

Pressure Relief Valves

- For applications where a tight seating valve is required to prevent overpressure

Application

Quick-opening, quick-closing valves protect equipment from gas pressure build up or pressure surges. Standard applications involve steam, gases, or liquids where a tight seating valve is required to prevent overpressure. Typical applications are in process industries, pressure reducing stations, and turbine bleeder lines. These valves can also be equipped with a handwheel and screw spindle for either manually opening the disc or to facilitate changing the relief pressure by changing the compression of the spring.

In the Figure 8292 Pressure Relief Valve design, the valve disc is guided above and below the seat. This assures accurate seating after relief and enables the valve to be installed in any position - either horizontal or vertical. As shown in Fig. 1 sectional drawing, these valves are designed to relieve increasing capacities with an increase in pressure over and above the initial relief pressure until the maximum capacity is released when the valve is fully open. This pressure increase should not be less than 10% of the initial relief pressure, except on special application.

The Figure 8293 Pressure Relief Valve is the same as Figure 8292 except that it is an angle body type. Fig. 8293 valves must be mounted in a horizontal line in an upright position.

The Figure 8258 Pressure Relief Valve is designed for conditions too severe for a spring loaded design as the springs get too large. Valves of this design are guided above and below the seat which insures accurate seating after relief. Fig. 8258 Pressure Relief Valve must be mounted in a horizontal line in an upright position.

Operation

Operation is dependant upon design. Fig. 1 is held in the closed position by an air cylinder acting against the spring. When air pressure is released, the spring opens the valve instantaneously. Similar arrangements provide for quick-closing types.

Modifications

Valves are designed to meet specific requirements. Many variations are possible.

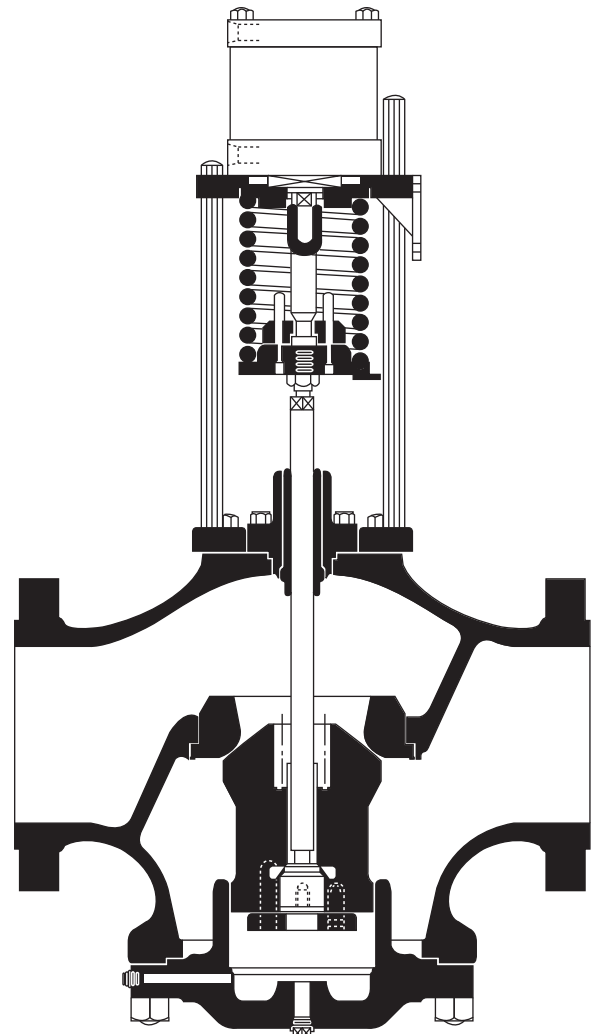


Fig. 1
Figure 8292 Pressure Relief Valve

Fig. 8292 Capacity Curve

If steam is superheated, capacity must be revised upward by multiplying by correction factor before the capacity curves can be used.

