TRIDENT SERIES - FORGED TRUNNION BALL VALVE

Double Isolation and Bleed – DIB-1, DIB-2

The C&C brand Trident Series 3-piece Forged API 6D Trunnion Ball Valve is engineered to withstand the most challenging oil & gas applications. This rugged valve is available in self-relieving, DIB-1 & DIB-2 configurations. Our DIB delta seal (wiper) seat design is optimum to prevent wear in erosive applications and extend the life cycle of the valve. Options are also available for extreme sand applications where wash-out is a recurring problem. A large local inventory combined with market leading factory lead times make Trident the best solution for major project requirements.

Specifications

- DIB-1 (standard), DIB-2 (optional)
- Sizes 2" – 48"
- ASME Class 150 – 2500
- Full Material Traceability
- ISO 5211 Actuator Adaption
- Special material availability (full stainless to exotic coatings)
- Low Operating Torques
- Anti-Static & Blowout Proof Stem
- 100% Factory Testing
- Conforms to NACE MR0175/ISO 15156-1

Standards

- Design: API 6D 24th Edition, ASME B16.34
- Fire Safe: API 607 7th Edition End to
- End: ASME B16.10
- Flanged End: ASME B16.5
- Mounting: ISO 5211
- Testing: API 6D
- CSA Z245.15-17 Compliant
- API 6D Monogrammed
- PED 2014/68/EU Annex III, Module H
- API 641: Low Fugitive Emission Certified

C&C is a product brand of CNC Flow Control, a trusted provider of a wide range of flow control solutions. CNC Flow Control comprises several product brands and services to include an in-house modification shop for customization, comprehensive engineering and application support, and a knowledgeable sales team to assist in finding the right solutions.

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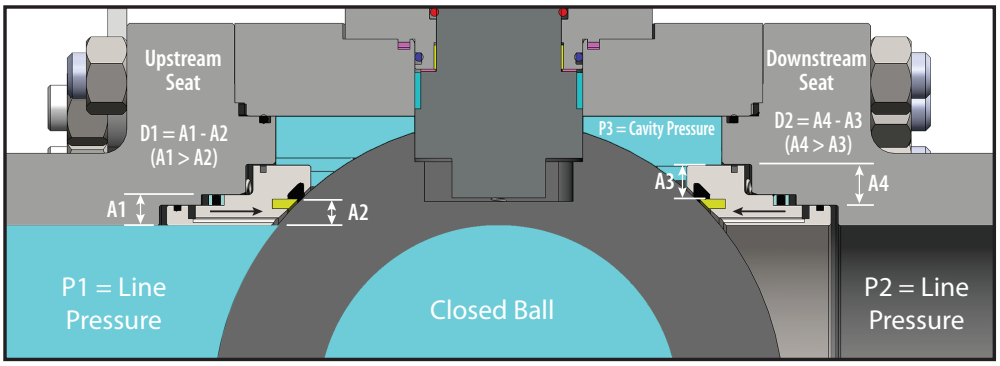
Double Isolation and Bleed Design Feature

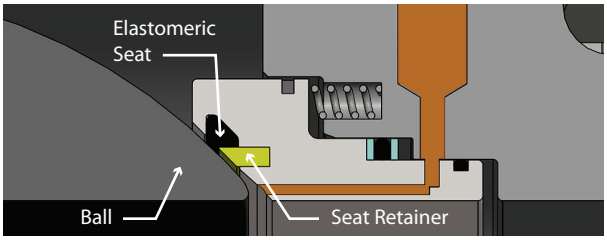


Double Isolation and Bleed Design (DIB-1) is the standard configuration of all **C&C Trident Series DPE** valves. This design features double piston effect seats on both the upstream and downstream sides of the valve, which, in the closed position, provides double isolation from pressure at both ends.

A DIB valve cannot relieve body cavity pressure past the seats, meaning its seats are not self-relieving. When using a DIB valve, an **external relief system** is needed to relieve pressure buildup.

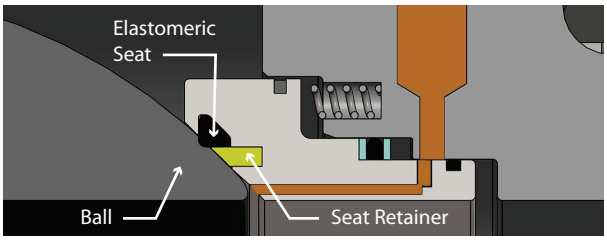
When pressure is applied from the upstream seat, the difference in area (D1 = A1-A2) multiplied by the line pressure (P1) forces the upstream seat against the ball surface and springs behind the seat also adds the force to the seat which keep the seat in contact with ball.

When the body cavity pressure is greater than the downstream line pressure, the difference in area (D2 = A4-A3) multiplied by the cavity pressure (P3) forces the downstream seat against the ball surface, creating a positive seal.



DPE Seat Design

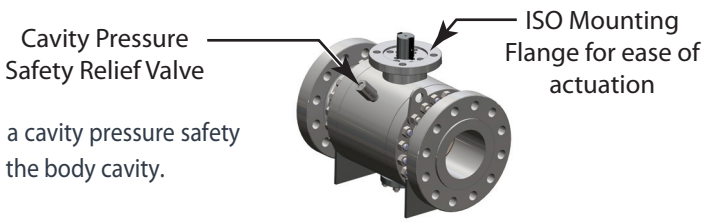
Engineered with a primary elastomeric seat that is retained by a high performance polyamide insert. This design protects the primary seat from wear in erosive applications. The elastomeric seat is always in full contact with the ball and at high pressures, providing a positive seat to ball shut off at all times.



Seat Retainer Contact

As process pressures increase, the seat assembly is forced into the ball surface, causing the primary seat to compress and the polyamide insert to contact the ball surface.

During operation, the polyamide insert removes debris from the ball surface ahead of the primary seat, extending the valve's longevity.



C&C Trident Series DPE DIB-1 valves come standard with a cavity pressure safety relief valve to prevent any overpressure of fluids trapped in the body cavity.

Double Isolation and Bleed Design (DIB-2): The C&C Trident Series DPE valve is also available in DIB-2 configuration. This configuration includes a double piston effect seat and a self-relieving seat.

Metal seated design for high temperature applications available upon request.