

DIRT SEPARATOR



Art. 2200



Art. 2205

1. DESCRIPTION

The FAR 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.

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.

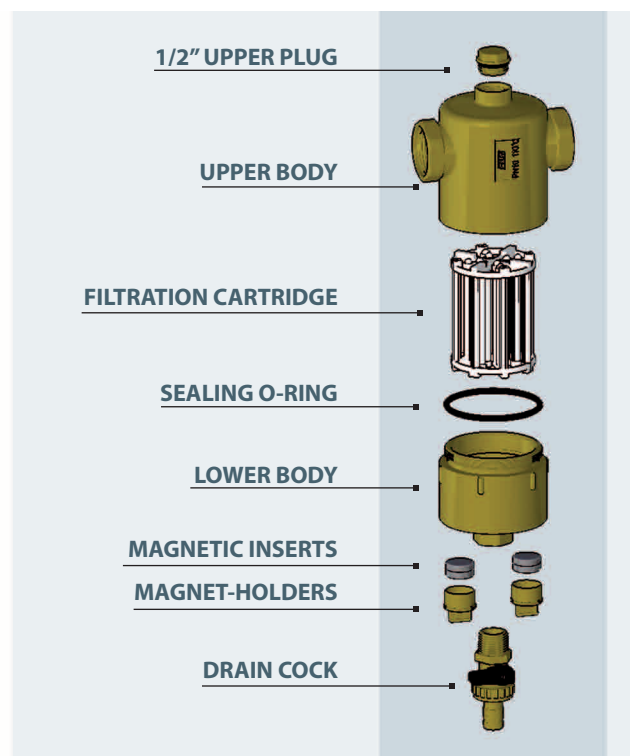
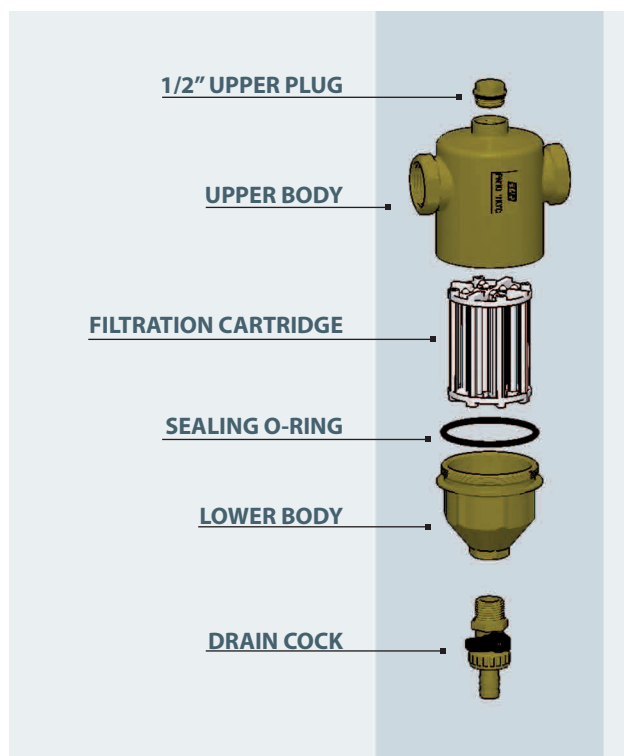
Inside this chamber a cartridge is placed transversally to the direction of the flow, acting as a barrier to the water and reducing its kinetic energy, so that impurities drop down.

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.

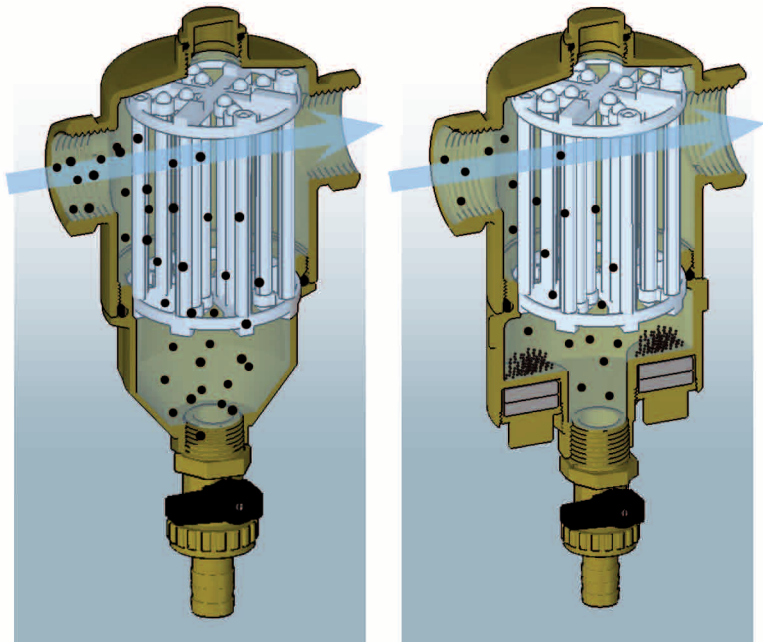
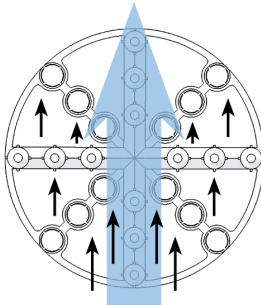
A threaded connection with a plug is located on top of the dirt separator, so that an automatic air vent valve can be installed to make gas purging easier. The dirt separator art.2205 with magnetic inserts is ideal for systems with a high concentration of iron particles, deposits or debris caused by corrosion.

2. CONSTRUCTION COMPONENTS



3. 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 separation and settling of impurities. The dirt separator with magnetic inserts allows it to catch iron particles in older systems or in systems with high dirt concentration.



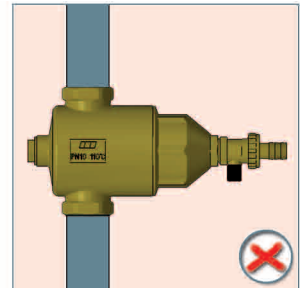
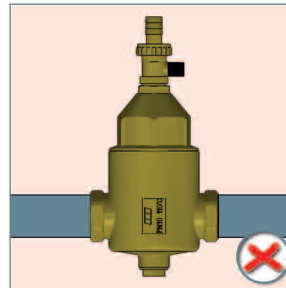
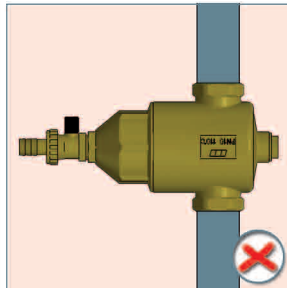
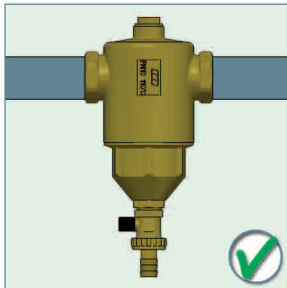
4. INSTALLATION



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.

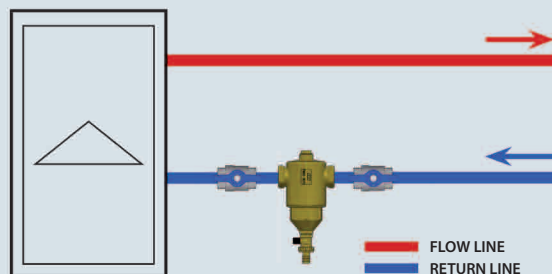


NB: For proper operation the dirt separator should always be installed in a vertical position.

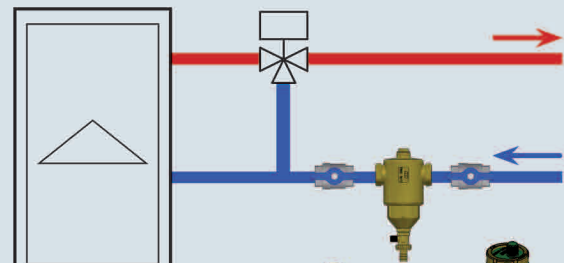


The dirt separator should be placed on the return line before the boiler, in such a way as to catch all the impurities that might damage the boiler and pumps. It is recommended that the dirt separator is installed between two isolating valves for maintenance.

CORRECT INSTALLATION IN GENERAL SYSTEMS

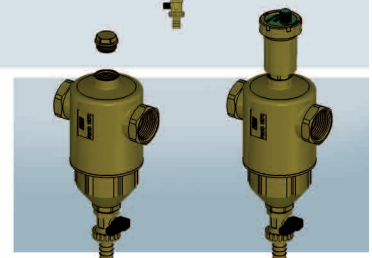


CORRECT INSTALLATION IN SYSTEMS WITH MIXING VALVE



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.

NB: Insulation can also be installed on the dirt separator.

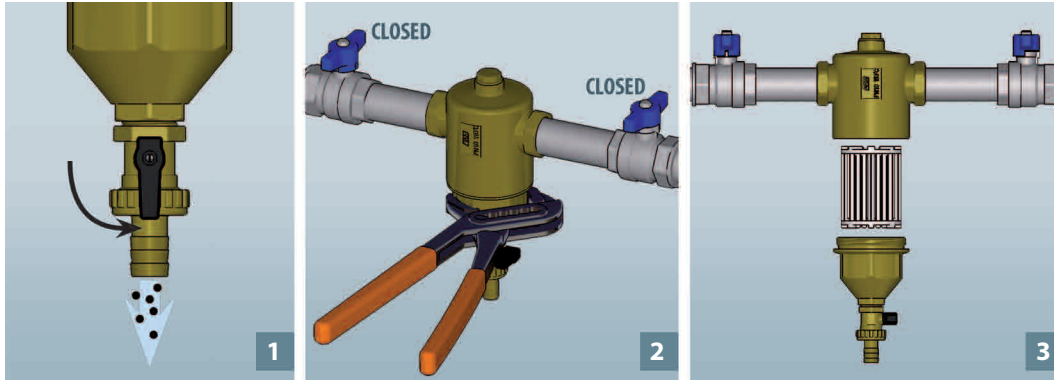


5. MAINTENANCE

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

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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.

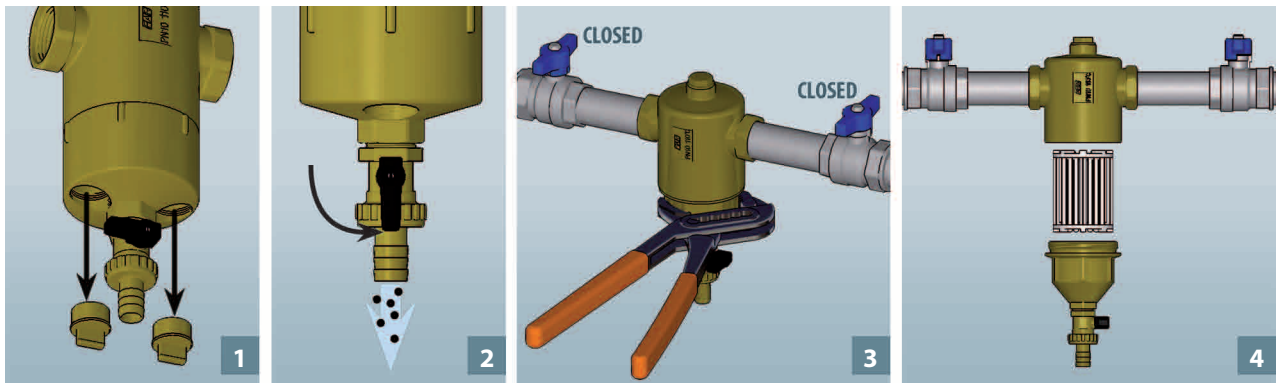


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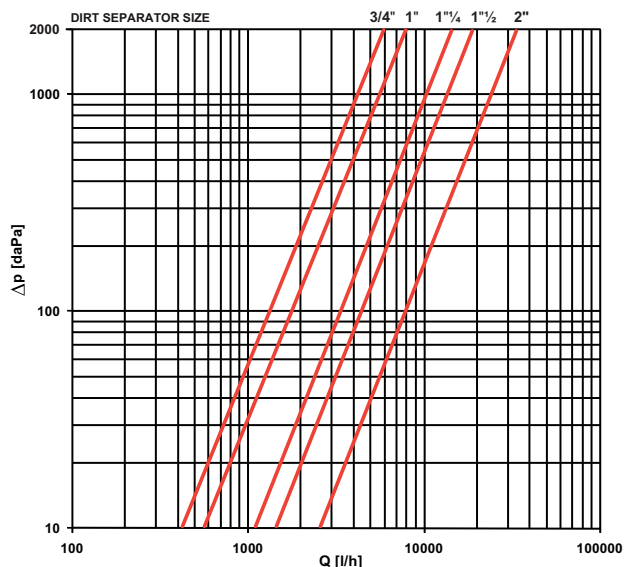


NB: Because of the magnetic inserts, anybody fitted with a pacemaker is advised to maintain a safe distance during operation and maintenance. Attention should also be paid to the use of electronic equipment near magnetic inserts to avoid interference.

Before proceeding with maintenance, unscrew the magnet-holders by hand, as shown in picture 1, and open the drain cock. It is then possible to clean the dirt separator as previously described.

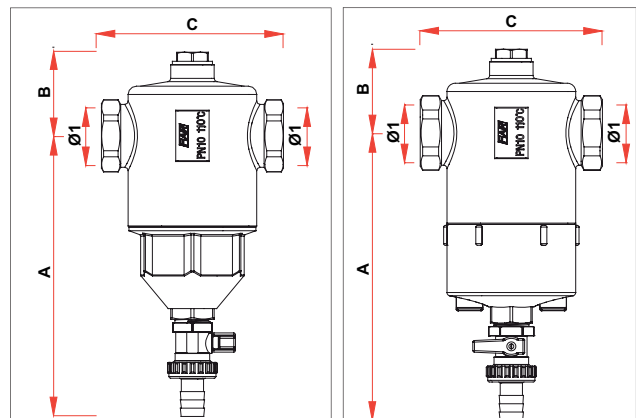


6. FLUID-DYNAMIC AND DIMENSIONAL FEATURES



Size	3/4"	1"	1 1/4"	1 1/2"	2"
Kv [m³/h]	13,2	17,9	32,4	40,6	73,2

Dimensional Features



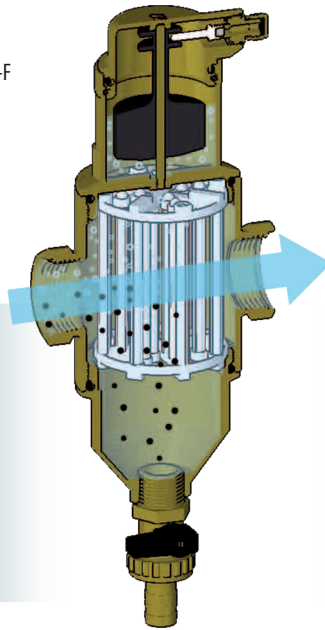
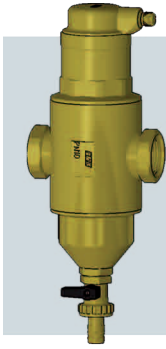
CODE	Ø1	A	B	C	CODE	Ø1	A	B	C
2200 34	G3/4	170	51	109	2205 34	G3/4	174	51	109
2200 1	G1	170	51	109	2205 1	G1	174	51	109
2200 114	G1 1/4	184	56	119	2205 114	G1 1/4	188	56	119
2200 112	G1 1/2	184	56	119	2205 112	G1 1/2	188	56	119
2200 2	G2	180	61	126	2205 2	G2	184	61	126

7. COMBIFAR DEAERATOR-DIRT SEPARATOR, Arts. 2220-2225

Art. 2220

COMBIFAR

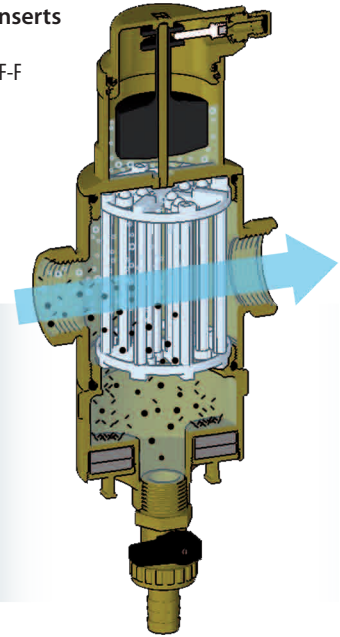
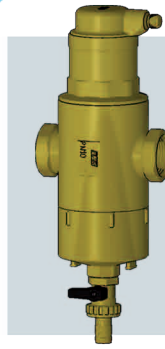
- Body made of CB753S brass
- Connections to pipelines: 3/4" and 1" F-F
- Nominal pressure: 10 bar
- Max. working temperature: 110°C
- Swivelling air vent valve
- Drain cock for dirt removal
- Patent pending



Art. 2225

COMBIFAR with magnetic inserts

- Body made of CB753S brass
- Connection to pipelines: 3/4" and 1" F-F
- Nominal pressure: 10 bar
- Max. working temperature: 110°C
- Swivelling air vent valve
- Drain cock for dirt removal
- Patent pending



7.1 INSTALLATION AND MAINTENANCE

The ideal position for the deaerator-dirt separator in the heating system is on the supply pipe just after the boiler, where the flow temperature is high. This is because, as the water is heated in the boiler, there is a possibility of micro-bubbles being

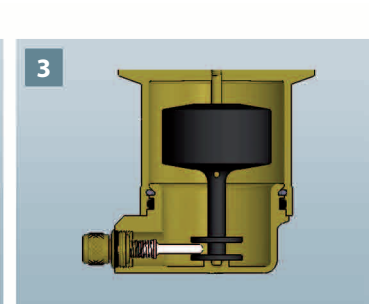
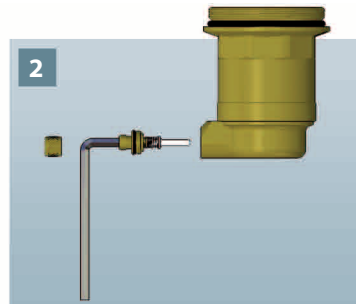
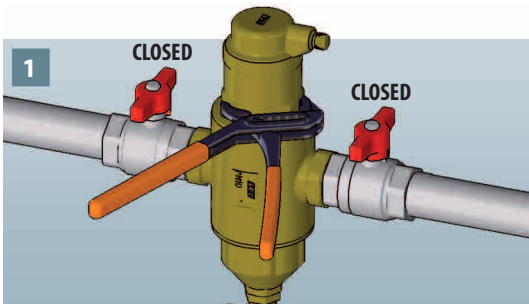
formed, causing components damage or malfunctioning. It is recommended that the deaerator-dirt separator is installed between two isolating valves to allow for maintenance.

To carry out maintenance of the inner cartridge, see the dirt separator datasheet.

In order to carry out maintenance, it is first necessary to close the isolating valves located before and after the deaerator-dirt separator, and then unscrew the upper body using a plumbing wrench (picture 1).

In the event of leakage from the air vent valve it is necessary to

clean or replace it as follows: remove the cap and use a 4 mm Allen wrench to unscrew the air vent valve. Then proceed with cleaning or replacement (picture 2). For correct insertion of the stem on the float, unscrew with the upper body of the COMBIFAR upside down and the air vent valve as shown in picture 3.



Dimensional Features

Fig. 1 - Deaerator-dirt separator

CODE	Ø1	A	B	C
2220 34	G3/4	160	125	109
2220 1	G1	160	125	109

Fig. 2 - Deaerator-dirt separator

CODE	Ø1	A	B	C
2225 34	G3/4	164	125	109
2225 1	G1	164	125	109

Technical Features

Body:	CB753S brass
Upper cap:	CW617N brass
Bottom cock:	CW617N brass
Filter cartridge:	Nylon 6FV
O-Ring:	EPDM
Nominal pressure:	10 bar
Max. working temperature:	110°C
Float:	polypropylene

Flow resistances are comparable with those of individual dirt separators and deaerators