# VTE® - SERIES S19 and S19L SEGMENTED BALL VALVE
# RECOMMENDED SPECIFICATION SHEET

VAL-TECH

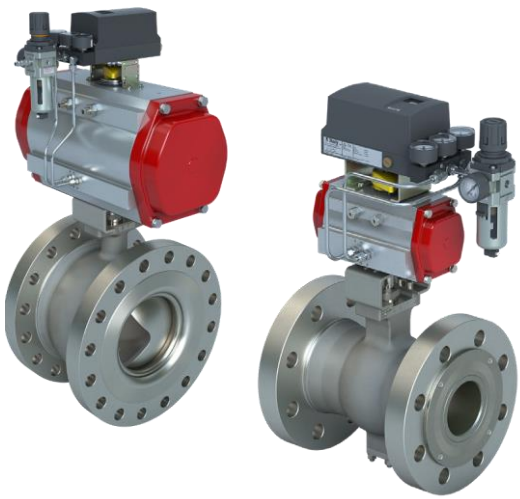
## VALVE DETAILS
- Series 19 and 19L Segmented Ball Valves
- Flanged | Flangeless
- NPS 1 to 16 | DN 25 to 400
- ASME Class 150, 300, 600 | PN 10, 16, 25, 40

## BODY
- Shall be a one-piece casting for reduced weight, rigidity, and eliminated leak paths
- Shall be designed per ASME B16.34
- Shall consist of flanged or flangeless (wafer) end connections. S19L only offered in flanged design.
- Flange hole drillings per international flange standard as specified. ASME B16.5 | EN 1092-1
- Flanged body face-to-face per ASME B16.10 or ISA 75.08.02
- S19 and S19L shall use the same body castings for ISA face-to-face design.
- Flangeless (wafer) body face-to-face per Bray internal standard. S19 only.

## SEGMENTED BALL
- Shall be a one-piece casting.
- Shall contain a precision machined, splined segment to stem connection.
- Shall contain a shaft pin connection to stem for self-alignment.
- Available with customizable, high-performance protective coatings for extended life, corrosion, and erosion protection.
- Offered with customizable V-profile for precise, characterized control. 300:1 rangeability offered.
- Shall be designed with sharp leading edge for use in viscous media.
- Ultra-hard, erosion resistant coatings shall be applied on all surfaces of the segment.

## STEM
- Shall be a one-piece design.
- Shall be blowout proof design.
- Available in multiple materials for varying strength requirements and corrosive environments
- Shall contain precision machined, splined stem to segment connection
- Shall contain through hole for shaft pin connection to segment.
- Shall contain method for position indication. Stem indentations indicate to operator the position of the segment.

## SEAT
- S19 seat shall be a pressure assisted design capable of sealing against full differential pressure with low torques and smooth operation.
- The S19 seat shall contain seat springs to provide constant contact with segment for sealing at low-differential pressures. The seat shall direct flow away from sealing area.
- S19 seats shall be offered in resilient and metal seated designs. Offered with Tek-Fil insert, chrome carbide overlay, or Stellite 6 welded overlay.
- S19 resilient seat shall provide Class VI ANSI shutoff rating. S19 metal seat shall provide Class IV ANSI shutoff rating.
- S19 seat shall be replaceable without removing the segment and shaft for easy maintenance.
- S19L seat shall be a pressure balanced design capable of sealing against full differential pressure.
- The S19L seat shall contain seat springs to provide constant contact with segment for sealing at low-differential pressure and to act as a scraper, wiping debris from segment.
- S19L seat shall be offered only in metal design for use in erosive, severe service slurry applications.
- S19L metal seat shall provide Class IV ANSI shutoff rating.
- S19L seats are available with Stellite 6 welded overlay or in ultra-hard solid Tungsten Carbide for erosion resistance.
- S19L seat shall be replaceable by removing the flanged liner retainer and may do so without removing the segment or shaft.
- Seat seals shall be PTFE for standard temperature applications and graphite for high temperature applications.



## BORE LINER (S19L ONLY)

- The S19L shall be designed with a replaceable downstream bore liner for protection against abrasion and erosion.
- The bore liner shall be rotatable and replaceable for easy field maintenance and low cost of ownership. The liner shall be replaceable through the flanged liner retainer that is mounted to the valve end flange.
- The bore liner shall be constructed of ultra-hard materials to prevent body wall erosion due to high velocity, abrasive flow at low openings.
- The liner is available in multiple material offerings for increasing levels of erosion severity: Chrome iron, 316 stainless steel with Stellite 6 welded overlay, or solid tungsten carbide.

## PACKING & BEARINGS

- Shall be provided with maintenance free stem and end post bearings for smooth operation and reduced operating torque.
- Stem bearings shall be wear-resistant 316 stainless steel fabric, impregnated with PTFE.
- Shall utilize thrust bearings for the stem to eliminate unbalanced axial load in high-pressure applications
- Stem bearing seals shall be offered in PTFE for standard temperature applications and graphite for high-temperature applications. S19L shall utilize upper and lower bearing seals to protect bearings from ingress of media in abrasive applications.
- Shall contain an externally adjustable stem packing with packing gland, designed to adjust the compression on the stem packing to prevent leaks and extend the life of the packing seal.
- Adjustable packing gland shall be designed to prevent galling of the packing box in the event of unequal loading of the packing gland studs.
- Shall be able to adjust the stem packing without removing the actuator, if present.
- Standard packing shall be a combination of PTFE and Carbon Fiber rings.

## APPROVALS AND CERTIFICATIONS

- ATEX
- CRN
- CE/PED
- TSG
- TR CU
- UA.TR.089
- ISO 15848-1/2

## VALVE ACTUATOR MOUNTING PAD (IF APPLICABLE)

- ISO 5211 mounting

## TESTING

- Manufactured, assembled, and tested in compliance with a written ISO 9001 quality assurance program.
- Shall be Shell Tested per API 598
- Shall be Seat Tested per ANSI FCI 70-2 | IEC 60534-4

## PRESSURE RATINGS

- ASME Class 150 | PN 10, PN 16
  - NPS 1 to 16 | DN 25 to 400
  - 285 psi (20 Bar)
- ASME Class 300 | PN 25, PN 40
  - NPS 1 to 16 | DN 25 to 400
  - 740 psi (50 Bar)
- ASME Class 600
  - NPS 1 to 16 | DN 25 to 400
  - 1480 psi (102 Bar) body rating
  - 740 psi (50 Bar) differential pressure shutoff

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