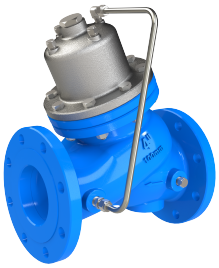
PROPORTIONAL PRESSURE REDUCING VALVE (PISTON ACTUATOR)

Model 820-PP

Hydraulically operated, piston actuated control valve that reduces higher upstream pressure to lower downstream pressure at a fixed ratio. The fixed pressure reducing ratio is determined with regard to valve size and plug type.

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.



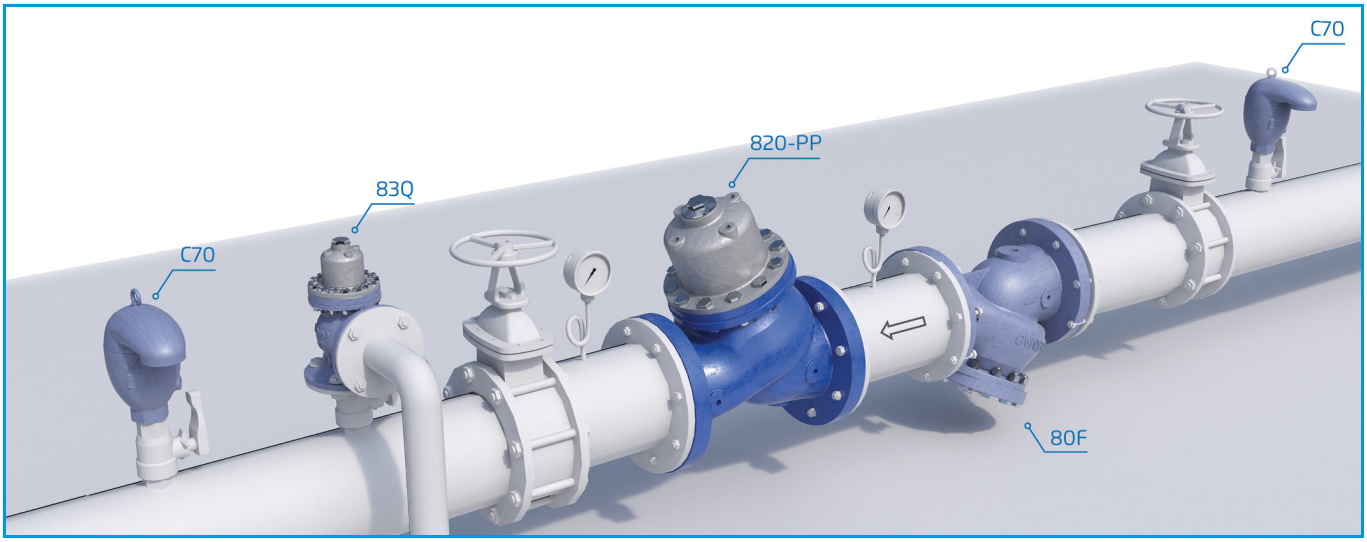
Features & Benefits

- 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
- 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

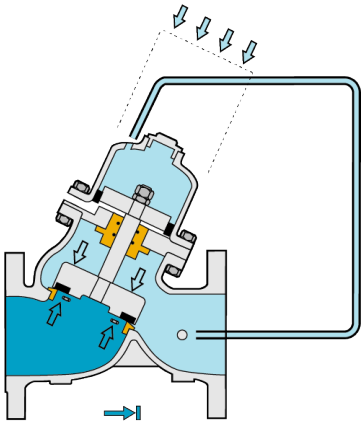
Typical Applications

- First stage at a two stage pressure reducing system
- Municipal and national systems - Reducing pressure at downhill pipe lines
- Pumping stations - Minimize cavitation and noise in circulation valves

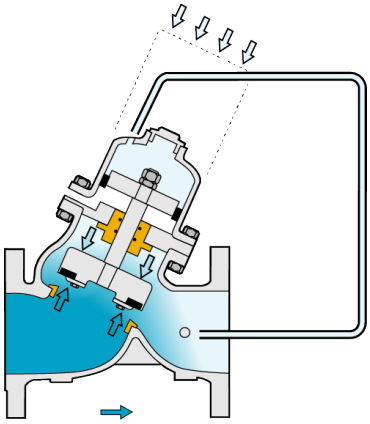
Typical Installation



All images in this catalog are for illustration only



Closed (no system demand)



Regulating

This drawing refers to 1½ – 14"; DN40-350 sized valves only. For other sizes please refer to the Model's IOM.

Main Valve

Size Range: 1½-20"; 40-500 mm
Pattern: "Y" (globe) & "A" (angle)
Pressure Rating: 40 bar
End Connection: Flanged, 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 (12-20"; 300-500 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

Reduction Ratios Table:

Valve Size		Reduction Ratio
1½"	DN40	2.5 (Flanged), 2.9 (Grooved)
2"	DN50	2.5 (Flanged), 2.9 (Grooved)
2½"	DN65	2.5
3"	DN80	2.3
4"	DN100	2.5
6"	DN150	2.2
8"	DN200	2.3
10"	DN250	2.3
12"	DN300	2.1
14"	DN350	2.1
16"	DN400	2.2
18"	DN450	2.2
20"	DN500	2.2

Notes

- 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.
- Reduction ratio is proportional to the valve opening rate, which vary due to changes in flow rate and pressures.
- Reduction ratios are based on flow velocity of 2.0-3.0 m / sec; 6.5-10 ft /sec.

For detailed Engineering & Specification data, IOM and CAD Drawings, visit the Model Page on the BERMAD website.

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