

ART.2105



- Inlet connection (unit): 1/2" male
- Outlet connection: 1/2" female
- Pressure gauge connection: 1/4" female
- Graduated knob to set the pressure
- Internal protection strainer
- Non-return valve

ART.2106

VFILL



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- Outlet connection: 1/2" female
- Pressure gauge connection: 1/4" female
- Graduated knob to set the pressure
- Internal protection strainer
- Non-return valve
- Pressure gauge scale: 0÷6 bar

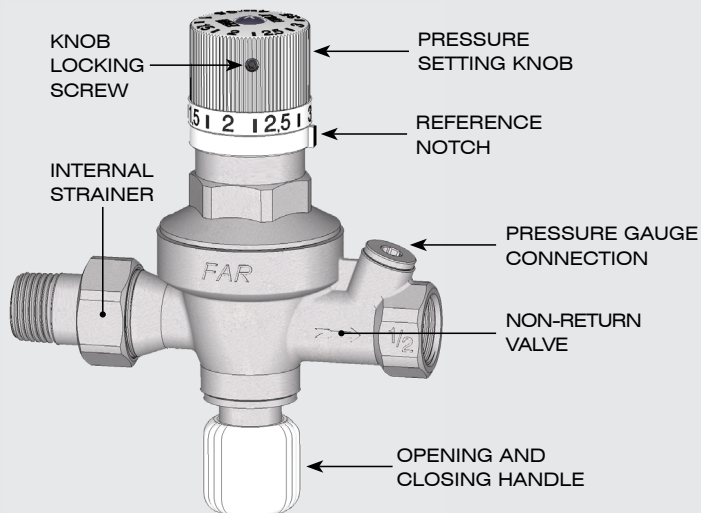
## 1 DESCRIPTION

Installation of an automatic filling unit is recommended for heating and air-conditioning systems. Such a device is able to automatically fill the system up to the pre-set pressure and is useful in compensating for any pressure drops resulting from the discharge of air from the circuit through the air vent valves.

The functions of the filling unit are the following:

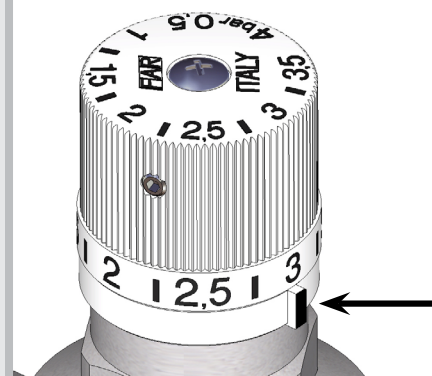
- To set the pressure according to the system requirement
- To stop the system filling when the set pressure has been reached
- To avoid any flow return when the system is full, even if a pressure drop occurs in the main water supply

## 1.1 CONSTRUCTION DETAILS



### PRESSURE SETTING KNOB

The pressure values are indicated on the knob. Please use the reference notch indicated by the arrow in order to set the pressure.

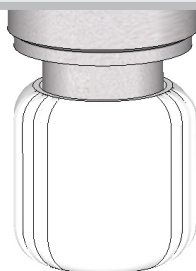


### OPENING AND CLOSING HANDLE

The water inlet in the circuit is closed by screwing the handle. You open the water inlet by unscrewing the handle.

Once the system has been filled, it is possible to isolate the water supply line from the heating system by closing the stop cock. The water flow can thus be shut off in the event of any malfunction within the system.

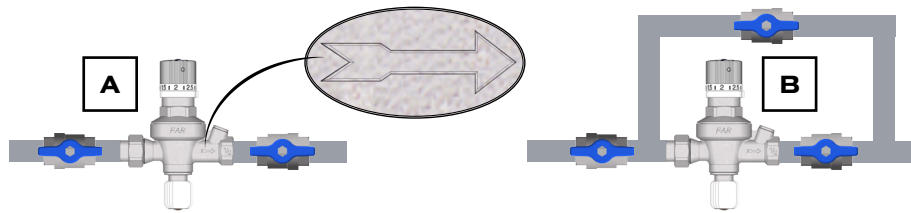
In case the working pressure drops, please open the handle again and the system will get automatically back to the initially set pressure.



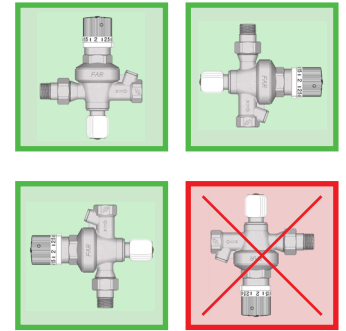
## 2 INSTALLATION

The filling unit is normally installed on the feed line of the heating system between two shut off valves, so that it can be removed without draining the whole system (**picture A**). It is advisable to install the filling unit with a bypass, in order to reduce the system filling time (**picture B**). In this way it is possible to fill 2/3 of the system with the bypass and the rest with the filling unit in order to facilitate the eventual bleeding of air from the system.

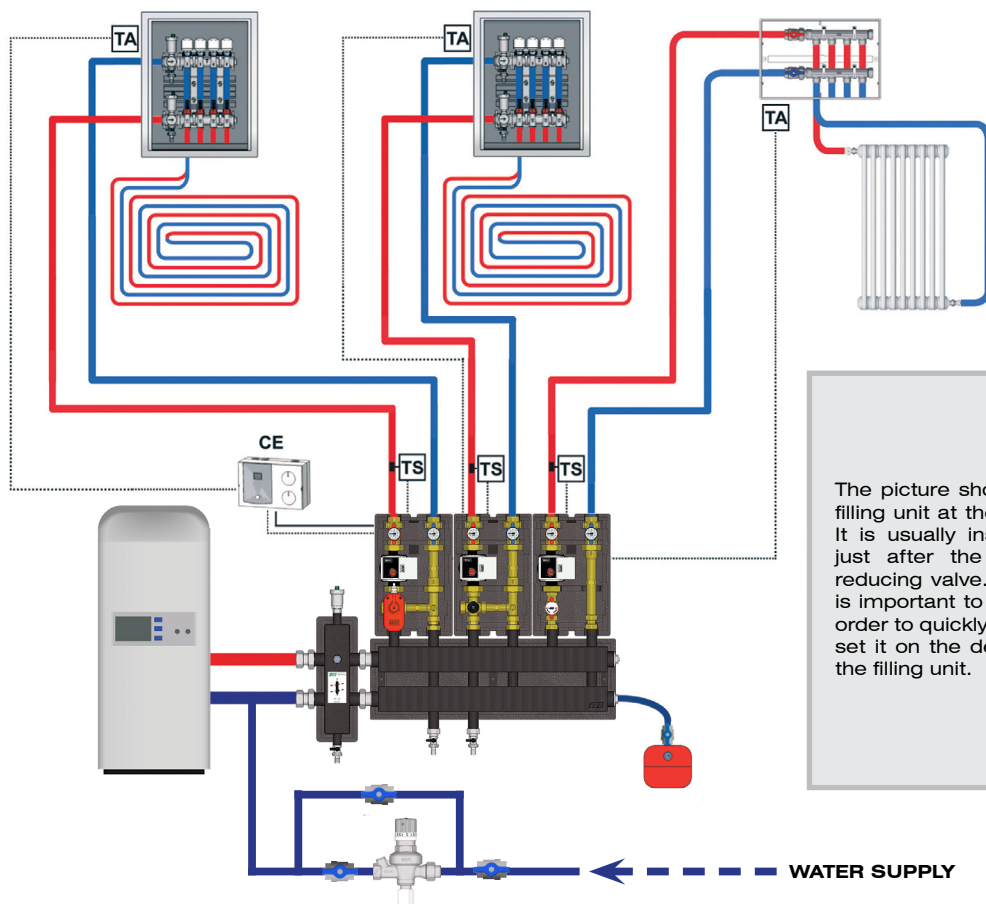
**⚠ The water flow must follow the direction of the arrow engraved on the body.**



**⚠ The filling unit can be installed in a horizontal or vertical position, but not upside down.**



## 3 INSTALLATION EXAMPLE

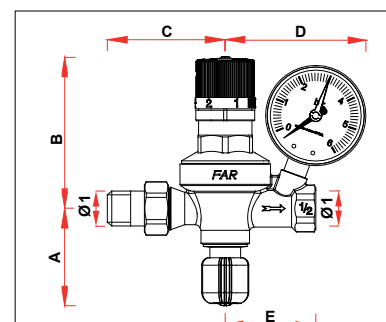


The picture shows a typical installation of a filling unit at the inlet of the heating system. It is usually installed on the return circuit, just after the strainer and the pressure reducing valve. As previously mentioned, it is important to have a bypass on the unit in order to quickly fill up the system and then to set it on the desired calibration value using the filling unit.

## 4 TECHNICAL FEATURES

- Max. working temperature: 95°C
- Min. working temperature: 5°C
- Max. upstream pressure: 10 bar
- Calibration pressure: 0,5 ÷ 4 bar
- Non-return valve: differential pressure 0,02 bar
- Strainer: 450 μm
- Body and inner components: Brass CW617N e CB753S
- Spring: AISI302 steel
- Membrane of pressure reducing valve: NBR
- OR gasket: EPDM
- Handle: ABS

## 5 DIMENSIONAL FEATURES



CODE	Ø1	A	B	C	D	E
2105 12	G1/2	60	94	72	--	55
2106 12	G1/2	60	94	72	87	55