



Art. 2272

Body: CB753S brass
Upper plug: CW617N brass
Lower cock: CW617N brass
Max. working temperature: 110°C
Filtration cartridge: Nylon 6FV
O-Ring: EPDM
Nominal pressure: 10 bar
Max. flow speed: 1.4 m/s

**WITH REMOVABLE
MAGNETIC INSERTS**

1. DESCRIPTION

The SMART dirt separator, installed in cooling and heating systems, is designed to filter out any impurities in the water supply, thus improving heat exchange and ensuring good thermal fluid circulation.

The dirt separator art.2272 has a special compact shape and reduced dimensions compared to the majority of similar items available on the market. This feature easily allows the installation under boilers in domestic heating systems.

Any impurities (such as rust or welding debris) drop down into an appropriate seating where, once settled, they can no longer return to the system.

The dirt separator has an internal chamber that reduces flow rate and decreases the drag force, facilitating separation of impurities.

Inside this chamber a cartridge is placed transversally to the direction of the flow, acting as a barrier to the water and reducing its kinetic energy, so that impurities drop down.

The effect is reinforced by the use of tongues on the vertical bars of the cartridge, which drive the impurities downwards.

The debris deposited at the bottom of the dirt separator can be discharged through a drain cock located in the lower section.

The dirt separator **art.2272** with magnetic inserts is ideal for systems with a high concentration of iron particles, deposits or debris caused by corrosion.

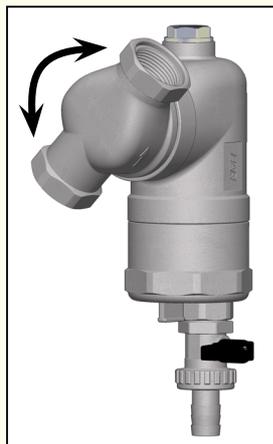
A threaded connection with a plug is located on top of the dirt separator, so that an automatic air vent valve can be installed to make gas purging easier.

2. OPERATION

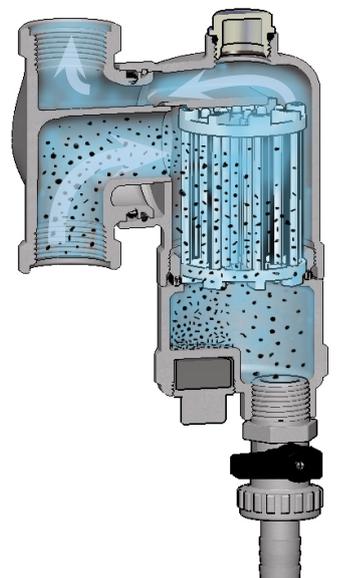
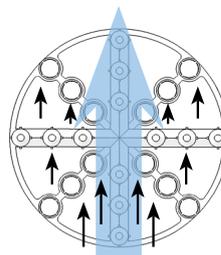
As illustrated, the use of vertical bars aligned to the direction of the fluid maximizes the surface area for contact with particles of dirt suspended in the fluid, while tongues create turbulence to slow the flow rate and facilitate the separation and settling of impurities. The dirt separator with magnetic inserts allows to catch iron particles in older systems or in systems with high dirt concentration.

CONSTRUCTION DETAILS

The swivelling dirt separator can be installed on the pipeline in either vertical or horizontal position, as the part with threaded connections can rotate 360° around its own axis.



Cartridge section which shows the water flow (blue arrow) and the impurities movement (black arrows).



3. INSTALLATION



NB: Because of the magnetic inserts, anybody fitted with a pacemaker is advised to maintain a safe distance during operation and maintenance. Attention should also be paid to the use of electronic equipment near magnetic inserts to avoid interference.

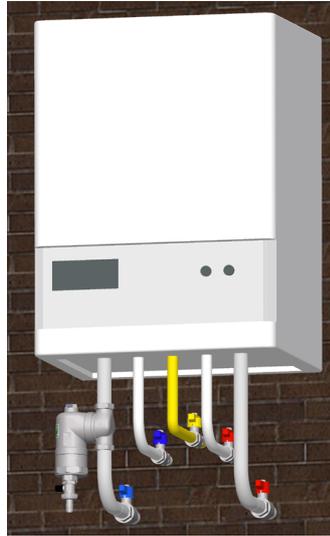
The dirt separator should be placed on the return line before the boiler, in such a way as to catch all the impurities that might damage the boiler and pumps. The special compact shape allows the installation under domestic boilers. It is recommended that the dirt separator is installed between two isolating valves for maintenance.



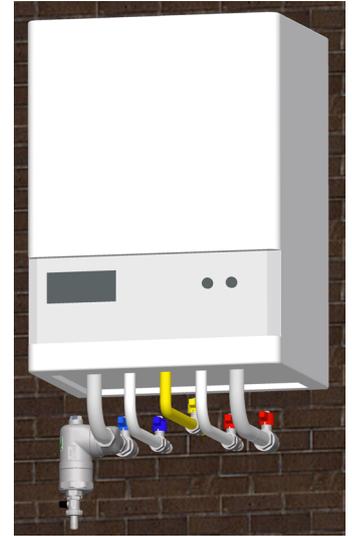
NB! For proper operation the dirt separator should always be installed in a vertical position.



A FAR automatic air vent valve can be installed simply by removing the upper plug and screwing the valve onto the dirt separator. All versions of the dirt separator are available with 1/2" upper connection.



Installation of the swiveling dirt separator in vertical position.

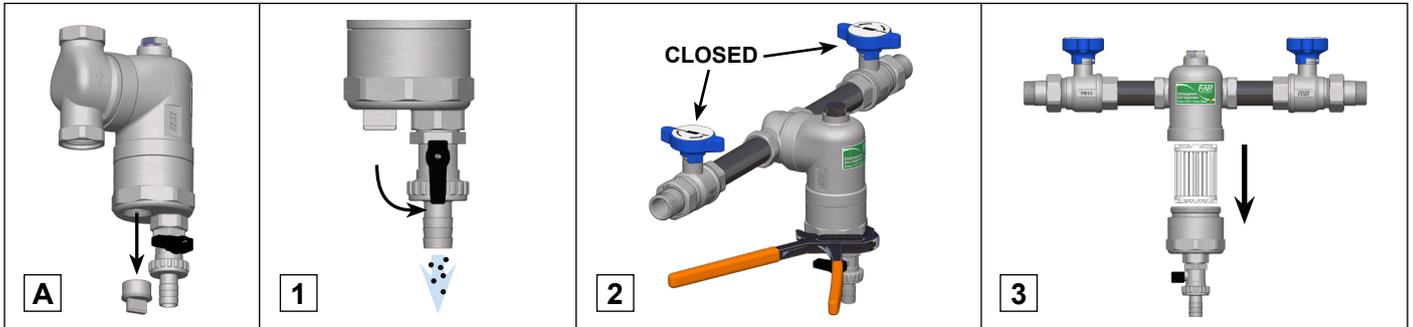


Installation of the swiveling dirt separator in horizontal position.

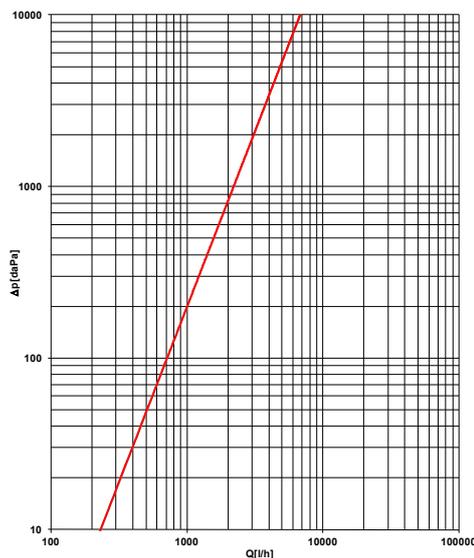
4. MAINTENANCE

The dirt separator requires periodical maintenance, to remove the deposited impurities.

Before proceeding with maintenance, unscrew the magnet-holders by hand, as shown in picture A. It is then possible to clean the dirt separator as previously described. In addition to the usual discharge procedure through the drain cock located at the bottom (picture 1), it is possible to unscrew the lower body using a plumbing wrench (picture 2) and remove the filter cartridge for cleaning (picture 3), in such a way as to remove all impurities.



5. FLUID-DYNAMIC FEATURES



$K_v=6,8 \text{ m}^3/\text{h}$

6. DIMENSIONAL FEATURES

