

LEVEL CONTROL VALVE

with Non Modulating Vertical Float

Model: 450-66

The Model 450-66 Level Control Valve with Non Modulating Vertical Float is a hydraulically controlled, diaphragm actuated, double chambered control valve. The valve is hydraulically powered to fully open at pre-set reservoir low level, and to shut off at pre-set high level regardless of valve differential pressure.

- Reservoir filling
 - Low noise generation
 - Energy cost critical systems
 - Systems with poor water quality

Features and Benefits

- Line pressure driven – Independent operation
- Bi-Level hydraulic float control
 - On/off service
 - Low cavitation damage
 - Suitable for low quality water
 - Inherent reservoir refreshing
- Flexible design – Easy addition of features
- Advanced globe or angle hydro-efficient design
 - Unobstructed flow path
 - Single moving part
 - Non-turbulent flow
 - High flow capacity
- Fully supported & balanced diaphragm
 - Low actuation pressure
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- External installation
 - Easy access to valve and float
 - Easy Level Setting
 - Less wear and tear
- In-line serviceable
 - Easy maintenance
 - Minimal down time



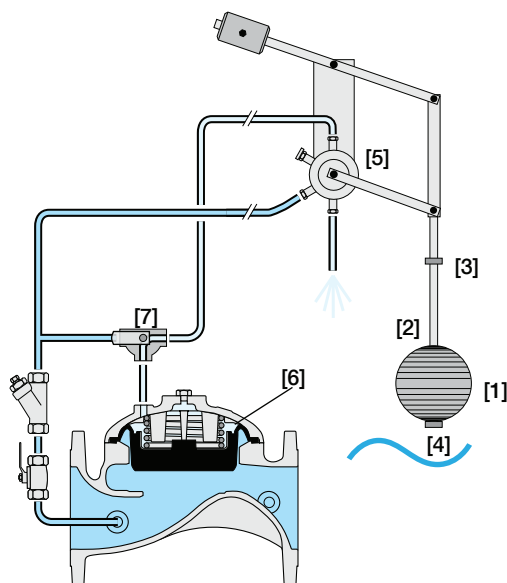
Major Additional Features

- Pressure sustaining – 453-66
- Electric float backup – 450-66-65
- Flow control – 457-66-U
- Closing surge prevention – 450-66-49

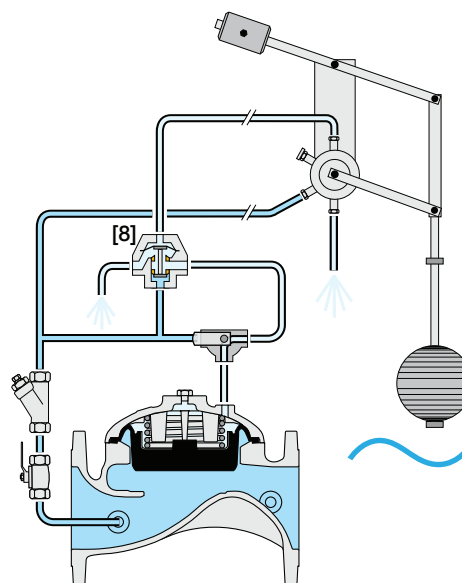
See relevant BERMAD publications.

Operation

The Model 450-66-B is a float controlled valve equipped with a 4-Way, "last position", bi-level float pilot assembly. The float [1] slides along the rod [2]. When the float reaches either the adjustable high [3] or low [4] level stoppers, it either pulls the rod assembly down or pushes it up, switching the float pilot [5] position. When the float is between the adjustable stoppers, the main valve remains in its last position. At high level, the float pilot applies pressure to the control chamber [6], shutting off the main valve. At low level, the float pilot vents the control chamber, opening the main valve. The 3-way Cock Valve [7] enables manual closing of the main Valve. For 8" (DN200) valves and larger, an accelerator [8] quickens valve response.



Size Range 1½ -6"

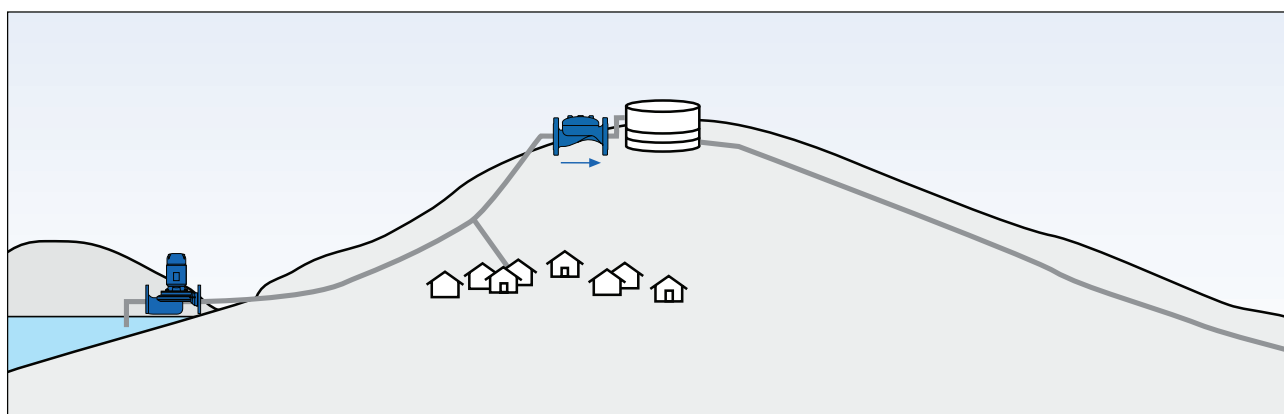


Size Range 8 -16"

Typical Applications

Infrastructure Reservoirs

Optimal design of reservoir systems requires specifying a level control valve that reduces pumping costs by minimizing the extra pumping pressure required to operate standard valves. Even at very low pressure, the Model 450-66 ensures maximum flow capacity, and secure closing. It should be included during the system design phase or with changing needs.



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