

# SURGE ANTICIPATING VALVE

## Model: 435

Hydraulically operated off-line surge anticipating valve that immediately opens in response to the pressure drop associated with abrupt pump stoppage. The pre-opened valve dissipates the returning high pressure wave, eliminating the surge. The valve smoothly closes drip tight as quickly as the relief feature allows, thereby preventing closing surge. The valve also relieves excessive system pressure.



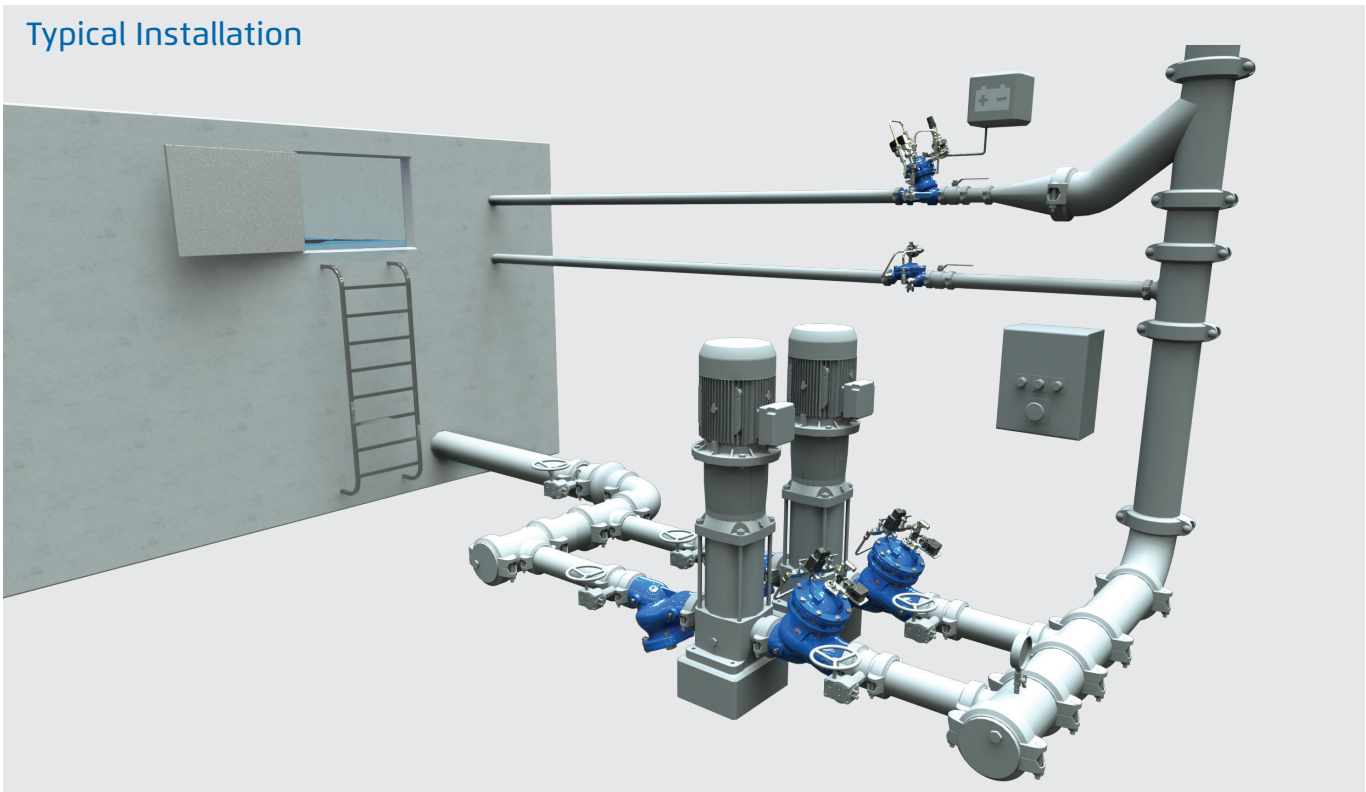
## Features and Benefits

- 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

## Operation

The Model 435 is fully hydraulically operated and triggered valve, in an event of abrupt power failure in the pumping system the created surge will create vacuum condition and pressure drop at the pump outlet, the 435 will detect the pressure drop and open allowing the returning surge wave to decapitate into the atmosphere. the returning surge that create pressure rise will also keep the 435 open until pressure in the line returns to safe pre-set level.

## Typical Installation



## Notes:

- Full system data is required for surge analysis and optimal valve sizing.
- Recommended maximum flow velocity: 15 m /sec; 50 ft /sec.
- Minimum operating pressure: 0.7 bar /10 psi. For lower pressure requirements consult factory.
- Consider using Model 735 or Model 735-55 for more versatile applications and solutions.

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