

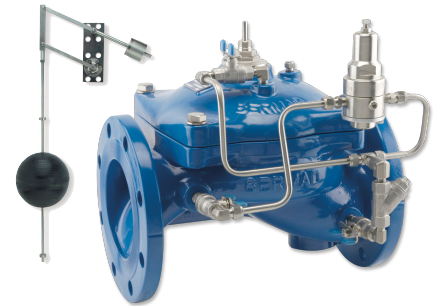
LEVEL CONTROL AND PRESSURE SUSTAINING VALVE

with Bi-Level Vertical Float

Model 453-66

Hydraulically operated, level control and pressure sustaining control valve that controls reservoir filling and reservoir level. During filling the valve sustains minimum upstream pressure regardless of fluctuating flow or 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.



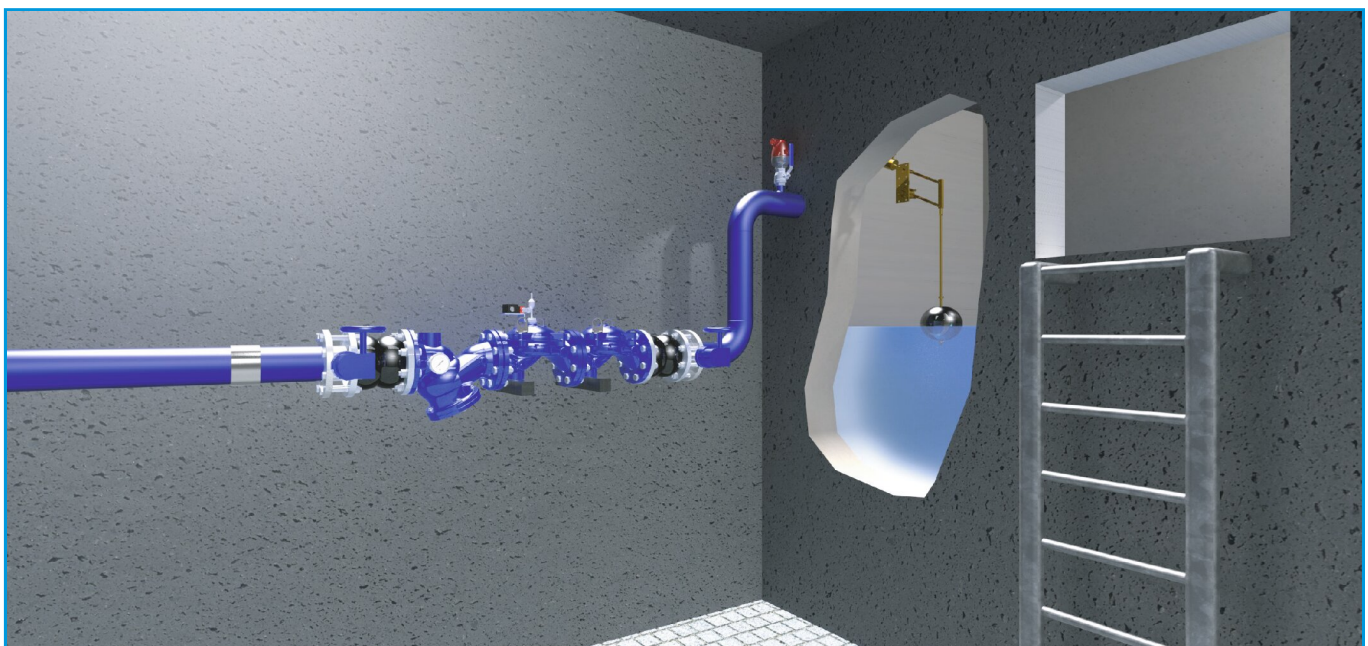
Features & Benefits

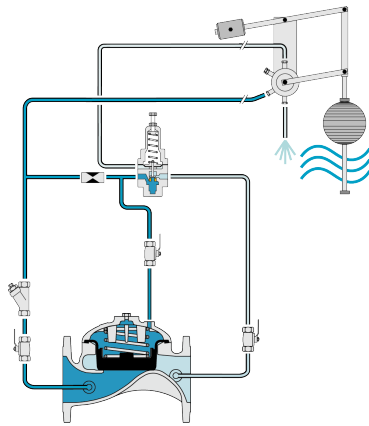
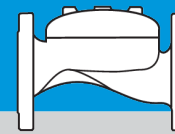
- Line pressure driven – Independent operation
- High performance control trim
 - High stability and accuracy at wide flow range
 - Drip tight sealing
- Bi-Level hydraulic float control
 - On/Off service
 - Inherent water refreshment
- In-line serviceable
- Advanced globe hydro-efficient design
 - Unobstructed flow path
 - High flow capacity
- Fully supported & balanced diaphragm
 - Excellent low flow regulation performance

Typical Applications

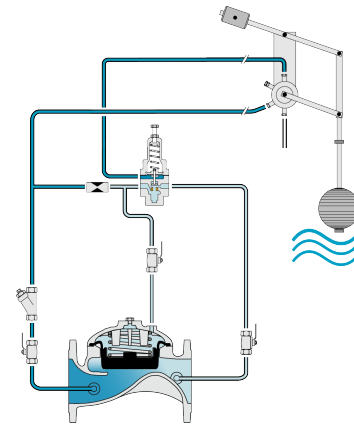
- Level control for water reservoirs
- Bi-Level control for water refreshment
- Water delivery system - Prioritizing upstream over downstream demand
- Serves as a safety valve in tank filling systems
- Potable water, fire protection and grey water

Typical Installation





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: 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

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

- Minimum level differential: 150mm; 6".
- Maximum level differential: 540mm; 21".
- 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.