PRESSURE REDUCING VALVES
**Conception, innovation**
- The best modern CAD/CAM tools to master the complex shaped products and guarantee robustness and hydraulic performances.

**Assembling**
- Robotized assembling machines guarantee a constant level of quality.

**Machining**
- Machines which guarantee good-quality and precision products and run through machining without dismantling and return.

**Engineering test**
- The equipments are individually tested and adjusted.
A COMPLETE RANGE ADAPTED TO ALL NEEDS IN PRESSURE REDUCING VALVES.

Here are some examples...

**REDUCER**

**Miscellaneous industrial applications**
- Sanitary appliance and showers,
- Machines and work stations,
- Central heating systems,
- Compressed air lines.

**Private houses**
- Protection of the whole installation (hot and cold water supply systems).
  The pressure reducing valve is installed at the entrance of the main supply.

**Collective houses**
- **Apartments protection**
  The right solution is the installation of a pressure reducing valve on each floor (in very high buildings, this equipment is not necessary on the most high floors if the pressure is equal or under 3 bar).

**Very low pressure for agriculture, irrigation**
- A specific range specially adapted to low pressure.
• Any position installation
• Scale and dirt proof
• No maintenance
• No filter
• Excellent acoustic and hydraulic performances
• Upstream pressure up to 25 bar
• Precise and permanent setting
• All type of connections
• A single model hot and cold water
• Bronze casing

Water pressure reducing and regulating are both used.

We use the term «reducing» because it is standard terminology, but our valves are really regulators.

Because they control the downstream pressure whether there is a flow or not. The downstream cannot vary more than 7 or 8% of the upstream pressure when there is no flow and only by the head loss when there is flow.

A low value shows the hydraulic quality of a good regulator.

STANDARDS & AGREEMENTS

FRANCE
NF EN 1567
NF (types 11 and 9)
ACS (Attestation de conformité sanitaire)

European Standard
NF EN 1567

WRAS

NORVEGE
ByggForsk 0689

PERMISSIBLE TEMPERATURES

• 80°C max.

MAIN PERMISSIBLE MEDIUMS

• Hot and cold water
• Compressed air
• Natural gas
• Domestic fuel

NOMINAL DIAMETERS

From diameter 10 mm to diameter 100 mm

PRESSURE

Upstream pressure 16 and 25 bar depending on the product.
Downstream pressure from 0.5 to 7 bar with compensating spring
FLOW downstream:
Outlet pressure drops. Spring pushes against the diaphragm and disc and opens the valve.
The upstream pressure becomes for example 2.5 bar compared to 3 bar at the beginning. The 0.5 bar difference is the head loss.

NO FLOW downstream:
Outlet pressure goes up again. When it corresponds to the setting, diaphragms and disc, push against the spring and thus close the valve.

INSTALLATION
In domestic water supply, the pressure reducing valves are fitted just after the water meter and thus protect the whole installation.
If there is a frost risk, they should be protected.
They can be fitted in any position but in all cases the direction of flow must be correct as shown by the arrow engraved on the valve body.

ADJUSTMENT
To increase the pressure
• Tighten adjusting screw (clockwise)

To decrease the pressure
• Slacken the adjusting screw (anti-clockwise).
• Release pressure by briefly opening a tap on outlet side. Close taps.
• Then retighten adjusting screw to obtain required pressure. It is normal to see a DOWNSTREAM pressure drop during flow downstream: this is the pressure drop.

The outlet pressure acts on the bottom face of the diaphragm, compressing the spring when it exceeds the pre-set value and thus closing the valve. As long as no water is drawn off the downstream side (no-flow condition), the outlet pressure is thus kept at the pre-set value.

When water is drawn off the downstream side, the outlet pressure decreases and the spring pushes against the diaphragm, opening the valve. Under prolonged flow conditions, a self-damping effect occurs in the valve opening instead a series of jerky opening and closing movements.

The water pressure reducing valves are always set under “no flow”, i.e. with all downstream taps or flow closed. The pressure gauge thus shows a “static” pressure.
A COMPLETE RANGE OF WATER PRESSURE REDUCING VALVES

> Flats and houses individual water supply

- **Type 11** male/male
- **Type 11BIS** female/female
- **Type 11EP** female/male
- **Type 11 DO** male/male

- 1 pressure gauge connection at the bottom
- 2 pressure gauge connection on the side

> Water supply of house blocks, collective housing

- **Type 9** male/male
- **Type 9BIS** female/female

> Very low pressure agriculture, irrigation, laboratory

- **Type 11BIS RCBP** male/male

- 1 pressure gauge connection at the bottom

> Protection of individual device, water heater

- **Type 5 SP** male/female

- A pressure gauge connection and drain at the bottom

> Flats and houses individual water supply

- **Type 7BIS** female/female
- **Type 7EP** female/male
- **Type 7SP** male/female
- **Type Multi 7** Multi-connections

- 1 drain connection at the bottom

> Flats and houses individual water supply

- **Type 10** male/male
- **Type 10BIS** female/female
- **Type 10TER** with flanges
- **Type 10BIS BZ** female/female

- 2 sides pressure cocks for pressure gauges DN32 mm

From DN 15 to 50 mm (except type 11EP)

Downstream setting: 1 bar to 5.5 bar

Supplied preset at 3 bar

Reference RC (compensating spring) for downstream pressure setting from 0.5 bar to 1 bar.

- **11 EP**: female union nut - male
- **11 DO**: removable fittings

From DN 15 to 25 mm

Non adjustable set at 3 bar.

DN 20 mm

Downstream setting: from 0.1 to 0.6 bar

From DN 32 mm: 2 sides pressure cocks for pressure gauges

Downstream setting: 1 bar to 7 bar

Adjustable: supplied unset.

RC reference (compensating spring) for downstream pressure setting from 0.5 bar to 1 bar.

Multi 7(<sup>(*)</sup>): delivered with 3 nuts allowing 16 different connecting possibilities

Special for sea water (consult us)
THE RANGE
OF ACCESSORIES

> Pressure control

- Plug 1/4”.
- Brass up to 1” included - bronze upper sizes.

Type 487
Pressure gauge nipple

The 487 nipple can be fixed for all pressure reducing valves (outlet or inlet) except flanges.

> Flow meter

- Direct reading indicating instant flow rate, up to 25 l/min on domestic taps
- Exclusive patent - ABS material.

Type 777
Possibility of customisation (colour and marking) depending on quantities.

> Gauges

- With central needle.
- Male thread 8/13 (1/4”).
- Rubber cap.
- Exclusive patent.

Type 212AD
PRESSADE

For quick inspection of pressure on any ori-fice from 8 to 20 mm.

Type 2212B
- Central needle.
- Male thread 8/13 (1/4”).
- Vertical.
- Painted steel casing DN50.

Gauges must never stay continuously under pressure. They must be protected by a stop valve.

Some others types of gauges can be proposed, as follow:

Type 212G
with glycerine bath
Stainless steel casing
DN 60 mm - Vertical

Type 212BIS
with central needle
Brass casing DN 50 mm
vertical

Type 3212B
with central needle
Steel casing DN 50 mm
Horizontal

Type 212BP
with central needle
Steel casing DN 60 mm
Vertical

Discover our technical data sheets

For more detail concerning our whole range, do not hesitate to ask for our technical data sheets or to go on our internet site: www.socla.com.
Protection

Non return

Regulation

Shut Off