



Rev. 10/2025

SAFECLEANER2 - 800

Magnetic filter with direct filtration cartridge
800 micron for solid chemical dosing.

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Magnetic filter with direct filtration cartridge
800 micron for solid chemical dosing.

+ Eliminates all impurities

Self-cleaning

Excellent hydraulic characteristics

Installation on vertical, horizontal, and diagonal pipes

Extends the life of the boiler

Prevents corrosion

Full-bore shut-off valves



PRODUCTION RANGE

Product	Code	Measure	Connection	Deflector body
	4351-05-00	G 3/4"	FF UNI-EN-ISO 228 with ball valves	Brass
	4351-06-00	G 1"		Brass
	4351-07-00	G 1" 1/4		Brass
	4351-22-00	Ø22		Brass
	4351-28-00	Ø28		Brass
	4352-05-00	G 3/4"	FF UNI-EN-ISO 228 with ball valves	Polymer
	4352-06-00	G 1"		Polymer
	4352-07-00	G 1" 1/4		Polymer
	4352-22-00	Ø22		Polymer
	4352-28-00	Ø28		Polymer
	4353-05-00	G 3/4"	FF UNI-EN-ISO 228	Brass
	4353-06-00	G 1"		Brass
	4353-07-00	G 1" 1/4		Brass
	4353-22-00	Ø22		Brass
	4353-28-00	Ø28		Brass

Product	Code	Description
	4355-00-00	Direct filtration cartridge suitable for dosing solid chemicals.

DESCRIPTION

SafeCleaner2 - 800 by RBM is the optimal solution for solving plant problems caused by the presence of particles, especially rust and sand, which form as a result of corrosion and scaling during normal plant operation. The new model is equipped with an 800-micron filter cartridge which, in addition to ensuring effective filtration, allows for the direct dosing and on of the innovativ solid **RBM CAPS**, simplifying and making the treatment of the system safer.

PRINCIPLE OF OPERATION

Through its effective and constant action, the magnetic filter collects all the impurities present in the system, preventing them from circulating and avoiding wear and damage to components, in particular circulators and heat exchangers. The special 800-micron filter cartridge also allows the direct introduction of **RBM CAPS**, which gradually dissolve, releasing the chemical treatment into the fluid. **SafeCleaner2 - 800** thus performs a combined action of filtration and continuous protection on the boiler and the entire system.

USE

IT IS recommended to install **SafeCleaner2 - 800** on the return circuit, at the boiler inlet, to protect it from all impurities present in the system, especially during the start-up phase. It is important to follow the direction indicated by the arrow on the body to ensure maximum filtering performance. The articulated part allows installation on vertical, horizontal, and diagonal pipes. Thanks to its articulated seal and opening cap, **SafeCleaner2 - 800** is suitable for adding

liquid and solid chemicals. In particular, the integrated cartridge is designed for direct use with **RBM CAPS**, ensuring practical, safe, and controlled dosing.

FILTRATION DEGREE

SafeCleaner2 - 800 removes all magnetic and non-magnetic particles that can cause damage to the system during the first day of operation. The continuous passage of fluid through the filter gradually leads to the complete removal of dirt. The 800-micron direct filtration cartridge ensures constant efficiency in separating impurities and allows for controlled dispensing of **RBM CAPS**.

WARNING

The filter contains a powerful magnet and strong magnetic fields are present inside the device. Pacemaker wearers must maintain a safe distance during operation and/or maintenance. Be careful when using electronic equipment near magnets to avoid interference with their operation. **RBM CAPS** must only be used with **SafeCleaner2 - 800** and in accordance with RBM instructions. Avoid direct contact with skin and eyes. Store the capsules in a dry place, away from heat sources and out of the reach of children.

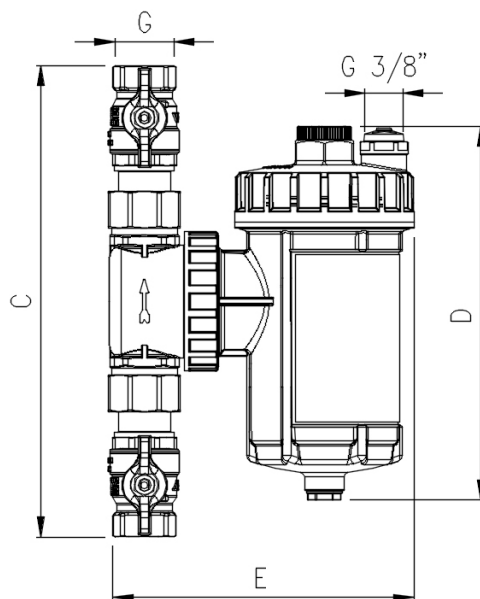
CONSTRUCTION FEATURES

Deflector body	Nickel-plated brass / Polyamide PA66 + 30% FV (2 different versions)
Cartridge holder body	Polyamide PA66 + 30% FV
Locking ring	Polyamide PA66 + 30% FV
Magnet holder cap	Polyamide PA66 + 30% FV
Filter cartridge	AISI 304 stainless steel - 800 microns
Hydraulic seals	EPDM PEROX
Magnet B (Tmax) / B (Tamb)* < 1% (where Tmax = 130 °C, Tamb = 21 °C) Tested according to IEC 60404-5 & ASTM A977 standards	Neodymium REN35 B = 11,000 Gauss

FEATURES TECHNIQUES

Compatible fluid	Water, Water+glycol
Max. operating pressure	4 Bar
Working temperature	0 to 90 °C
Induced noise (according to EN13443 and UNI 3822)	Both specific tests (3 bar with 36 l/min - 5 bar with 47 l/min) carried out in an accredited laboratory have shown that the noise induced by SafeCleaner2 in the pipes is 0 dB(A) . According to EN 13443, SafeCleaner2 therefore falls within Group I , like all products with noise levels < 20 dB(A) .

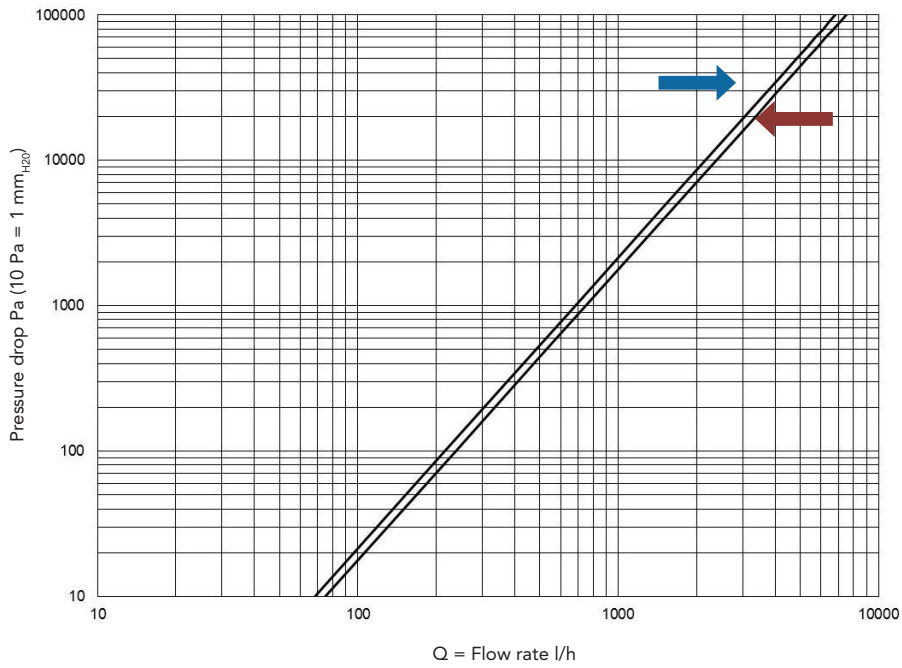
DIMENSIONAL CHARACTERISTICS



Code	G	C [mm]	D [mm]	E [mm]
4351-05-00	G 3/4"	222	188	175
4351-06-00	G 1"	253	188	182
4351-07-00	G 1"1/4	257	188	182
4351-22-00	Ø22	257	188	175
4351-28-00	Ø28	257	188	182
4352-05-00	G 3/4"	222	188	175
4352-06-00	G 1"	253	188	182
4352-07-00	G 1"1/4	257	188	182
4352-22-00	Ø22	257	188	175
4352-28-00	Ø28	257	188	175
4353-05-00	G 3/4"	104	188	155
4353-06-00	G 1"	104	188	155
4353-07-00	G 1"1/4	120	188	165
4353-22-00	Ø22	104	188	154
4353-28-00	Ø28	104	188	154

FLUID DYNAMIC CHARACTERISTICS

Pressure drop diagram



Measure	Kv [m ³ /h]
G 3/4"	6,81
G 1"	7,51
G 1"1/4	7,51
Ø22	7,51
Ø28	7,51

→ 3/4"

→ 1" - 1"1/4 - Ø22 - Ø28

PRINCIPLE OF OPERATION

The fluid is forced to pass through the filter cartridge and enter the filtration chamber via a fixed path. The new single-mesh cartridge with a dedicated inlet hole is designed to prevent passage blockage and ensure continuous flow.

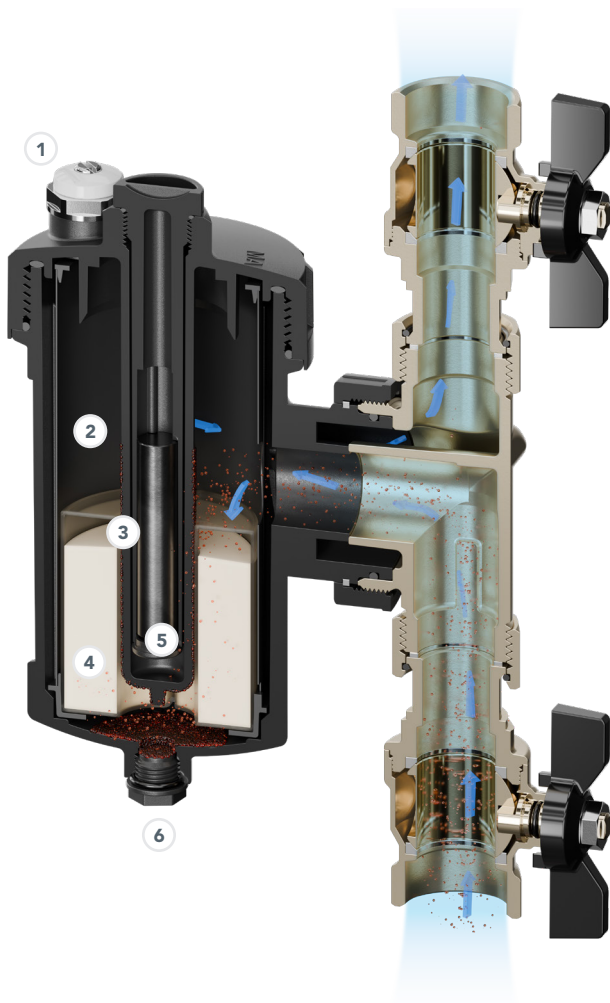
In the filtration chamber, the combined action of:

- filter cartridge
- magnet
- fluid direction given by the particular internal geometry

allows impurities to be effectively separated. The sudden change in section (the diameter of the chamber is larger than that of the duct) slows down the movement of the fluid and reduces the speed at which suspended particles are carried along. The particles collide with the mesh of the cartridge, slowing down further. The heavier ones fall downwards due to gravity, while the magnet in the center of the

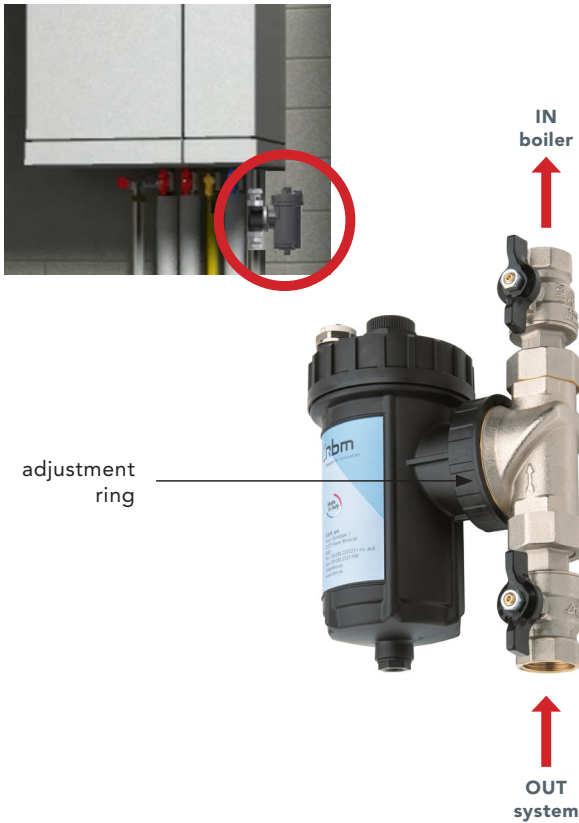
chamber attracts ferrous contaminants.

In this way, both magnetic contaminants (ferrous residues) and non-magnetic contaminants (sand, sludge, algae) are retained in the filtration chamber. The cartridge has also been designed to directly accommodate **RBM CAPS**, which gradually dissolve, releasing the chemical treatment into the water. At a temperature of 60°C, complete dissolution takes place in about 30 minutes, ensuring gradual and effective dosing. Thanks to this configuration, **SafeCleaner2 - 800** ensures low pressure drops, continuous flow, and active protection of the system through a combination of mechanical filtration, magnetic separation, and chemical treatment.



- 1 AIR VENT VALVE
- 2 STAINLESS STEEL FILTER CARTRIDGE
- 3 PROTECTIVE SHEATH FOR MAGNET CLEANING
- 4 RBM CAPS
- 5 NEODYMIUM MAGNET
- 6 DRAIN CAP

INSTALLATION



• IT IS recommended to install **SafeCleaner2 - 800** on the return circuit, at the boiler inlet, to protect it from all impurities present in the system, especially during the start-up phase. IT important **to respect the direction indicated by the arrow** on the body to ensure maximum filtering performance.

• SafeCleaner2 - 800 must be installed with the cartridge holder/magnet cap **facing upwards**.

The articulated part allows installation on pipes:

- VERTICAL
- HORIZONTAL
- DIAGONALS

The seal between the articulated part and the rest of the body is telescopic, therefore it does not depend on the force with which the adjustment ring nut is tightened.

There is a G 3/8" manual air vent valve at the top of the filter.

This can be used to remove any air not expelled during filling or microbubbles that form as a result of processes that occur during normal operation of the system.

MAINTENANCE GUIDE

CLEANING THE FILTER CARTRIDGE

The decision to create a large chamber for separating impurities and to use a wide-mesh steel filter prevents the filter from clogging.

In the event of large impurities, it is still possible to clean the cartridge by removing the magnet or, alternatively, by completely unscrewing the magnet holder cap.

Before cleaning **SafeCleaner2 - 800**, check that the working environment is safe.

RBM recommends that the boiler be turned off and the system be allowed to cool to room temperature before starting any maintenance work, in order to avoid burns.

- Shut off the filter to be serviced by closing the two ball valves.
- Release any air/pressure present in the filter body by opening the manual relief valve.
- Unscrew the magnet from the cap and remove it to easily eliminate any ferrous particles.
- Unscrew the drain cap and the water will gradually begin to flow out, carrying with it the ferrous impurities and sediments captured by the filter.

Ensure that this water is collected in a container of adequate size.

If necessary, you can completely remove the magnet cap in order to extract the filter mesh and clean or replace it.

Wash with water and rinse thoroughly under the tap to completely remove any impurities.

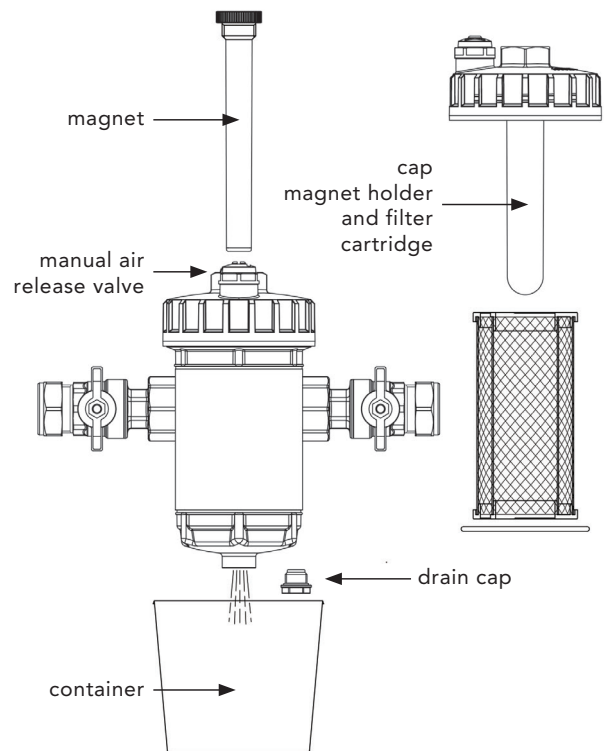
Check that the O-ring seal shows no signs of damage and replace it if damaged.

Reassemble in reverse order.

Check for leaks before putting back into service.

IT IS important to clean at least once a year.

If this is the first time the product has been used, clean it after one month.



ADDING RBM CAPS

To add chemicals for treating the heating system using **SafeCleaner2 - 800**, follow these procedures:

- Ensure that the system is properly isolated, then close both shut-off valves.
- Ensure that the cartridge holder cap/magnet **is facing upwards**.
- Loosen the lower drain cap.
- Slightly unscrew the magnet holder cap until water begins to flow out of the lower hole.
- Once all the water has drained out, screw the drain cap back on.
- Insert RBM CAPS into SafeCleaner2 - 800 after removing the magnet cap.
- Screw the magnet cap (or manual air drain valve) back on, reopen the shut-off valves, and restart the system. If necessary, return the operating pressure of the system to the nominal values (not necessary if an RBM power supply is present).



Dosage	3 Caps	1 Caps	2 Caps	1 Caps
Hydraulic content	100 liters	100 liters	100 liters	100 liters
Radiant Surface	100 m ²	100 m ²	100 m ²	100 m ²
Number of radiators	10	10	10	-
Number of radiators per package	10	10	10	-

System type	Description Process	CAPS	Notes
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New - High temperature	Washing + Protective treatment	DR1 + DR2	The DR1+DR2 solution can be added simultaneously because DR2 does not need to be drained
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New - Low temperature	Washing + Protective treatment + Biocide	DR1+DR2+DR4	The DR1+DR2+DR4 solution can be inserted simultaneously because DR2 does not need to be discharged
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Outdated / severely compromised	Washing + protective treatment + Biocide (low-temperature system)	DR3 + DR1 + DR4	In the case of highly compromised systems, first flush with the strong DR3 cleaner, leaving it in circulation for up to a maximum of 14 days, then once drained, refill the system adding the DR1 protective treatment. Also add DR4 if the system is at low temperature.
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SPECIFICATIONS

SERIES 4351

Multifunction magnetic dirt separator filter with FF connection ball valves, model SafeCleaner2-800. Polymer cartridge holder body. Nickel-plated brass diverter. AISI 304 steel filter cartridge. EPDM PEROX seals. Threaded connections FF UNI-EN-ISO 228.

Max operating pressure 4 bar. Working temperature 0÷90 °C. Neodymium magnet B = 11,000 gauss. $B(T \text{ max}) / B(T \text{ amb})^* < 1\%$ where * T max = 130 °C - T amb = 21 °C. Removes all impurities; Installation on vertical, horizontal, and diagonal pipes; Excellent hydraulic characteristics; Extends boiler life; Combats corrosion; Guarantees system efficiency; Full-bore shut-off valves. Available sizes 3/4" ÷ 1" ÷ 1"1/4 ÷ Ø22 ÷ Ø28.

SERIES 4352

Multifunction magnetic dirt separator filter with FF connection ball valves, model SafeCleaner2-800. Polymer cartridge holder body. Polymer diverter. AISI 304 steel filter cartridge. EPDM PEROX seals. Threaded connections FF UNI-EN-ISO 228.

Max operating pressure 4 bar. Working temperature 0÷90 °C. Neodymium magnet B = 11,000 gauss. $B(T \text{ max}) / B(T \text{ amb})^* < 1\%$ where * T max = 130 °C - T amb = 21 °C. Removes all impurities; Installation on vertical, horizontal, and diagonal pipes; Excellent hydraulic characteristics; Extends boiler life; Combats corrosion; Guarantees system efficiency; Full-bore shut-off valves. Available sizes 3/4" ÷ 1" ÷ 1"1/4 ÷ Ø22 ÷ Ø28.

SERIES 4353

Multifunction magnetic dirt separator filter, FF connections, SafeCleaner2-800 model. Polymer cartridge holder body. Nickel-plated brass diverter. AISI 304 steel filter cartridge. EPDM PEROX seals. Threaded connections FF UNI-EN-ISO 228.

Max operating pressure 4 bar. Working temperature 0÷90 °C. Neodymium magnet B = 11,000 gauss. $B(T \text{ max}) / B(T \text{ amb})^* < 1\%$ where * T max = 130 °C - T amb = 21 °C. Removes all impurities; Mounting on vertical, horizontal, and diagonal pipes; Excellent hydraulic characteristics; Extends boiler life; Combats corrosion; Ensures system efficiency. Available sizes 3/4" ÷ 1" ÷ 1"1/4 ÷ Ø22 ÷ Ø28.



STORAGE WARNINGS

Store the product in its packaging/closed container in a clean area protected from frost, humidity, exposure to sunlight, heat sources, open flames, or sources of ignition. Avoid sudden temperature fluctuations by maintaining optimal temperature and humidity conditions (temperature 10-35 °C / humidity <80%). Ensure that there is no risk of damage due to the presence of other materials or possible tampering by unauthorized persons.

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