



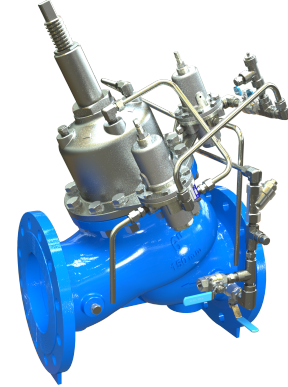
SURGE-ANTICIPATING CONTROL VALVE

with Mechanical Flow Stem

Model 835-M

Hydraulically operated, piston actuated off-line surge anticipating valve that immediately opens in response to the pressure drop associated with abrupt pump stoppage. The pre-opened valve dissipates the returning high pressure wave, eliminating the surge. The valve smoothly closes drip tight as quickly as the relief feature allows, thereby preventing closing surge. The valve also relieves excessive system 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.



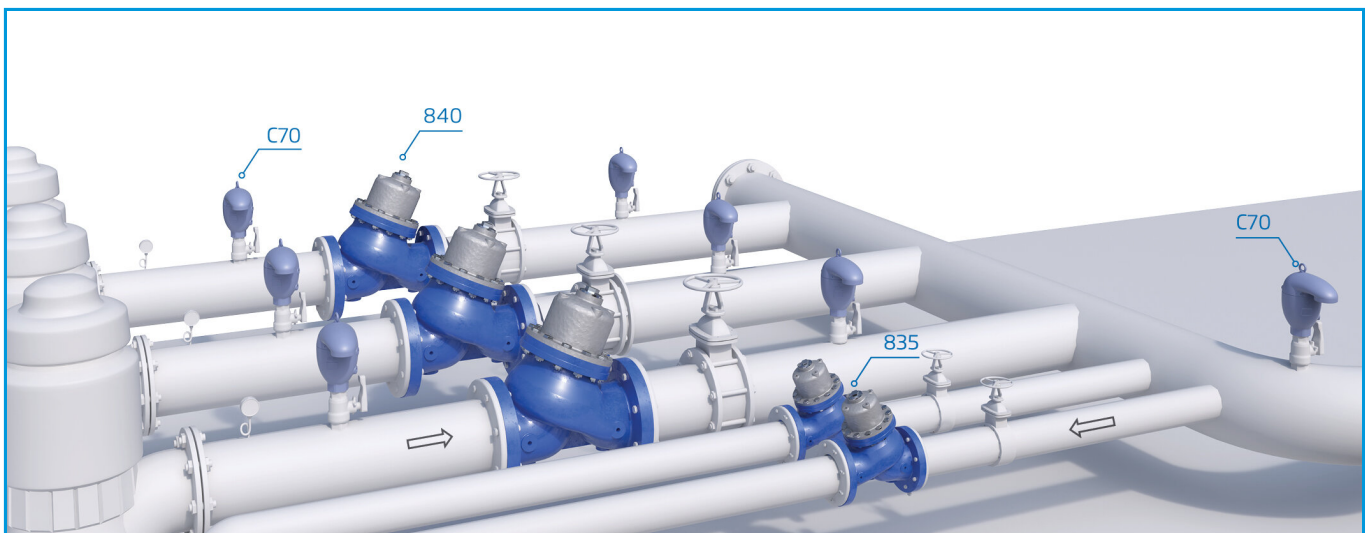
Features & Benefits

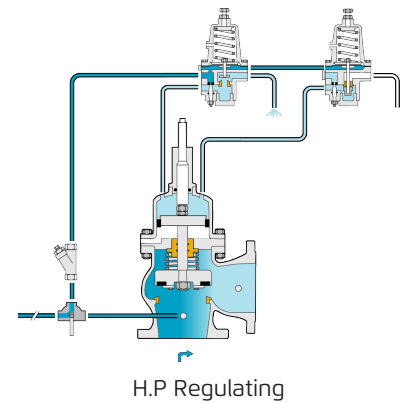
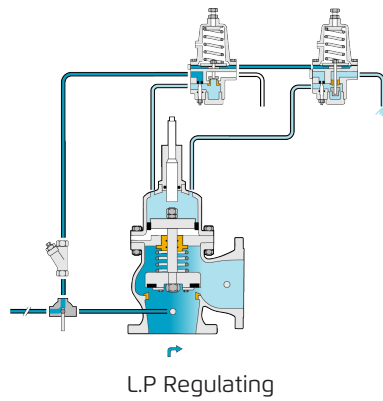
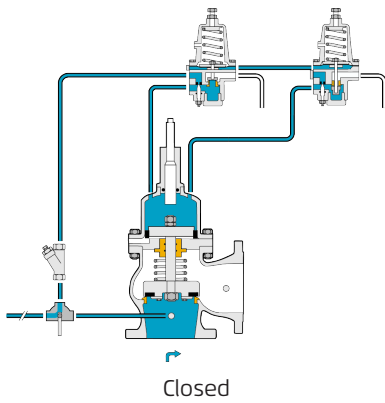
- Robust structure, piston actuated – High pressure service
- Line pressure driven – Independent operation
- Elegant simplicity
 - Cost effective
 - Simple to maintain
 - Minimal external accessories
- In-line serviceable - Easy maintenance
- Double chamber design
 - Moderated valve reaction
 - Moderated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

- Pumping stations - Surge Control

Typical Installation





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: 600 psi

End Connection: Flanged, Threaded, Grooved

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

Temperature Rating: 180°F

For 140–180°F 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

- Full system data is required for surge analysis and optimal valve sizing.
- A flow stem enables limiting valve opening stroke, adjusting precisely the required flow through the valve.
- Recommended maximum flow velocity: 15 m/sec; 50 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](https://www.bermad.com) website.