AUTOMATIC FILLING UNIT

Description

The automatic filling unit manages the filling of closed heating circuits and keeps their pressure at the setting value, by adding the missing water when necessary.
It is composed of a pressure reducing valve, a filter at the inlet, a shut-off valve, a check valve and a pressure test port.
It is installed on the water supply pipe to the closed circuit. During the initial filling phase or in subsequent top-ups, the filling unit closes automatically when the setting pressure is reached.

Range of articles

Series 69C Automatic filling unit, inspectable

Features

Maximum upstream pressure: **16 bar**
Downstream setting pressure: **0,5–4 bar**
Factory setting: **1,5 bar**
Maximum working pressure: **10 bar**
Maximum working temperature: **80 °C**
Pressure gauge scale: **0–6 bar**
Suitable fluids: **water**
Pressure gauge connection: **G 1/4 F**
Threaded connections: **ISO 228-1**

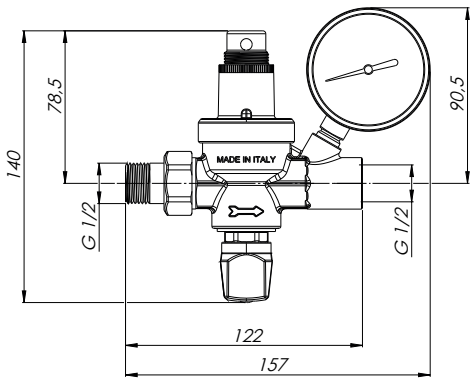
Materials

Body: **brass EN 12165 CW617N**
Filter: **stainless steel**
Spring: **stainless steel**
Gaskets: **NBR**

Working way

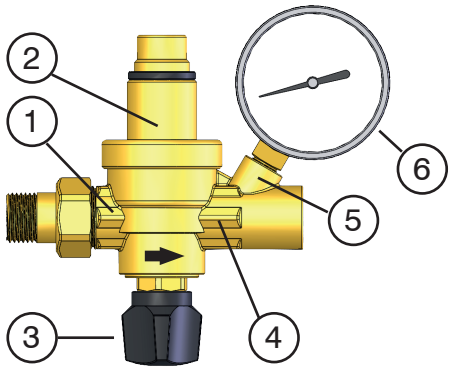
The filling unit contains the following components:
1) filter on the inlet port;
2) adjustable pressure reducing valve to set the system filling pressure;
3) shut-off valve;
4) check valve at the group outlet;
5) 1/4” pressure gauge connection;
6) pressure gauge (as standard only for code 69C0150001).
The group allows the filling of closed heating circuits, closing automatically when the setting pressure is reached.
In the event of a drop in system pressure, the unit automatically reopens, allowing the passage of water and the consequent restoring of the pressure value.

Dimensions



Code	Connections	Pressure gauge	Weight [kg]	N. P/B	N. P/C
69C 015 000	G 1/2 M - G 1/2 F	no	0,82	1	-
69C 015 000 1	G 1/2 M - G 1/2 F	sì	0,90	1	-

N. P/B: number of pieces in box - N. P/C: number of pieces in carton



Installation and maintenance

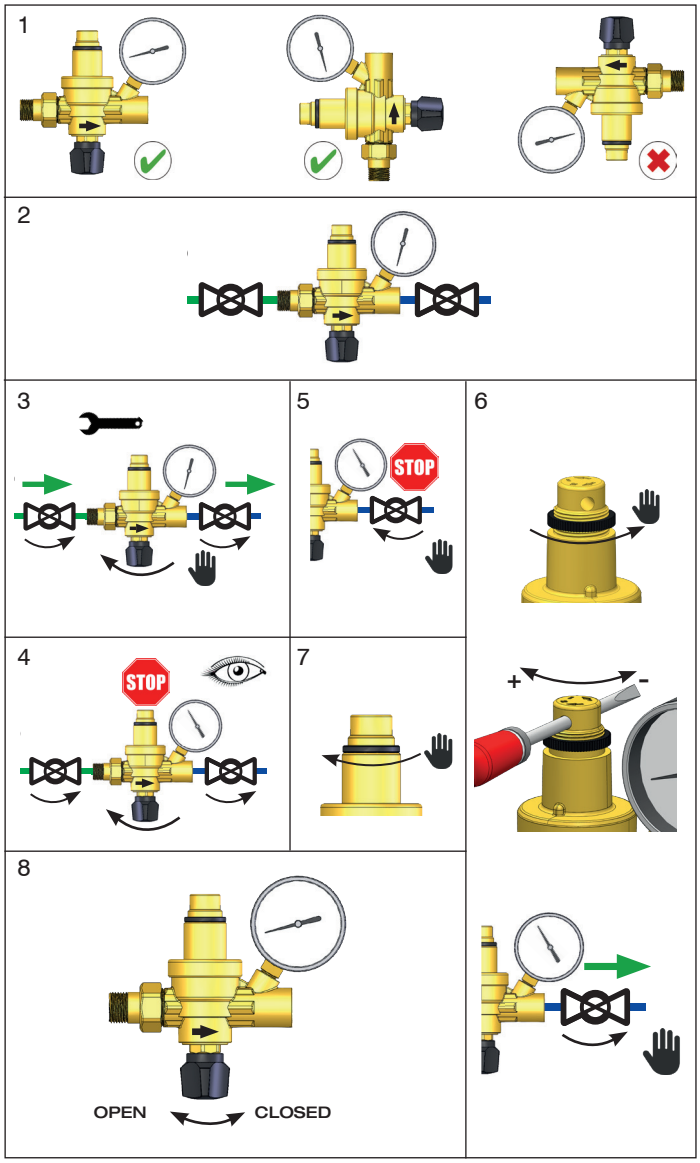
Automatic filling units can be installed in vertical and horizontal position. The upside-down position is not allowed to avoid deposits on the membrane. Always respect the flow direction as shown by the arrow on the body (fig. 1).
We suggest to install the unit between two shut-off valves to make the setting and maintenance easier (fig. 2).

Installation and setting
The system filling pressure (setting of the filling unit) is equal to the expansion vessel pre-charge + 0,2 bar. For a correct calculation of the expansion vessel pre-charge and the choice of the safety, protection and control devices, please refer to the system reference standards, in particular Raccolta R and UNI 10412 for Italy, EN 12828.
The setting should be performed/verified with the device installed on the system (dry setting is not allowed).
- Install the filling unit on the pipe; open the shut-off valve of the unit as well as the upstream/downstream shut-off valves to supply water to the system (fig. 3);
- check the automatic closing pressure of the unit by reading its value on the unit pressure gauge or another pressure gauge downstream (fig. 4).

Setting variation
- Close the downstream shut-off valve (fig. 5);
- loosen the black locking ring on top of the unit. To decrease (or increase) the setting pressure: unscrew in anticlockwise direction (or screw in clockwise direction) the setting screw on top of the unit by using a screwdriver; re-open and re-close the downstream shut-off valve to verify the real setting (fig. 6) e repeat the procedure up to obtain the correct setting; re-open the downstream shut-off valve;
- screw again the locking ring on top of the unit to lock the setting (fig. 7).

To keep the automatic system pressure reset function ON (automatic filling), leave the unit shut-off valve open, otherwise close it (fig. 8).

Maintenance
In case of wrong functioning, clean the unit with anti limescale liquid (compatible with the unit materials) and compressed air or, if necessary, replace the unit.



Accessories

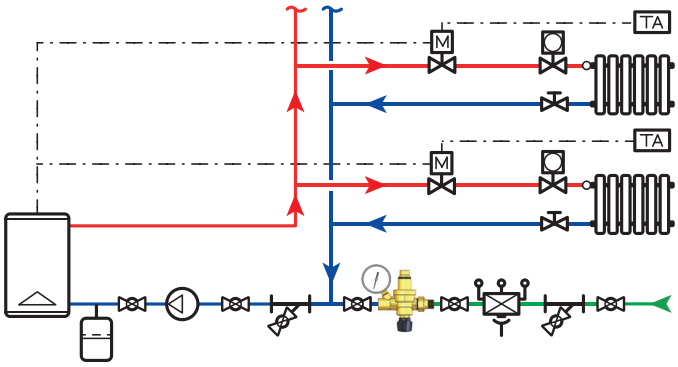
55D

Radial pressure gauge

Pressure gauge scale: ***0–6 bar***
Diameter: ***64 mm***
Stem total lenght: ***20 mm***

Code	Size		
55D 008 000	G 1/4 M	-	-

System diagrams



Specifications

Series 69C
Automatic filling unit, inspectable. Brass body, NBR gaskets, stainless steel filter and spring. Maximum upstream pressure 16 bar. Downstream setting pressure 1–4 bar. Factory setting 1,5 bar. Maximum working pressure 10 bar. Maximum working temperature 80 °C. Pressure gauge scale 0–6 bar. Suitable fluids water. Pressure gauge connection G 1/4 F. Threaded connections G 1/2 M-G 1/2 F.