

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 ≤ 90 °C
- Water temperature ≤ 30 °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 μm 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.

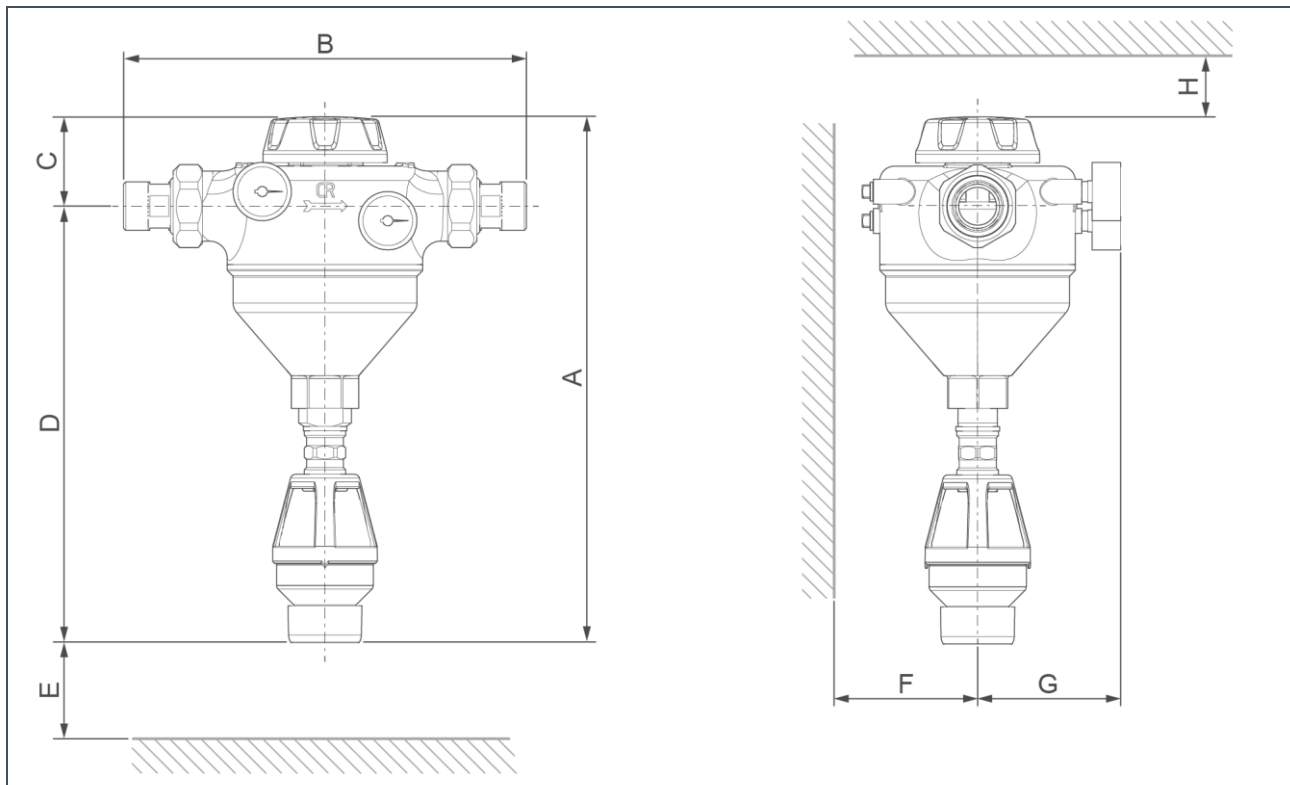
Structure

- Filter housing made of brass with a low level of dezincification
- Modular filter element made of high-grade, industrial plastic with filter mesh (100 μm) 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 | |
| B | Installation length | with screw connection | mm | 276 |
| | | without screw connection | mm | 190 |
| C | Overall height above centre of connection | mm | 61 | |
| D | Overall height up to centre of connection | mm | 301 | |
| E | Clearance required for the replacement of the filter element | mm | ≥ 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 | kg | ~ 5.6 | |

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

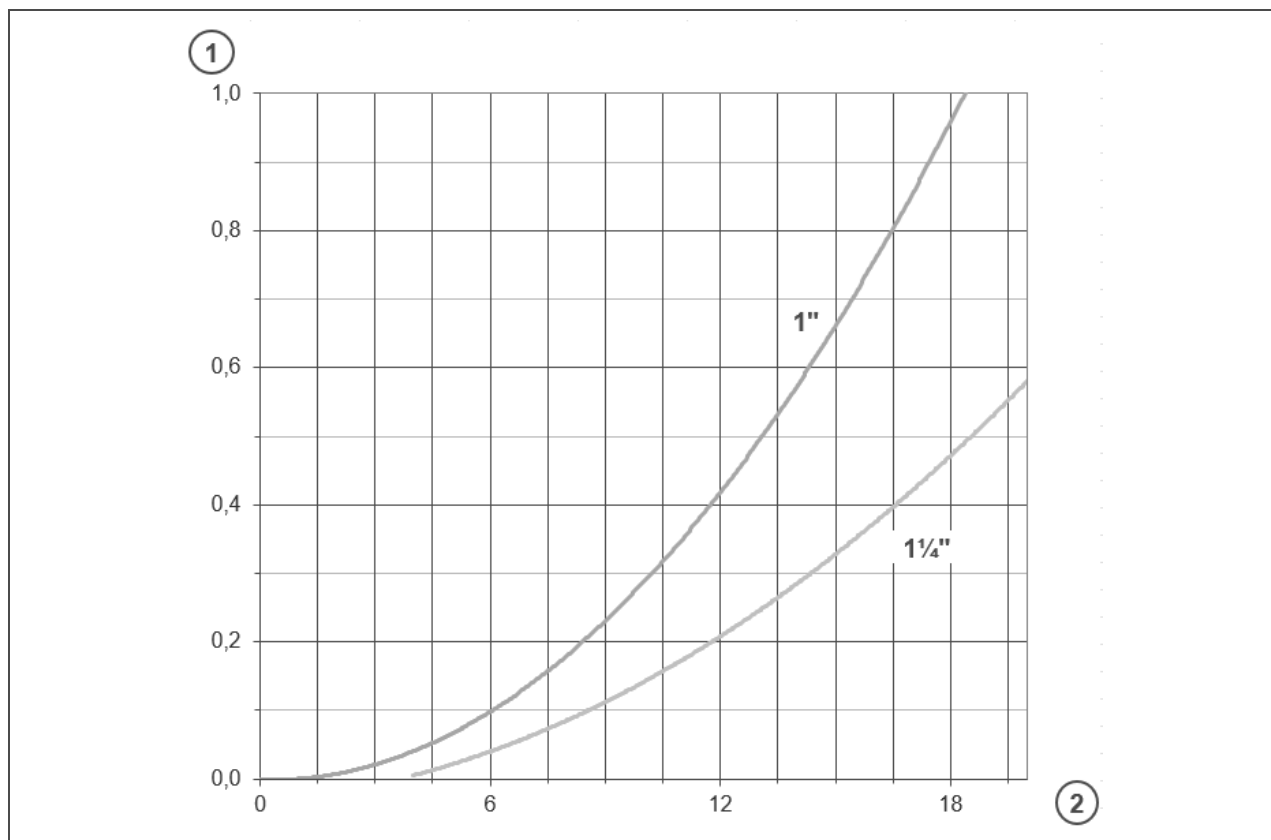
| Performance data | | MR25 | MR32 |
|------------------|---|-------------------|------------|
| | Nominal flow at Δp 0.2 (0.5) bar | m ³ /h | 8.5 (13.0) |
| | Kv value | m ³ /h | 18 |
| | Pore size | µm | 100 |
| | Largest/smallest pore size | µm | 110/90 |
| | Operating pressure | bar | 2 – 16 |
| | 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 |
| <i>The Office of the Vienna Provincial Government – City of Vienna</i> | | | R-15.2.1-22-17624 |

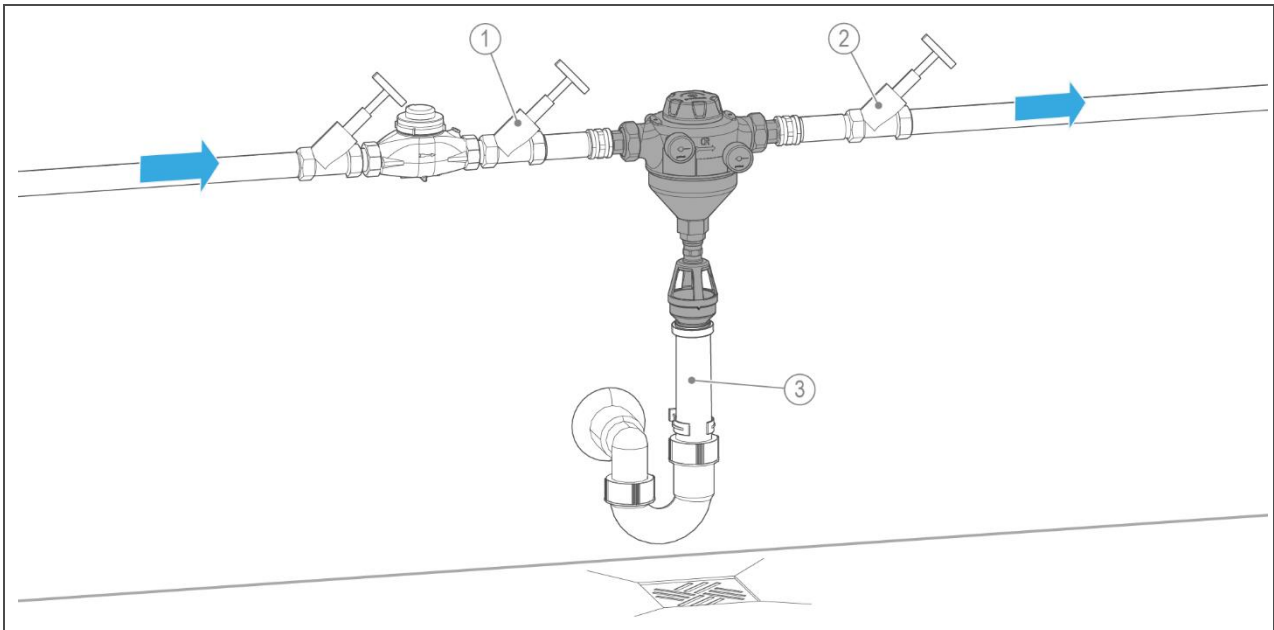
| Order no. | 107000010000 | 107000020000 |
|-----------|--------------|--------------|
| | | |

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 |

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