

# RINOX DUE

## Adjustable piston-operated pressure reducing valve



Single-seated compensated pressure reducing valve with piston actuation. Its small dimensions make it particularly suitable for the final reduction of pressure at the user (condominium distribution to floors, balancing fire-fighting hoses in multi-storey buildings fed by overpressure units, etc.).

Supports a nominal pressure of 25 bar\* allowing downstream pressure regulation between 0.5 and 7.0 bar (depending on model).

To achieve quiet operation and avoid premature wear of internal components, it is advisable to choose the reducing valve diameter so that the fluid velocity is within the following values:

- for water

$$V = 0,7 \div 1,5 \text{ m/s (residential use)}$$

$$V = 1 \div 3,5 \text{ m/s (industrial use)}$$

To avoid cavitation phenomena, and thus excessive component noise, the ratio between the max. upstream pressure and the regulating pressure downstream of the regulator must not exceed 2.5.

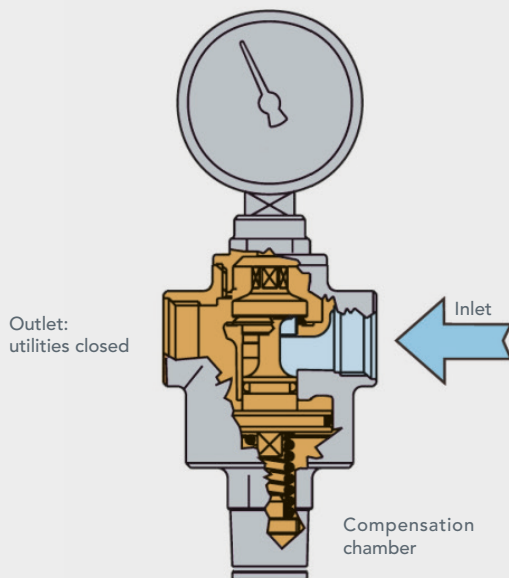
For example, for an end-user supply setting of no more than 3 bar, the pressure upstream of the reducing valve must remain within 7.5 bar.

For higher values, it is advisable to insert a second reducing valve in series with the first, in order to spread the total pressure difference over two reduction jumps.



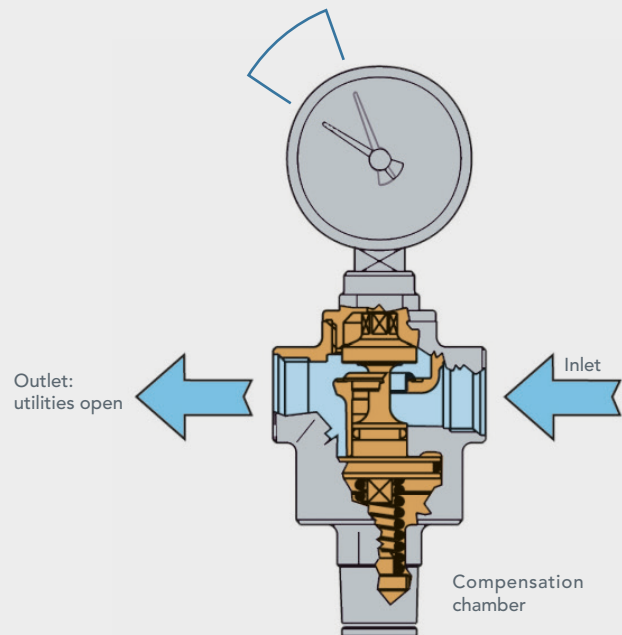
\* 16 bar for the RIS model

### Pressure stopped at the adjustment value of 3 bar



When the utilities to be served are closed, the downstream pressure increases by pushing the piston of the reducer to the bottom. In this way, the shutter closes the passage section of the pressure reducing valve, keeping the pressure constant at the set value set on the spring. The minimal pressure difference straddling the shutter allows it to close perfectly.

### Pressure: $P < 3$ bar



With the opening of the downstream utilities, the pressure exerted on the piston is less in favour of the force exerted by the spring on the shutter allowing its opening with the consequent fluid passage. The higher is the demand for water from the utility network, the lower is the pressure on the piston and the greater is the water flow.