

LEVEL CONTROL VALVE

with Bi-Level Vertical Float

Model 450-66

Hydraulically operated control valve that controls reservoir filling and reservoir level. Reservoir filling is in response to a hydraulically controlled non-modulating bi-level vertical float that opens at a pre-set reservoir low level and shuts off drip-tight at a pre-set high level.

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.



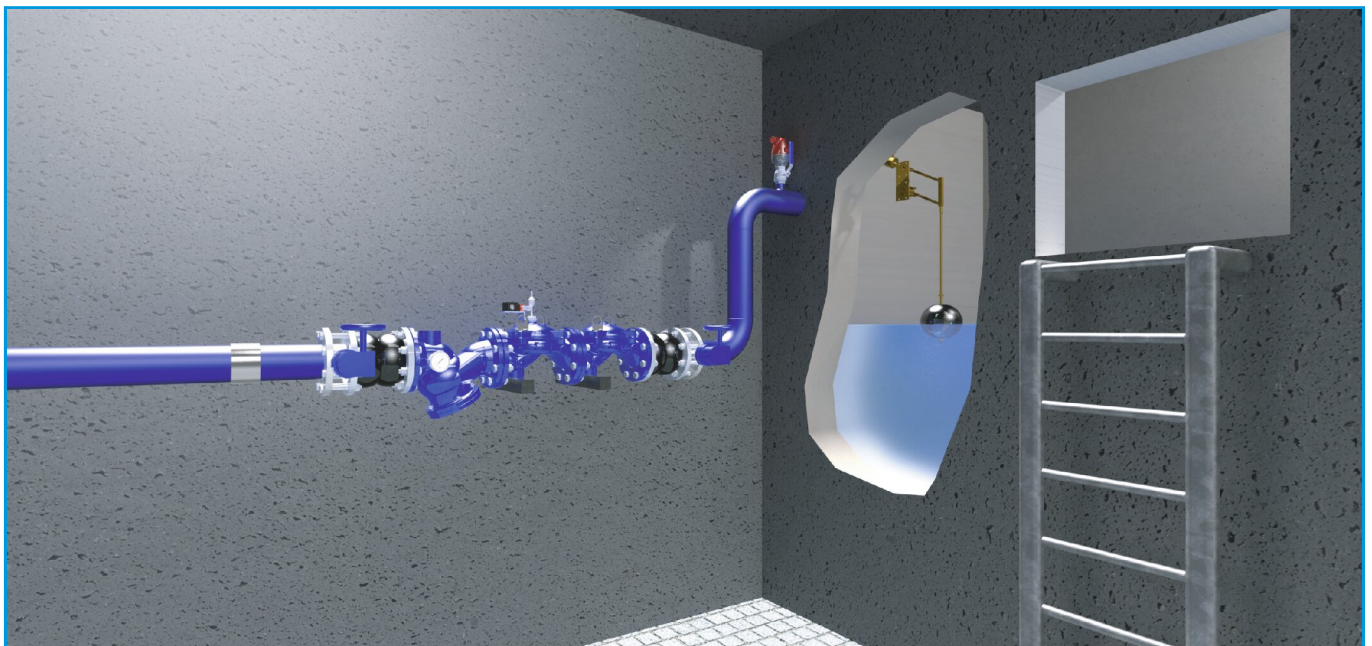
Features & Benefits

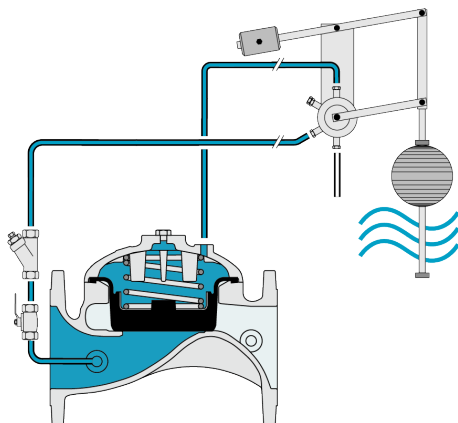
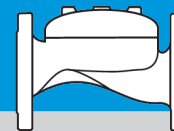
- Line pressure driven – Independent operation
- Bi-Level hydraulic float control
 - On/Off service
 - Inherent water refreshment
 - Minimizes noise and cavitation damage
 - Drip tight sealing
- Flexible design - Easy addition of features
- Advanced globe hydro-efficient design
 - Unobstructed flow path
 - 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
 - External installation

Typical Applications

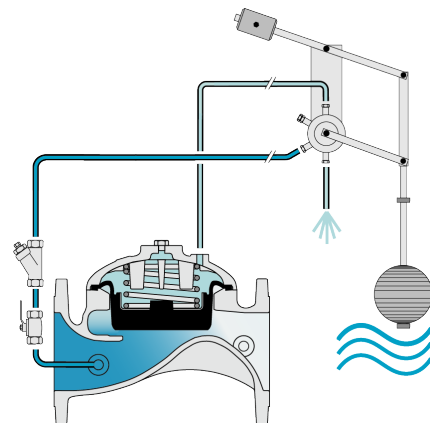
- Level control for water reservoirs
- Bi-Level control for water refreshment and silent operation
- Potable water, fire protection and grey water

Typical Installation





Closed



Open

This drawing refers to 1½ – 6"; 40-150 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, Threaded, Grooved

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

Float standard materials:

Pilot Body: Brass

Elastomers: NBR

Internal Parts: Stainless Steel 316 & Brass

Lever System: Brass

Float: Plastic

Float Rod: Stainless Steel 316

Base Plate: Stainless Steel 316

Float optional materials:

Metal Parts: Stainless Steel 316

Elastomers: EPDM

Notes

- Each extension rod adds 560 mm; 22". One extension rod is supplied.
- Extra counterweight is required if second extension rod is used.
- If inlet pressure is below 1.0 bar; 15 psi or above 10 bar; 150 psi, consult factory.
- Inlet Pressure, Outlet Pressure and Flow-rate are required for optimal sizing.
- Recommended maximum flow velocity: 6.0 m/sec; 20 ft/sec.
- See BERMAD float installation recommendation.

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