



## BALL VALVES TOP ENTRY CRYOGENIC

One of Pibiviesse core products, it is available with several design options and versions for Low and Cryogenic temperature

Description	Product Features and Options
<b>Pibiviesse valve models</b>	T series
<b>Main Standards and Codes</b>	API 6D & IOGP S-562, API 6A, ASME B16.34, ASME VIII, NACE MR 01-75/ISO 15156
<b>Body design</b>	Single Piece
<b>Size range</b>	API 6D: from 2" to 60" API 6A: from 1.13/16" to 20"
<b>Pressure Ratings</b>	ASME 150# to 2500# API 6A 2000 to 10000 psi
<b>Design Temperature range</b>	-196 / 230°C
<b>End Connections</b>	Flanged RF/RTJ to ASME B16.5, ASME B16.47 Series A or B, EN 1092-1, API 6A Compact to Norsok L005 Clamped Hubs to Customer request Butt-Welded to ASME B31.3, ASME B31.4, or ASME B31.8. Profile as illustrated in ASME B16.25.
<b>General Design features</b>	Full and Reduced Bore Long Pattern Spring Energized Floating seats Bidirectional, Bidirectional preferential or Unidirectional Anti-blow out stem Anti-static design Extended bonnet Fire Safe
<b>Ball-to-Seats seal</b>	Soft, Metal-to-Metal
<b>Seat design</b>	SPE (Self Relieving), DIB-2
<b>Optional Design features</b>	Special Bore (Controlled Bore for Pigging) Pup pieces on weld ends Double Block and Bleed Double Isolation & Bleed Pressure Equalizing Hole in the ball Pressure Relief Hole in the ball Locking devices Position indication Limit Switches
<b>Materials Selection</b>	Body manufactured from cast or forged materials Components mostly manufactured from forged materials LTCS, Stainless Steel CRA weld overlays in 316 St. Steel or Inconel 625 Tungsten Carbide Coating (TCC) and Chromium Carbide Coatings (CCC) Compliance with NACE MR 01-75/ISO 15156 when applicable.
<b>Seals and Gaskets</b>	RPTFE, PEEK and PCTFE seat inserts, Metal with TCC and CCC PTFE lip-seals, Metallic, Graphite and V-Packings
<b>Operation</b>	Manual with Lever or Gearbox w/handwheel Actuation: Electric, Pneumatic and Hydraulic actuators
<b>Product Certifications and Qualifications</b>	API 6D, API 6A, PED 2014/68/EU, SIL 3 to IEC 61508 Parts 1-7:2010 ISO 15848-1 for Fugitive Emissions (to be confirmed case by case) Fire Safe ISO 10497, API 607 or API 6FA
<b>Applications</b>	The Top Entry Ball Valves Low Temperature & Cryogenic design is the most commonly used in the upstream and midstream sectors of the Oil & Gas Industry. Onshore LNG Plant and Offshore FLNG Onshore Production Refining & Petrochemical Onshore Treatment Offshore Platform & FPSO