

# QUICK PRESSURE RELIEF VALVE

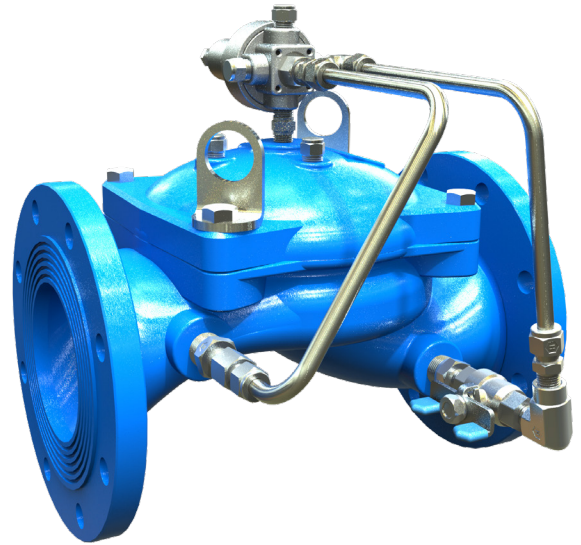
## Model: 43Q

The Model 43Q Quick Pressure Relief Valve is a hydraulically operated, diaphragm actuated control valve that relieves excessive system pressure when this pressure rises above the pre-set value. It immediately, accurately, and with high repeatability responds to system pressure rise by fully opening. The Model 43Q provides smooth drip tight closing.

- Immediately eliminates pressure peaks
- Visual indication of system over pressure
- Filtration system burst protection
- Thermal expansion over-pressure relief
- System maintenance savings

## 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

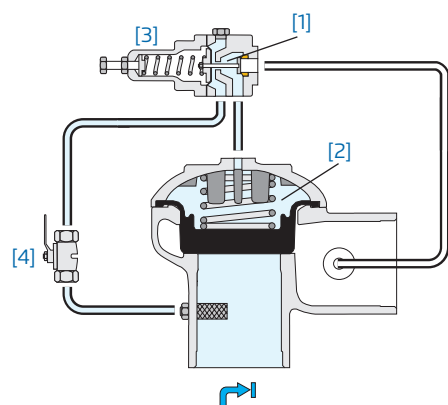
The Model 43Q is a pilot controlled valve equipped with an adjustable 2-Way pressure relief pilot.

The pilot internal restriction [1] continuously allows flow from the main valve inlet into the control chamber [2]. The pilot [3] senses upstream pressure.

Should this pressure abruptly rise above pilot setting, the pilot opens, and pressure in the control chamber is vented, causing the main valve to immediately open, thereby relieving excessive system pressure.

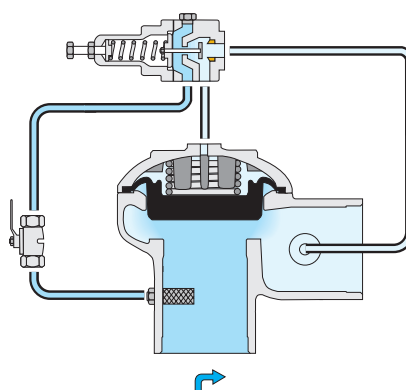
When upstream pressure decreases to below pilot setting, the pilot closes, enabling pressure to accumulate in the control chamber, causing the main valve to smoothly close. Vented cock valve [4] is used to perform manual operating test.

For sizes 6-16" use pilot #3HC.



Valve Closed

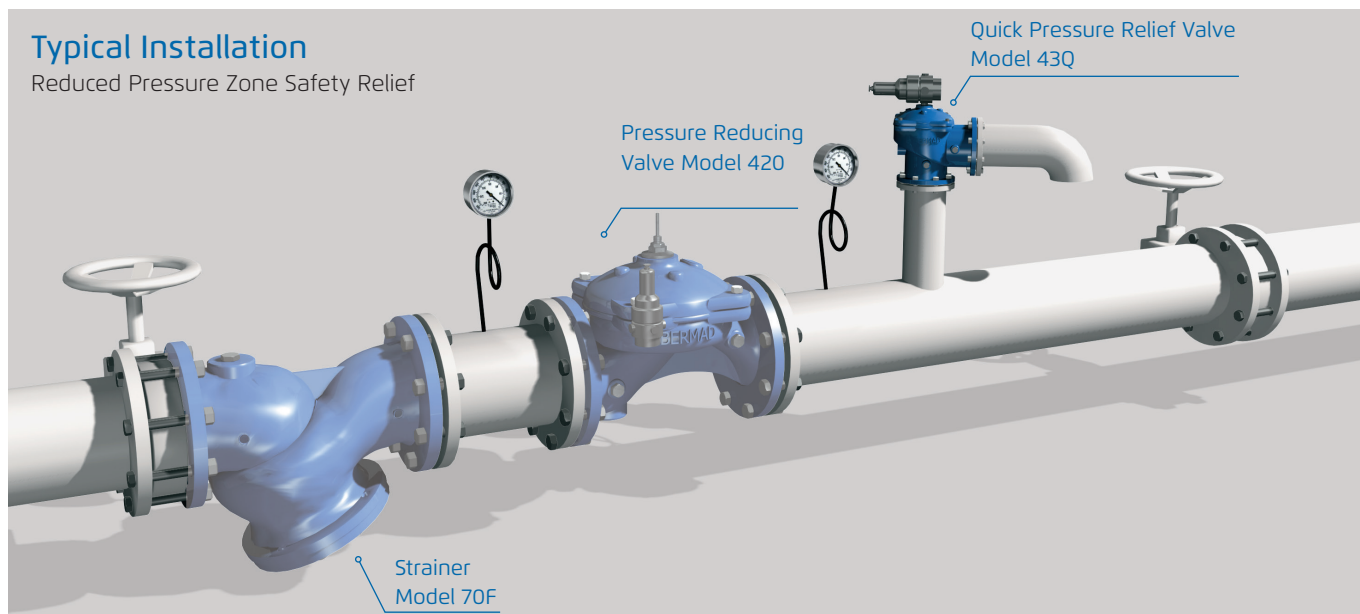
(System pressure is below setting)



Valve Open

## Typical Installation

Reduced Pressure Zone Safety Relief



**The Model 43Q Quick Pressure Relief Valve protects against:**

- Momentary high pressure peaks
- Excessive pressure from another source
- Failure of other system components
- Static condition leaking of pressure reducing valves

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