



# Modular double block and bleed trunnion ball valves

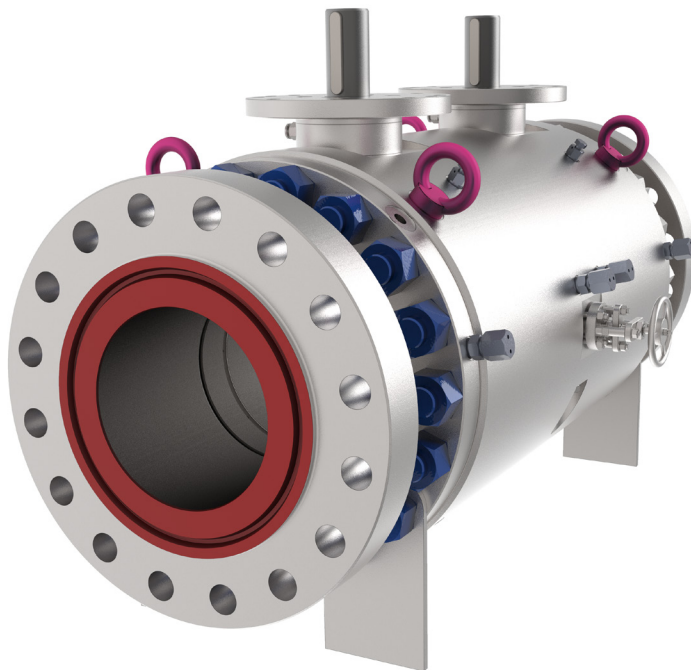
## Quick sheet

### BTD, BTC, and SSD series

NPS 2–48 (DN 50–1200), ASME Classes 150–2500  
NPS 1<sup>3</sup>/<sub>6</sub>–16<sup>3</sup>/<sub>4</sub> (DN 46–425), API Classes 5000–15000

Velan ABV modular double block and bleed valves combine two in-line isolation valves into a single body with an additional bleed valve used to drain or vent trapped fluid between the two obturators. This design significantly reduces potential atmospheric leakage, minimizing any hazardous risk when transferring liquids or gas—offering the highest level of safety in double isolation and bleed service.

Several unique features are available offering advanced technical solutions suitable for aggressive and severe offshore environments. Material selection is fully customizable to meet customer project specifications.



### Specifications

<b>Valve design</b>	As per API 6D or API 6A or API 6DSS standards and customer requirements.
<b>Temperature range</b>	-150 to 662°F (-101 to 350°C)
<b>Face-to-face</b>	As per Velan standard
<b>End connections</b>	RF, RTJ as per B16.5 & B16.47 BW, Butt Weld as per B16.25 Hub connection 6B, 6BX as per API 6A

### Design configurations

BTD	BTC	SSD
Three-piece forged bolted body design	Three-piece forged bolted body design (Compact)	Three-piece forged bolted body design for subsea service

### Design features

- Double block and bleed design (DBB).
- Secondary seals in pure Graphite.
- Anti-static device.
- Anti-blowout stem.
- Soft-seated or metal-seated designs with hardfacing on ball and seats.
- Seat configurations available: four self-relieving, four double piston, or combination.
- O-ring/lip seal configuration.
- Emergency sealant injection on seats and stem available.
- Low fugitive emission stem packing available.
- CRA overlay on all dynamic sealing areas or on all wetted parts available.
- Extended bonnet for low & high temperature available.
- Low pressure loss through the valve.
- BTC series: extremely compact valve design as per high pressure compact ball valves.

### Operator

- Manual: Wrench or gear with padlocking.
- Actuated: Pneumatic/hydraulic/electric.

### Testing & certification

- Compliance with inspection and testing: API 6D, ISO 5208, and API 598 or API 6A or API 6DSS.
- Fire safe and fire tested as per API 6FA/607.
- SIL 3 Certification as per IEC 61508.
- Fugitive emission as per ISO 15848.
- PED 2014/68/UE.
- Available as per API 6A:  
Product specification levels PSL 1, 2, 3, 3G, and 4.  
Performance requirement levels PR1, PR2.  
Design validation as per PR2F.