

CRYOGENIC BUTTERFLY VALVES

PRODUCT DESCRIPTION

LNG Cryogenic valves are manufactured to help transport and store cryogenic gases safely and efficiently. This demanding service has difficult challenges namely stringent safety requirements, fugitive emissions, seat leakage and handling of unstable gases, all of which can be overcome with the correct valve partner.

Frenstar's Triple Eccentric Metal Seated Cryogenic butterfly valves are suitable for bi-directional flow and bubble tight shut-off at full rated pressure with extended bonnet according to BS 6364, direct mount ISO table, adjustable gland packing, one-piece blow-out proof stem, pinned disc and metal seat.

The triple offset cryogenic butterfly valve is used for cryogenic industrial applications in:

- LNG liquefying terminals, receiving terminals
- LNG satellite terminals
- LNG tank vessels
- LNG tank trucks
- Ethylene Plants
- Gas Production Plants

FEATURES

- Anti-Blowout Shaft Design
- Fire Safety Design
- Safety Integrity Level 3 Design
- Manual / MOV / Pneumatic Operation
- NACE MR 0175 / 0103 Compatible
- Fugitive Emission Proof Packing Design
 - ISO 15848
 - TA-LUFT

MATERIALS OF CONSTRUCTION

BODY	Stainless 316 / 316L
DISC	Stainless CF8M / CF3M + STELLITE
EXTENDED BONNET	Stainless CF8M / CF3M
COVER	Stainless 316L
STEM	Austenitic stainless steel XM-19
SEAT	Stainless 316L
APPROVALS	ASME B16.34 / API 609 API 607 API 598 / BS6364

PRODUCT DESIGN DATA

Description	CRYOGENIC BUTTERFLY VALVE Triple Eccentric Metal Seated Cryogenic butterfly valves
Design Code	API 609 / EN593/ASME B16.34 / EN 12516
Size Range	NPS 4" - 80" / DN 100- 2000
Pressure Classes	ANSI 150#, 300#, 600#, 900# & 1500#
Design Temperature	-196°C to +815°C
Seat Leakage	Bi-Directional Bubble Tight Shutoff (CL.150 ~ 600) Uni-Directional Bubble Tight Shutoff (CL.900 ~1500)
End Connections	Double Flanged / Butt-Weld
Face to Face	API 609 / ASME B16.10 / ISO 5752
Test Standard	BS 6364, Shell MESC SPE 77/200
Ambient Test Standard	API 598 / ISO 5208 / EN 12266-1 / FCI 70-2

MODELS

TOV-LF

Flanged

TOV-LBW

Butt-Weld

