

## Ultima RS

### Magnetic filter for protecting heat pumps and boilers in radiator and underfloor heating systems

Ultima RS is an efficient magnetic filter designed to protect circulating pumps and heat exchanger in heating and cooling systems from any magnetic and non-magnetic debris. Magnetic debris is captured by a highly efficient and powerful built-in neodymium magnet of 11,000 Gauss. This filter can be installed either in a vertical or in a horizontal position on the return pipe of heating and cooling systems.

#### Key characteristics:

- Horizontal and vertical installation
- Stainless steel filtration cartridge 100 µm
- Powerful neodymium magnet 11.000 Gauss
- Brass filter head, transparent filter bowl allows to check the filter clogging
- Draining valve for easy and quick service



Specifications	
Connection	Combination external thread 1" and internal thread ¾"
Material	Brass filter head transparent plastic bowl
Cartridge specification	Stainless steel, 100 microns
Hydraulic sealing	EPDM
Magnet power	11.000 Gauss
Magnet material	Neodymium
Max. circulating heating	90 °C
Max. circulating pressure	25 bar
Operating fluid	water, mixture of water and glycol
<b>EN 14868</b>	

Filtration cartridge  
100 microns

Neodymium magnet  
11.000 Gauss



For boilers up  
to 70 Kw



For underfloor heating  
and radiators



For heat  
pumps up to  
20 Kw

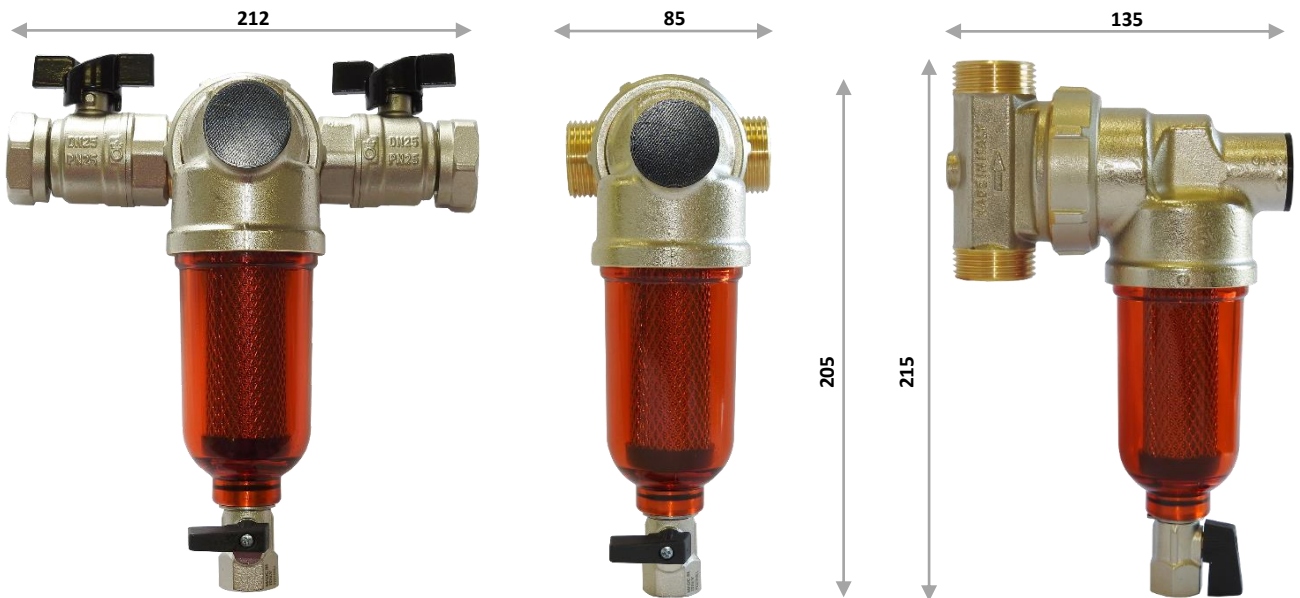


#### Attention!

Part of the filter is a powerful magnet. The magnet creates a strong magnetic field and can damage electrical appliances

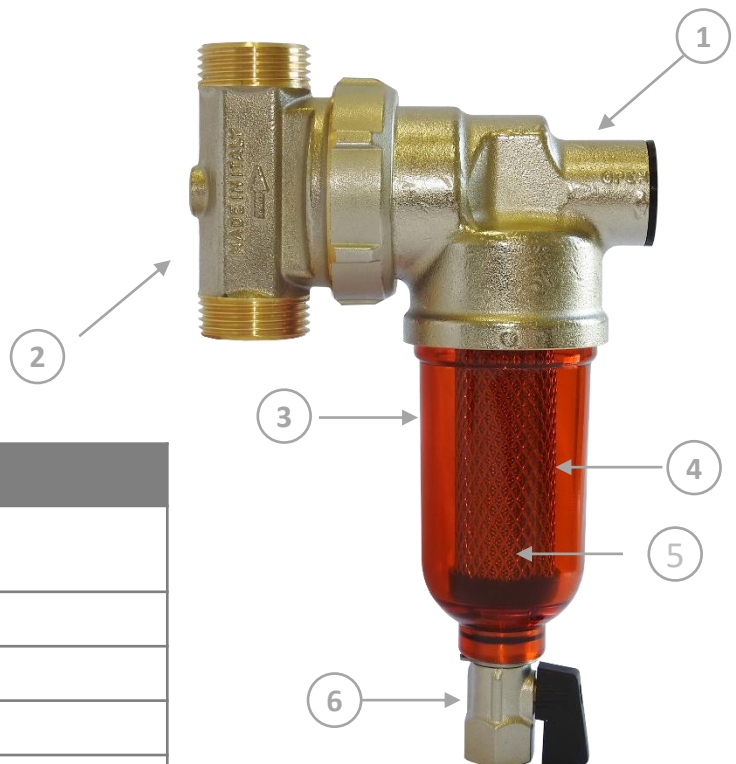


## Ultima RS dimensions (in mm)



## Description

1. Filter head
2. Rotating T-piece
3. Filter body
4. Filtration cartridge 100 microns
5. Magnet 11.000 Gauss  
(inside of the filtration cartridge)
6. Drain valve



## Technical information

<b>Nominal pressure</b>	1,5 – 2 bar
<b>Max pressure</b>	25 bar
<b>Nominal flow rate</b>	2 m <sup>3</sup> /hod
<b>Max. flow rate</b>	4,8 m <sup>3</sup> /hod
<b>Kv</b>	4,1
<b>Pressure drop at nominal flow rate</b>	0,2 bar

## Filter installation

The Ultima RS filter allows horizontal and vertical installation thanks to the rotary connection.

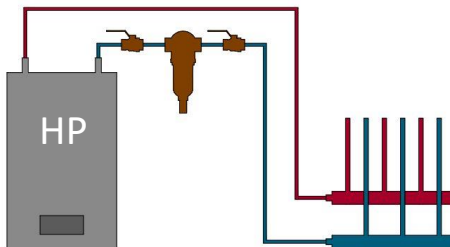
We recommend placing it on the return pipe, which supplies water from the heating to the boiler or heat pump. This will ensure that all impurities from the system are trapped in the filter before water enters the installed equipment.

By installing the filter, all critical components of the system (three-way valve, circulation pump, exchanger, sensors) will be protected against mechanical magnetic and non-magnetic impurities.

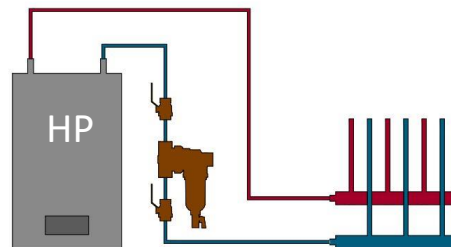
To perform easy maintenance and cleaning of the filter, it is recommended to install a shut-off ball valve in front of and behind the filter - see below.

## Installation schema

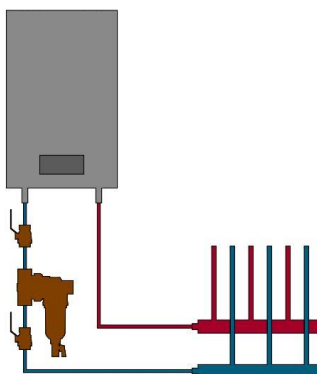
Horizontal installation  
with heat pump



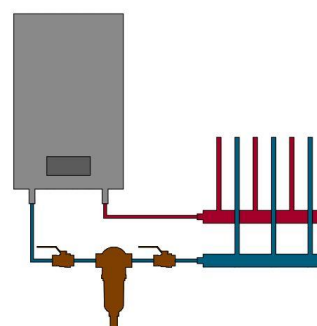
Vertical installation  
with heat pump



Horizontal installation  
with boiler



Vertical installation  
with boiler



## Service and maintenance

Regular filter service is necessary to ensure proper filter operation. Before cleaning the filter, make sure that it is safe to clean.

Before cleaning the filter, we recommend switching off the boiler and let the system water temperature cool down to a safe temperature to avoid accidents during cleaning.

### Procedure for cleaning the filter:

1. Close the ball valves in front of and behind the filter.
2. Open the drain valve, flush water from the filter.
3. Unscrew drain valve from filter, including magnet connected to the valve. Clean the magnet from settled debres.
4. Unscrew the plastic filter bowl, take off filtration cartridge.
5. Wash and clean all components.
6. Check the O-ring for damage and replace if necessary. When assembling the filter, lubricate seals, check the seating of the rubber rings and seals.
7. Reassemble washed and clean components.
8. Fill the filter with water slowly to check for leakage.

**For proper filter operation, we recommend to provide maintenance and cleaning at least once a year.**

**In the case of installation in a new system, an inspection is required after one month of operation at the latest.**

**If the filter is installed in an already operating system, service and cleaning may be requested more frequent, depending on the debres quantity in the system.**



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