

# Calmag



## Compact Mini Filter

### SPECIFICATIONS

Combination Magnetic & Electrolytic  
in-line Scale Inhibitor with push fit fittings

## HOW THE MINI FILTER WORKS

The magnetite filter is specially designed for central heating systems. It can remove almost all of the harmful black suspended iron oxide slag accumulated in all heating systems, and protects the piping equipment of the system.

TECHNICAL SPECIFICATIONS	
Magnet strength	9000 Gauss
Connections	22mm
Optimum operating pressure	6 bar
Maximum tested pressure	10 bar
Dimensions	132mm height, 121.4mm width
Maximum working pressure	12 bar (168 psi)
Maximum temperature	120 deg C
Maximum flow rate	1.08 l/sec (14gpm)

## POINTS TO CONSIDER

It is advised to install the magnetite filter on the return circuit, at the inlet of the boiler, in order to protect it from any impurities in the system, especially during the start-up phase.

## SAFETY INSTRUCTIONS



The magnetite filter contains powerful magnets - must be kept away from all electronic devices, bank cards and other magnetic devices.



The magnetite filter contains powerful magnets - should always be with caution around people fitted with a pacemaker.



The magnetite filter is a pressurised device that have the pressure released before maintenance.



The magnetite filter device could be very hot during operation - be careful.



Do not install in temperatures that are below freezing and always protect from frost.

# IMPORTANT MOUNTING INSTRUCTIONS

Filters can be installed in a variety of ways, for example: installed in the location on the main pipeline. However, **it is recommended** to be installed after the last radiator and before the boiler for the best protection effect.

**Notice:** It is important to have adequate maintenance space when determining a suitable installation location.

## MOUNTING RECOMMENDATIONS

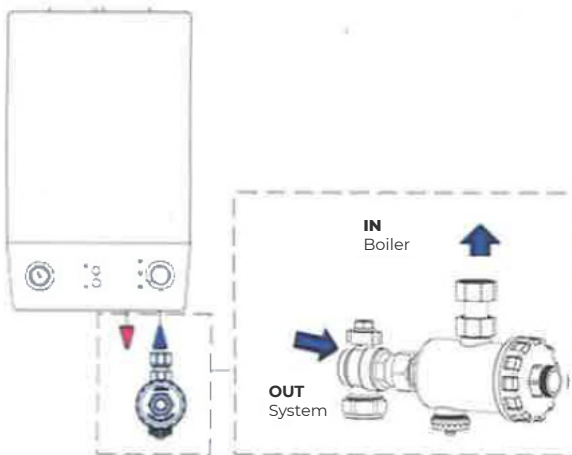
The following instructions are to help the engineer to install and maintain the Magnetic Filter safely and efficiently and should always follow this. During maintenance, check whether the lid seals are not worn or degraded. Best practice is to replace the lid seal at each service call.

Thanks to a series of design solutions, the filter is characterised by having versatility: it can be mounted either with the filter body facing the front and downwards.

In case of limited space available under the boiler (e.g, boiler installed in kitchen cabinets), the filter must be installed with the main filter body facing the front.

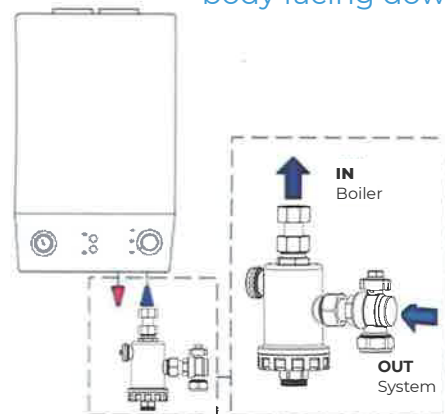
### LAYOUT 1

Main filter body facing the front



### LAYOUT 2

If there is more space available for installation, it is possible to position with the main filter body facing downwards.



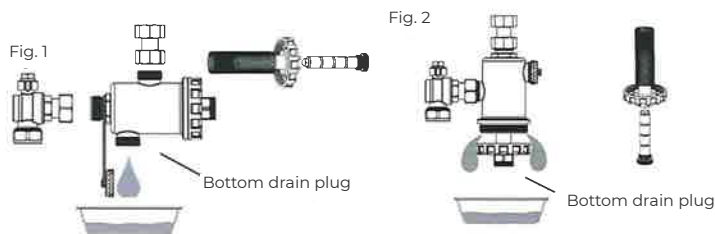
This is possible because all the connections on the main filter body are:



**Layout 1**, in addition to magnetic filtering, offers a high filtering capacity also for NON magnetic particles

# MAINTENANCE

- ▶ After Installation, perform the first service after one month.
- ▶ Check that the boiler is turned off and the system has been left to cool to room temperature to avoid burns.
- ▶ Close the ball valve and carefully unscrew the drain plug. The water will gradually begin to flow (Fig 1) Closing the the valve and draining the water in the circuit, it is possible to completely remove the dirt separator to facilitate maintenance.
- ▶ If the filter is installed vertically (Fig 2), unscrew the filter cap using an adjustable spanner. If opening is difficult, slightly loosen the bottom drain cap, so as to reduce the pressure inside the filter.
- ▶ When the water flow has stopped, completely remove the filter cap and protective sheath to eliminate ferrous particles. Rinse thoroughly to remove all impurities.
- ▶ Replace the O-ring, if damaged, and check the filter is water tight before turning the system on.



This device is only to be installed by qualified personnel.