



Segmented V-Port Ball valves and actuators shall be model VPB as manufactured by DeZURIK, Inc, or pre-approved equal.

Accuracy for valve, actuator and positioner assembly shall be 0.5% or better with a resolution of 200 or more discrete positions over 90° range of operation. Each valve, actuator and positioner shall be assembled, adjusted, and tested as a unit by the valve manufacturer or an authorized automation facility. Performance Testing shall be performed on each valve with the Benchmark Control Valve Diagnostics™ System. Test results shall be tied to the valve serial number.

Shafts shall be blowout proof and constructed of 2205 duplex stainless steel (ASTM A276) or 17-4 pH condition H900 (ASTM A564) or higher alloy. Shaft to Ball connection shall be splined and have a torque screw to eliminate backlash (deadband).

Actuator connection shall be a clamped design to rigidly hold the valve shaft. The use of double-D or keyed connections shall not be allowed.

V-Port ball design shall be optimized to meet or exceed 200:1 rangability. Back of ball must be streamlined to transition flow and minimize erosion. Hollow ball designs shall not be allowed. Seat to ball interface shall be self-aligning and controlled without the use of shims or threaded components.

Valve Seats shall be interchangeable in the same body.

- Reinforced PTFE seat used for clean fluids and gases provide ANSI/FCI 70-2 Class VI shut-off up to 300F
- Flexible Metal seat used for fibrous media provides shut-off to ANSI/FCI 70-2 Class IV.
- Rigid Seat used for abrasives, solids and scaling media provide shut-off to ANSI/FCI 70-2 Class IV. Rigid seat shall have nickel overlay. Tungsten carbide overlay shall be required in severe abrasive or hard scaling applications.
- Clearance seat used for maximum control and minimum hysteresis when tight shutoff is not required.

Bearings shall be 317 stainless steel wire mesh reinforced PTFE or solid metal with optional seal.

Packing shall be multiple v-ring PTFE or braided carbon graphite including anti-extrusion ring, shall permit inspection, adjustment or complete replacement of packing without disturbing any part of the valve or actuator assembly except the packing follower.

Bodies shall be constructed of 317 stainless steel (ASTM A351), carbon steel (ASTM A216), 316 stainless steel (ASTM A351) or Hastelloy C (ASTM A494). The valve body shall be one piece, either integral cast flanged or flangeless. Face-to-face dimensions shall meet ASME B16.10, ISO 5752 (PN10/16) and EN 558-1 or ANSI/ISA 75.04 and IEC 534-3-2.

Two Year Warranty shall be provided on valves and actuators by the manufacturer for defects in materials and workmanship from the date of shipment.