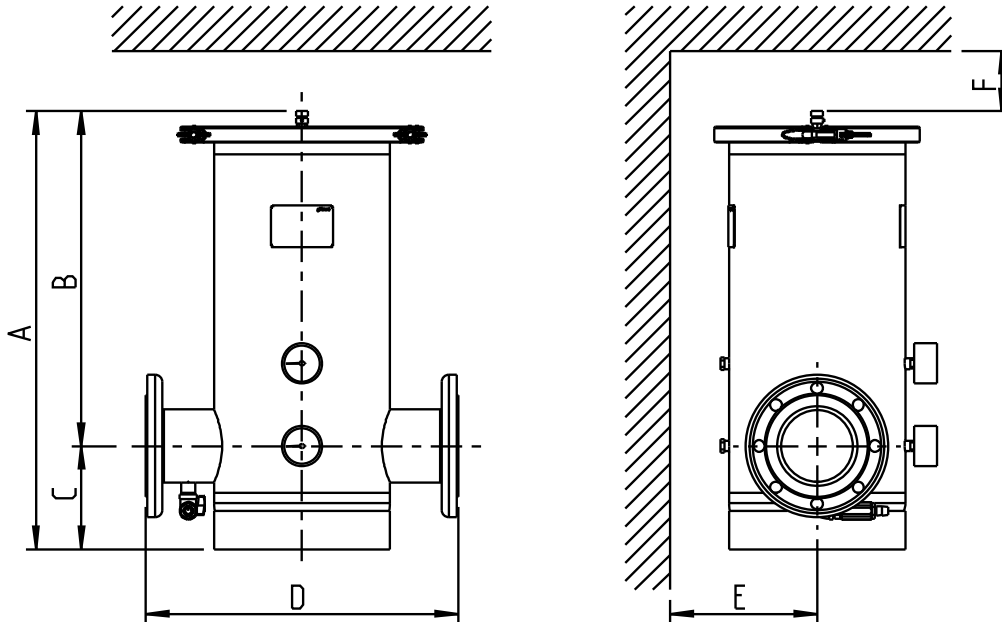


Fig. 4: Dimensional drawing