FLOW CONTROL VALVE

with Opening and Closing Speed Controls

Model 470-03-U

Hydraulically operated flow control valve that maintains pre-set maximum flow, regardless of fluctuating demand or varying system pressure.

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.

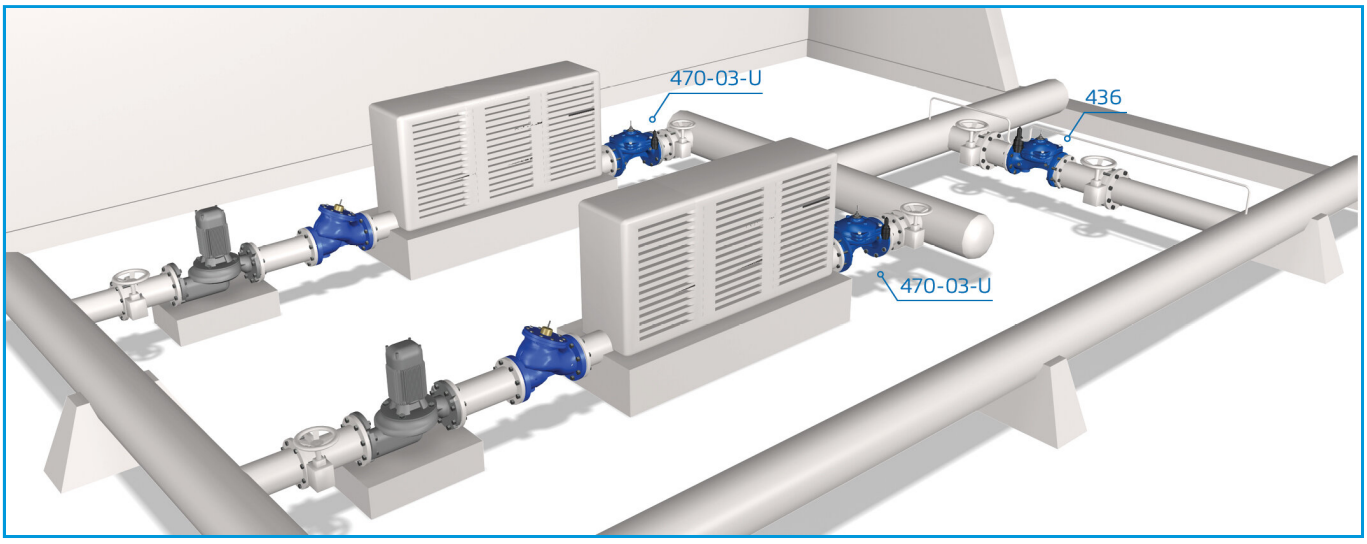
Features & Benefits

- Line pressure driven – Independent operation
- High performance control trim
  - High stability and accuracy
  - Drip tight sealing
- Hydraulic flow sensor
  - No moving parts
  - No electronic components
  - No flow straightening
- 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

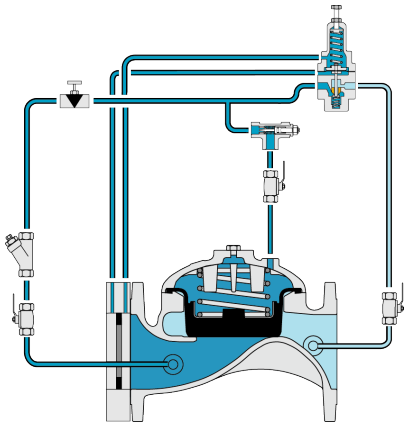
Typical Applications

- HVAC Systems - Flow limiting to maintain efficiency and ensure optimal performance
- Filtration system - Process flow control in filtration applications

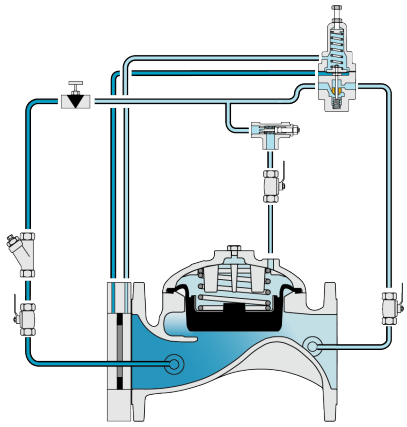
Typical Installation



All images in this catalog are for illustration only



Closed



Open

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: 250 psi
End Connection: Flanged
Temperature Rating: 140°F
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

Orifice Standard Material: POM-C

Notes

- Orifice diameter is calculated for each valve.
- Flow Setting Range: (-)15% and (+)25% from predetermined flow.
- Orifice adds 20-32mm; 0.8"-1.2" to valve length.
- The orifice additional head loss is 0.2 bar ; 2.8 psi
- Recommended continuous flow velocity: 0.3-6.0 m/sec; 1-20 ft/sec.
- Minimum operating pressure: 1.0 bar; 15 psi. For lower pressure requirements consult factory.
- Inlet Pressure, Outlet Pressure and Flow-rate are required for optimal sizing and cavitation analysis.
- When minimum head loss is essential and flow velocity is higher than 1.0 m/sec, consider using model 770-J.

For detailed Engineering & Specification data, IOM and CAD Drawings, visit the Model Page on the BERMAD website.

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