

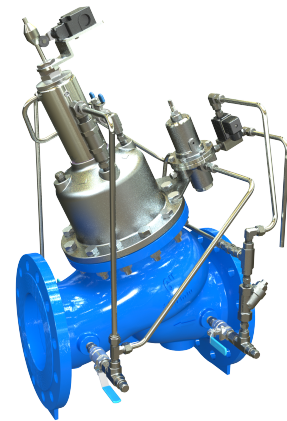
BOOSTER PUMP CONTROL AND PRESSURE SUSTAINING VALVE

with Active Check Valve

Model 843

Hydraulically operated, piston-actuated, active check, pump control & pressure sustaining valve with two independent functions: It opens fully or shuts off in response to electric signals, isolating the pump from the system during pump startup and shutdown, thereby preventing pipeline surges. While open, it sustains minimum pump discharge pressure regardless of fluctuating flow, and prevents the pump from exceeding its designed flow or power consumption.

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

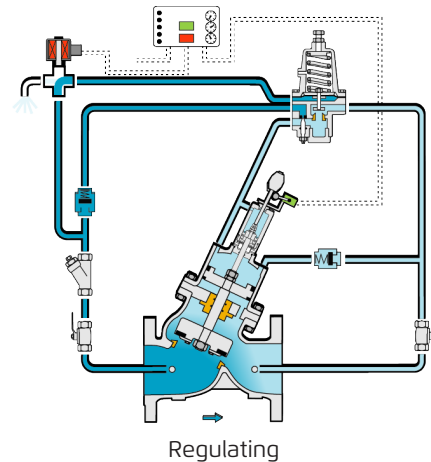
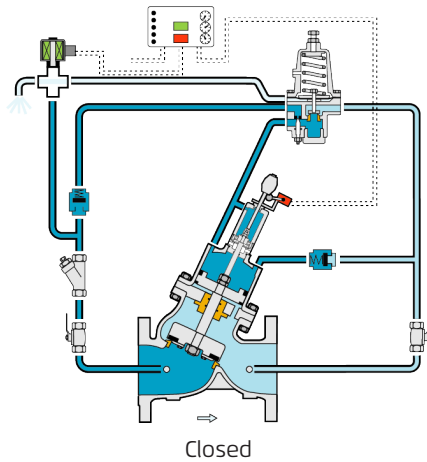
- Robust structure, piston actuated – High pressure service
- Line pressure driven – Independent operation
- Elegant simplicity
 - Cost effective
 - Simple to maintain
 - Minimal external accessories
- In-line serviceable - Easy maintenance
- Double chamber design
 - Moderated valve reaction
 - Moderated 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 - Controls pump start-up and shut-down
- Pumping stations - Ensure operating point on pump curve

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: 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

Solenoid standard materials:

Body: Brass or Stainless Steel

Elastomers: NBR or FPM

Enclosure: Molded Epoxy

Solenoid Electrical Data:

Voltages:

(AC): 24, 110-120, 220-240, (50-60Hz)

(DC): 12, 24, 110, 220

Power Consumption:

(AC): 30VA, inrush; 15VA (8W), holding or 70VA, inrush; 40VA (17.1W), holding

(DC): 8-11.6W

Values may vary according to specific solenoid model.
For more details check solenoid product page.

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: 0.1-6.0 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](https://www.bermad.com) website.