RINOX

Compensated pressure reducing valves with double stainless steel seat. Diaphragm operated.

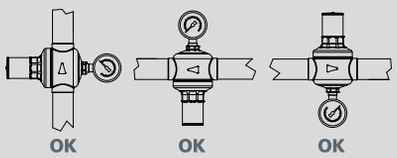
RBM Rinox pressure reducing valves are used in plumbing, heating and sanitary systems, es- pecially to reduce pressure between the distri- bution network and the junctions of the main utility.

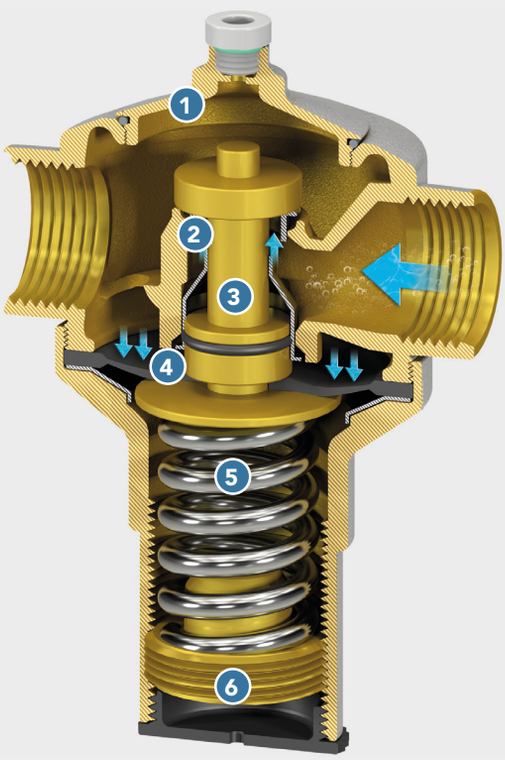
The structural features and diaphragm opera- tion make **RBM Rinox** the ideal product to use in cir- cuits in which upstream pressure can be subject to strong oscillations (water hammers).

The compensation chamber in the pressure re- ducing valve also prevents these fluctuations from affecting the calibration pressure, keeping it stable.

Compliant with EN 1567 and Approved **NF** (size 1/2" and 3/4"). Conformity **ACS.**

- Moulded diaphragm (enhanced sensitivity - longer duration - greatly reduced friction)
- Stainless steel double seal seat (protects moving parts - guides movement - enhanced adjustment sensitivity - not touched by scales)
- PN 40 bar: ideal for installations in high rising buildings
- Resistant to high temperatures: max operating temperature 80°C
- Compensated: pressure variations upstream are compensated, leaving the outlet calibration constant
- Wide application range
- Can be installed in any position: vertical, horizontal, diagonal or facing downwards





1. Pressure gauge holder connection
2. Stainless steel double seal seat
3. Compensation chamber
4. Diaphragm in moulded rubber
5. Adjustment spring
6. Calibration ring nut/screw

Representative section of the pressure reducing valve in the **CLOSED position.**

DIAPHRAGM PRESSURE REDUCING VALVES

Manufactured from top-quality materials, the **RBM Rinox** double-seated pressure reducing valve with diaphragm actuation is particularly suitable for reducing pressure between the distribution network and the main utility branch (from the urban network, power station supply, etc.).

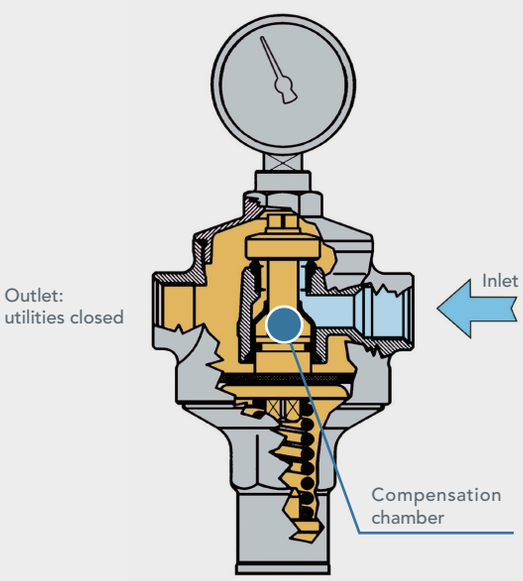
RBM Rinox allows the transit of high flow rates with low pressure drops, absorbing water hammers from the external network thanks to the dampening action of the internal diaphragm. The reducing valve supports a nominal pressure of 40 bar*, allowing downstream pressure regulation between 0.8 and 10 bar (depending on the models). 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= 0.7-1.5 m/s (residential use)
  V = 1-3.5 m/s (industrial use)

To avoid cavitation phenomena, and thus excessive component noise, the ratio between the maximum 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.

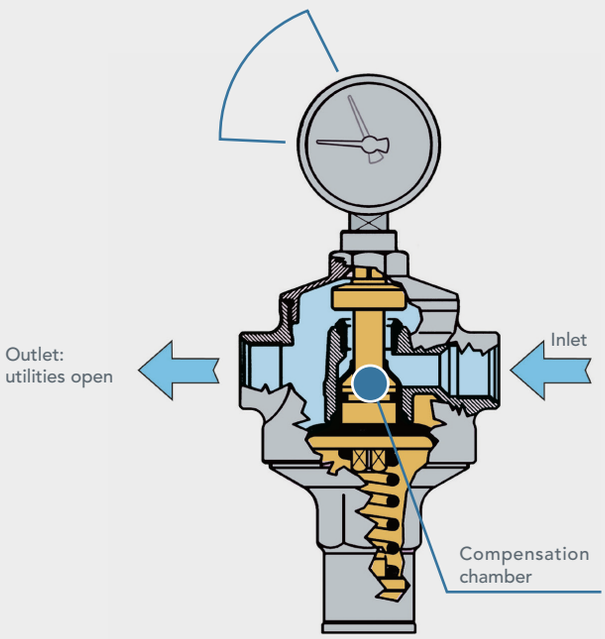
*** 25 bar for the RBM RinoxPlus M model**

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 the demand for water from the utility network, the lower the pressure on the piston and the greater the water flow.