

GENERAL SPECIFICATIONS

Model 108-3 Pressure Relief/Pressure Sustaining & Check Valve

1.1 General

The pressure relief/pressure sustaining valve shall function to prevent main line pressure from exceeding a predetermined maximum and prevent the upstream pressure from falling below a predetermined minimum. If downstream pressure becomes greater than upstream pressure, the valve shall close fully to prevent reverse flow. The pressure relief/pressure sustaining valve shall be a <size> Model 108-3, <globe pattern, angle pattern>, with <150# flanged, 300# flanged, threaded, grooved> end connections, as manufactured by OCV Control Valves, Tulsa, Oklahoma, USA.

1.2 Design

The pressure relief/pressure sustaining valve shall be a single-seated, line pressure operated, diaphragm actuated, pilot controlled globe valve. The valve shall seal by means of a corrosion-resistant seat and a resilient, rectangular seat disc. These, and other parts, shall be replaceable without removing the valve from the line. The stem of the main valve shall be guided top and bottom by integral bushings. Alignment of the body, bonnet and diaphragm assembly shall be by precision dowel pins. The diaphragm shall not be used as a seating surface, nor shall the pistons be used as an operating means. The pilot system shall be furnished complete and installed on the main valve. It shall include a closing speed control, Y-strainer, pilot check valves and isolation ball valves. The pressure relief/pressure sustaining valve shall be operationally and hydrostatically tested prior to shipment.

1.3 Materials of Construction

The main valve body and bonnet shall be ductile iron per ASTM A536, Grade 65-45-12. End connections shall be <ANSI B16.42 Class 150# flange > <ANSI B16.42 Class 300# flange, > <ANSI B1.20.1 threaded > <grooved ends >. All ferrous surfaces shall be coated with a minimum of 4 mils of an NSF-61 approved epoxy. The main valve seat ring shall be bronze. Elastomers (diaphragms, resilient seats and O-rings) shall be Buna-N. The control pilot shall be bronze. The closing speed control and isolation ball valves shall be brass, and control line tubing shall be copper.

1.4 Operating Conditions

The pressure relief/pressure sustaining valve shall be suitable for controlling the inlet pressure to a maximum/minimum of <X> psi at flow rates ranging from <X to X> gpm.