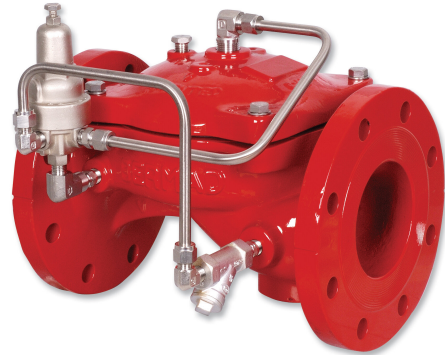


PRESSURE RELIEF VALVE

Model FP-430-UF

The BERMAD Model FP 430-UF pilot operated valve prevents over pressure, maintaining a constant preset system pressure regardless of fluctuating demands. UL-Listed (up to 175 psi) and FM-Approved according to NFPA-20.

The valve offers reliable performance in: Refineries, petrochemical complexes, tank farms, high-rise buildings, aviation, and marine off/on-shore installations.



Features & Benefits

- Safety and reliability
 - Time proven, simple design with a fail safe actuation
 - Single piece rugged elastomer, VRSD technology
 - No mechanical moving parts
- High performance
 - High discharge capacity
 - Obstacle-free, uninterrupted flow path
- Quick and easy maintenance
 - In-line serviceable
 - Fast and easy cover removal

Approvals



UL-Listed
Fire Pump Relief Valves
Sizes 2" - 6"



FM Approved
Water Pressure Relief Valves
Sizes 2 - 6"



Det Norske Veritas
Type Approval



ABS
American Bureau of Shipping
Type Approval



Lloyd's Register
Type Approval

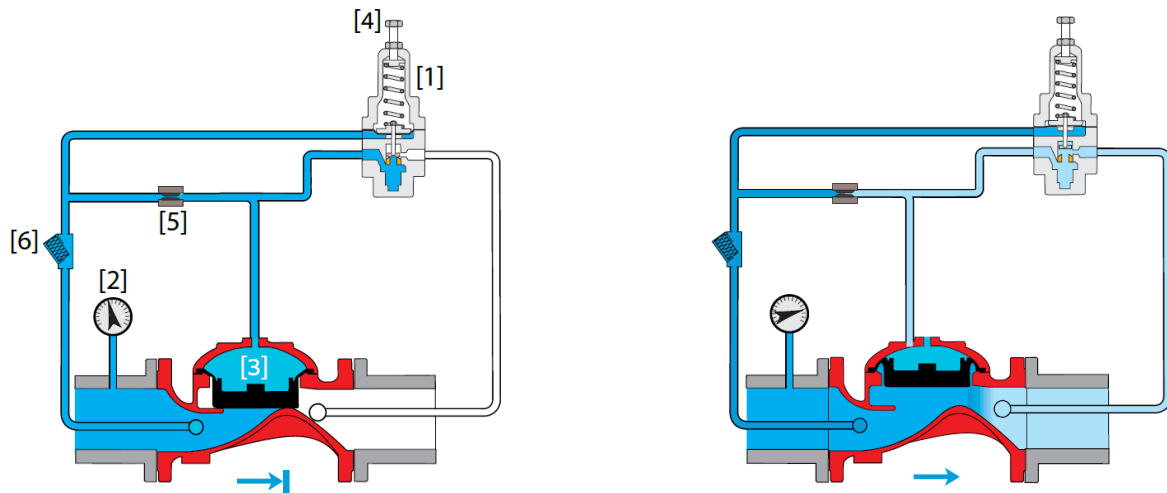
Typical Applications

- Fire pump pressure relief
- Foam concentrate recirculation
- Centralized thermal pressure relief
- Zonal safety relief

Additional Features

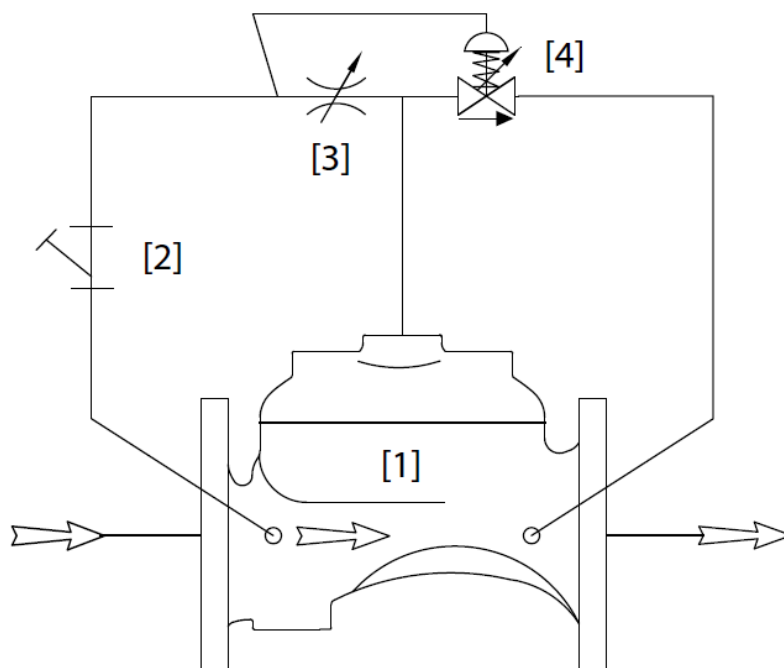
- Seawater compatibility
- Corrosion resistant zinc based high build epoxy coating
- Large control filter
- Valve position limit switches

Operation



The BERMAD Model FP 430-UF remains closed as long as the sensed upstream pressure is lower than the adjustable set point. When the Pressure Relief Pilot [1] senses upstream pressure [2] that is higher than the pilot setting, it acts upon the control chamber [3] causing the main valve to modulate open, relieving excess pressure to either a reservoir or sump, thus preventing system over pressure. The Pressure Relief Pilot is equipped with an adjusting screw [4] to preset the desired upstream pressure, and an integral adjustable needle valve [5] to control the main valve closing speed. The valve's unique design provides quick reaction to system demand and keeps pressure loss at a minimum. The control system is equipped with a control strainer [6].

System P&ID



Components	
1	BERMAD 400E Water Control Valve
2	Y Strainer
3	Restriction Orifice/Needle Nalve
4	Pressure Relief Pilot Valve

System Installation

- Valve size should be no less than NFPA-20 requirements.
- Provide adequate clearance around valve for maintenance, ensuring that the actuator can be easily removed.
- Design installation with the valve cover up for best performance.
- Ensure that before the valve is installed, instructions are given to flush the pipeline at full flow.

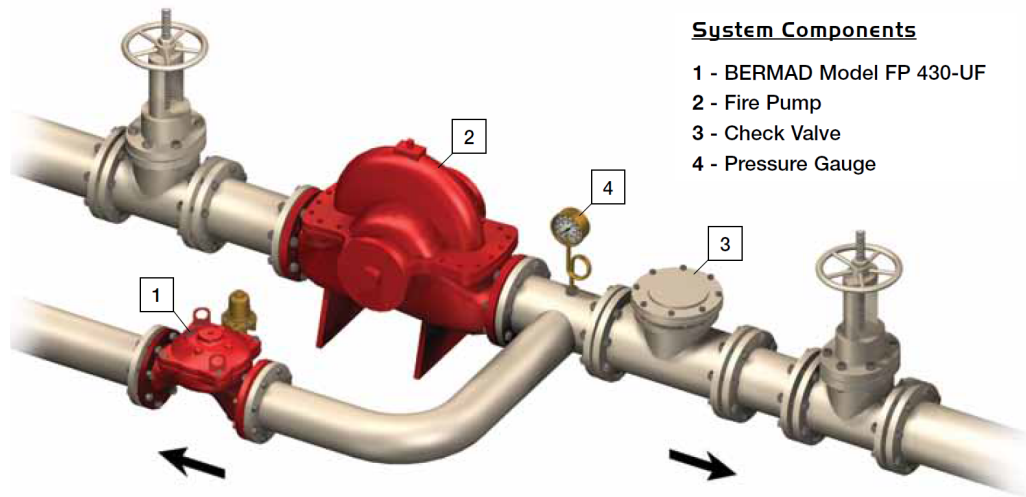
Optional System Items



Pressure Gauge



Single Ex d
Proximity S.S.316
Limit Switch



System Components

- 1 - BERMAD Model FP 430-UF
- 2 - Fire Pump
- 3 - Check Valve
- 4 - Pressure Gauge

Suggested Specifications

The Pressure Relief Valve shall be UL-Listed, FM-Approved, and hydraulic pilot controlled. The main valve shall be an elastomeric type globe valve with a rolling diaphragm.

Valve actuation shall be accomplished by a fully peripherally supported, one-piece balanced rolling-diaphragm, vulcanized with a rugged radial seal disk. The diaphragm assembly shall be the only moving part.

The valve shall have an unobstructed flow path, with no stem guide or supporting ribs.

The valve shall have a removable cover for quick in-line service enabling all necessary inspection and servicing.

The pilot system shall be field adjustable, with adjustable valve closing speed integrated into the main valve, hydraulically tested and supplied as an assembly consisting of:

- Relief pilot valve UL-Listed and FM-Approved as part of the assembly with built-in, internal needle valve
- "Y" strainer

The control trim shall be supplied as an assembly, pre-assembled and hydraulically tested at an ISO 9000 and 9001 certified factory.

Technical Data

Available Sizes:

Flanged- 1½, 2, 2½, 3, 4, 6, 8, 10 & 12"

Grooved- 2, 3, 4, 6, & 8"

Pressure Rating:

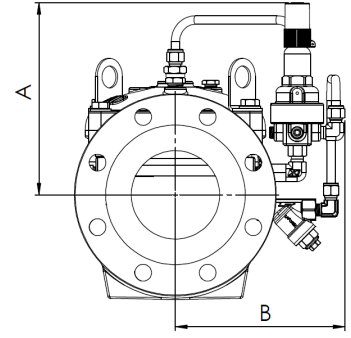
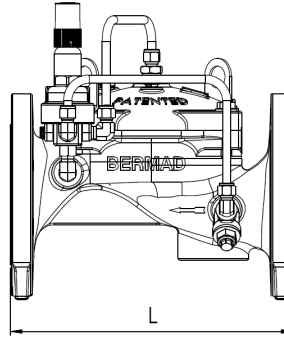
ANSI#150 - 17.2 bar | 250 psi

Setting range: 2 - 12 bar | 30 - 175 psi

Elastomer:

HTNR - Fabric Reinforced High Temperature

Compound - See engineering data



Valve Size	L #150 mm in	L Grooved mm in	L #300 mm in	A mm in	B mm in	C mm in	øD in	E mm in	F mm in	G mm in	Weight #150 kg lb	Weight #300 kg lb
DN40 1½"	205 8.1	-	-	159 6.2	64 2.5	-	-	-	-	-	11 25	-
DN50 2"	205 8.1	205 8.1	-	159 6.3	78 3.1	-	-	-	-	-	12 27	-
DN65 2½"	205 8.1	-	-	158 6.2	92 3.6	-	-	-	-	-	14 31	-
DN80 3"	257 10.1	250 9.8	-	177 7	97 3.8	-	-	-	-	-	23 51	-
DN100 4"	320 12.6	320 12.6	-	328 12.9	119 4.7	-	-	-	-	-	33 73	-
DN150 6"	415 16.3	415 16.3	-	276 10.8	145 5.7	-	-	-	-	-	77 170	-
DN200 8"	500 19.7	500 19.7	-	327 12.9	174 6.9	-	-	-	-	-	139 306	-
DN250 10"	605 23.8	-	-	324 12.8	210 8.3	-	-	-	-	-	156 343	-
DN300 12"	725 28.5	-	-	440 17.3	248 9.8	-	-	-	-	-	250 550	-

IMPORTANT: Dimensions for the trim envelope or extents refer to a horizontal orientation and may vary with specific component positioning - Apart from the "L" dimension, allow a tolerance of at least ±15%

Valve Code Designations

