PRESSURE RELIEF / SUSTAINING VALVE

Model 430

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.

The BERMAD 400 Series valves have an advanced design with a full-bore seat and unobstructed flow path. Their one-piece elastomeric assembly ensures long life and reliable actuation in harsh conditions.

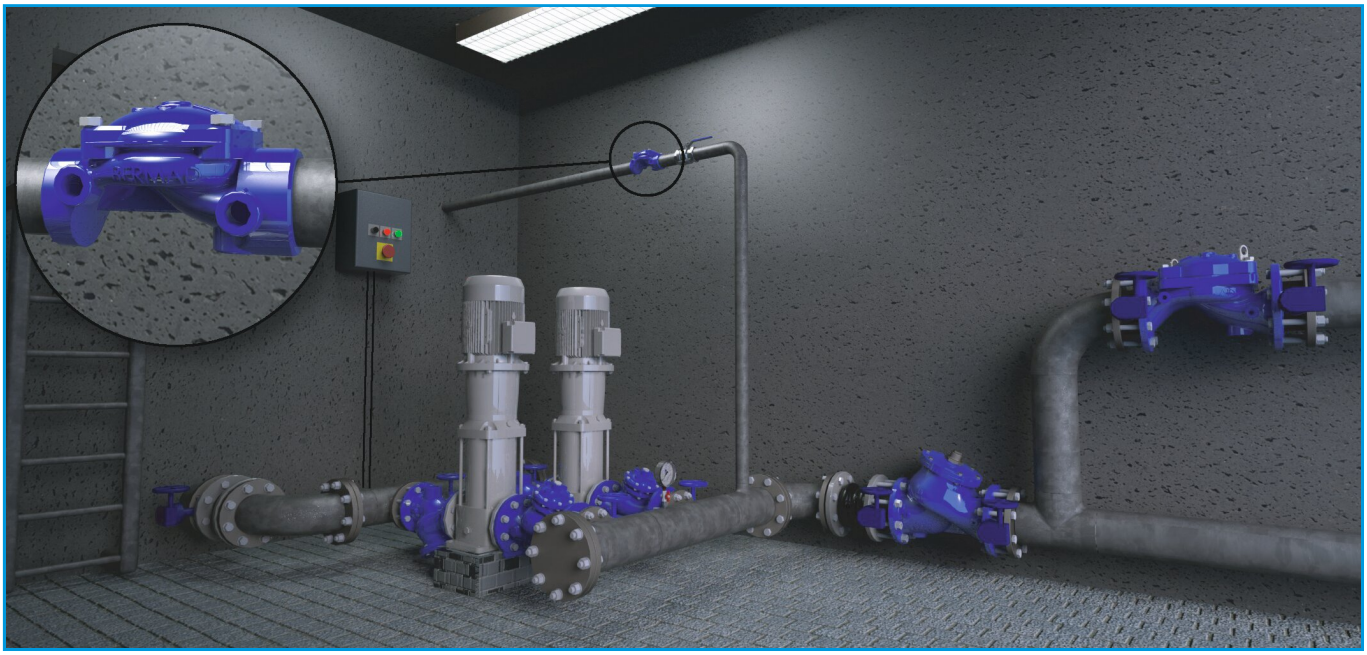
Features & Benefits

- Line pressure driven – Independent operation
- High performance control trim
  - High stability and accuracy at wide flow range
  - Drip tight sealing
- Flexible design - Easy addition of features
- Advanced globe hydro-efficient design
  - Unobstructed flow path
  - Single moving part
  - Non-turbulent flow
  - High flow capacity
- Fully supported & balanced diaphragm
  - Excellent low flow regulation performance
  - Progressively restrains valve closing
  - Prevents diaphragm distortion
- In-line serviceable
  - Easy maintenance
  - Minimal down time

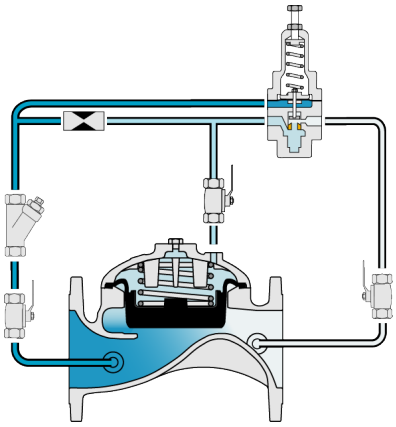
Typical Applications

- Pumping stations - Pump circulation valve
- Pumping stations - Sustains pump discharge pressure, preventing pump overload and cavitation damage caused by excessive demand
- Water delivery system - Maintaining upstream pressure during pressure drop
- Water delivery system - Prioritizing upstream over downstream demand

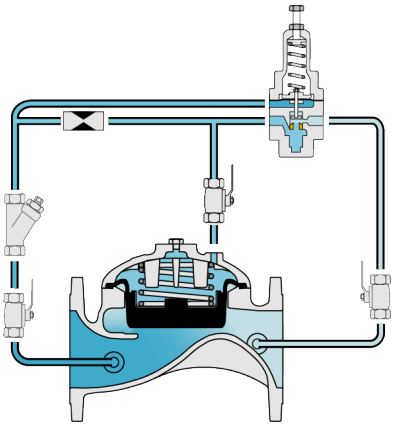
Typical Installation



All images in this catalog are for illustration only



Pressure Relief



Pressure Sustaining

This drawing refers to 1½ – 8"; 40-200 mm sized valves only. For other sizes please refer to the Model's IOM.

Main Valve

Size Range: 1½-12"; DN40-300
Pattern: Globe
Pressure Rating: 16 bar
End Connection: Flanged, Threaded, Grooved
Temperature Rating: 60°C
Optional higher temperature: Consult BERMAD

Standard Materials:

Body & Cover: Ductile Iron
Cover Bolts: Steel
Diaphragm: Reinforced EPDM with vulcanized radial seal disk
Spring: St. St. 302
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

- 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 website.