

PRESSURE RELIEF/ SUSTAINING VALVE

Model 830

Pressure relief/sustaining hydraulically operated control valve that can fulfill either of two separate functions:

When installed in-line, it sustains minimum pre-set, upstream (back) pressure regardless of fluctuating flow or varying downstream pressure. When installed as a "branched from the line" circulation valve it relieves excessive line pressure when above maximum pre-set.

BERMAD 800 series valves are hydraulically operated, piston actuated globe valves designed for high pressure operation and available in either standard oblique (Y) or angle pattern design. Their full bore hydrodynamic body provides an unobstructed flow path while their seat assembly and double-chamber unitized actuator can be disassembled without removing the valve body from the pipeline.



[Click here for control accessories](#)



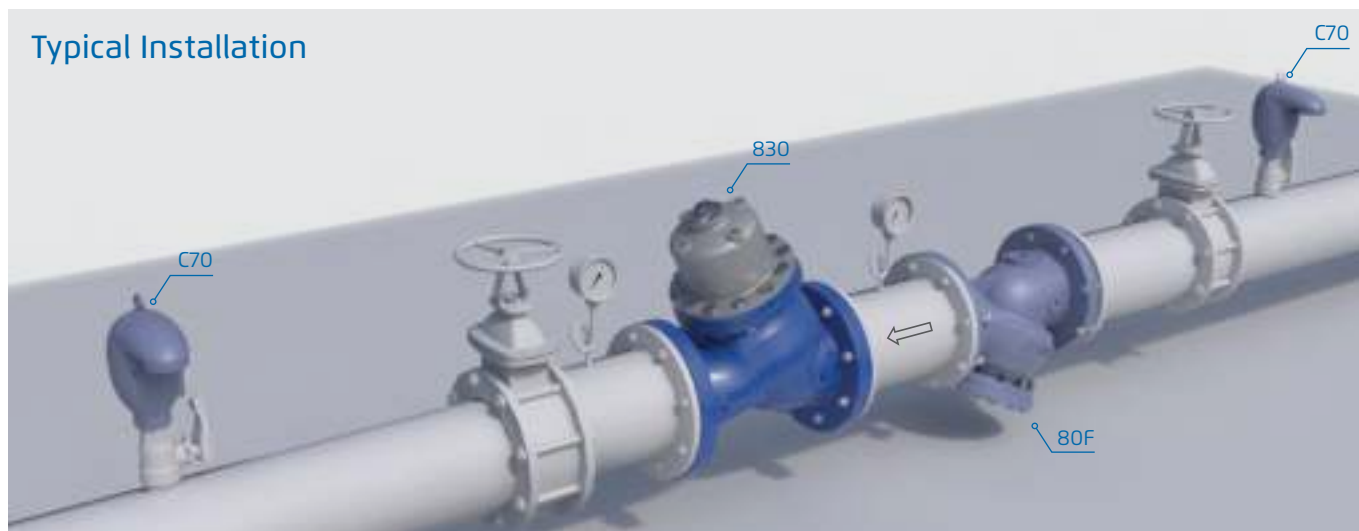
Features and Benefits

- Robust structure, piston actuated – High pressure service
- Line pressure driven – Independent operation
- Elegant simplicity
 - Cost effective Simple to maintain
 - Minimal external accessories
- In-line serviceable – Easy maintenance
- Double chamber
 - 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

Major Additional Features:

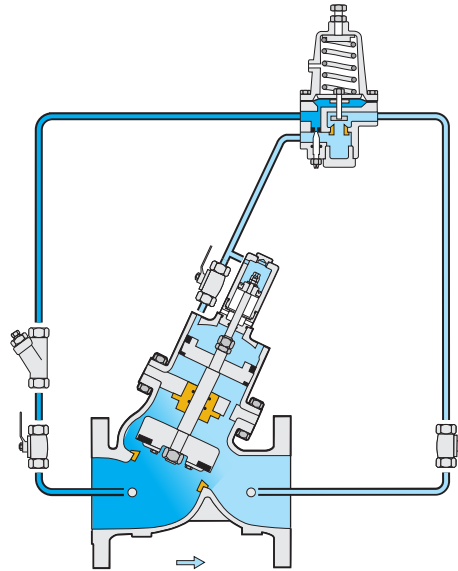
- Pressure sustaining and reducing valve – 823
 - Differential pressure sustaining – 836
 - Quick pressure relief valve – 83Q
 - 3-Way control – 830-X
 - Solenoid control – 830-55
 - Hydraulic check feature – 830-20
 - Anti-cavitation cage – 830-C2
 - High sensitivity pilot – 830-12
 - Electrically selected multi-level setting – 830-45
 - Level control and pressure sustaining valve – 853
 - Pump control and pressure sustaining valve – 843
- See relevant BERMAD publication

Typical Installation



All images in this catalog are for illustration only

[Link to Animation](#)



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

Main Valve

Valve Patterns, Size Range:

"Y" (Globe): 1½-20"; DN40-500

Angle: 1½-18"; DN40-450

Pressure Rating: 40 bar; 600 psi

End Connections: Flanged (all standard)

Plug Types: Flat disc, Cavitation cage

Temperature Rating: 60°C; 140°F for Cold water applications

Optional higher temperature: Available on request

Standard Materials:

Body: Cast Steel or Ductile Iron

Cover (Cylinder): Stainless Steel

Bolts Nuts & Studs: Stainless Steel

Internals: Stainless Steel, Tin Bronze

Elastomers: Synthetic rubber

Optional Materials: Stainless Steel, Nickel Aluminum Bronze, Duplex & others

Coating: Dark blue Fusion bonded epoxy

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 or Brass

Elastomers: Synthetic rubber

Spring: Stainless Steel

Internals: Stainless Steel

Pilot Options:

Various pilots and calibration springs are available.

Select according to valve size and operating conditions.

For more details check pressure sustaining pilots product page.

Notes

- Inlet pressure, outlet pressure and flow rate are required for optimal sizing and cavitation analysis.
- Recommended continuous flow velocity: 0.1-6.0 m/sec; 0.3-20 ft/sec.
- Minimum operating pressure: 0.7 bar/10 psi. For lower pressure requirements consult factory.

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