

OVERVIEW

Tri Lok® is the premier isolation valve for operation in vacuum to high-pressure applications. The non-rubbing, metal-to-metal seal delivers zero-leakage bidirectional shutoff with minimal torque, and is certified fire-tested. Compared to gate, globe, or ball valves of the same size and pressure class, Tri Lok provides space and weight savings, while minimizing installation and maintenance costs.

APPLICATIONS

- > Bulk Liquid Storage
- > Carbon Black Processing
- > Chemical Processing
- > Cryogenic Services
- > Geothermal Steam
- > LNG/Liquefaction
- > Power Generation
- > Pulp and Paper Liquor
- > Refining (Downstream)
- > Shipbuilding
- > Steam Distribution
- > Sugar and Ethanol
- > Upstream Oil and Gas
- > Water & Wastewater



SPECIFICATIONS

Size Range ¹	NPS 3 to 48 DN 80 to 1200
Temperature Range ²	-320°F to 842°F -196°C to 450°C
Pressure Rating	ASME Class 150, 300, 600, 900 PN10 to PN150
Body Style	Lug Double Flanged, Short Double Flanged, Long (Gate) Butt weld
Shutoff Rating ³	Zero Leakage (Bidirectional)

NOTE:

- 1 Larger sizes available upon request.
- 2 Higher temperatures available upon request.
- 3 Resilient Seat Valves, requirement of API 598.

MATERIAL OPTIONS¹

Body	Carbon Steel Stainless Steel Alloys (NiAB, Hastelloy C*, other alloys)
Disc	Carbon Steel Stainless Steel Alloys (NiAB, Hastelloy C*, other alloys)
Seat	316 Stainless Steel (Hardened)
Seal Ring (Laminated)	318 Stainless Steel/Graphite
Seal Ring (Solid Seal)	318 Stainless Steel XM-19 Inconel® 625
Stem	17-4PH Stainless Steel 410 Stainless Steel XM-19 (Nitronic® 50)

NOTE:

- 1 Other materials available upon request.

DESIGN STANDARDS

Valve Design	API 609 ASME B16.34 ASME VIII API 600
Seat Tightness	ISO 5208 EN12266-1 API 6D API 598 BS 6755
Face-to-Face	API 609 ASME B16.10 ISO 5752 EN 558
Flange Drilling	ASME B16.5 ASME B16.47 EN 1092-1 ISO 7005
Top Flange	ISO 5211 MSS SP-101

CERTIFICATIONS & APPROVALS

Certifications	ATEX EAC PED SIL TSG
Fire Test	API 607 ISO 10497
Fugitive Emissions	API 641 ISO 15848-1 TA Luft
Approvals	ABS Type CRN

FEATURES

- 1 FIELD-REPLACEABLE SEAT & SEAL SYSTEM:** The fully field-replaceable seat & seal extends overall life, minimizes downtime, and reduces the need for costly off-site repairs or total replacement.
- 2 ENHANCED SEAT HARDNESS:** Eliminates risk of seat/seal galling, offering superior performance, durability, and abrasion resistance compared to other materials.
- 3 METAL-TO-METAL SEALING:** Tri Lok's non-rubbing, metal-to-metal sealing system is inherently firesafe and fire-tested, while meeting zero-leakage requirements for many critical applications.
- 4 SEAL RING:** Offers a flexible design and wide range of materials to provide torque-loaded sealing with zero-leakage. (Optional solid seal ring available.)
- 5 SPLINED DISC-TO-STEM CONNECTION:** The strong and reliable connection allows for axial movement of the stem independent of the disc, to protect the disc/stem connection from temperature fluctuations and pressure effects. This connection prevents typical misalignment problems of rigidly attached discs and stems, minimizes hysteresis, eliminates external connections & associated hardware, and allows for easy assembly & disassembly.
- 6 ADJUSTABLE STEM PACKING:** Fully-adjustable, field-replaceable stem seal system is certified to international fugitive emission standards.
- 7 ROBUST BLOWOUT-PROOF STEM:** One-piece stem features blowout prevention ring located outside of the pressure boundary, as well as redundant blowout prevention mechanisms fully conforming to API 609 and safety requirements.
- 8 INDEXED STEM:** Provides positive visual indication of disc/seal ring position after installation.
- 9 ELONGATED STEM BEARINGS:** Hardened bearings provide maximum stem support.
- 10 INCREASED BODY WALL THICKNESS:** In accordance with API 600, provides greater corrosion allowance.
- 11 SIL 3 CAPABLE:** The Tri Lok valve is SIL 3 capable, while also offered as one of Bray's many automated packages that meet various SIL requirements.

