



## Polyphosphate proportioner



Proportioner R142DP must be installed upstream to the boiler (or domestic hot water generator) on the cold water inlet pipe connected to the aqueduct for anti-limestone and anti-corrosion treatment of domestic hot water systems.

**NOTE.** Polyphosphate proportioner R142DP complies with Ministerial Decree 25/2012.

**NOTE.** Polyphosphate proportioner R142DP provides a strong anti-limestone action for water hardness up to approx. 25/30 °f. For higher values we recommend combining a water softener to the proportioner.

### Versions and product codes

PRODUCT CODE	CONNECTIONS
R142DX003	G 1/2" F flat seat

#### Spare parts

- P142X003: kit of 5 replacement cartridges for R142DP

### Technical data

- Fluid: water
- Temperature range: 5÷30 °C
- Max. working pressure: 7 bar
- Max. flow rate: 20 l/min
- Inlet/outlet adjustable fitting (90° pitches)
- Integrated automatic by-pass system

#### Materials

- Adjustable fitting: chrome-plated brass
- Upper body: PA66-GF30
- Cup: PA
- Bellows: food grade NBR
- O-Ring: food grade NBR

## Components



LEGEND	
1	Inlet/outlet adjustable fitting
2	Upper body
3	Suction bellows
4	Cup
5	Release button
6	Manual air vent
7	Polyphosphate cartridge

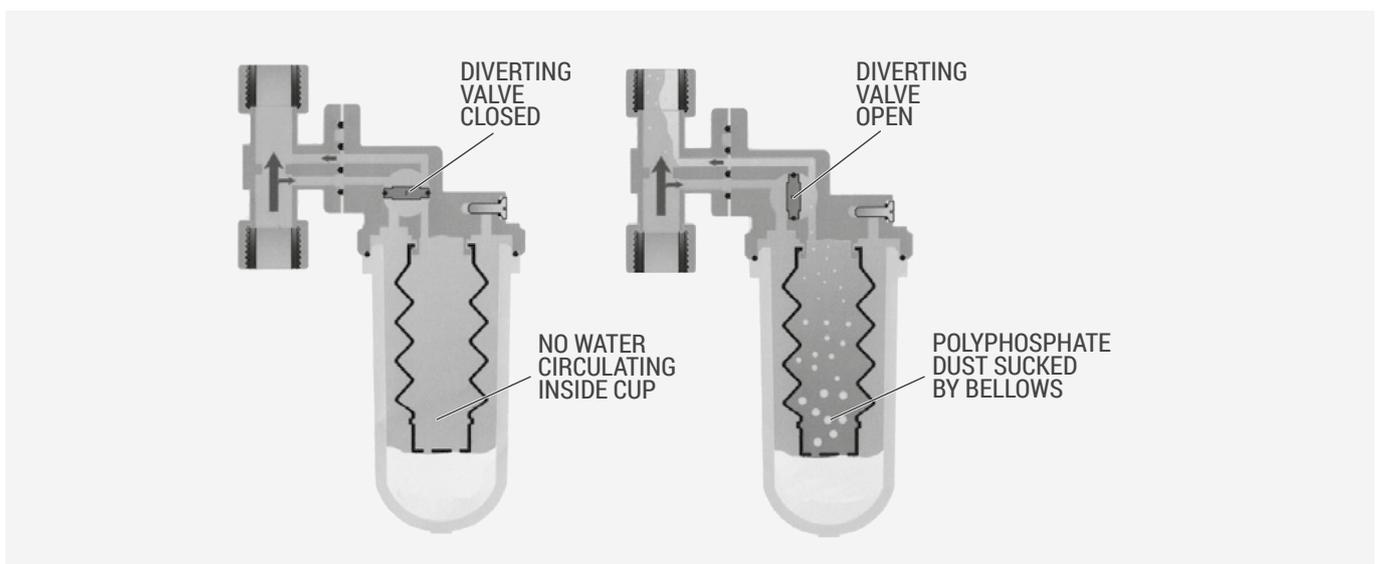
## Operation

Domestic water heated by boilers undergoes a sudden temperature increase which, for the calcium and magnesium salts contained therein, triggers a chemical reaction that leads to the formation of limestone and corrosion inside the pipes. The proportioner treats part of the water flowing through the boiler by adding sodium and potassium phosphates, which create a film inside the pipes as anti-limestone protection.

Proportioner R142DP consists of an automatic diverting valve: it closes when opening the cup for maintenance and automatically opens when closing the cup.

When the valve is open, part of the water flow coming from the aqueduct enters the cup and is sucked by the suction bellows; it is then rechanneled to the distribution line with a quantity of polyphosphates proportional to the flow rate ("Venturi principle").

The proportioner also includes a manual screwdriver air vent valve (Ref. 6 - Components), to vent the air after maintenance interventions.



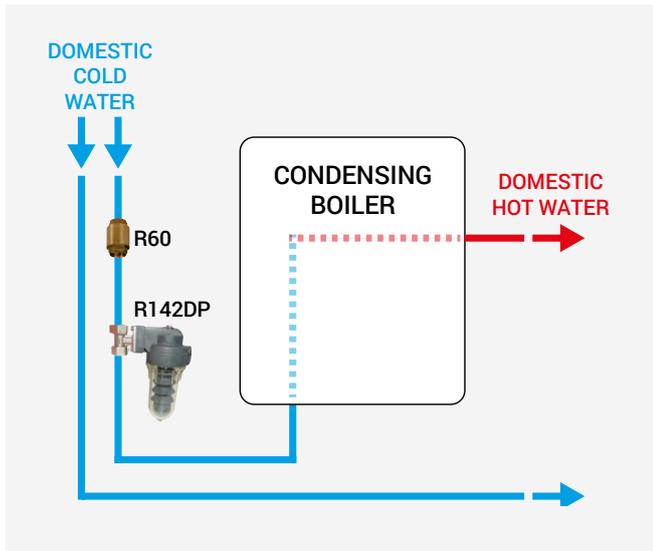
## Installation



The polyphosphate proportioner must be installed:

- upstream to the boiler, on the cold water inlet pipe connected to the aqueduct.
- in vertical position, with the air vent valve pointing upward. It can be installed both on vertical and horizontal pipes thanks to its adjustable fitting.
- in the same direction of the flow, as shown on the fitting body.

We recommend installing a check valve (R60) upstream to the polyphosphate proportioner.



## Maintenance

We recommend carrying out the maintenance interventions listed below to guarantee proper operation of the proportioner.

- Monthly maintenance:
  - visual check for possible fluid leaks;
  - visual check of polyphosphate levels (average duration 10/12 m<sup>3</sup> of treated water).
- Biennial maintenance:
  - replacement of cup O-Ring;
  - replacement of proportioner bellows if damaged.

**NOTE.** Proportioner R142DP consists of non-recyclable plastic and metal components and should be disposed of in compliance with the regulations in force. Contact local Waste Management service for further information.

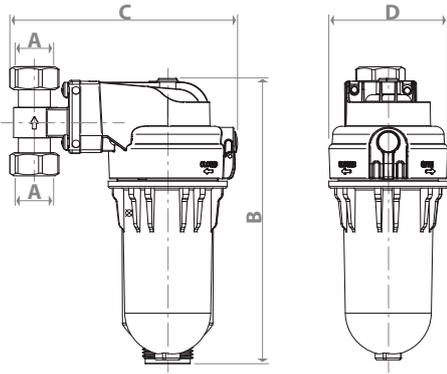
### Installing/replacing the polyphosphate cartridge

To install and/or replace the polyphosphate cartridge, follow the steps below:

- 1) Push the release button and turn the cup to remove the upper body; the inner by-pass valve will move to the closing position and enable regular operation of the domestic water system.
- 2) Clean the cup and install the new polyphosphate cartridge.
- 3) After installing the new polyphosphate cartridge in the cup, turn it till it clicks on the upper body; the inner by-pass valve moves back to the opening position and the water treatment starts.



## ➤ Dimensions



PRODUCT CODE	A	B [mm]	C [mm]	D [mm]
R142DX003	1/2" F	150	120	60

## ➤ Product specifications

### R142DP

Polyphosphate proportioner with integrated automatic by-pass. Fluid: water. Temperature range: 5÷30 °C. Max. working pressure: 7 bar. Max. flow rate: 20 l/min. Inlet/outlet adjustable brass fitting.

**⚠ Safety Warning.** Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

**♻ Package Disposal.** Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

**ℹ Additional information.** For more information, go to [giacomini.com](http://giacomini.com) or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

**♻ Product Disposal.** Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.