



# PRESSURE REDUCING VALVE

## Model 820

Hydraulically operated, piston actuated control valve that reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.

BERMAD 800 series valves are hydraulically operated, piston actuated globe valves for high pressure. Their full-bore body ensures unobstructed flow, and they are available in various models, sizes, patterns, and end connections.



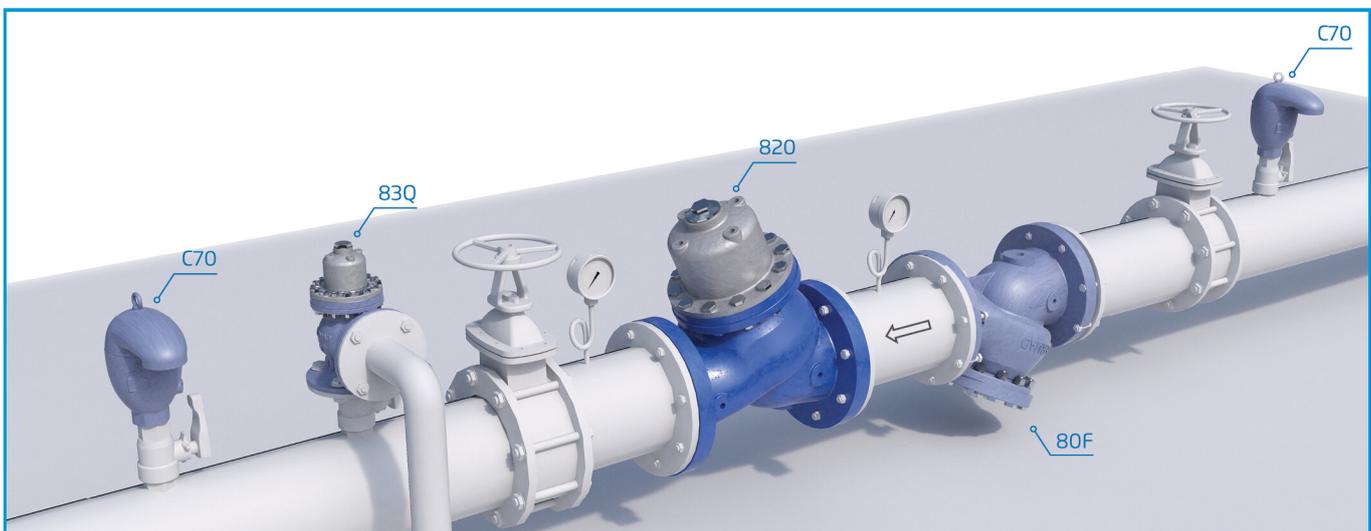
### Features & Benefits

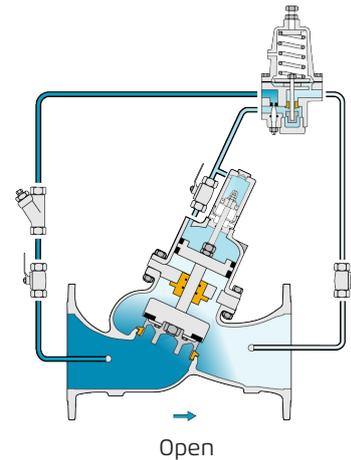
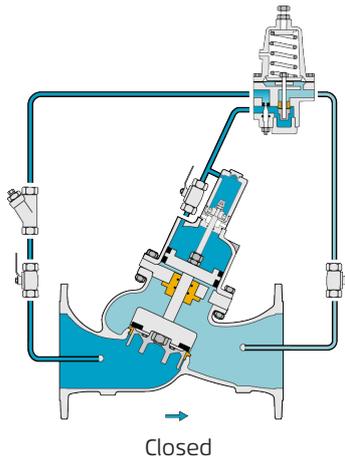
- Robust structure, piston actuated – High pressure service
- Line pressure driven – Independent operation
- Elegant simplicity
  - Cost effective
  - Simple to maintain
  - Minimal external accessories
- Built-in check feature - Replacing line sized check valve
- In-line serviceable - Easy maintenance
- Double chamber design
  - Moderated valve reaction
  - Moderated closing curve
- Flexible design - Easy addition of features
- "Y" or angle Pattern, wide body – Minimized pressure loss
- Semi-straight flow – Non-turbulent flow
- Stainless Steel raised seat - Cavitation damage resistant
- Obstacle free, full bore – Uncompromising reliability
- V-Port throttling plug (optional) - Very stable at low flow

### Typical Applications

- National water system - Pressure reduction in transmission pipelines
- Municipal water system - Pressure reduction in pipes and consumer connections

### Typical Installation





This drawing refers to 6 – 24"; DN150-600 sized valves only. For other sizes please refer to the Model's IOM.

## Main Valve

**Size Range:** 1½-24"; 40-600 mm

**Pattern:** "Y" (globe) & "A" (angle)

**Pressure Rating:** 40 bar

**End Connection:** Flanged, Threaded, Grooved

**Plug Types:** Flat disc, V-port, Cavitation cage

**Temperature Rating:** 80°C

*For 60–80°C consult factory*

### Standard Materials:

**Body & Cover:** Ductile Iron (1½-10"; 40-250 mm) ; Cast Steel (12-24"; 300-600 mm) & Stainless Steel Cover

**Bolts, Nuts & Studs:** Stainless Steel

**Internals:** Stainless Steel & Tin Bronze

**Seals:** Synthetic rubber

**Coating:** Dark blue Fusion bonded epoxy

*For other materials contact BERMAD*

## Control System

### Standard Materials:

**Accessories:** Stainless Steel, Bronze & Brass

**Tubing:** Stainless Steel or Copper

**Fittings:** Stainless Steel or Brass

### Pilot standard materials:

**Body:** Stainless Steel, Bronze & Brass

**Elastomers:** Synthetic Rubber

**Internals and Spring:** Stainless Steel

### Pilot Options:

Various pilots and calibration springs are available. Select according to valve size and operating conditions. For more details check relevant pilots product pages.

## Notes

- Inlet Pressure, Outlet Pressure and Flow-rate are required for optimal sizing and cavitation analysis.
- Recommended continuous flow velocity: 0.3-6.0 m/sec; 1-20 ft/sec.
- Minimum operating pressure: 2.0 bar; 30 psi. For lower pressure requirements consult factory.

For detailed Engineering & Specification data, IOM and CAD Drawings, visit the Model Page on the [BERMAD](https://www.bermad.com) website.