

Rev. 11/2024

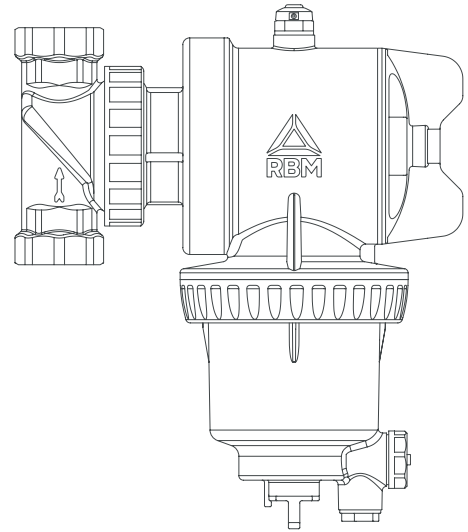
SERIES 3833 MP2

Self-cleaning magnetic sludge remover filter.


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Self-cleaning magnetic sludge remover filter.

- +** Removes any impurity
- Excellent hydraulic properties
- Installation on piping VERTICAL – HORIZONTAL –DIAGONAL
- Extends boiler lifespan
- Fights corrosion
- Ensures system efficiency
- Easy dosing of the treatment fluids with 0.3 l doses
- Complete with shut-off device



PRODUCTION RANGE

	Code	Size	Connection	Diverter valve body
	3833.06.00	G 1"	FF UNI-EN-ISO 228	Brass
	3833.07.00	G 1"1/4	FF UNI-EN-ISO 228	Brass

PRODUCTION RANGE - ACCESSORIES

	Code	Size	Description
	3967.00.00	–	Insulation shell

DESCRIPTION

MP2, multifunction magnetic sludge remover filter by RBM represents the best solution to solve plant problems due to particle presence, especially rust and sand that are formed due to corrosion and scale during the normal operation of a system. In addition to being installed on household boilers, **MP2** is particularly suitable for protecting the heat pumps used in domestic systems. The integrated double shut-off device greatly reduces installation space (**without two ball valves**).

USE

It is advised to install **MP2** on the inlet circuit of the heat pump, in order to protect it from any impurities 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 better performance of the filtering action.

The jointed part allows installation on the following types of pipes:

- VERTICAL
- HORIZONTAL
- DIAGONAL

Thanks to its jointed seal and to the presence of an opening cap, **MP2** is suitable to easily add chemicals for the treatment of the system. **MP2** is characterised by a large dosing capacity of 250 ml.

OPERATING PRINCIPLE

Through its effective and constant action, the magnetic filter collects all the impurities present in the system, preventing them from circulating within it, thus avoiding wear and damage of the rest of the system components, but above all constantly protecting the boiler.

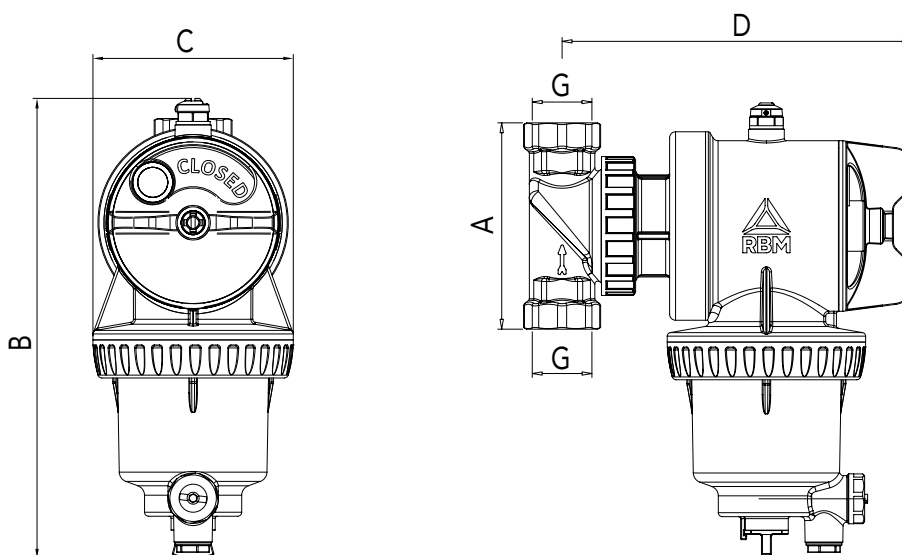
CONSTRUCTION FEATURES

Diverter valve body:	Nickel-plated brass
Cartridge body:	Polyamide PA66 +30% FV
Locking ring nut:	Polyamide PA66 +30% FV
Locking ring nut:	Polyamide PA66 +30% FV
Filtering cartridge:	AISI 304
Hydraulic seals:	EPDM
Magnet:: B (MaxT) / B (RoomT)* < 1% (where MaxT = 130°C, RoomT = 21 °C) Tested according to IEC 60404-5 & ASTM A977 regulations	Neodymium REN35 B = 11.000 Gauss

TECHNICAL FEATURES

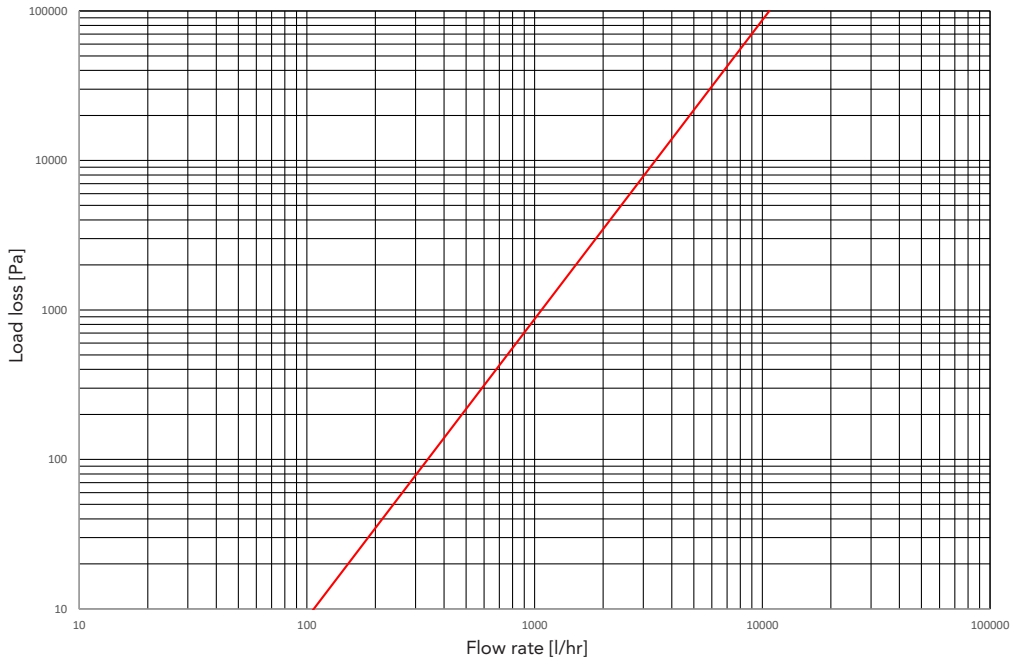
Compatible fluid:	Water, Water + Glycol
Max. operating pressure:	6 Bar
Operating temperature:	0 ÷ +70 °C
Max T (one hour max):	90 °C

DIMENSIONAL FEATURES



Code	G	A [mm]	B [mm]	C [mm]	D [mm]
3833.06.00	1"	104	229	100	175
3833.07.00	1"1/4	104	229	100	180

FLUID DYNAMICS FEATURES



Size	Kv [m ³ /h]
1"	10.73

OPERATING PRINCIPLE

By going through a set course, the fluid is forced to cross the mesh of the cartridge and enter the filtering chamber.

In this filtering chamber, thanks to the simultaneous action of the:

- filtering cartridge
- magnet
- direction of the fluid given by the specific internal geometry in the different phases, water is filtered.

First of all, the sudden cross-section variation (the filtering chamber has a much greater diameter than the conduit) slows down the fluid motion and, consequently, the entrainment rate of the particles suspended in it.

The particles pass inside the filtering cartridge and are directly filtered. The heavier particles fall downwards due to gravity, which prevails over the drag force.

The magnet, placed inside a cylinder at the top end of the ball valve, attracts all the impurities having magnetic characteristics.

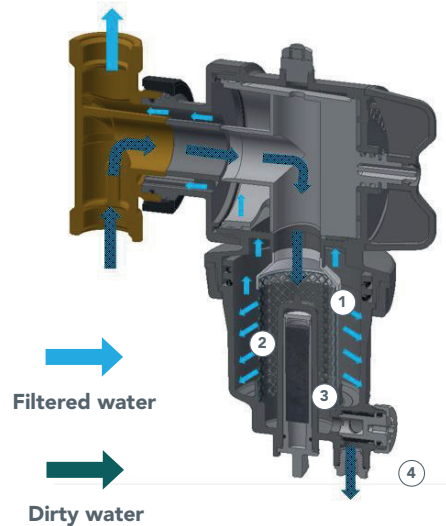
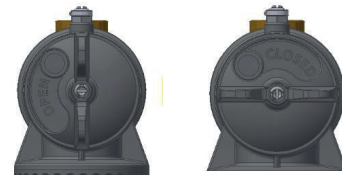
In this way, all magnetic (ferrous residues) and non-magnetic (algae, sludge, sand, ...) contaminants in the system are retained in the filtering chamber.

La cartuccia in acciaio inox nel modello base ha una filtrazione di 800 micron.

The stainless steel cartridge in the basic model has 800 micron filtration.

The shut-off device must be used when cleaning the filter after having **switched off the pump**. It is built into the device and is operationally equivalent to 2 ball valves (**filter inlet** and **filter outlet**). When the shut-off device is closed, the impurity collection chamber is excluded. A small amount of fluid continues to circulate in bypass in the diverter valve which is why it is important to **switch off the pump** before performing maintenance.

SHUT-OFF DEVICE



- 1 Filtering cartridge
- 2 Filtering chamber
- 3 Removable magnet
- 4 Exhaust valve

INSTALLATION

It is advised to install the multifunction magnetic sludge separator on the circuit, at the inlet of the boiler or heat pump, in order to protect it from any impurities 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 better performance of the filtering action. The multifunction magnetic sludge separator must be installed with the main cartridge/magnet body facing downwards.

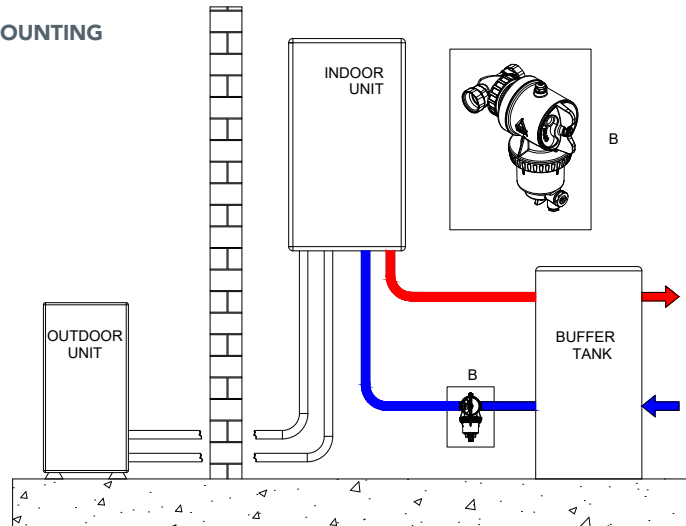
The jointed part allows installation on the following types of pipes: VERTICAL, HORIZONTAL and DIAGONAL.

The sealing between the jointed part and the rest of the body does not depend on the strength with which the adjustment ring nut is tightened. This because it is a telescopic sealing, and not a head sealing.

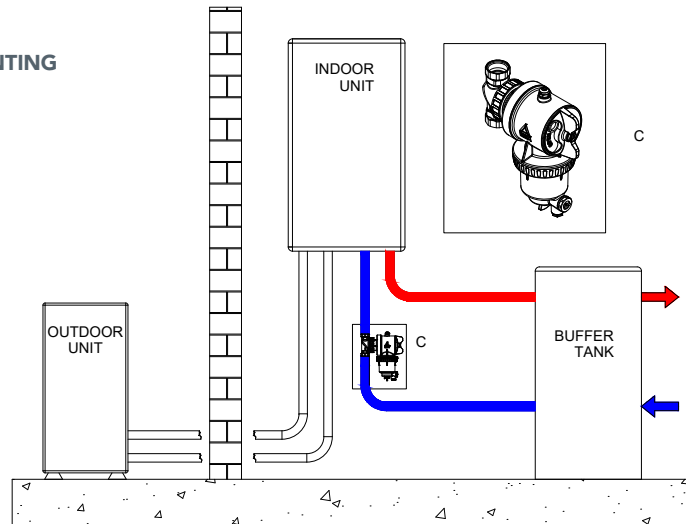
The top part of the filter is provided with a female G 1/4" connection with air venting valve.

This can be used to continuously eliminate air not ejected during the filling phase.

HORIZONTAL MOUNTING



VERTICAL MOUNTING



MAINTENANCE INTERVENTION WITHOUT DISASSEMBLING THE FILTER

It is possible to clean the cartridge by extracting the magnet or, alternatively, by completely unscrewing the cartridge support/magnet.

Before cleaning **MP2**, ensure the working environment is safe. RBM recommends that the **pump be off and the system be allowed to cool at room temperature** before carrying out any maintenance intervention, in order to avoid burns.

1



Turn off the pump. Unscrew the drain plug.

2



Open the exhaust valve to depressurise the system (5 seconds) and close it again. Use a container to collect drain water.

3



Close the filter by rotating the knob.

4



Unscrew the magnet and remove it. Place the magnet on a clean surface.

5



Open the drain. The dirt inside the filter no longer captured by the magnet will be channelled outside by the flow of water in the drain. Use a container of at least 0.5 L.

6



1. Close the drain.
2 Put the grey safety plug back on.
3. Put the magnet back on.
4. Turn the knob to open.
5. Start the pump.

MAINTENANCE INTERVENTION DISASSEMBLING THE FILTER

1



Turn off the pump. Unscrew the drain plug.

2



Open the exhaust valve To depressurise the system. (5 Seconds) and close it again. Use a container to collect drain water.

3



Close the filter by rotating the knob.

4



Open the drain and empty the water inside it. Use a container of at least 1 l.

5



Unscrew the ring nut. Release the body.
Remove the magnet (put it back in a clean place).
Remove the stainless steel cartridge.
Wash the body and cartridge under running water.

6



1 Close the drain.
2 Put the grey safety plug back on.
3 Put the magnet back on.
4. Turn the knob to open.
5. Start the pump.

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PROTECTIVE 100

Protection for heating and cooling systems.
Anticorrosive, anti-scaling, antifouling.

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Protection for heating and cooling systems.
Anticorrosive, anti-scaling, antifouling.



TECHNICAL INFORMATION

APPLICATION

PROTECTIVE 100 is a professional multifunctional neutral product for inhibiting corrosion, lime deposits, noise in heating systems as well as boilers, hydrogen formation inside radiators, microbial and algal growth in heating and cooling systems. For best results, first wash the system with a DM broad-spectrum multifunctional cleaner (Z4, WASH CLEAN 400, WASH CLEAN 400 H). Then empty the system and fill with **PROTECTIVE 100** multi-purpose protector at the recommended dosage.

If softened water is used, there will be a physiological increase in PH. Therefore, keep the value monitored in the presence of aluminium surfaces (recommended between 7 - 8.3).

PROTECTIVE 100 can be used in hot water (max. temp. 150 °C - 10 bar) and cold water (-35 °C) systems. The product is compatible with propylene and ethylene glycols.

FOR OPEN SYSTEMS: pour the product into the expansion tank, making sure that there is a drain at a low enough point to ensure that all the product enters.

FOR CLOSED SYSTEMS: if the system is empty, add the product in any convenient place before filling the system. In case it is already full, feed it through a radiator or another possible access point.

BENEFITS

- Inhibits corrosion, lime scale, microbial and algal growth
- Prevents the formation of hydrogen gas
- Effectively protects new and old systems
- Compatible with all metals, including aluminium
- Neutral, non-corrosive product that is easy to handle
- Insensitive to overdoses
- Helps prevent noise in the boiler
- Long-lasting product

DOSAGE

The dosage of **PROTECTIVE 100** for optimal protection is 1 litre per 200 litres of system water (0.5%).

For best results, it is recommended to rinse the system well before applying the protective agent.

PROTECTIVE 100 can be introduced directly into the full system by using the specific RBM CHEMICAL manual pump equipped with the appropriate fitting kit to easily connect to the dosing points on RBM filtration devices.

In the absence of an RBM filter device, load the product through the vent valve of a radiator or distribution manifold, taking care to avoid introducing air into the system.

Report the dosage and date of treatment in the specific section of the plant booklet as per Ministerial Decree 10.02.2014 et seq. and on the adhesive label to be detached from the product packaging and affixed near the product feeding point.

PERIODIC INSPECTION

The water quality check is to be carried out, in the absence of hydraulic leaks and/or other prescriptions in the operating and maintenance manuals of the system, at the same time as the periodic check of the heat generator.

Check the residual quantity of active product by means of the specific Control KIT and refill the missing product if necessary.
Update the specific section of the installation manual.

AVAILABLE FORMATS AND STORAGE CONDITIONS

Available formats:

- 1 KG

Storage conditions: store the product at room temperature (1 °C - 40 °C).

PHYSICAL CHARACTERISTICS

Appearance	Liquid
Colour	Yellow
Specific density	1,070 (a 20 °C)
pH (0,5%)	approximately 7-8

SAFETY DATA

The product is easy to handle and is classified as non-hazardous. Refer to the safety data sheet.

ADJUSTMENTS

PROTECTIVE 100 intended for professional use in the treatment of heating and cooling systems only.

The chemical treatment of domestic systems is regulated by UNI-CTI 8065/19.

HANDLING

Avoid contact with eyes and skin. Use goggles and rubber gloves. The solution of **PROTECTIVE 100** in water at the dosages indicated com-

plies with Italian Legislative Decree 152/06 and is discharged into the public sewage system. The product is compatible with most plastics.

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WASH CLEAN 400

Cleaner for heating and cooling systems.

WASH CLEAN 400

Cleaner for heating and cooling systems.



TECHNICAL INFORMATION

APPLICATION

WASH CLEAN 400 is a neutral product for cleaning new and old systems from limestone and iron deposits, sludge, oily substances, grease, iron deposits, microbial and algal growth.

The action of **WASH CLEAN 400** restores full efficiency to the boiler and the devices within the circuits. The product must circulate within the system with all valves and passages open. The removal time of impurities depends on the amount present and may vary from a few hours to several weeks. For very dirty systems, allow the product to circulate, preferably at normal operating temperature (10-95 °C), even for up to 1 month (the increase in temperature shortens the operation time).

After flushing, empty the system, possibly draining each radiator or

flushing each ring of the circuits present. Then fill the system if possible with water of low hardness and add **PROTECTIVE 100** at the recommended dosage. If softened water is used, there will be a physiological increase in PH. Therefore, keep the value monitored in the presence of aluminium surfaces (recommended between 7-8.3).

FOR OPEN SYSTEMS: pour the product into the expansion tank, making sure that there is a drain at a low enough point to ensure that all the product enters.

FOR CLOSED SYSTEMS: if the system is empty, add the product in any convenient place before filling the system. In case it is already full, feed it through a radiator or another possible access point.

BENEFITS

- It cleans systems from limescale, microbial and algal growth, sludge, oily substances, grease and iron deposits
- Effectively cleans new and old systems
- Compatible with all metals, including aluminium
- Neutral, non-corrosive product that is easy to handle
- Insensitive to overdoses
- Restores normal system performance

DOSAGE

The dosage of **WASH CLEAN 400** for optimal cleaning is 1 litre per 200 litres of system water (0.5%).

WASH CLEAN 400 can be introduced directly into the full system by using the specific RBM CHEMICAL manual pump equipped with the appropriate fitting kit to easily connect to the dosing points on RBM

filtration devices.

In the absence of an RBM filter device, load the product through the vent valve of a radiator or distribution manifold, taking care to avoid introducing air into the system.

AVAILABLE FORMATS AND STORAGE CONDITIONS

Available formats:

- 1 KG

Storage conditions: store the product at room temperature (1 °C - 40 °C).

PHYSICAL CHARACTERISTICS

Appearance	Liquid
Colour	Yellow
Specific density	1.120 kg/l (at 20 °C)
pH (0,5%)	approximately 7-8
Freezing point	0 °C

SAFETY DATA

The product is easy to handle and is classified as non-hazardous. Refer to the safety data sheet.

ADJUSTMENTS

WASH CLEAN 400 is intended for professional use in the treatment of heating and cooling systems only.

The chemical treatment of domestic systems is regulated by UNI-CTI 8065/19.

HANDLING

Avoid contact with eyes and skin. Use goggles and rubber gloves. The solution of **WASH CLEAN 400** in water at the recommended dosages complies with Italian Legislative Decree 152/06 and is discharged

into the public sewage system. The product is compatible with most plastics.

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WASH CLEAN 400H

Quick cleaner for heating and cooling systems.

WASH CLEAN 400H

Quick cleaner for heating and cooling systems.



TECHNICAL INFORMATION

APPLICATION

WASH CLEAN 400H is a product for quickly cleaning new and old systems from limestone and iron deposits, sludge, oily substances, grease, iron deposits, microbial and algal growth.

The action of **WASH CLEAN 400H** restores full efficiency to the boiler and the devices within the circuits. The product must circulate within the system with all valves and passages open. The removal time of impurities depends on the amount present and may vary from a few hours to a maximum of 3 days. In the presence of aluminium maximum 1 day.

After flushing, empty the system, possibly draining each radiator or flushing each ring of the circuits present. Then fill the system if pos-

sible with water of low hardness and add **PROTECTIVE 100** at the recommended dosage. If softened water is used, there will be a physiological increase in PH. Therefore, keep the value monitored in the presence of aluminium surfaces (recommended between 7-8.3).

FOR OPEN SYSTEMS: pour the product into the expansion tank, making sure that there is a drain at a low enough point to ensure that all the product enters.

FOR CLOSED SYSTEMS: if the system is empty, add the product in any convenient place before filling the system. In case it is already full, feed it through a radiator or another possible access point.

BENEFITS

- It cleans systems from limescale, microbial and algal growth, sludge, oily substances, grease and iron deposits
- Effectively cleans new and old systems
- Compatible with all metals, including aluminium
- Restores normal system performance

DOSAGE

The dosage of **WASH CLEAN 400H** for optimal cleaning is 1 litre per 100 litres of system water (1%).

WASH CLEAN 400H can be introduced directly into the full system by using the specific **RBM CHEMICAL** manual pump equipped with the appropriate fitting kit to easily connect to the dosing points on

RBM filtration devices.

In the absence of an RBM filter device, load the product through the vent valve of a radiator or distribution manifold, taking care to avoid introducing air into the system.

AVAILABLE FORMATS AND STORAGE CONDITIONS

Available formats:

- 1 KG

Storage conditions: store the product at room temperature (1 °C - 40 °C).

PHYSICAL CHARACTERISTICS

Appearance	Liquid
Colour	Yellow
Specific density	1.120 kg/l (at 20 °C)
pH (1%)	5 - 6.5 approx.
Freezing point	0 °C

SAFETY DATA

The product is easy to handle and is classified as non-hazardous. Refer to the safety data sheet.

ADJUSTMENTS

WASH CLEAN 400H is intended for professional use in the treatment of heating and cooling systems only.

The chemical treatment of domestic systems is regulated by UNI-CTI 8065/19.

HANDLING

Avoid contact with eyes and skin. Use goggles and rubber gloves. The solution of **WASH CLEAN 400H** in water at the recommended dosages complies with Italian Legislative Decree 152/06 and is discharged

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