

Backwash filters MR25/MR32

Intended use

The MR backwash filters are designed for the filtration of drinking and industrial water.

The filters are suitable for the filtration of process, boiler feed, cooling and air conditioning water (only in partial flow).

The filters protect the water pipes and connected water-carrying system parts from malfunctions and corrosion damage due to undissolved impurities (particles) such as rust particles, sand, etc.

Application limits

- Water temperature $\leq 90^\circ\text{C}$
- Water temperature $\leq 30^\circ\text{C}$ when used in the drinking water sector (DVGW)
- Pressure range ≤ 16 bar
- Pressure range ≤ 10 bar in case of a media temperature of 90°C
- Not suitable for circulation water treated with chemicals
- Not suitable for media such as oils, greases, solvents, soaps and other lubricating media, nor for the separation of water-soluble substances
- Not suitable for installation in vertical water pipes

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

Mode of operation

The unfiltered raw water flows into the filter from the inlet side and from the inside out through the filter element and to the pure water outlet. Thus, foreign particles $> 100\ \mu\text{m}$ in size are retained.

Depending on their size and weight, foreign particles stick to the filter element or they fall straight down into the filter funnel.

Due to the growing contamination of the filter element, the differential pressure between the raw water inlet and the pure water outlet increases.

The differential pressure can be read on the pressure gauges.

The drain is opened by turning the backwash handwheel to the right as far as it will go, and backwash is carried out. When the backwash handwheel is turned, the brush rotates with the backwash handwheel and sweeps over the filter surface of the filter element. The filter element is cleaned.

The impurities are removed by the brush and the suction nozzle sucks them into the drain outlet.

The drain outlet is closed by turning the backwash handwheel to the left as far as it will go, and the backwash process is terminated.

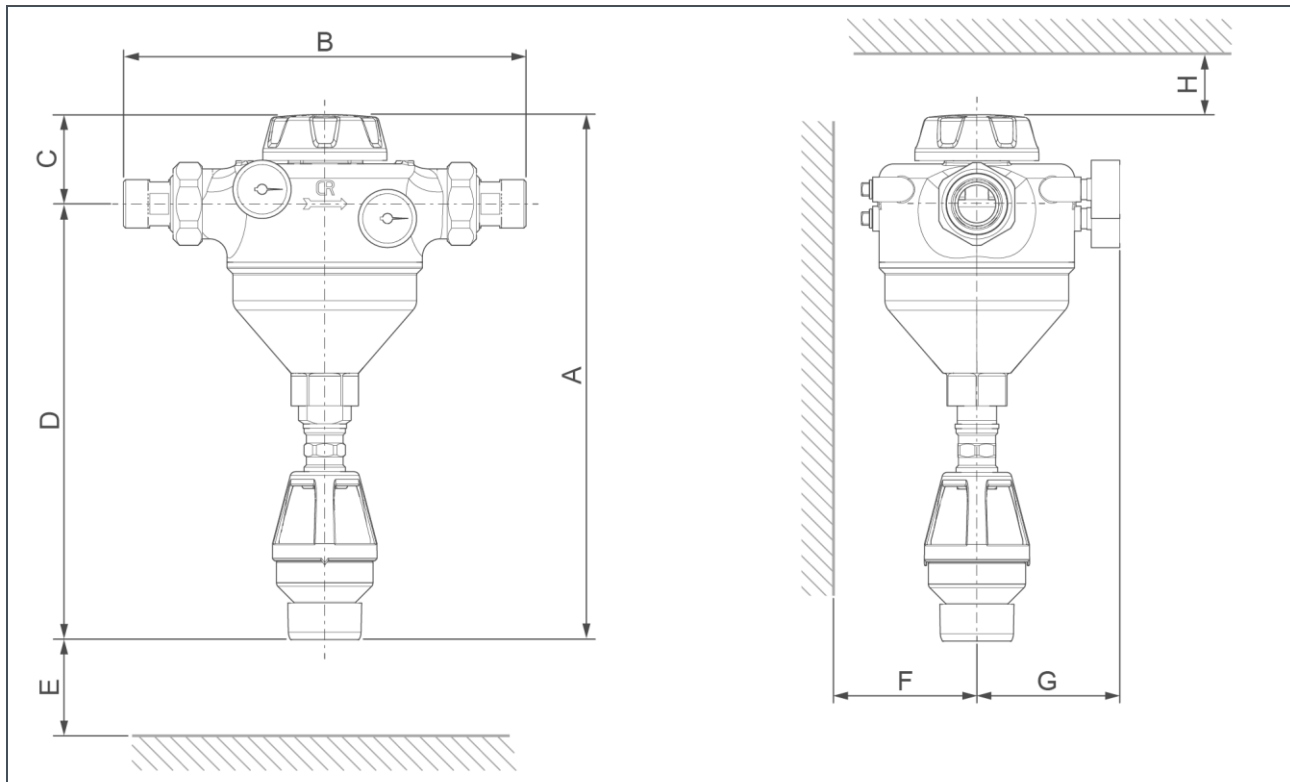
Structure

- Filter housing made of brass with a low level of dezincification
- Modular filter element made of high-grade, industrial plastic with filter mesh ($100\ \mu\text{m}$) made of stainless steel
- Flushing water connection with free outlet according to DIN EN 1717 for DN 50
- Pressure gauge for inlet and outlet pressure
- All water contacting parts comply with the German Drinking Water Ordinance

Scope of supply

- Backwash filter complete, including 2 pressure gauges 0 – 16 bar
- Water meter screw connection
- Flushing water connection
- Operation manual

Technical specifications



Dimensions and weights			MR25	MR32
A	Total height	mm	362	362
B	Installation length	with screw connection	276	281
		without screw connection	190	190
C	Overall height above centre of connection	mm	61	61
D	Overall height up to centre of connection	mm	301	301
E	Clearance required for the replacement of the filter element	mm	≥ 215	≥ 215
F	Distance to wall	mm	≥ 90	
G	Overall depth up to centre of connection	mm	95	
H	Space above upper edge of filter	mm	≥ 80	
Empty weight			~ 5.6	~ 5.7

Connection data		MR25	MR32
Nominal connection diameter		DN 25	DN 32
Connection diameter		1"	1¼"
Drain connection		DN 50	

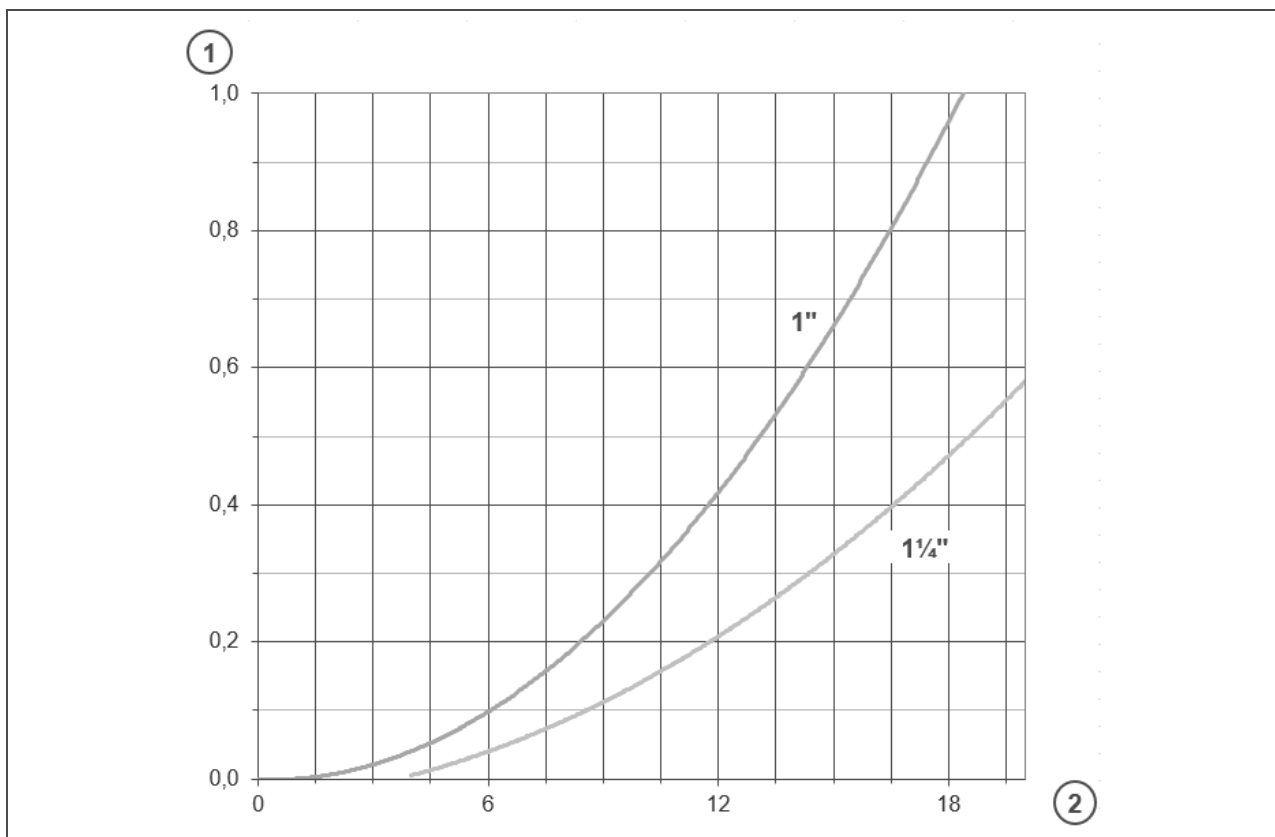
Performance data		MR25	MR32
Nominal flow at Δp 0.2 (0.5) bar	m³/h	8.5 (13.0)	12 (18.5)
Kv value	m³/h	18	25
Pore size	µm	100	
Largest/smallest pore size	µm	110/90	
Operating pressure	bar	2 – 16	
Operating pressure at a water temperature of 90°C	bar	≤ 10	
Nominal pressure		PN 16	

Consumption data		MR25	MR32
Backwash water volume at a water pressure of 3 bar and a backwash time of 1.5 min	l	~ 40	
Backwash volume flow at 9 bar	m ³ /h	~ 4.0	
Allowable differential pressure	bar	0.4	

General data		MR25	MR32
Water temperature (drinking water applications)	°C	5 – 30	
Water temperature	°C	5 – 90	
Ambient temperature	°C	5 – 40	
DVGW registration number		NW-9301DO0260	
ÜA registration number		R-15.2.3-21-17496	
The Office of the Vienna Provincial Government – City of Vienna		R-15.2.1-22-17624	

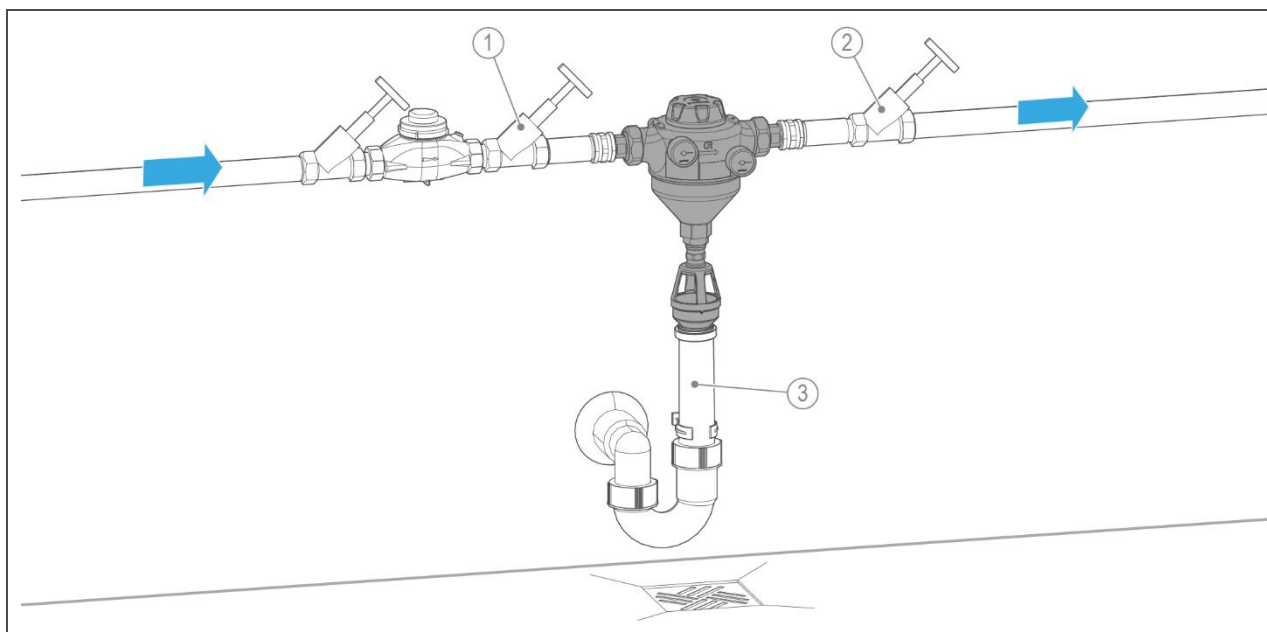
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Pressure loss curves backwash filter MR25 (1") and MR32 (1¼")



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

Installation example



Item	Designation	Item	Designation
1	Inlet shut-off valve	2	Outlet shut-off valve
3	Drain connection provided by the client on site		

Requirements for the installation site

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

- Protection from frost, severe heat exposure and direct sunlight
- Protection from chemicals, dyes, solvents and their vapours
- Ambient temperature and radiation temperature in the immediate vicinity
 - ≤ 25 °C for applications in the drinking water sector
 - ≤ 40 °C for purely technical applications
- Protection from heat sources in the drinking water sector (e.g. heating systems, boilers and warm water pipes)
- Access for maintenance work (take required space into consideration)
- Sufficiently illuminated as well as aerated and ventilated

Water installation

- Floor drain or corresponding safety device with water stop function
- Drain connection ≥ DN 50
- Shut-off valves upstream and downstream of the product

Accessories

Filter elements

DN 25 (1"), DN 32 (1¼")

As per DIN EN 13433-1, filter elements with pore sizes of 50 µm, 200 µm and 500 µm are not permitted for drinking water systems.

Order no.:

107 052 Filter element	50 µm
107 061 Filter element	100 µm
107 072 Filter element	200 µm
107 082 Filter element	500 µm

Contact

Grünbeck AG
Josef-Grünbeck-Str. 1
89420 Hoechstädt
GERMANY

☎ +49 9074 41-0

☎ +49 9074 41-100

info@gruenbeck.com
www.gruenbeck.com

