



# BALL VALVES

## SIDE ENTRY

### Double Block & Bleed (DBB)

The Pibiviesse Double Block and Bleed (DBB) Ball Valve consists of two block valves in one body and a bleed valve in between to bleed the trapped pressure when the valves are closed. This valve is used for a more positive isolation of a process fluid in the line, most commonly in oil and gas applications.

Description	Product Features and Options
<b>Pibiviesse valve models</b>	ET series
<b>Main Standards and Codes</b>	API 6D, API 6A, ASME B16.34, ASME VIII, NACE MR 01-75/ISO 15156
<b>Body design</b>	3 piece Split Body Bolted
<b>Size range</b>	API 6D: from 2" to 36" API 6A: from 1.13/16" to 20"
<b>Pressure Ratings</b>	ASME 150# to 2500# API 6A 2000 to 15000 psi
<b>Design Temperature range</b>	-46 / 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 Studded 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 Spring Energized Floating seats Bidirectional, 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, Primary Metal Secondary Soft (PMSS)
<b>Seat design</b>	SPE (Self Relieving), DIB-1, DIB-2
<b>Optional Design features</b>	Special Bore (Controlled Bore for Pigging) Pup pieces on weld ends Compact design with studded flanges Bleed and Vent valves to Customer's request for Double Block and Bleed functionality Double Isolation & Bleed Pressure Equalizing Hole in the ball Extended stem Extended bonnet Locking devices Position indication Limit Switches Combined upstream Metal-to-Metal / downstream Soft ball-to-seats sealing Ball bearings and seat pockets protections from sand/debris in dirty service
<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) Electroless Nickel Plating 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: typically Electric or Manual-Electric actuator combination
<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>	Onshore LNG Plant and Offshore FLNG Onshore Oil and Gas Production Refining & Petrochemical Onshore Gas Treatment Offshore Platform & FPSO Onshore Storage