



# SURGE ANTICIPATING VALVE

## Model 835-M

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 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](#)



HOME VIEW

### Features and Benefits

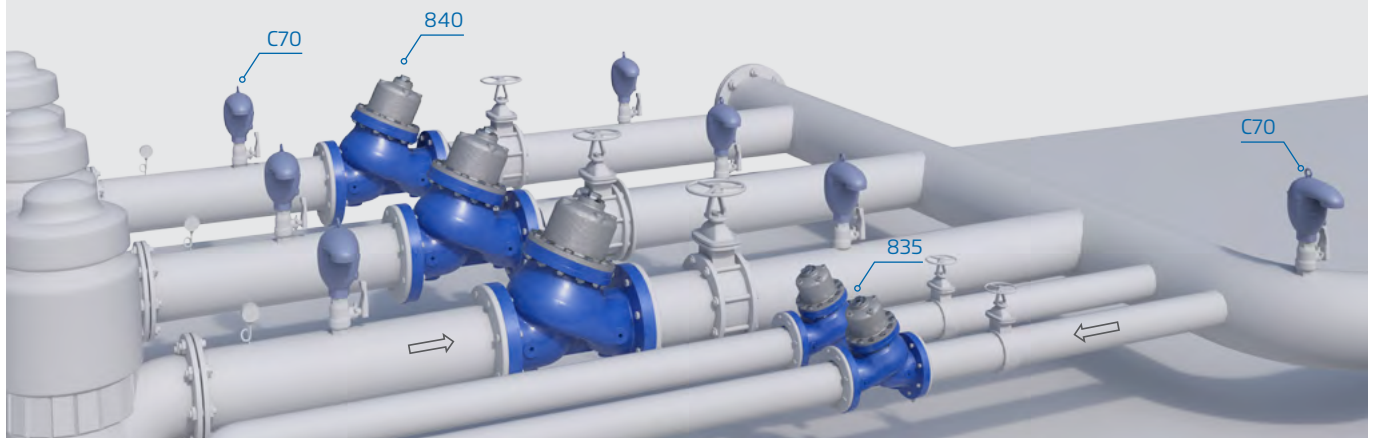
- Robust structure, piston actuated – High pressure service
- Line pressure driven – Independent operation
- Elegant simplicity
  - Cost effective Simple to maintain
  - Minimal external accessories
- In-line serviceable – Easy maintenance
- Double chamber
  - Moderated valve reaction
  - Moderated closing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

- Solenoid control – 835-55-M
- Quick pressure relief valve – 83Q
- Hydraulic/Electric override – 835-55-09-M

See relevant BERMAD publication

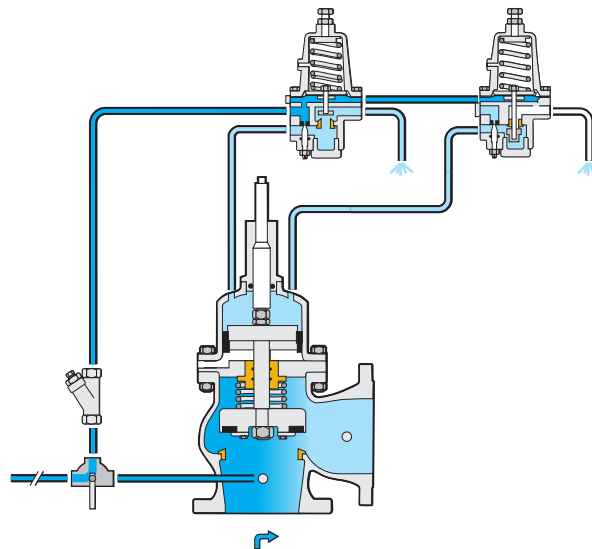
### Typical Installation



All images in this catalog are for illustration only



- CLOSED
- L.P Open
- H.P Open



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

**Required data for surge analysis:**

Pipe profile and characteristic, pumping station full details, valves and reservoirs.

### 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.

