

ValvTechnologies' V Series Bi-directional Valves

1/2 - 2"



Cut Sheet

DESIGN FEATURES

Bi-directional sealing. ValvTechnologies V Series valves can be specified bi-directional for bore sizes 1.06" and above. Bi-directional valves are zero-leakage at the customer's operating pressure in the reverse flow direction under severe service operating conditions. The seat spring is fully protected from damage in the event of severe back pressure in the system preventing damage or deformation.

Integral metal seat. With ValvTechnologies' trademarked HVOF RiTech® coating process, the integral seat in ValvTechnologies' rotary operating valves are resistant from the attack of abrasive magnetite or ferrous oxides in the steam flow.

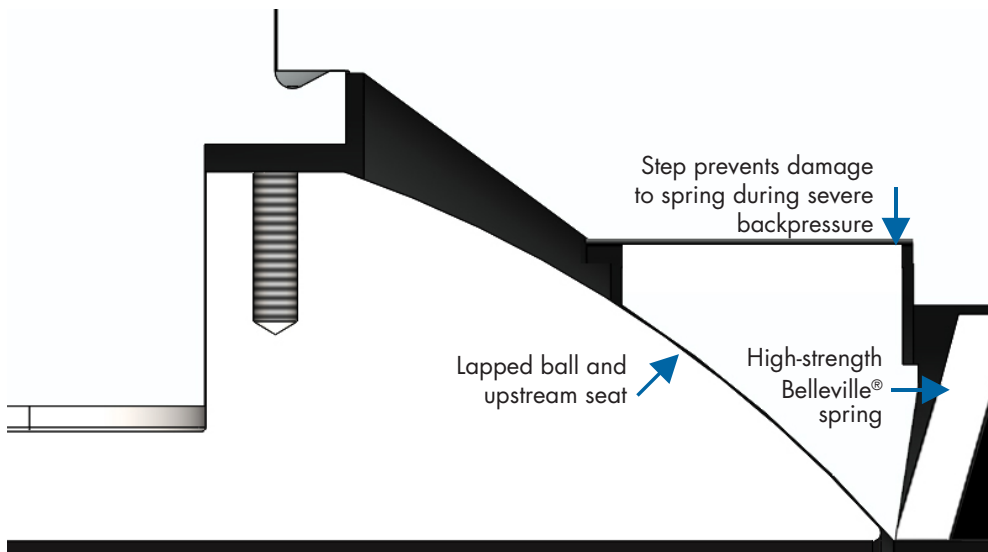
Body seal ring. ValvTechnologies employs a field proven seal ring technology to ensure sealing under all operating conditions up to 1500°F. The body seal ring is loaded at a pressure higher than 20,000 psi. In addition, valves sized 3" and above contain a secondary grafoil seal to further guarantee reliability.

Patented coating process. The sealing surfaces are overlaid with tungsten or chromium carbide using our HVOF RiTech® coating process. These surfaces have a hardness of 68 - 72 Rc to provide uninterrupted operation in the most severe conditions.

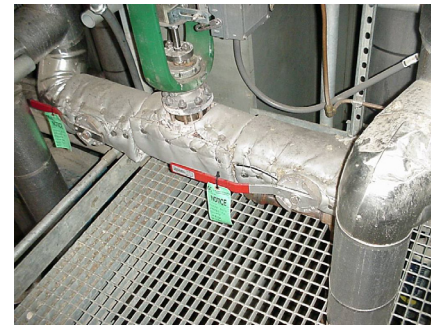
Live-loaded gland area. The V Series' sealing design features a four stud, live-loaded assembly designed for heavy industrial applications. The sealing material is high purity Grafoil® surrounded by stainless steel wire mesh anti-extrusion rings. The six Belleville springs (per stud) provide constant load pressure through extreme thermal shocks and prevent wear leaks in high-cycle service.

True blow-out proof stem. ValvTechnologies' design utilizes a one-piece, hard-faced, blow-out proof stem that is inserted through the inside of the body cavity eliminating the possibility of blow-out through the gland area.

Absolute zero-leakage. ValvTechnologies tests every valve according to ANSI procedures, however, we toughen the standard and define zero-leakage as no detectable leakage of gas or a liquid for a period of three minutes or greater. The ValvTechnologies' standard is zero drops and zero bubbles, guaranteed.



Attempator spray block bi-directional valves operating maintenance-free for over five years



Installation of ValvTechnologies' high-pressure bi-directional valve

RECOMMENDATIONS

- 1.06" Minimum bore bi-directional valve. Port velocity must not exceed 35 FPS.
- Nitronic-60 stem bearing must be installed to guard against possibility of damage to stem back bore
- Braided rope is used in place of 316SS mesh for anti-extrusion protection of packing
- High-cycle mounting hardware should be offered with frequency of 1 cycle/hr or higher