# 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 Natrual 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.

Part number: C-FY/TY-1504

#### **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.

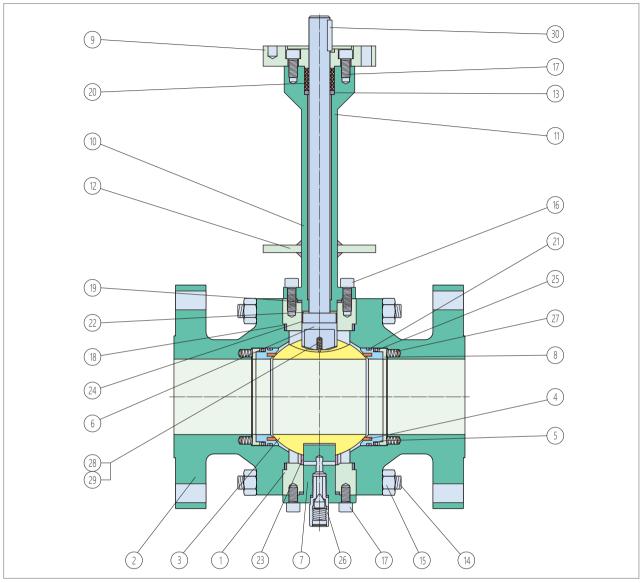
#### **Technical Data**

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)

# MATERIAL SPECIFICATIONS



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					



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