

SERIES FY/TY

Cryogenic Ball Valve



Cryogenic Service

Cryogenic valves are demanded widely for application between -196 and -50 °C , including LNG that is fast becoming a better alternative source of clean energy. VIZA develops its cryogenic floating (Series FY) and Trunnion mounted (Series TY) ball valve accordingly.

Standards

ASME B16.34, ASME B16.5, API 6D, BS EN ISO 17292, BS 6364, Shell MESC 77/200, BS EN 12266, Shell MESC 77/306

Applications

Ethane:-89°C
 Ethylene:-104°C
 Methane:-162°C
 Liquefied Natural Gas (LNG):-162°C
 Oxygen:-183°C
 Nitrogen:-196°C

Cryogenic Test

Valves can be tested by in-house testing facility and the report can be provided per request.

General Features

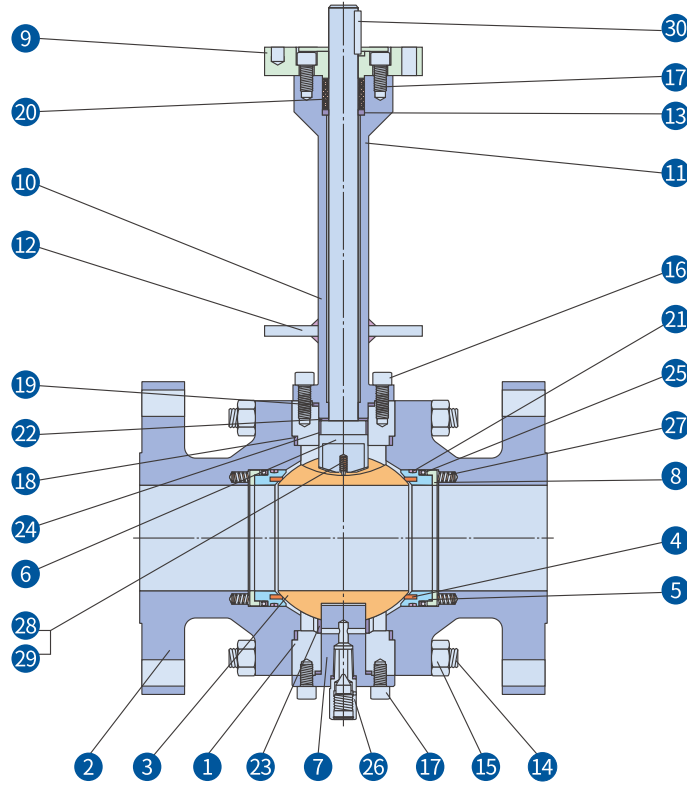
Extension bonnet gives enough vapour space to maintain the stem packing at a temperature high enough to protect the stem packing against malfunctioning due to freezing;
 Cavity pressure relief;
 Low operating torque for smoother operations;
 Blow-out proof stem, anti-static device and fire safe design;
 Double block & Bleed (Series TY);
 Low fugitive emission compliance.

Technical Data

Design type: Floating, Trunnion
 Sizes: 1/2"~24"
 Pressure: class 150~600
 Temperature: -196°C to ambient temperature
 Body material: A351 Gr CF8/CF8M, A182 F304/F316(-196°C)

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Material Specification



TY/FY BALL VALVE

Cryogenic Ball Valve

NO.	PART	STANDARD MATERIALS	NO.	PART	STANDARD MATERIALS
1	Body	ASTM A182-F316	16	Screw	ASTM A320-B8
2	Adapter	ASTM A182-F316	17	Screw	ASTM A320-B8
3	Ball	ASTM A182-F316	18	*Body Gasket	316SS+Graphite
4	Seat Insert	PCTFE	19	*Gasket	316SS+Graphite
5	Seat ring	ASTM A182-F316	20	*Stem Packing	Graphite
6	Stem	ASTM A182-F316	21	*Seat Packing	Carbon Fibre+Graphite
7	Trunnion	ASTM A182-F316	22	Thrust Washer	PTFE/316SS+PTFE+MoS2
8	Seat Follower	ASTM A182-F316	23	Bearing	316SS+PTFE+MoS2
9	Top Flange	ASTM A182-F316	24	Stem Bearing	316SS+PTFE+MoS2
10	Extension	Assembled by 14&15	25	Lip-Seal	PTFE+Spring
11	Extended Bonnet	ASTM A182-F316	26	Vent Valve	Stainless Steel
12	Adiabatic Plate	ASTM A182-F316	27	Seat Spring	Inconel X-750
13	Packing Washer	ASTM A276-316	28	Antistatic Spring	Inconel X-750
14	Body Stud	ASTM A320-B8	29	Grounding Plunger	Stainless Steel
15	Body Nut	ASTM A194-8	30	Key	Stainless Steel

*Recommended Spare Parts