

## Automatic filling unit

### Art. 513 - 514



100% MADE IN ITALY 

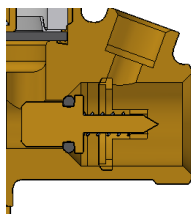
**Function** Pintossi+C automatic filling unit is installed in heating system to **maintain stable the internal pressure at a set value**, filling the circuit with water if required.

Pressure can drop following to air release caused by air separator or relief valves placed in the highest point of the system and on the radiators. During this phase the check valve built-in the filling unit avoids backflows from the heating system to the water supply.

When reaching the pre-set level, that can be read from the manometer on art. 513, the filling unit closes, avoiding damages caused by overpressure. When the system is in operation the valve works automatically.

The filling unit is provided with a **shut-off cock** which is activated by the handwheel placed on the lower part of the valve.

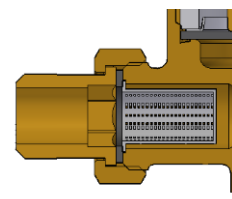
The cartridge containing the operation mechanism is protected by a **large surface strainer**. To



secure the perfect functioning of the valve it is recommended to clean the strainer. This operation can be facilitated by mounting a shut-off valve on the water inlet pipe

Besides to avoid unwanted situations of water coming back to the supply pipeline, a **check valve** is built-in.

To grant a good precision when working with very low pressure difference, the diaphragm has been design with a large surface.



| Product range | Art. 513 | 1/2" | With manometer    |
|---------------|----------|------|-------------------|
|               | Art. 514 | 1/2" | Without manometer |

## Technical specifications

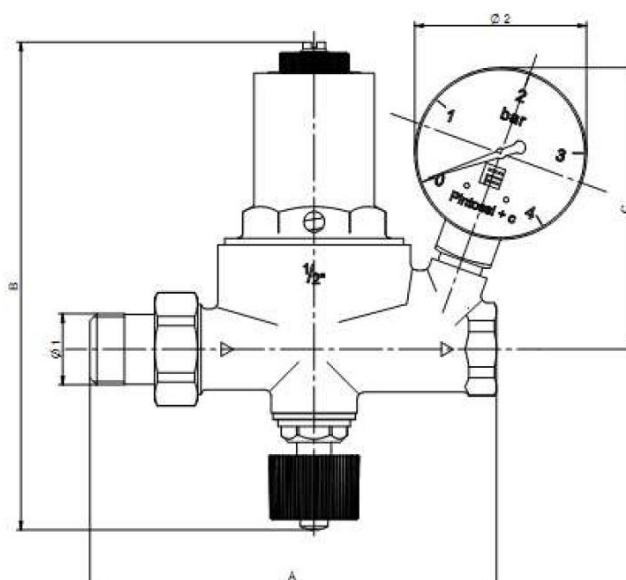
|                                 |            |
|---------------------------------|------------|
| Fluids:                         | Water      |
| Max. working temp.:             | 100°C      |
| Max. working pressure:          | 10 bar     |
| Downstream adjustable pressure: | 0,5 – 3bar |
| Manometer scale (art. 562):     | 0 – 4bar   |
| Factory pre-set:                | 0bar       |

## Materials

|                 |               |
|-----------------|---------------|
| Body:           | Brass CW617N  |
| Shutter:        | Brass CW617N  |
| Tail and nut:   | Brass CW617N  |
| Strainer:       | Polypropylene |
| Gaskets:        | NBR           |
| Protection cap: | ABS           |

## Dimensions

| ART. | Ø1   | Ø2 | A   | B   | C  |
|------|------|----|-----|-----|----|
| 513  | 1/2" | 50 | 118 | 142 | 82 |
| 514  | 1/2" |    | 118 | 142 |    |



## Pressure adjustment

The filling unit is provided with an adjustable pressure setting screw, positioned on the top of the cap.

To adjust the pressure follow the following steps:

1. Unloose the ring nut placed on the adjustment rod on the top of the unit;
2. Turn clockwise the screw in order to increase the pressure value in the system and counter-clockwise in order to decrease it; the pressure regulation can be done using the manometer on the outlet way.
3. Lock the ring nut.

Before making the setting of the automatic filling unit, check that the pressure of the water system is at least 0,3 bar higher than the one you want to obtain in the system.

## Installation

The filling unit must be installed on the returning pipe with the flow in the direction marked by the arrow on the valve's body.

## Maintenance

To secure the perfect functioning of the filling unit and to prevent a decrease of flow, it is essential that the internal strainer retains its original filtering characteristics. Therefore, it is recommended to check periodically the filter and clean it from dirt. The cleaning of the strainer may be facilitated by installing before the unit a shut off valve to close the flow.

## Fluid characteristics

Reference standard for water treatments in heating systems is Norm UNI 8065:2019 which regulates the parameters that must be observed to avoid scale and corrosion phenomena.

In order to grant product warranty, the fluid characteristics must comply with the rules in force in the country of relevance or at least present features not less to the ones prescribed by the Norm UNI 8065:2019.

In particular, minimum standards necessary but not sufficient to control are the following:

Fluid aspect: Limpid

PH: Between 7 and 8

Iron (FE): < 0,5 mg/kg (< 0,1 mg/kg for steam)

Copper (CU): < 0,1 mg/kg (< 0,05 mg/kg for steam)

Antifreeze: as indicated by the producer

Conditioning: as indicated by the producer

In ogni caso quando vengono utilizzati liquidi antigelo e soluzioni condizionanti, è richiesto il controllo e la verifica della compatibilità tra queste sostanze e i materiali di costruzione indicati dalle schede tecniche Pintossi+C.