

Side Entry Ball Valves



*Engineering
GREAT Solutions*

**Trunnion Mounted
Spring Energized Seats**

Trunnion Mounted Ball valves

Our trunnion mounted side entry high performance ball valves, have a robust design and are engineered to meet International standards like API 6A, API 6D, ASME B16.34, ISO 17292 and others on request. The range contains both soft, metal or composite seats that can be configured with single or double piston effect to provide an effective double block and bleed (DB&B) in both closed and, on request, in open position.



Key features

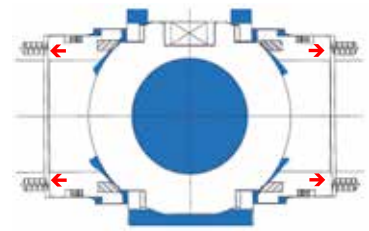
- > Soft, metal or composite seated
- > Two or three piece body
- > Bi-directional tight shut-off
- > Double block & bleed
- > Fire safe and fire tested
- > Bolted or fully welded construction
- > Low operating torque design
- > Wide range of materials and sizes
- > Trunnion mounted with spring energized seats
- > Anti-blowout stem design
- > Suitable for above ground or below ground installation

Benefits

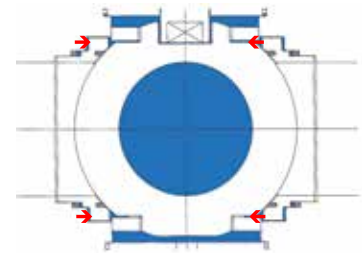
The use of forgings and the independent spring or bellows loaded floating seats which are always in contact with the ball, make these valves the preferred solution for various demanding applications like Cryogenic, High Temperature, Low Emission and ESD / HIPPS.

- > Suitable for use in the most severe services such as scraper launcher and receiver and hot tapping
- > Valves can be equipped with bellow seals, steam flushing ports and protected bearings, to cope with medium/high amounts of solids like tar sands or catalysts
- > Approved by the major end users, licensors and contractors and are designed to meet SIL3 requirements according to IEC 61508
- > The double or triple stem seal design (with lip seals or o-rings or optionally with leak off chambers for predictive maintenance) mean that the valves meet and exceed the most stringent Low Fugitive Emissions Norms (ISO 15848) making our valves suitable to handle toxic or lethal fluid services
- > Spring or floating seats which are always in contact with the ball provide an effective tight seal even at low differential pressures

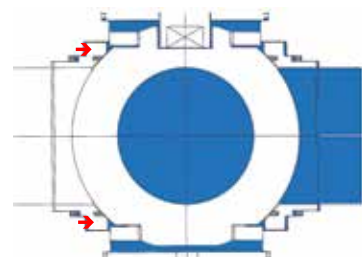
Tight shut-off sealing



Self relieving seats



Double piston effect seats



SPE/DPE configurator

Critical applications

- > Well-Head; Flow-Lines
- > Pipeline Valves
- > Riser-ESDV
- > Gas over oil valves (GOV)
- > Blowdown valves (BDV)
- > Shutdown valves (SDV)
- > Scraper Trap isolation
- > Process Valves
- > SSIV
- > ROV
- > HIPPS
- > Sub-sea
- > Cryogenic (LNG, regas)
- > Low-temperature
- > Hot tapping
- > Inching
- > Scraper-trap
- > Switching valves
- > Metering valves
- > Quick closing (below 1 sec)
- > Oil Sand Slurry
- > High Temperature
- > Buried / Underground Valves

*Full valve selection
available on our website*

www.imi-critical.com

Product specification

Sizes

Nominal pipe size 1/2" through 60" (DN 15 through DN 1500)

Pressure Rating

ANSI CLASS 150 through 2500 and 4500
API 2000 through 15000

End Connections

ANSI Flanges
ANSI B16.5 for sizes up to 24"
ANSI B16.47 for sizes 26" and larger

Compact Flanges

NORSOK L-005

Hub Connectors

All major hub end design available

Welding Ends

Butt Welding to ANSI B16.25 or equivalent
Socket Welding to ASME B16.11
Pup pieces available on request

Temperature Range

From -196°C to 650°C (from -321°F to 1200°F)

Material specification

Carbon Steel (CS)	ASTM A105N; ASTM A694 F60/F65; ASTM A216 WCB/WCC;
Low Temperature CS	ASTM A350 LF2; ASTM A694 F60/F65; ASTM A352 LCB/LCC
Low Alloy Steel (LAS)	ASTM A350 LF3; AISI 4130 (60K and 75K); ASTM A352 LC3
Martensitic SS	ASTM A182 F6a; ASTM A182 F6NM; AISI 410; A216 CA15
Austenitic SS	ASTM A182 F316/316L; ASTM A182 F304/304L; ASTM A182 F321; ASTM A182 F347; ASTM A351 CF3/CF3M/CF8/CF8M etc 6Mo SS ASTM A182 F44; ASTM A351 CK3MCuN
Duplex SS	ASTM A182 F51; A890 Gr. 4a; A995 Gr. 4A
Super Duplex SS	ASTM A182F53/F55; A890 Gr. 5A/6A; A995 Gr. 5A/6A
Ni Alloys	UNS N08825; UNS N06625; UNS N07718 ; UNS N09925
Cu Alloys	Monel 400; Monel K500
Ti Alloys	Gr. 2; Gr. 5
Co Alloys	Hastelloy C276

CS and LTCS are also available partially or fully clad. Partial cladding includes dynamic seal areas or static and dynamic seal areas. Full cladding includes all wetted areas. Cladding material can be: AISI 316L SS, 22/05 Duplex SS, 25/07 Superduplex SS and Inconel 625.

Product dimensions

Class 500									
DN	SIZE	A-RTJ	Ø B	C	D	E	F	Ø G (**)(***)	WGT
46	1-13/16"	•	46.0						
52x46	2-1/16"x 1-13/16"	•	46.0						
52	2-1/16"		52.4	140	200	360	500	215	52
65	2-9/16"		65.1	175	230	360	500	265	112
79	3-1/8"		79.4	175	230	360	500	265	112
79x81	3-1/8"x 3-3/16"	•	81.0					265	
103	4-1/16"		103.2	200	265	375	600	310	200
103x105	4-1/16"x4-1/8"	•	104.8					310	
103x108	4-1/16"x4-1/4"	•	108.0					310	
130	5-1/8"	•	130.2					375	
179x130	7-1/16"x 5-1/8"	•	130.2					395	
179x152	7-1/16"x6"		152.4	270	350	460	700	395	525
179x162	7-1/16"x 6-3/8"	•	161.9					395	
179x168	7-1/16"x 6-5/8"	•	168.3					395	
179	7-1/16"	•	179.4					395	
179x181	7-1/16"x 7-1/8"	•	181.0					395	
228	9"	•	228.0					485	
279	11"	•	279.0					585	
346	13- 5/8"	•	346.0					675	

NOTES

- (**) END FLANGES TO API 6A 6B OR 6BX (AS APPLICABLE)
- (***) ANY TYPE OF ALTERNATIVE END FLANGES AVAILABLE ON REQUEST
- √ DIMENSIONS ARE MILLIMETRES, WEIGHTS ARE KILOS
- TO BE AGREED SINCE NOT SPECIFIED ON RELEVANT CODE

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