PRESSURE REDUCING VALVE with HYDRAULIC CHECK FEATURE

01/05

Stainless Series

S115-3 or S6115-3 (Globe)
S1115-3 or S61115-3 (Angle)

Specifications

The Pressure Reducing and Check Valve shall be a pilot operated diaphragm valve designed to automatically reduce a fluctuating higher upstream pressure to a constant lower downstream pressure regardless of varying flow rates, and close drip-tight when downstream pressure becomes greater than upstream pressure.

The main valve shall be a hydraulically operated, single diaphragm actuated, globe or angle pattern valve. Y-pattern valves shall not be permitted. The valve shall contain a disc and diaphragm assembly that forms a sealed chamber below the valve cover, separating operating pressure from line pressure. The diaphragm shall be constructed of nylon reinforced Buna-N, and shall not seal directly against the valve seat and shall be fully supported by the valve body and cover. Rolling diaphragm construction will not be allowed and there shall be no pistons operating the main valve or any pilot controls.

The main valve body shall be fabricated 304L with Class D zinc plated steel flanges, utilizing stainless steel seal welds allowing the entire flow path to be stainless steel. External steel components shall be fully primed and painted with a stainless steel paint to prevent surface corrosion. The valve cover and all internal components shall be fabricated 304L Stainless Steel, and the main valve trim and throttling components (cover bearing, valve seat and disc guide) shall be Stainless Steel.

The disc and diaphragm assembly shall contain a Buna-N synthetic rubber disc with a rectangular cross-section that is securely retained on 3-1/2 sides by a disc retainer and disc guide. Diaphragm assemblies utilizing bolts or cap screws for component retention will not be permitted.

The exposed portion of the seat disc shall contact the valve seat and seal drip-tight. The disc and diaphragm assembly must be guided by two separate bearings, one installed in the valve cover and one concentrically located within the valve seat, to avoid deflection and assure positive disc-to-seat contact. Center guided valves will not be permitted. All necessary repairs shall be made from the top of the valve while the body remains in line.

Pilot control systems for valves 3” and smaller shall contain a Flow Clean Strainer, Fixed Orifice Closing Speed, Adjustable Opening Speed Control, (2) Check Valves and a Pressure Reducing Pilot. Pilot control systems for valves 4” and larger shall contain an external Y-Strainer, Fixed Orifice Closing Speed, (2) Check Valves, Pressure Reducing Pilot and Isolation Ball Valves on all body connections. All pilot control systems shall utilize copper tubing and brass fittings regardless of valve size. The adjustment range of the pressure-reducing pilot shall be 30-300 psi.

The valve shall be Watts ACV Model S115-3 or S6115-3 (globe) or S1115-3 or S61115-3 (angle) pattern Pressure Reducing Control Valve with Hydraulic Check Feature.