

SURGE-ANTICIPATING CONTROL VALVE

with Mechanical Flow Stem

Model 735-M-M5-M5M-M5L

Hydraulically operated, diaphragm 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.

The BERMAD 700 Series large control valves are hydraulically operated and diaphragm actuated. Their unique hydro-dynamic globe design with an open plug ensures high flow capabilities.



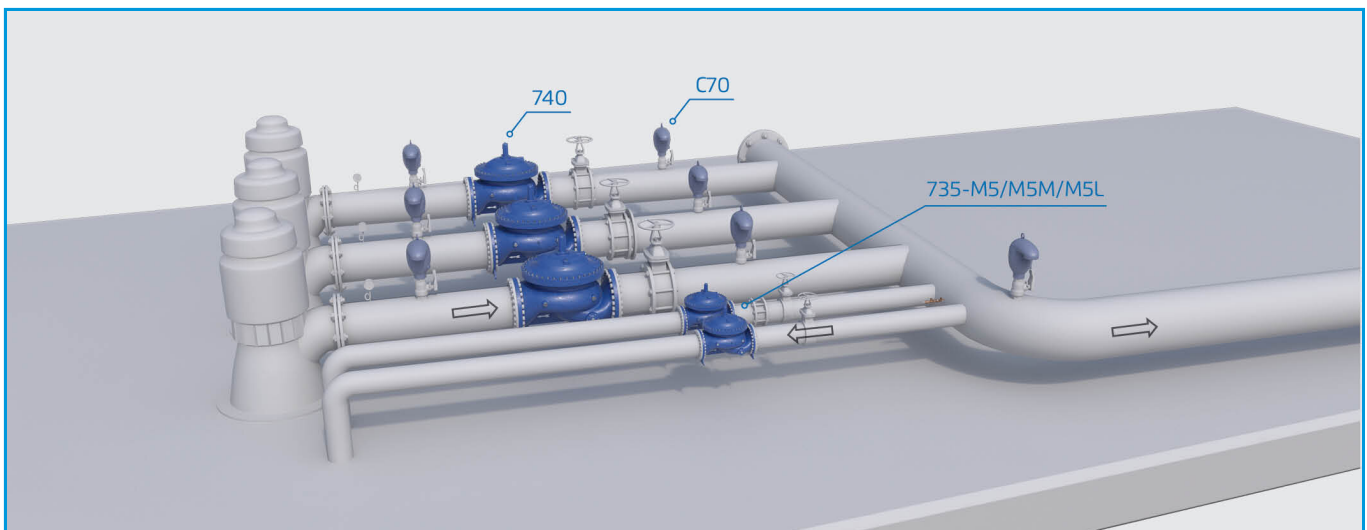
Features & Benefits

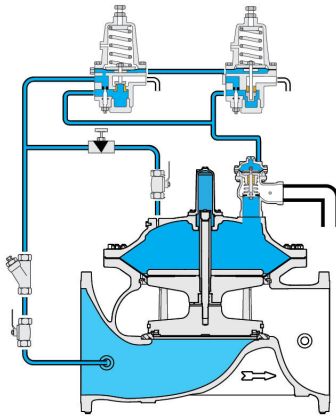
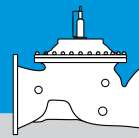
- Hydrodynamic wide globe valve body provides:
 - Higher flow coefficient (Kv; Cv) than standard globe valves
 - Higher resistance to cavitation damage
- In-line serviceable
- Valves are suitable for working with all types of command: Hydraulic, Electric and Pneumatic.
- Self-operated valves that can work without an external source of power
- Wide range of options and accessories:
 - Visual position indicator
 - Limit switches
 - Analog opening output
 - Large selection of control accessories
 - Large inspection and service ports (700-M5L)

Typical Applications

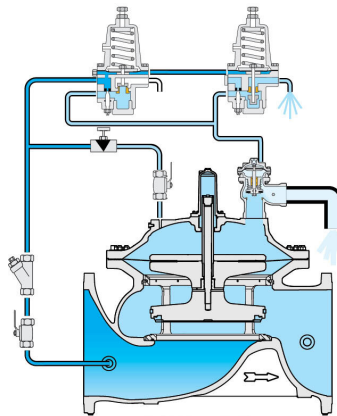
- Pumping stations - Surge Control

Typical Installation

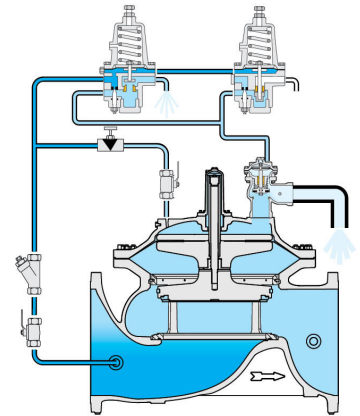




Closed



L.P. Regulating



H.P. Regulating

Main Valve

Size Range: 20"-36"; DN500-900

Pattern: Globe

Pressure Rating: 400 psi

End Connection: Flanged

Temperature Rating: 180°F

For 140–180°F consult factory

Standard Materials:

Body & Cover: Ductile Iron

Cover Bolts: Stainless Steel

Internals: Epoxy coated Ductile Iron, Stainless Steel & Tin Bronze

Diaphragm: Fabric-reinforced synthetic rubber

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.

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