

## **GENO-fine filter FM/FM-WW/FM-KW**

### **Intended use**

The GENO-fine filters FM are designed for the filtration of drinking and well water.

The FM-WW filters are suitable for the filtration of process and boiler feed water – in partial flow only.

The FM-KW filters are suitable for the filtration of cooling and air conditioning water – in partial flow only.

The filters are suitable for water temperatures up to 90 °C.

The filters can be used for positive and negative pressure applications.

The filters are not suitable for circulation water treated with chemicals.

They are neither suitable for oils, greases, solvents, soaps and other lubricating media, nor for the separation of water-soluble substances.

The filters are designed according to the stipulations of DIN EN 13443-1 and DIN 19628 and are intended for installation into drinking water pipes according to DIN EN 806-2 (installation immediately downstream of the water meter).

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.

### **Function**

The unfiltered drinking water flows into the filter from the inlet side and then passes through the filter elements to the pure water outlet.

Thus, foreign particles of > 100 µm in size, subject to the filter element, are retained.

Depending on their size and weight, the foreign particles either stick to the filter element or fall straight down where they accumulate at the lowest point of the filter.

Due to the growing load on the filter elements, the differential pressure between the raw water inlet and the pure water outlet increases.

If the differential pressure of 0.8 bar is exceeded at the flow rate of the filter, the filter elements have to be replaced.

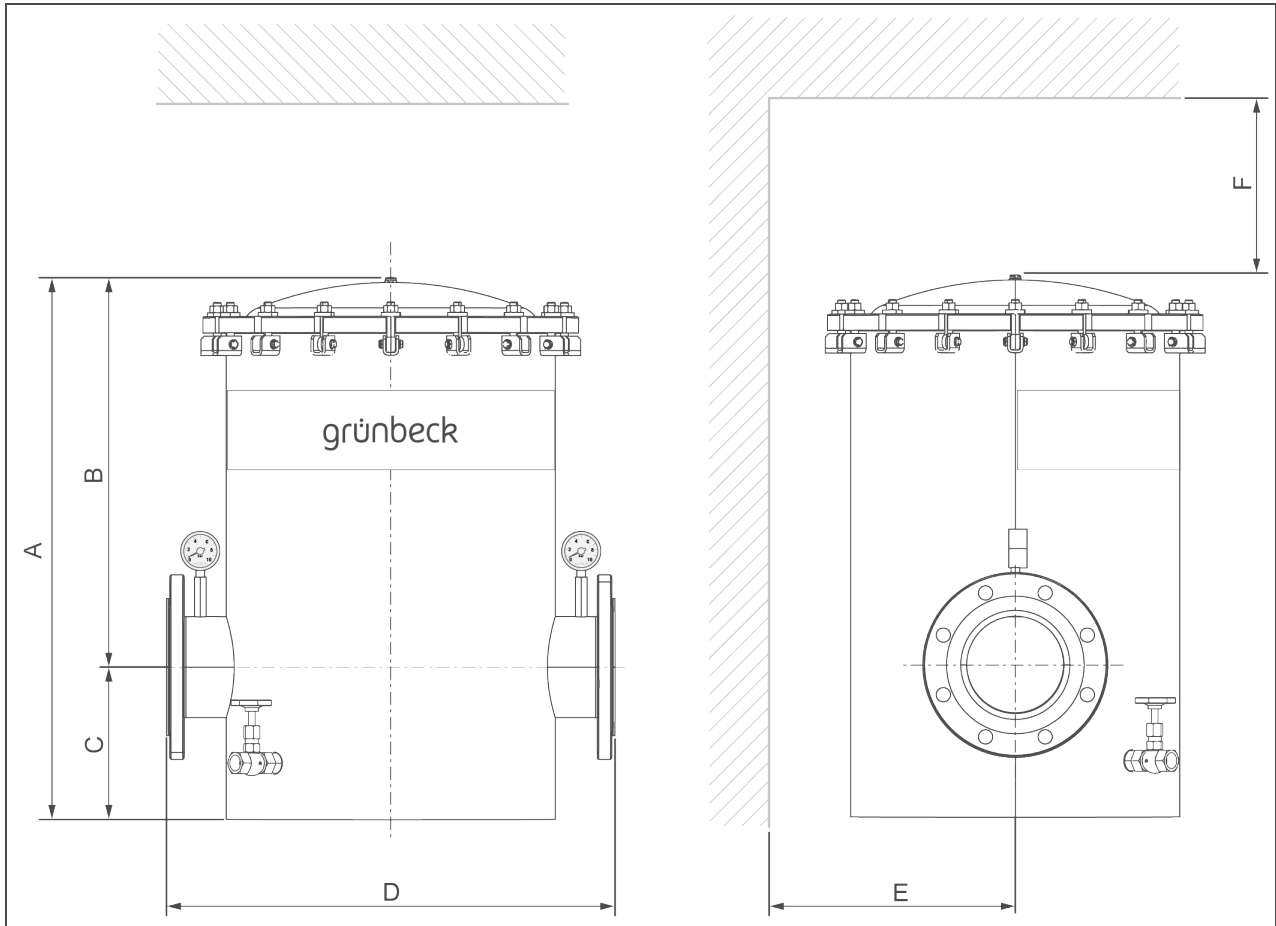
### **Design**

- Filter tank made of high-grade stainless steel, interior and exterior plastic coated
- Filter elements with pressure-resistant support bodies at pore sizes in the standard version of 100 µm for FM/FM-WW and 500 µm for FM-KW.
- Flange connection PN 10 acc. to DIN EN 1092-1
- Manually operable deaerator
- Draining with shut-off valve
- Pressure gauge for inlet and outlet pressure
- All water-contacting parts comply with the German Drinking Water Ordinance

### **Scope of supply**

- GENO-fine filter FM with flange connection
- 2 pressure gauges
- Deaerator
- Draining valve
- Operation manual

## Technical specifications I



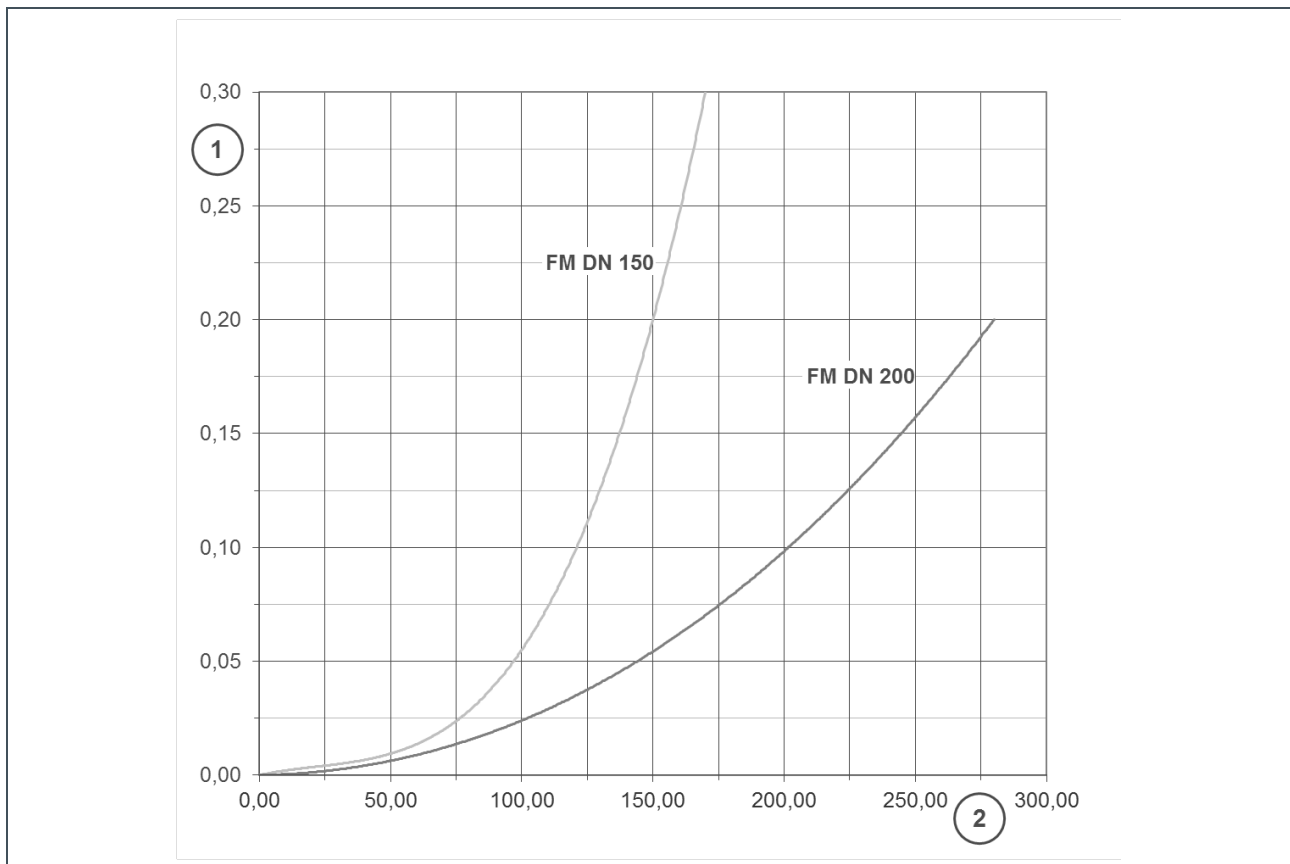
Dimensions and weights		FM/FM-WW/FM-KW		
		DN 150	DN 200	
Nominal connection diameter		DN 150	DN 200	
A	Total height	mm	830	1190
B	Overall height above centre of connection	mm	597	956
C	Overall height lower edge of filter to centre of connection	mm	233	234
D	Installation length without counter-flanges acc. to DIN EN 1092-1	mm	690	690
E	Min. distance from wall to centre of connection	mm	300	300
F	Clearance required for replacement of filter element	mm	600	900
	Filter elements, quantity	piece(s)	14	28 (for 50/100 µm) 14 (for 500 µm)
	Operating weight, approx.	kg	255	327
	Empty weight	kg	100	124

## Technical specifications II

Performance data		DN 150	DN 200
Flow rate at $\Delta p$ 0.2 bar	m <sup>3</sup> /h	150	280
Pore size drinking water (FM)	µm		100
Pore size hot water (FM-WW)	µm		100
Pore size cooling water (FM-KW)	µm		500
Nominal pressure	Drinking water (FM)		PN 10
	Cooling water (FM-KW)		PN 6
	Hot water (FM-WW)		PN 6
Admissible differential pressure	bar	≤ 0.8	

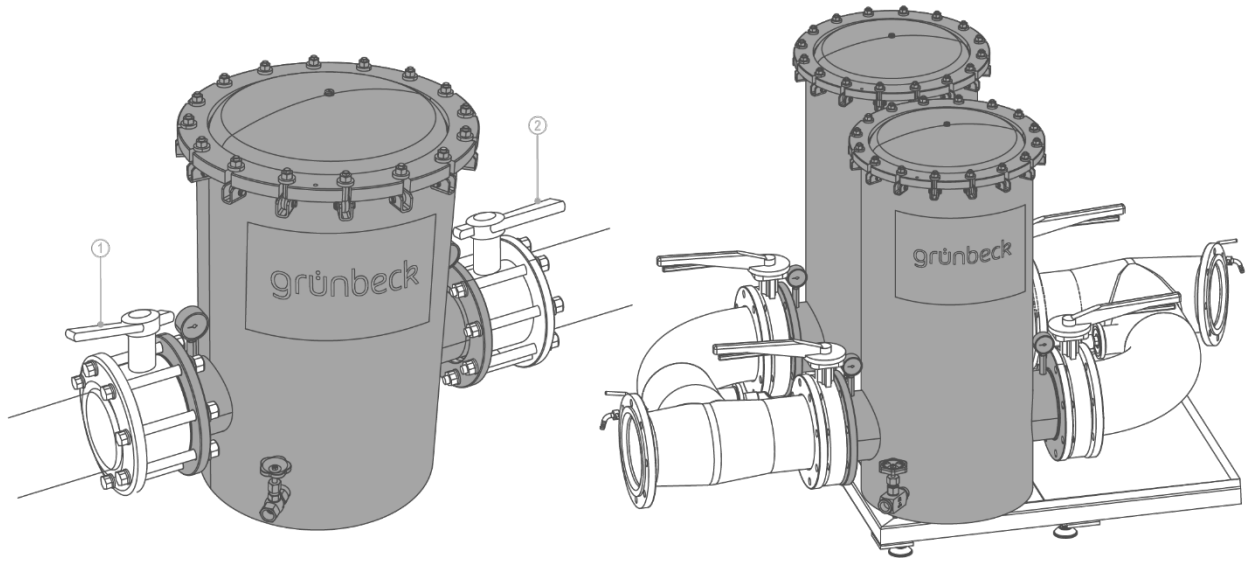
General data		DN 150	DN 200
Water temperature FM	°C	≤ 30	
Water temperature FM-WW/FM-KW	°C	≤ 90	
Ambient temperature	°C	5 – 40	
<b>Order no.</b> (drinking water)	FM	<b>102 400</b>	<b>102 500</b>
<b>Order no.</b> (warm water)	FM-WW	<b>102 401</b>	<b>102 501</b>
<b>Order no.</b> (cooling water)	FM-KW	<b>102 470</b>	<b>102 570</b>

## Pressure loss curves of GENO-fine filter FM



Item	Designation	Item	Designation
1	Pressure loss in bar	2	Flow rate in m <sup>3</sup> /h

## Installation example



Item	Designation	Item	Designation
1	Inlet shut-off valve	2	Outlet shut-off valve

### Installation requirements

Observe local installation directives, general guidelines and technical specifications.

The installation site must be frost-proof and ensure the filter's protection from chemicals, dyes, solvents, vapours and direct sunlight.

The installation site must be easily accessible for maintenance purposes.

### Parallel piping

For the filtration of process, boiler feed, cooling and air conditioning water, two GENO-fine filters can be installed in parallel in order to ensure uninterrupted operation.

### Accessories

#### Differential pressure switch

**Order no.: 102 870**

With electric contactor, continuously adjustable for visual and acoustic remote signal.

#### Hose extension kit for differential pressure switch

**Order no.: 102 850**

### Consumables

According to DIN EN 13443 1, filter elements with 50 µm, 50 µm and 500 µm are not admissible for drinking water installations.

Number of filter elements subject to size of filter.

#### GENO-fine filter FM 150

(Packing unit = 2 pieces each)

Required per filter: 14 pieces

**10300020001 Filter element 100 µm**

**103 083 Filter element 5 µm**

**103 070 Filter element 50 µm**

**103 111 Filter element 500 µm**

#### GENO-fine filter FM 200

(Packing unit = 28 pieces each)

Required per filter: 28 pieces

**103 153 Filter element 50 µm**

**103 150 Filter element 100 µm**

(Packing unit = 14 pieces each)

Required per filter: 14 pieces

**103 151 Filter element 500 µm**

### Contact

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