800 Series (Tubular Diaphragm Valve)

Fire Relief Valve

- **Low Head Loss**
- **One Spring for all Pressure Ranges between 30 and 200 PSIG**
- **Cast Steel Construction**
- **Pressure Excursions Do Not Exceed 3% of Set Pressure**
- **Fusion Coated Epoxy Inside and Out**
- **Anti-Cavitation Design**
- **Nickel Aluminum Bronze Construction Option (Alloy C95800)**
- **Duplex Stainless Steel Construction Option (Alloy 2205)**
- **Low Maintenance**
- **Simple and Reliable Operation**
- **1-Year Warranty**

The Cla-Val Model 850B-4 Fire Relief Valve is a pressure-operated, in-line axial valve. A tube diaphragm actuates the valve, which is comprised of three major components: 1) Tube 2) Barrier and 3) Body. There is only one moving part in the valve — the tube diaphragm. There are no shafts, packing, stem guides or springs.

The tube diaphragm is a one piece, homogeneous nitrile rubber part which is extremely durable. The ends of the tube are thick solid rubber, designed to fit between mating flanges. This design eliminates the possibility of cutting the tube diaphragm due to over tightening or piping misalignment during installation.

The tube forms a drip tight seal around the barrier when the pressure is equalized between the valve inlet and the control chamber. When pressure is removed from the control chamber, the valve is open. The minimum recommended operating pressure is 40 P.S.I. of inlet pressure.
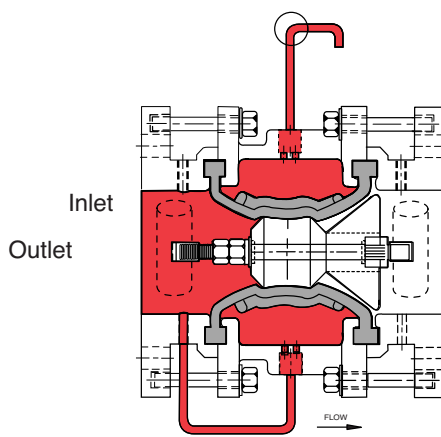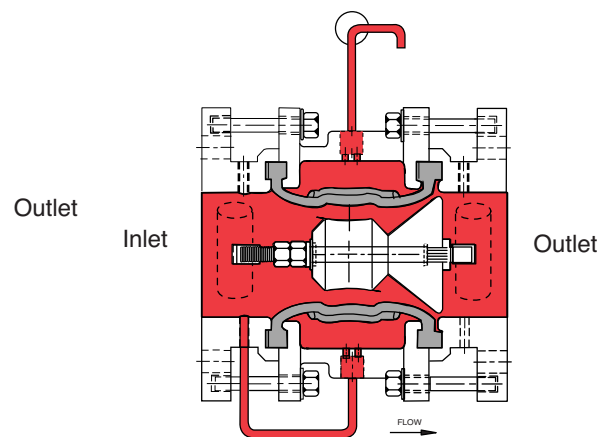
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Principle of Operation
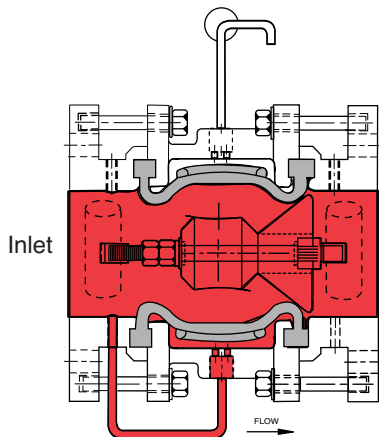
Full Open Operation
The valve opens when pilot set pressure is reached and pressure in the control chamber is relieved.

Tight Closing Operation
Water pressure (equal to inlet pressure) from valve inlet or from upstream of valve is applied to the control chamber. Valve closes bubble tight.

Modulating Action
The valve tube diaphragm holds any intermediate position when a quantity of water is exhausted from the control chamber via the pilot. The quantity of water in the control chamber is established by the "set pressure" of the pilot.
The control chamber is filled or exhausted to atmosphere, maintaining "set pressure."