



POLYPHOSPHATE PROPORTIONAL DOSER

187 Polyphosphate proportional doser I-Doser

INSTRUCTION MANUAL FOR FINAL USER AND SPECIALISED PERSONNEL

Appliance for the descaling and anti-corrosive treatment in domestic hot water production systems. **WARNING:** this appliance must undergo periodical maintenance in order to ensure that the output water keeps its drinking water features.

1. General information:

It impedes the formation of limestone scaling, fights corrosion and progressively restores systems that are already partially affected by scaling and corrosion. Its efficiency reaches significant results of prevention against scaling up to a temperature of 60/65 °C and a hardness of approx. 40 °fH. Its efficiency decreases when the two values mentioned above increase, but it nevertheless delays maintenance and descaling operations on the heating elements of the appliance. The dosing is made through a calibrated nozzle which ensures a polyphosphate content of maximum 3 mg/l at all times.

2. Warnings and operational precautions:

To avoid any errors, you must read all the instructions on installation, maintenance and use thoroughly before taking any action on the appliance and follow these instructions carefully. This manual must be carefully stored in a place that is familiar to the user of the system, supervisors, and those responsible for the installation, use, maintenance, repair and final dismantling of the appliance. The company is not liable for any improper use or maintenance and for the use of non-original spare parts and products. The manufacturer reserves the right to modify and/or update this manual, without the obligation of updating previous manuals. In all circumstances, one should comply with current safety regulations. Keep the product out of the reach of children. Before carrying out any operation on the proportional dosing devices, one must always comply with the following operational precautions which are aimed at protecting people and properties:

- A) The dosing device must be installed in a hygienically-suitable environment, protected against frost, away from vapours, solvents, chemical substances and heat sources greater than 40°C (Italian Ministerial Decree 37 of 22/01/2008). Do not install the device in direct sunlight.
- B) If the water supply network has a pressure above 8 bar, you must install a pressure regulator upstream of the dosing device.
- C) The dosing device must not be installed on a pump suction unit.
- D) Make sure that the pressure of the water supply network is between: 2 and 8 bar.
- E) Do not add the dosed polyphosphate to other fluids without authorisation from our Technical Service.
- F) Wash the cup only with water, do not use alcohol or detergents.

3. Use:

The dosing device is used to add a dosed mixture to water which is specifically designed to efficiently contrast the formation of limestone scaling and corrosion in domestic hot water production circuits and in cooling circuits with running water.

4. Installation instructions:

The dosing device must be installed on the cold water pipe. Upstream and downstream of the system you must provide for a short straight section without shut-off valves for the dosing device with by-pass. Always take note of the direction of the arrow indicating the water flow. Always clean the system thoroughly before installation. Water systems created for the installation of appliances that are connected to the water mains must be provided with: a system which ensures that the treated water does not return to the mains and with an automatic or manual system which allows for the supply of non-treated water and the interruption of treated water, if one of the devices should trigger that signal the need to replace worn-out parts or the end of the lifetime of the appliance.

A few important points:

- 1 - The appliances must be installed in hygienically-suitable environments and, if applicable.
- 2 - The in-line installation of the appliance on the drinking-water supply systems must be performed with by-pass valves to allow the user to exclude the appliance without interrupting the supply of drinking water.
- 3 - The installation must be performed with the following recommendations:
 - comply with general hygiene standards for water systems
 - close the water mains and intercept the system delivery piping
 - mount the dosing device with the transparent cup always set in a vertical position
 - mount the rotatable fittings and check that the arrow follows the water flow direction.
 - close the fittings and perform suitable tests. (Pay attention not to leave residues of any product used for the sealing of the threads as they may damage the dosing device)
 - assemble the body of the dosing device and check the tightness of gaskets. Screw tightening torque max 1.5 Nm
 - insert a check valve upstream of the dosing device in order to avoid hot water return flows.



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- it is recommended to install a filter to protect the system from foreign matter.

5. Commissioning:

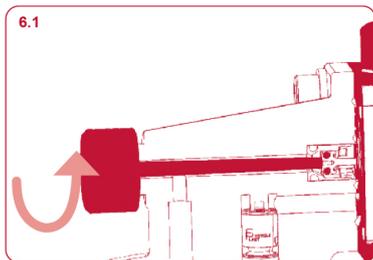
The commissioning of the dosing device requires these preliminary operations:

- check that there are no water leaks by gradually opening the water mains.
- let the dosing device fill gradually and, when it is about 3/4 full, let the air out from the cup by opening the vent screw positioned on top and make sure that all the air is expelled. Close the vent screw when only water comes out.
- Wait a couple of minutes to ensure that there are no water leak.

6. Vent screw operation:

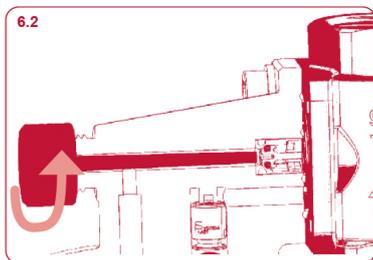
- 6.1 Air expulsion procedure

Undo the vent screw anticlockwise for about a full turn to perform the air expulsion. When only water comes out, tighten the screw.



- 6.2 By-pass activation procedure for cartridge replacement

Undo the vent screw completely by rotating it anticlockwise in order to let the by-pass trigger and replace the polyphosphate cartridge. Once the replacement is completed, tighten the screw again.



7. Maintenance:

-7.1 Routine maintenance:

Routine maintenance consists of the following operation: replace the cartridge every time the cup is empty.

-7.2 Extraordinary maintenance:

Over time, the inside of the cup and the bellows will get dirty for a series of reasons (iron in solution, silt and earth traces).

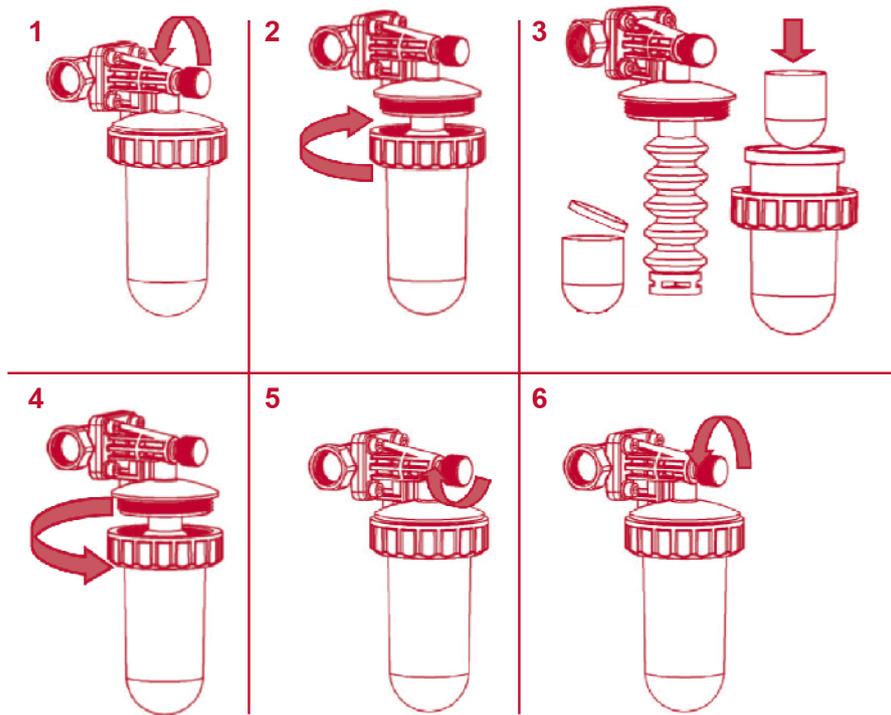
- Wash the cup with water, do not use alcohol or detergents which may damage the plastic structure.
- Wash the bellows with normal dish-washing detergent and a stiff bristled brush. If the dirt is difficult to remove, we recommend replacing the bellows.
- Replace the sealing O-ring when it is excessively worn.

WARNING: the presence of colloidal substances in water requires more frequent extraordinary maintenance operations, in proportion with the quantity of such substances.

8. Polyphosphate recharge operation:



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1. This procedure allows you to activate the by-pass system. Place a bowl underneath the dosing device. Undo the vent screw by rotating it anticlockwise until the water stops flowing.

2. Undo the collar by rotating it anticlockwise and remove the cup, being careful not to drop it.

3. Remove the empty cartridge and replace the new one inside the cup.

4. Tighten the collar by rotating it clockwise making sure that it is really tight.

5. Tighten the vent screw completely and wait for a few minutes. Warning: during this operation, water may leak out. Continue tightening the vent screw until it is fully closed.

6. Undo the vent screw anticlockwise for about a full turn to perform the air expulsion. When water comes out, tighten the screw. Make the water flow for two minutes and repeat the procedure if there is still air inside.