DM 2018

MAGNETIC DIRT SEPARATOR

INSTRUCTIONS FOR USE

FIDM

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EN

Function

Energy-saving issues as well as the rational use of resources are very current topics; therefore it is necessary to keep the heating circuit efficient by using a magnetic dirt separator filter placed on the return pipe to capture the impurities present in the heat carrier fluid and avoid any damage they could cause to the heating system.

This device must be installed on the heating circuit, and once positioned, it is necessary to fill the heating system up again, emptying the air in excess.

The main technical data are:

- It prevents the risk of obstruction of the heating circuit pipes and its components.;
- Should the boiler be replaced, the dirt separator filter can be mounted on the new one.

Technical data

- Maximum working temperature: 65°C (installation on the return circuit of the heating system);
- Room temperature: +5°C …+ 50°C (internal installation);
- Water working pressure: 1,0 ÷ 2,0 bar;
- Maximum water pressure: 3,0 bar;
- Water content in the heating circuit: ~ 0,2 litres;
- Magnet: Ø12x60 mm, 4500 gauss;
- Width (hydraulic fittings excluded): 101,5 mm;
- Height: 116,5 mm;
- Net weight: 175 g;
- Fittings supplied: G3/4G.

Materials

- Brass CW 617N DW UNI EN 12165:2016
- Dirt separator body made of black polypropylene and glass fibres
- Stainless steel metal mesh

Warnings and security measures

WARNING: it indicates operations for which a particular attention is required.

FORBIDDEN: It warns about actions which must absolutely not be done.

PRESENCE OF A MAGNETIC FIELD: as the dirt separator filter present a magnetic field in its internal part , the necessary security measures must be adopted.

WARNING

- The dirt separator filter isn't necessarily supplied together with the boiler, therefore the instruction manual of the boiler doesn't contain the technical data about the dirt separator fittings and how it works, which are, for this reason, included in the following manual. It is necessary to read the warnings below carefully before installing or using the dirt separator filter.
- The installation as well as any other maintenance or servicing work related to the dirt separator filter must be carried out by only professionally qualified people and in compliance with the manufacturer's instructions. Professionally qualified people means people with technical competence as stated in the ministerial decree 27/2008.
- Please, read carefully the warnings contained in the manual because they give important information for installation, maintenance and security.
- This manual together with that of the boiler is an integral part of the product.
- Please, preserve this manual with care for future consultations.
- Should this device be sold or transferred to another owner or should the owner move out and leave his boiler and dirt separator filter installed, please make sure the two devices are always accompanied by both the dirt separator filter's manual and the boiler's manual.
- The dirt separator filter must be used only for the purposes it was expressly designed. It is excluded any other contractual or extra contractual responsibility of the manufacturer for the damages caused by mistakes during installation or use, or even non-compliance with the national and local laws and the instructions given by the manufacturer himself.
- Once the packaging has been undone, make sure the dirt separator filter and its accessories are intact. In case of damages or missing items please turn to the retailer/ installer of the device.
- It is necessary to inform the user that:
    - In case of water leakage, he has to close the water inlet valve and call his installer.
    - If there is any danger of frost, the heating system must be emptied;
    - The maintenance of the dirt separator filter must be planned in advance and must be done at least twice a year.
- All the material there is in the dirt separator filter's box must be kept out of the reach of children because is a source of danger.
- Do not touch with any part of the body the surface of the dirt separator filter while the boiler is working.
- Do not lay or introduce objects on the external and internal surfaces of the dirt separator filter.
- Do not block or reduce the openings for the flow of the heating circuit water.

DANGER

- Danger of burns due to hot water. Never open the dirt separator filter while the boiler is working and the circuit is under pressure.
- Danger of flooding, before disassembling the dirt separator filter, make sure that the ball valves are closed upstream and downstream of the dirt separator filter.

FORBIDDEN

- Before cleaning the dirt separator filter, turn off the boiler and disconnect it from the power supply.
- Do not block or reduce the openings for the flow of the heating circuit water.

PRESENCE OF MAGNETIC FIELDS

- Please note, there are strong magnetic fields which can damage or interfere with the correct functioning of electronic devices (pacemaker, magnetic badges, etc.).

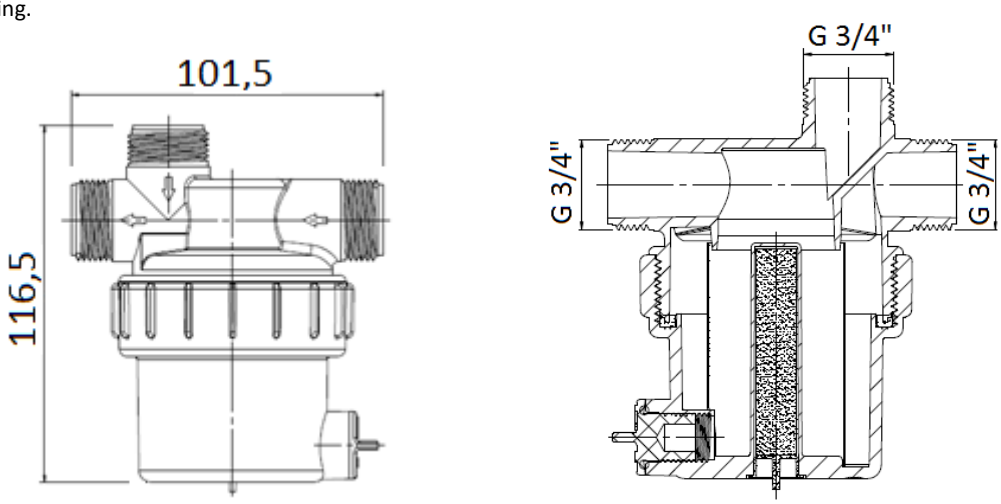
NON-COMPLIANCE WITH THE ABOVE INSTRUCTIONS RESULTS IN A LOSS OF WARRANTY.

Components included in the package

Description	Quantity
Dirt separator filter made of plastic and glass fibres (upper body, lower body)	1
Rubber gasket between the upper and lower body	1
M14 plastic plug with rubber gasket	1
Plug of the magnet housing	1
Magnet	1
Stainless steel cylindrical metal mesh	1
G 3/4 brass fitting with gasket, female swivel nut and ball valve to be positioned upstream of the dirt separator filter	1
G 3/4 brass female end cap	1

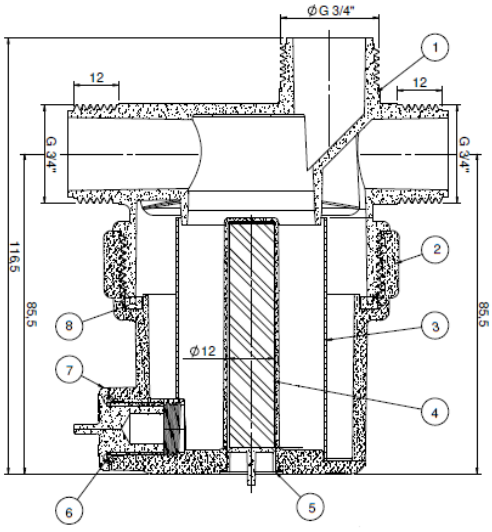
Dimensional details

Below you can find the dimensional details of the dirt separator filter and its accessories, to be used for installation in hydraulic circuits for domestic heating.



Picture 1

Functional elements of the dirt separator filter



Picture 2

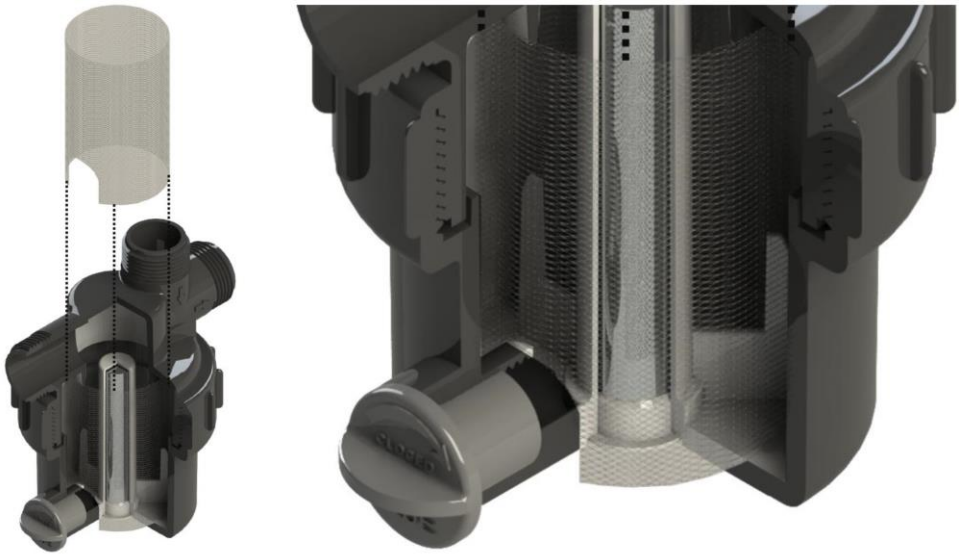
Position	Description	Quantity
1	Dirt separator body	1
2	Cover	1
3	Metal mesh filter	1
4	Magnetic element	1
5	Plug	1
6	O-Ring sealing	1
7	End cap	1
8	Gasket	1

Operating Principle

The water flow returning from the heating system passes through the inlet fitting of the dirt separator filter, then it flows through the internal area where there is the magnet and the stainless steel metal mesh and goes out through the outlet fitting of the dirt separator filter.

Correct position of the internal mesh

For the tightness of the dirt separator filter is of fundamental importance that the internal mesh is correctly positioned, following the instructions of the image below.



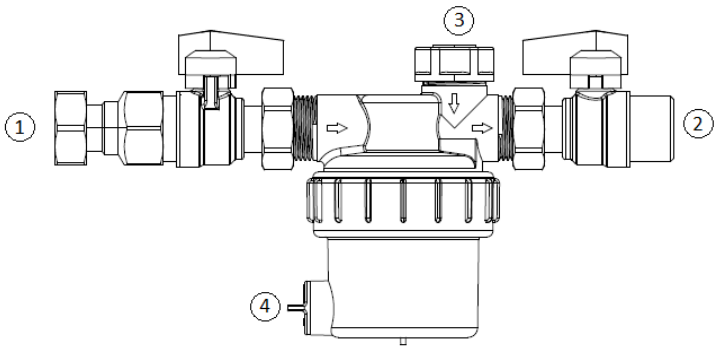
- The internal mesh must be positioned in correspondence with the internal shape of the end cap and fixed to the center using the corresponding 3 tabs;
- The internal metal mesh must be perpendicular to the bottom of the lower body.

Operating Scheme

The dirt separator filter can be installed in two different ways (horizontally or vertically) in order to be suitable to the majority of the domestic hydraulic circuits already existing as well as the new ones.

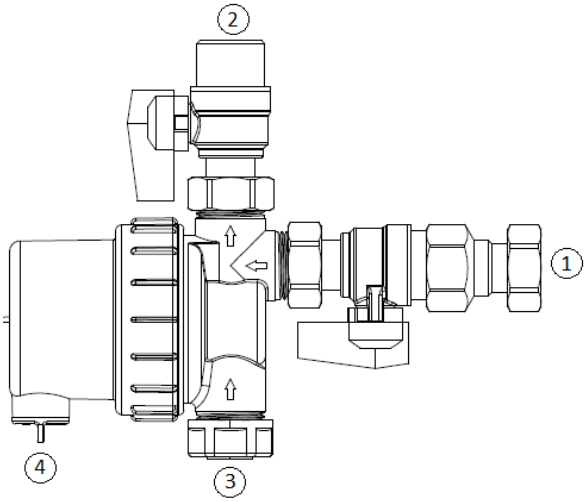
Heating system return circuit / dirt separator filter inlet	(1)
Dirt separator filter outlet / towards the boiler	(2)
Position of G 3/4 brass female end cap	(3)
Position of M14 grey plastic end cap for filter's emptying	(4)

Installation with the filter placed vertically:



Picture 3

Installation with the filter placed horizontally:



Picture 4

Installation

- The installation must be carried out by only professionally qualified people and in compliance with the manufacturer's instructions.
- Before installing the dirt separator filter, make sure that the heating circuit or the boiler are provided with a relief valve set at 3,0 bar.
- Before proceeding with installation, please pay attention to the dimensions and the features of the dirt separator filter indicated above.
- Below you can find useful information for the correct installation of the magnetic dirt separator filter:

1) Check if the hydraulic connections and the technical data of the system allow the installation of the magnetic dirt separator filter.

2) Disconnect the boiler from the power supply (in order to avoid dangerous accidents and damages to the circuit board).

3) Empty the system and wash the heating circuit pipes.

4) The magnetic dirt separator filter has to be installed in an accessible place where all the future periodic maintenance and cleaning operations can be easily carried out.

5) During installation make sure that the flow directions (inlet/outlet) are respected.

6) It is recommended that shut-off valves are installed upstream and downstream of the dirt separator filter in order to facilitate maintenance operations.

7) Before applying pressure to the dirt separator filter, make sure that the plugs and the upper and lower bodies are tightened.

8) Insert the magnet in its specific housing and place the transparent bottom plug.

9) After 10 minutes of working, stop the system and check the tightness of the cover.

WARNING

All maintenance work must be carried out when the heating circuit is cold and by professionally qualified personnel: the periodicity of the dirt separator filter's maintenance is twice a year. A use of the dirt separator filter in accordance with its intended use, means also observation of the maintenance instructions. After the first installation, it advisable to remove the dirt accumulated in the filter twice a week during the first month of use.

Fast Cleaning

In order to clean the dirt separator filter rapidly, follow the below instructions:

- Turn off the boiler through the switches or knobs of the control panel and remove the boiler's plug from the power socket.
- Isolate the dirt separator filter from the heating system by closing both the valves upstream and downstream of the filter in order to avoid to empty the whole heating system .
- Remove the transparent bottom plug and take the magnet out of its housing( ).
- Unscrew the plastic threaded end cap (picture no. 2 position no. 6 and 7) (WARNING: circuit under pressure) and collect all the liquid and accumulated impurities in a container.
- Replace the plastic threaded end cap with its rubber gasket.
- Put the magnet into its housing again and insert the transparent plug.
- Slightly open the ball valves upstream and downstream of the dirt separator filter which have been previously closed.
- Restore the pressure of the heating system water in compliance with the working pressure limits indicated by the boiler's manufacturer.

Annual Cleaning

In order to carry out the annual cleaning operations, removing the magnet and the metal mesh, follow the instructions below:

- Turn off the boiler through the switches or knobs of the control panel and remove the boiler's plug from the power socket.
- Isolate the dirt separator filter from the heating system by closing both the valves upstream and downstream of the filter in order to avoid to empty the whole heating system.
- Remove the transparent bottom plug and take the magnet out of its housing().
- Unscrew the plastic threaded end cap (picture no. 2 position no. 6 and 7) ( WARNING: circuit under pressure) and collect all the liquid and accumulated impurities in a container.
- Unscrew the lower body and wash it with running water.
- Remove the metal mesh and wash it with running water.
- Remove the ferrous impurities which may have accumulated in the filter.
- Replace the metal mesh and the lower body with rubber gasket screwing it to the upper body.
- Replace the plastic threaded end cap with its rubber gasket.
- Put the magnet into its housing again and insert the transparent plug.
- Slightly open the ball valves upstream and downstream of the dirt separator filter which have been previously closed.
- Restore the pressure of the heating system water in compliance with the working pressure limits indicated by the boiler's manufacturer.

Once the fast cleaning or the annual cleaning have been completed, the heating circuit needs to be emptied of any possible air in excess.
An accurate maintenance always enables saving and security.

WARNING

Should you replace a component of the hydraulic system with its original spare part, you must make sure that it has an adequate tightness.

Luxor S.p.A. declines any responsibility for the use of non-original spare parts.

Update the system booklet recording all the maintenance operations carried out.

Once the maintenance work has been completed, it is necessary to check the tightness of the system.

Check the tightness of the fittings, the gaskets and the water pipes of the heating circuit. Check the water pressure periodically by using the boiler manometer in order to verify it doesn't exceed the operating limits fixed by the manufacturer.

Check the external defects of the dirt separator filter; if there are damages which prevent its functioning, it is necessary to proceed with their replacement.

Warranty conditions

Warranty is in any case valid only for the dirt separator filter and does not cover the system, things and people to it related.
All the device's defects and/or damages due to the following causes are not covered and lead to the loss of warranty:

- Transport and handling operations.
- Installation carried out by non-qualified people.
- Damages resulting from an incorrect installation or weather events, inadequacy of the hydraulic systems and/or electric systems.
- Use of spare parts, components and accessories non-original or not recommended by the manufacturer and damages caused to the device from their use.
- Breakdowns due to negligence, carelessness, inability to use the device or repairs carried out by unauthorized people.
- Damages caused by erroneous operations carried out by the consumer himself in order to fix an initial malfunction.
- Failure to carry out the periodic maintenance operations required in this manual.
- The product must be disposed of in accordance with the corresponding national laws in force.
- The data contained in this manual may vary without prior notice.