

LEVEL CONTROL VALVE

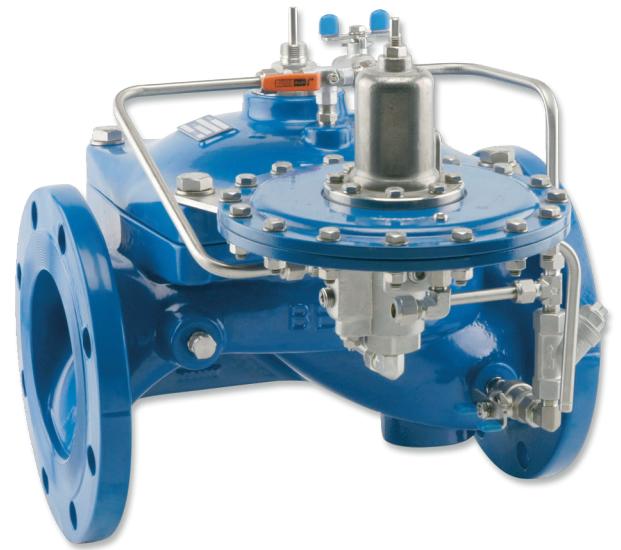
Model: 450-80

The Model 450-80 Level Control Valve is a hydraulically controlled, diaphragm actuated control valve that shuts off at pre-set reservoir high level and fully opens in response to an approximately one meter (three foot) level drop, as sensed by the 3-Way altitude pilot mounted on the main valve.

- High level reservoirs & water towers
- Energy cost critical systems
- Systems with poor water quality
- Inherent refreshing
- Level sustaining at reservoir outlet

Features and Benefits

- Line pressure driven – Independent operation
- 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
 - Excellent low flow regulation performance
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- In-line serviceable
 - Easy maintenance
 - Minimal down time



Major Additional Features

- Modulating altitude control – 450-82
- Pressure sustaining (for 450-80) – 453-80
- Pressure sustaining (for 450-82) – 453-82
- Closing surge prevention – 450-80-49
- Bi-level altitude control – 450-86

See relevant BERMAD publications.

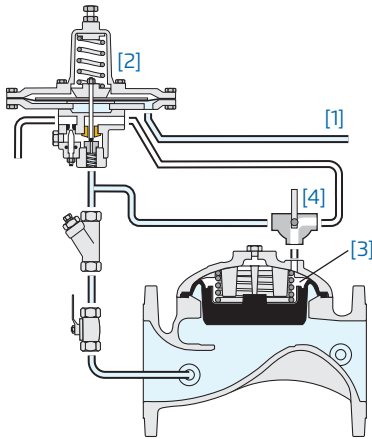
Operation

The Model 450-80 is a pilot controlled valve equipped with an adjustable, 3-Way altitude pilot. The pilot senses the static head of the reservoir level via a tube [1] connected to a "still point" at the bottom of the reservoir.

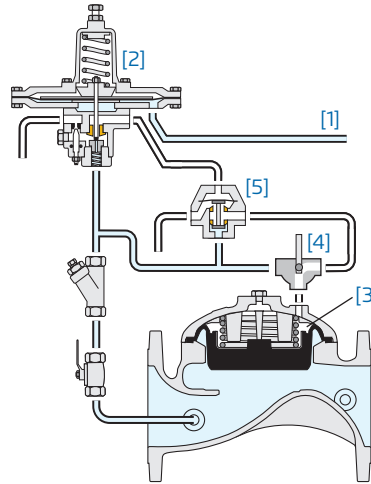
Should static head rise to pilot setting, the pilot [2] applies pressure to the control chamber [3] via cock valve [4], powering the main valve to shut off.

Should static head fall below pilot setting approximately 1m (3 ft), the pilot vents the control chamber, causing the main valve to fully open.

The 3-Way cock valve [4] enables manual closing of the main valve. For 8" (DN 200) valves and larger, an accelerator [5] quickens valve response.



Size Range 1 1/2-6"

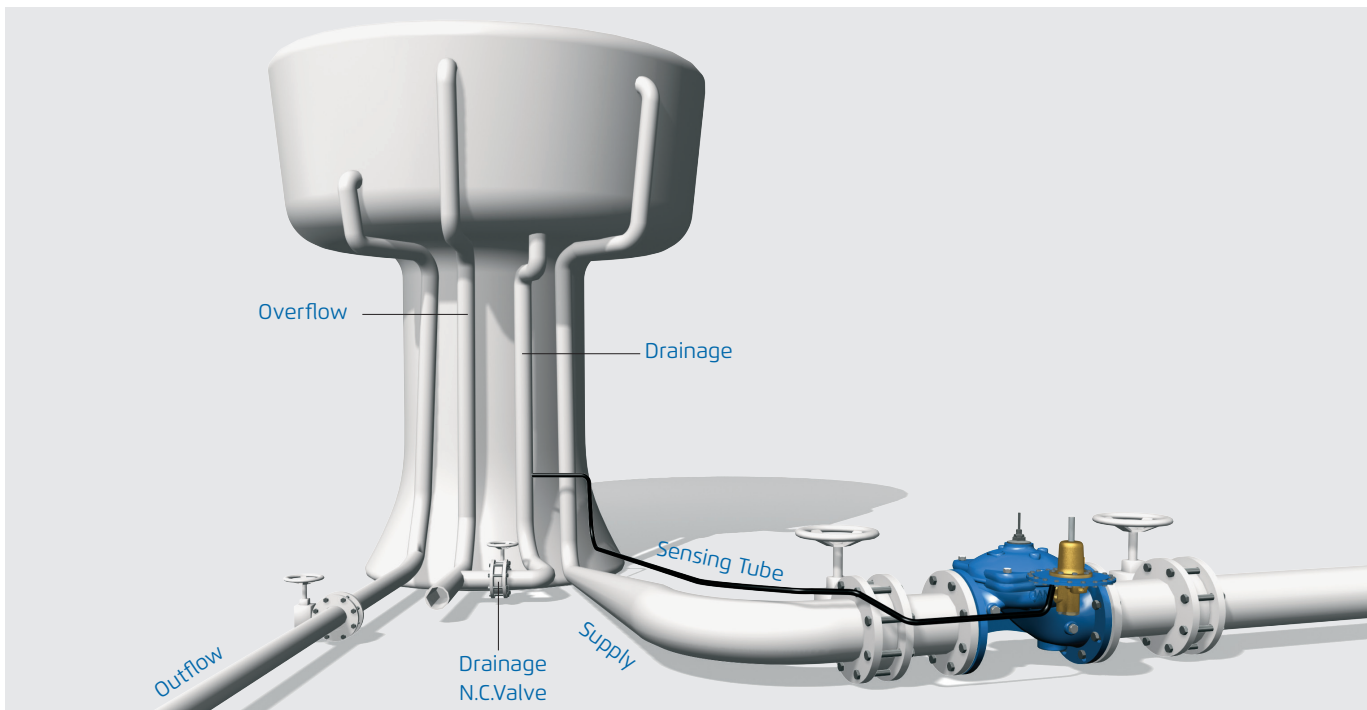


Size Range 8-16"

Typical Applications

Bi-Level Water Towers

The Model 450-80 senses the static head of the water level in the tank by means of a high sensitivity pilot. To do so accurately, the sensing tube end must be connected to a "still point" at the bottom of the tank. The drainage pipe provides this "still point", a location not influenced by flow velocity as in filling and outflow pipes..



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