

# Quick Pressure Relief Valve

## Model MN-73Q

Quick Pressure Relief control valve hydraulically operated, 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.

Bermad 700 Series valves are hydraulic, pilot operated, oblique pattern, globe valves with a seat assembly and double chamber unitized actuator, that can be disassembled from the body as a separate integral unit.

The valve's hydrodynamic body is designed for unobstructed flow path and provides excellent and highly effective modulation capacity for high differential pressure applications.

The 700 Series operate under difficult operation conditions with minimal cavitation and noise. They are made of the highest quality materials suitable for different mining applications.



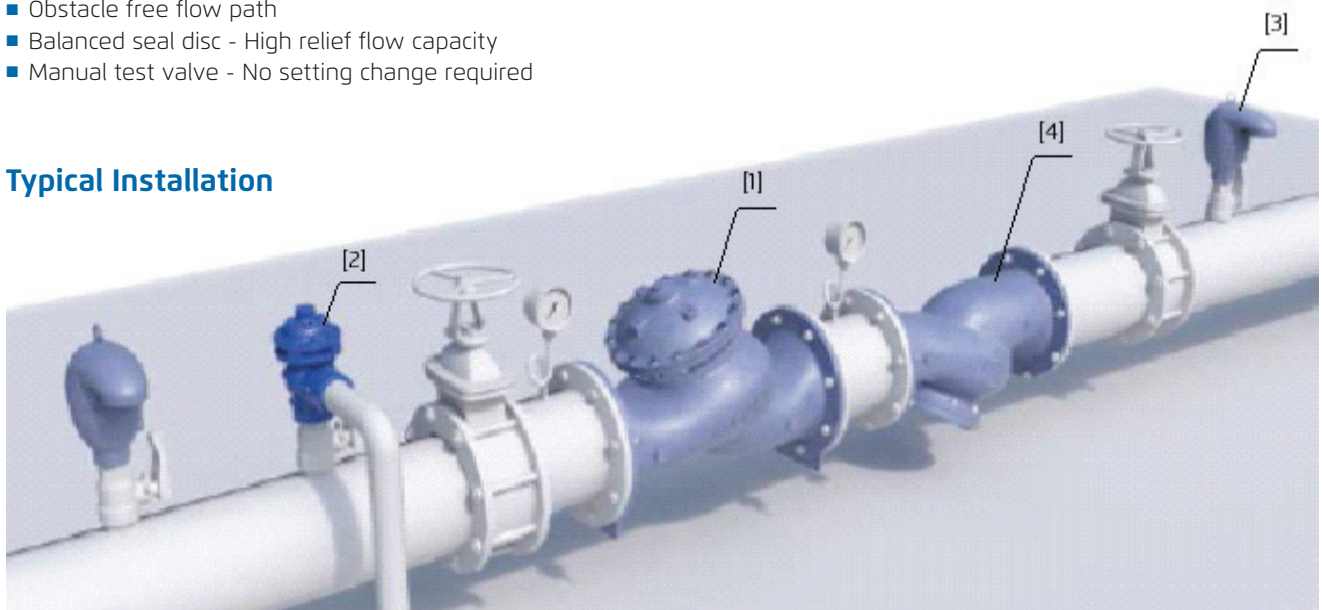
## Features and Benefits

- Designed to stand up to the toughest conditions
  - Tamper resistant
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability and accuracy
  - Drip tight sealing
- Double chamber actuator design
  - Protected diaphragm
  - Moderated valve closing (no surges)
  - Simplified maintenance as it can be removed as a single unit. In-line serviceable
- Obstacle free flow path
- Balanced seal disc - High relief flow capacity
- Manual test valve - No setting change required

### List of Components:

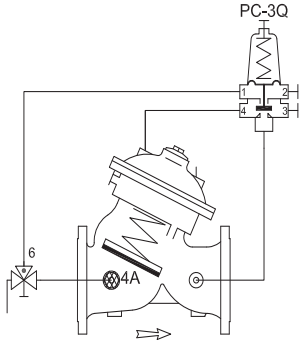
- [1] Pressure Reducing Valve MN-720
- [2] Pressure Relief Valve MN-73Q
- [3] Combination Air Valve C70
- [4] Strainer MN-70F

## Typical Installation





**Control Schematic (\*)**



**Standard Configuration**

- 4A Control Filter
- 6 3W Cock Valve
- PC-3Q Pressure Relief Pilot

**Additional features (OPTIONAL)**

- F Large Control Filter
- F1 Extra Large Control Filter
- 6 Pressure Gauge

(\*) As a reference only. Components may vary based on valve's size and class.

**Operation**

- The Model 73Q is a pilot controlled valve equipped with an adjustable 2-Way pressure relief pilot.
- The pilot internal restriction continuously allows flow from the main valve inlet into the upper control chamber. The pilot [PC-3Q] senses upstream pressure.
- Should this pressure abruptly rise above pilot setting, the pilot opens, and pressure in the upper 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 upper control chamber, causing the main valve to smoothly close.

**Pilot Options**

Various pilots and calibration springs are available. Select according to valve size and operation conditions. For more details check pressure relief pilots product page



Adjustment Ranges	PSI	Bar
	15-150	1-10
	15-230	1-16
	30-430	2-30

**Pressure Rating**

	Class 150			Class 300		
Max. Recommended Pressure	250 PSI			400 PSI		
Available End Connection	Flanged ANSI#150	Grooved ANSI/AWWA C606	Threaded	Flanged ANSI#300	Grooved ANSI/AWWA C606	Threaded

**Materials**

Components		Water Applications	Thermal Shock Applications	Base Solutions Applications	Acid Solutions Applications (**)
Main Valve	Body & Cover	Ductile Iron	Carbon Steel	Ductile Iron	Stainless Steel 316
	Internals	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel 316
		Brass/Coated Steel	Brass/Coated Steel	Coated Steel	
	Elastomers	Synthetic rubber	Synthetic rubber	Synthetic rubber	Viton
Coating	Fusion Bonded Epoxy	Fusion Bonded Epoxy	Fusion Bonded Epoxy	Uncoated	
Pilot	Body	Brass/Bronze	Brass/Bronze	Stainless Steel 316	Stainless Steel 316
	Internals	Stainless Steel	Stainless Steel	Stainless Steel 316	Stainless Steel 316
		Brass	Brass		
Elastomers	Synthetic rubber	Synthetic rubber	Synthetic rubber	Viton	
Control Loop Accessories	Accessories	Brass/Bronze	Stainless Steel 316	Stainless Steel 316	Stainless Steel 316
	Tubing & Fittings	Brass	Stainless Steel 316	Stainless Steel 316	Stainless Steel 316

(\*\*) For highly aggressive acid solutions: Super Duplex, Hastelloy C-276, SMO-254 6-MO. Others by request.

**Notes:**

- Full system data is required for optimal valve sizing.
- Recommended maximum intermittent flow velocity: 15m/sec; 50ft/sec.
- Minimum operating pressure: 0.7 bar / 10 PSI. For lower pressure requirements consult factory.

