Magnetic filter for heat pumps

Installation and maintenance manual

Ref: 5392114120



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Read the instructions before installation or maintenance. Retain this manual.

1. Description and intended use

The Pareta magnetic filter is a magnetic dirt separator for heat pump heating circuits. It combines high-strength magnets and a filter mesh to attract, retain and separate impurities from the circuit.

Particles collect in the lower chamber and are removed through the drain valve. The polymer body and 360° swivel connection allow easy fitting to pipework in different orientations.

2. Safety

> **CAUTION · MAGNETIC FIELD** The filter contains high-strength magnets. The magnetic field may affect pacemakers, electronic devices and precision instruments. People with implanted cardiac devices must exercise extreme caution when handling the filter.

> **WARNING · PRESSURE** Before any maintenance, close the relevant valves and depressurise the pipework. Do not remove the top cover until the filter has been isolated and depressurised. Before returning it to service, check that all components are correctly fitted and secured.

Note: Before installing the filter, check that the circuit pressure, temperature and fluid are within the limits specified in this manual.

3. Technical specifications

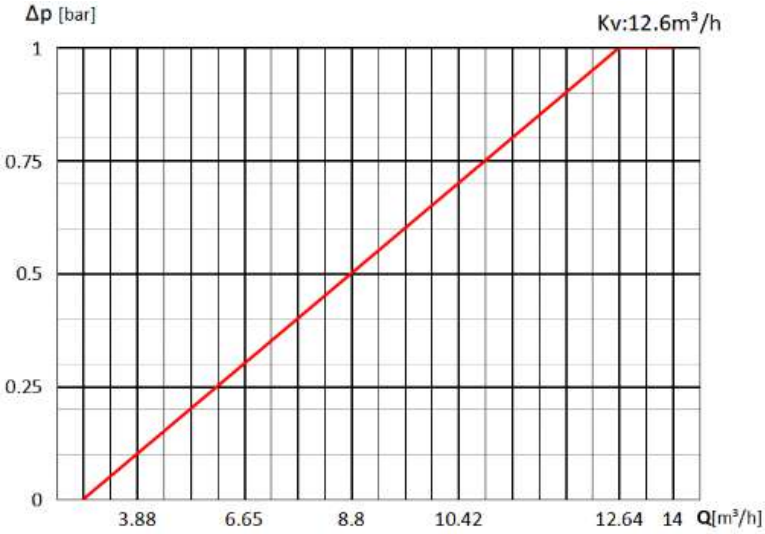
Filter operating limits.

Parameter	Specification
Fluid	Water or ethylene glycol solution up to 30 %
Maximum working pressure	5 bar
Operating temperature	0 to 90 °C
Magnetic strength	1,2 T
Kv coefficient	12,6 m^3/h (see hydraulic curve)
Connections	1 ¼”

Component materials.

Component	Material
Main body and connection cover	PA66-GF30
Separator mesh	AISI 304 stainless steel + PA66-GF30
Connection valve	CW617N, 1 ¼”
Seals	EPDM

Hydraulic curve



***Key:** Δp: pressure drop, in bar. Q: flow rate, in m^3/h. The original graph indicates the Kv value; this must not be confused with a maximum operating flow rate.*

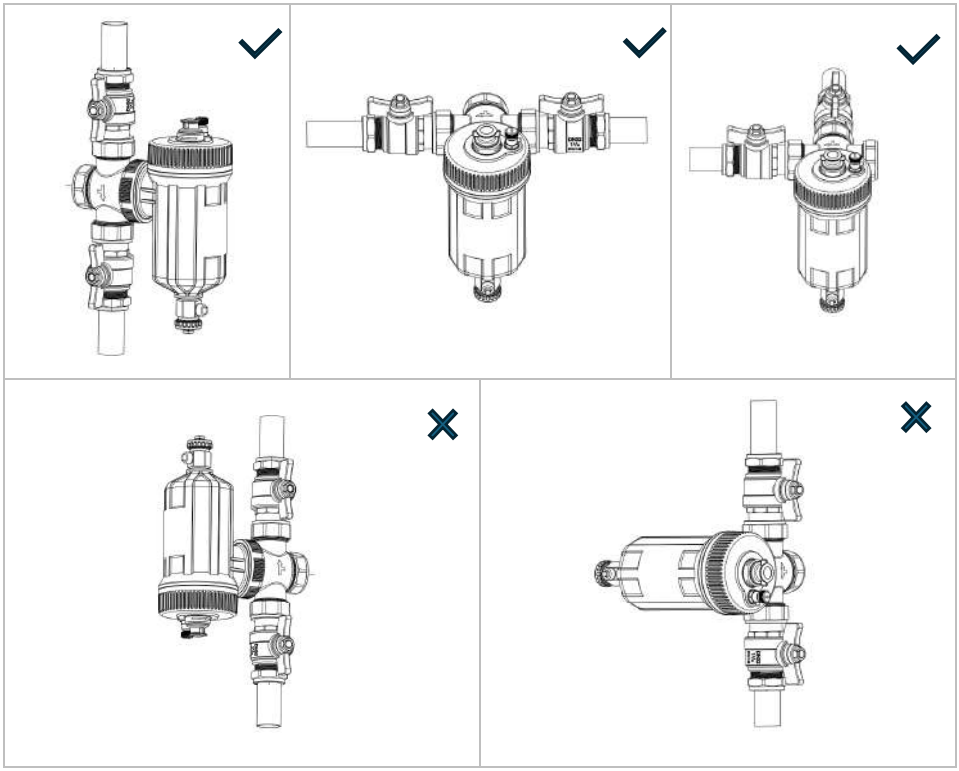
4. Installation

4.1 Pre-installation checks

1. Check that the fluid, pressure and temperature meet the technical specifications.
2. Check the connection type and size of the supplied unit before connecting it to the circuit.
3. Preferably install on the system return pipe.
4. Locate the inlet and outlet arrows to ensure the correct flow direction.

4.2 Mounting position

The 360° swivel connection and ball valves with detachable unions allow the assembly to fit horizontal or vertical pipework. **The main filter body must always remain upright**, with the drain at the bottom.



4.3 Pre-commissioning checks

Check that the filter and connections are correctly fitted and secured. Check the connections for leaks and inspect the condition of the assembly before starting the system.

5. Flushing and draining

Frequency: clean every 1 to 3 months, depending on system water quality, to remove accumulated impurities and prevent blockages.

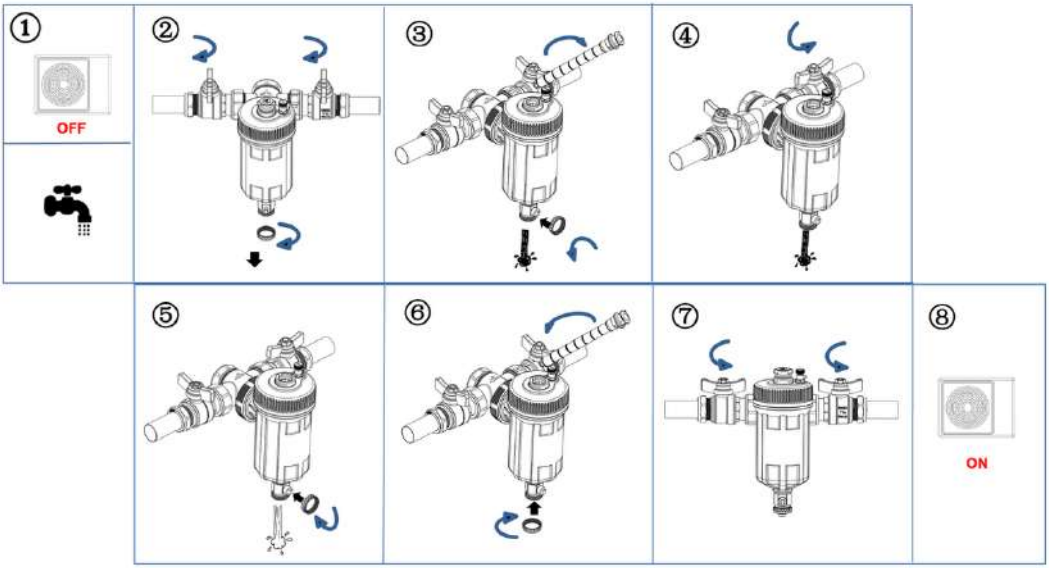
5.1 Preparation

Before starting work, close the relevant valves and depressurise the pipework, as stated in the safety warnings.

5.2 Removing impurities

Trapped impurities collect in the lower chamber. Use the bottom drain valve to remove them. After flushing and draining, check that all components are correctly fitted and secured before returning the system to service.

If filtration efficiency continues to decline after flushing, clean the mesh as described in Section 6.2.



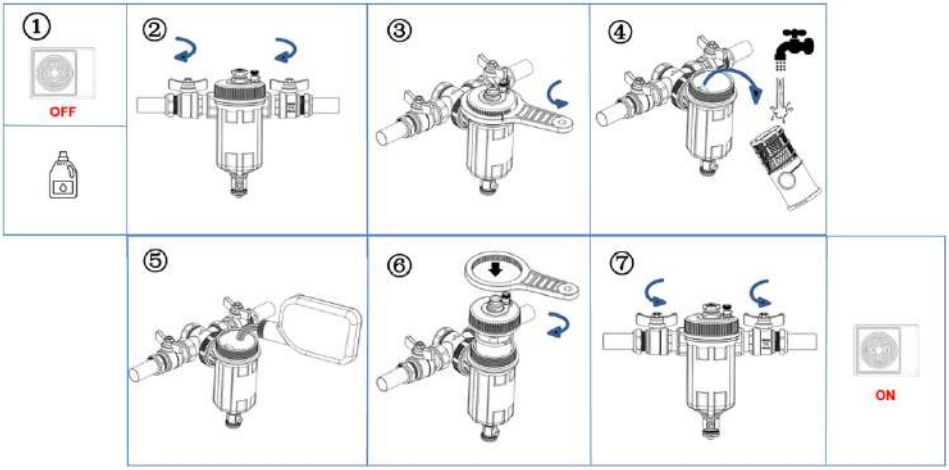
6. Maintenance and care

6.1 Periodic inspection

Inspect the filter every 3 months. Check that the connections are leak-free and the unit is in good condition.

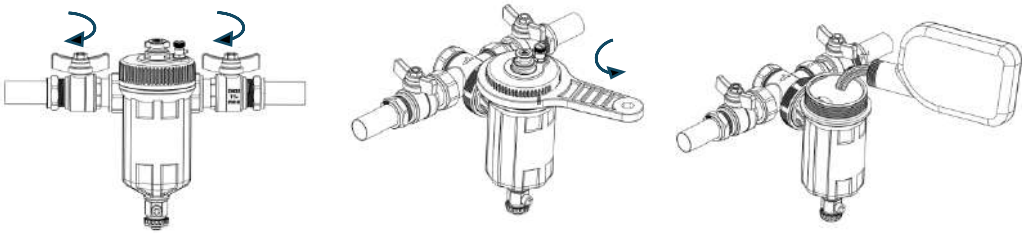
6.2 Cleaning the filter mesh

1. Close the system valves and release the pressure before opening the filter.
2. Remove the top cover and take out the internal separator mesh.
3. Rinse the mesh with clean water. If necessary, remove impurities from its surface with a soft brush.
4. Refit the mesh and top cover correctly.
5. Check that all components are fitted and secured before restarting the system.



6.3 Adding cleaning or protective products

If these products need to be added, close the inlet and outlet valves and release the pressure before removing the top cover. Add the product and refit the cover correctly. Check the assembly before restarting.



6.4 Extended shutdown

If the system is to be out of service for an extended period, flush the filter thoroughly and drain the water from it to prevent the build-up of impurities and component corrosion.

