

TYF and TYS series

NPS 2–36 (DN 50–900), ASME Classes 150–900

Velan ABV cryogenic top-entry ball valves are manufactured for extremely low temperature and cryogenic applications where in-line disassembly is required for trim inspection and maintenance.

Valves are designed with an integral bonnet extension which prevents cryogenic liquids from reaching the stem packing by enabling the liquids to boil and convert to gas. This minimizes

the energy loss along the extension and protects the valve from malfunctioning.

The structural integrity of the valve reduces any thermal deformation of internal components caused by temperature variance to a minimum, ensuring the highest level of performance for tight shut-off in the most critical applications in LNG.



Specifications

Valve design	As per BS 6364, MESG 77/200, BS ISO 28921 (on request) standards and customer requirements
Temperature range	-320 to 212°F (-196 to 120°C)
Face-to-face	As per API 6D standard
End connections	BW, Butt weld as per B16.25 RF, RTJ as per B16.5 & B16.47

Design configurations

TYF	TYS
One-piece forged bolted bonnet design	One-piece cast bolted bonnet design

Design features

- Secondary seals in pure Graphite.
- Anti-static device.
- Anti-blowout stem.
- Soft-seated or metal-seated designs with hardfacing on ball and seats.
- Seat designed to avoid trapped fluid in body cavity.
- Lip seal configuration.
- Low fugitive emission stem packing available.
- Special maintenance tool for in-line seat disengagement.
- Extended bonnet for low and cryogenic service.

Operator

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

Testing & certification

- Compliance with BS 6364, MESG 77/200, BS ISO 28921 (on request) inspection and testing.
- 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.
- Compliance with BS EN 1626 standard (available on request).
- Compliance with BS EN 12567 standard (available on request).