



## BALL VALVES TOP ENTRY CONTROL VALVES

One of Pibiviesse core products, it is available with several design options and versions for Control applications.

Description	Product Features and Options
<b>Pibiviesse valve models</b>	C series: UNICAGE, SF1, SF2, PR, MULTIRESTOR
<b>Main Standards and Codes</b>	API 6D (Reference), EN 13942, ASME B16.34, ASME VIII, NACE MR 01-75/ISO 15156, IEC 60534 (1, 2-1, 2-3, 8-3, 8-4), ISA 75-01, ISA 75-02, ISA-RP 75.23
<b>Body design</b>	Single Piece
<b>Size range</b>	API 6D (Reference): from 1/2" to 48"
<b>Pressure Ratings</b>	ASME 150# to 2500#
<b>Design Temperature range</b>	-196 / 350°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 preferential or Unidirectional Anti-blow out stem Anti-static design Emergency sealant injection on stem and seats Fire Safe
<b>Ball-to-Seats seal</b>	Soft, Metal-to-Metal
<b>Seat design</b>	SPE (Self Relieving), DIB-1, DIB-2, Single Seat
<b>Optional Design features</b>	Special Bore Pup pieces on weld ends Double Block and Bleed Double Isolation & Bleed Pressure Equalizing Hole in the ball Extended bonnet Locking devices Position indication Limit Switches
<b>Materials Selection</b>	Mostly manufactured from forged materials CS, LTCS, 316ss, 6Mo, Duplex, S-Duplex, Monel, Nickel Alloys, Titanium 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, PCTFE and NYLON grades seat inserts, Metal with TCC and CCC Elastomeric (HNBR, FKM, FFKM), 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>	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 Control Ball design is the most commonly used in the upstream, midstream and downstream sectors of the Oil & Gas Industry. Onshore LNG Plant and Offshore FLNG Onshore Production Onshore Transportation Refining & Petrochemical Onshore Treatment Offshore Platform & FPSO Power Generation, Hydropower, Desalination (Water Service)