

### INSTALLATION

#### Installation

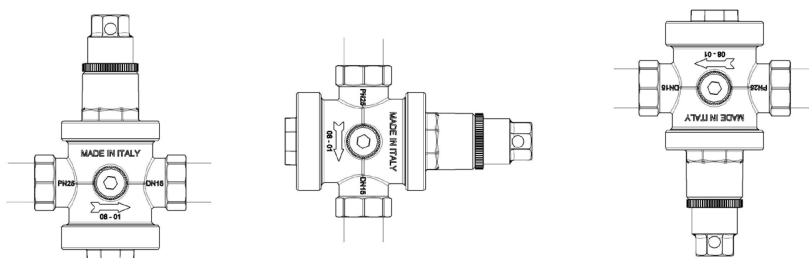
For the best use and duration of the system, it is necessary to comply with the following instructions on installation, with the national regulations and with relevant local requirements.

- Place of installation has to be protected from frost and has to be easily inspectable
- Install the pressure reducing valve on the private water system, immediately downstream of the water meter
- It would be better to install shut-off valves upstream and downstream of the pressure reducing valve, to facilitate the maintenance operations
- In order to protect pressure reducing valve from overpressure, install a check valve immediately downstream of the pressure reducing valve
- The right scheme of installation is shown in Fig. 5.2
- In case of water heater downstream of the pressure reducing valve, install an expansion vessel between the valve and the water heater
- In order to avoid cavitation and therefore excessive noisiness, it is strongly recommended that the ratio between maximum upstream pressure and regulating downstream pressure does not exceed the value of 2,5.
- Pressure reducing valve is not a safety device. It would be better to install all the necessary safety relief valves.

Please, duly note the downstream pressure of the reducing valve has not to be higher than the maximum working pressure of the devices installed in the private water system, in order to avoid possible damages or malfunctions.

#### Instruction on installation

1. Before installing the pressure reducing valve, open all the outlets to flush the system and expel any air left in piping
2. Install shut-off valves upstream and downstream to facilitate maintenance operations
3. For a right flow direction, use the arrow stamped on the body
4. ITAP pressure reducing valve can be installed in either vertical or horizontal piping. It can be installed also upside down
5. Art. 143 is equipped with a threaded connection suitable for a pressure gauge. It is possible to unscrew the plug in order to install a pressure gauge in the size of 1/4".
6. In such a position, the pressure gauge shows the downstream pressure of the reducing valve. The whole range of ITAP pressure reducing valves are tested and adjusted with a downstream pressure of 3 bar. It is possible to change the downstream pressure by means of the adjusting device.



7. The final adjustment of the pressure reducing valve has to be carried out with a filled private water system and with all the outlets shut-off. The upstream pressure has to be at least 1 bar higher than the adjusted pressure. Adjustment of the pressure reducing valve to a downstream pressure different from the pre-adjusted one (3 bar):

- Close the downstream shut-off valve
- Unscrew the nylon nut (Fig. 4.1)
- Adjustment is carried out by means of a tool or a screwdriver on the upper part of the device (Fig. 4.2); turn in clockwise way to increase the downstream pressure, turn in anticlockwise way to reduce the downstream pressure
- Open the outlets in the private water system, in order to check the stability of the adjusted pressure
- Adjust the downstream pressure with outlets totally shut-off and with water at room temperature only
- Screw the nylon nut (Fig. 4.3)
- Adjustment procedure is complete once the required pressure appears on the pressure gauge.

## PRESSURE REDUCING VALVES EUROPRESS



FIG. 4.1

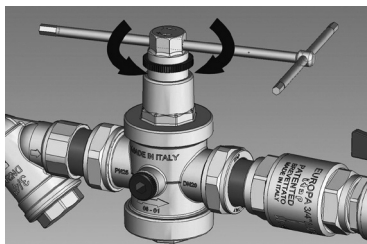


FIG. 4.2

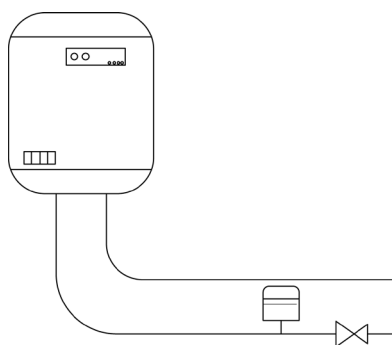
FIG. 5.1



FIG. 4.3

### Troubleshooting

Increase in pressure downstream on the pressure reducing valve with a water heater in-line  
 This problem is due to heating of the water, caused by the water heater. The pressure downstream increases, due to water expansion, as the pressure reducing valve is correctly closed. It is necessary to install an expansion vessel between the pressure reducing valve and the water heater to absorb the pressure increase (Fig. 5.1).



### The pressure reducing valve does not maintain the adjusted figure

In most cases, this problem is due to the presence of impurities on the valve seat, causing blow-by and consequent increase in the downstream pressure.

Install an Y-strainer upstream of the pressure reducing valve.

Carry-out the maintenance of the Y-strainer.

Flush the water system before installing the pressure reducing valve.

