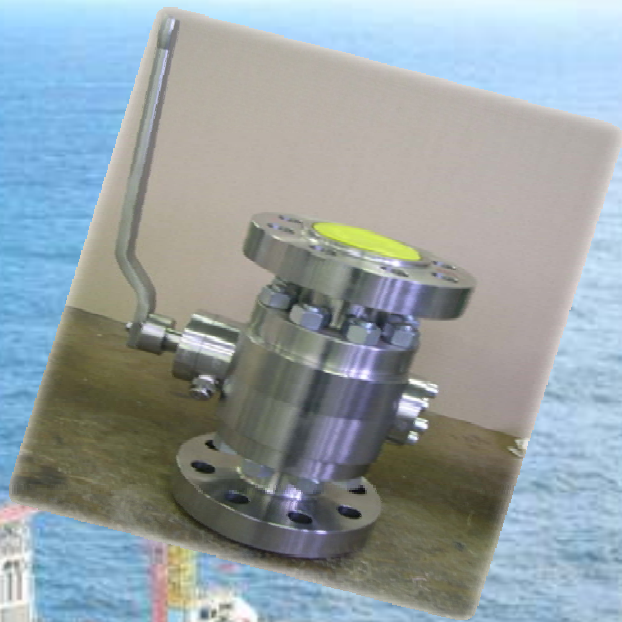
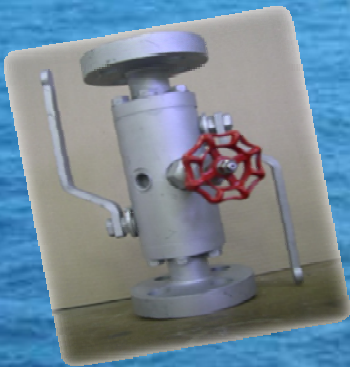


# ITP Industrial Valves



**TRUNNION MOUNTED BALL  
VALVES**

**FULL AND REDUCED BORE**

**RF- RJ-HUB- BW ENDS**

**LEVER, GEAR, PNEUMATIC,**

**HYDRAULIC, ELECTRIC**

**MOTOR OPERATED**

**SELF RELIEVING SEATS**

**DOUBLE BLOCK & BLEED OR**

**DOUBLE PISTON EFFECT (Option)**

<b>Class ANSI</b>	<b>150</b>	<b>300</b>	<b>600</b>	<b>900</b>	<b>1500</b>	<b>2500</b>	<b>lbs</b>
<b>PN</b>	<b>16</b>	<b>40</b>	<b>64</b>	<b>100</b>	<b>250</b>	<b>420</b>	<b>bar</b>
	<b>3000</b>		<b>5000</b>		<b>6000</b>	<b>10000</b>	<b>psi</b>

<b>FULL BORE</b>	<b>1/2"</b>	<b>3/4"</b>	<b>1"</b>	<b>1-1/4"</b>	<b>1-1/2"</b>	<b>2"</b>	<b>2-1/2"</b>	<b>3"</b>	<b>4"</b>	<b>6"</b>	<b>8"</b>
<b>DN</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>32</b>	<b>40</b>	<b>50</b>	<b>65</b>	<b>80</b>	<b>100</b>	<b>150</b>	<b>200</b>
<b>REDUCED BORE</b>			<b>1" x 3/4"</b>	<b>1-1/4" x 1"</b>	<b>1-1/2" x 1-1/4"</b>	<b>2" x 1-1/2"</b>	<b>2-1/2" x 2"</b>	<b>3" x 2"</b>	<b>4" x 3"</b>	<b>6" x 4"</b>	<b>8" x 6"</b>
<b>FULL BORE</b>		<b>10"</b>	<b>12"</b>	<b>14"</b>	<b>16"</b>	<b>18"</b>	<b>20"</b>				
<b>DN</b>		<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>				
<b>REDUCED BORE</b>		<b>10" x 8"</b>	<b>12" x 10"</b>	<b>14" x 12"</b>	<b>16" x 12"</b>	<b>18" x 16"</b>	<b>20" x 16"</b>				

# ITP Valves

## VALVES MATERIAL SELECTION

	CS	LTCS / KCS	SS	22/25%Cr Duplex
Pos.Part Name	LOW TEMPERAT.CARBON			
	CARBON STEEL	STEEL	STAINLESS STEEL	STAINLESS STEEL
1-3Body & flanges	ASTM A 105-A105N	ASTM A 350 Gr LF2	ASTM A 182 Gr F316 ASTM A 182 Gr F316L	ASTM A 182 Gr F51 ASTM A 182 Gr F53 or F55
2-Seat / Insert	R PTFE - PCTFE - PEEK - ERTALON® - DEVLON - NYLON			
4-Ball	ASTM A 182GrF316/F316L ASTM A 105-A105N+ENP ASTM A 350 GrLF2+ENP	ASTM A 182GrF316/F316L ASTM A 350 GrLF2+ENP	ASTM A 182GrF316/F316L ASTM A 182 GrF51	ASTM A 182 Gr F51 ASTM A 182 Gr F53 or F55
5-Stem	ASTM A 105-A105N+ENP ASTM A 350 GrLF2+ENP ASTM A 546Gr630[17-4-ph] ASTM A 182GrF316/F316L ASTM A 182 GrF51 AISI410+ENP	ASTM A 182GrF316/F316L ASTM A 182 GrF51 ASTM A 350 GrLF2+ENP ASTM A 546Gr630[17-4-ph] AISI410+ENP	ASTM A 182GrF316/F316L ASTM A 182 GrF51	ASTM A 182 Gr F51 ASTM A 182 Gr F53 or F55
Fire Safe Seals	GRAPHITE EXPANDED			
Springs [seats holders]	AISI 302 -50Cr V4 - INCONEL X- 750			
Bolts / Nuts	Astm A193B7*A1942H Astm A193B7M*A1942HM	Astm A320L7*A194Gr7 Astm A320L7M*A194Gr7M	Astm A193B8*A193-8 Astm A193B8M*A194-8M	Astm A193B8*A193-8 Astm A320L7*A194Gr7 Astm A320L7M*A194Gr7M

\*ENP= Electroless Nickel Plated 30mic/50mic/70mic -Hot Dip Galv.Bolts available upon requested-PTFE coated bolts available upon request

\*Other alloys available upon request:

ASTM A 182Gr F44\*NICKEL ALLOY 625-UNS N06625 \*NICKEL ALLOY 825-UNS N08825\* MONEL K500\*TITANIUM B348

### VALVES DIMENSIONS

FULL BORE		1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"
DN		15	20	25	40	50	65	80	100	150	200
REDUCED BORE			3/4"X 1/2"	1" X 3/4"	1-1/2"X 1-1/4"	2"X 1-1/2"	2-1/2" X 2"	3"X 2"	4"X 3"	6"X 4"	8"X 6"
Rating	Finishing	L	L	L	L	L	L	L	L	L	L
ANSI 150#	RF RTJ			127 140	165 178	178 191	191 203	203 216	229 241	394 406	457 470
ANSI 300#	RF RTJ		152 165	165 178	191 203	216 232	241 257	283 298	305 321	403 419	502 518
ANSI 600#	RF RTJ	165 165	191 191	216 .	241 241	292 295	330 333	356 359	432 435	559 562	660 664
ANSI 900#	RF RTJ	216 216	229 229	254 254	305 305	368 371	419 422	381 384	457 460	610 613	737 740
ANSI 1500#	RF RTJ	216 216	229 229	254 254	285 305	368 371	419 422	470 473	546 549	705 711	832 841
ANSI 2500#	RF RTJ	264 264	273 273	308 308	384 387	451 454	508 540	578 384	673 683	914 927	

FULL BORE		10"	12"	14"	16"	18"	20"				
DN		250	300	350	400	450	500				
REDUCED BORE		10"X 8"	12" X 10"	14" X 12"	16"X 12"	18"X 16"	20"X 16"				
Rating	Finishing	L	L	L	L	L	L				
ANSI 150#	RF RTJ	533 546	610 622	686 699	762 775	864 876	914 927				
ANSI 300#	RF RTJ	568 584	648 664	762 778	838 854	914 930	991 1010				
ANSI 600#	RF RTJ	787 791	838 841	889 892	991 994	1092 1095					
ANSI 900#	RF RTJ	838 841	965 968	1029 1038	1130 1140						
ANSI 1500#	RF RTJ	991 1000	1130 1145								
ANSI 2500#	RF RTJ	1270 1292									

\*GEAR OPERATOR IS SUGGESTED FOR THESE DIAMETERS

\*Different Bore reductions are available upon requested.

\*HUB Ends manufactured as standard with face to face as per RF type

\*BW ends manufactured as standard with face as per API 6D

\*Available also in class 3000# - 5000# - 6000# - 10000# Psi

**ITP TRUNNION VALVES ARE DEFINED BY THREE FIELDS ART. 001 or 002** **F** **R** **CLASS** **ENDS**

\* THE FIRST FIELD IS "001" OUR CODE FOR TRUNNION MOUNTED BALL VALVES "002" OUR CODE FOR FLOATING MOUNTED BALL VALVES,

\* AND IS COMPLETED THE LETTER **F** FOR FULL BORE BALL VALVE OR **R** FOR REDUCED BORE BALL VALVE .

\* THE SECOND FIELD DEFINES THE CLASS OF THE VALVE :

<b>150#</b> = Class 150 lbs	<b>16</b> = Class PN16	<b>3000</b> = 3000 Psi
<b>300#</b> = Class 300 lbs	<b>40</b> = Class PN40	<b>5000</b> = 5000 Psi
<b>600#</b> = Class 600 lbs	<b>64</b> = Class PN64	<b>6000</b> = 6000 Psi
<b>900#</b> = Class 900 lbs	<b>100</b> = Class PN100	<b>10000</b> = 10000 Psi
<b>1500#</b> = Class 1500 lbs	<b>250</b> = Class PN250	
<b>2500#</b> = Class 2500 lbs	<b>420</b> = Class PN420	

\* THE THIRD FIELD DEFINES THE CLASS OF THE VALVE : FIELD DEFINES THE CLASS OF THE VALVE :

<b>.RF</b> = RF	<b>.BW</b> = BUTTWELDING	<b>.NF</b> = NPT FEMALE
<b>.RS</b> = RFS	<b>.SW</b> = SOCKETWELDING	<b>.NM</b> = NPT MALE
<b>.RS</b> = FLAT FACE	<b>.PE</b> = PLAIN END	<b>.BF</b> = BSP FEMALE
<b>.RJ</b> = RTJ	<b>.GF</b> = GAS FEMALE	<b>.BF</b> = BSP MALE
<b>.HB</b> = HUB	<b>.GM</b> = GAS MALE	

**VALVES NORME**

- \* FIRE SAFE SYSTEM API 607 4<sup>th</sup> Edition
- \* ANTISTATIC
- \* CONSTRUCTION API 6D , B16.5 , B16.34 , BS5351 ,

**ON REQUESTED**

- \*OPTION : SEAT INJ. SYSTEM
- \*OPTION : EXTENDED STEM
- \*OPTION : STEM INJ. SYSTEM
- \*OPTION : LOOKING DEVICE

**★ ITP METAL TO METAL SPECIAL VALVES FOR ABRASIVE SERVICE TAG .** MTM

\* All ITP trunnion mounted Ball Valves are available in **METAL TO METAL** seating design for abrasive service. Metal to Metal seating design is supplied with TCC ( Tungstene Carbides Coating ), CrC (Chromium Carbides Coating), and Stellite Coating systems.  
Temperature range :Up to 400° / 600°C depending on Class (rating) / Size combination.

**● ITP METAL TO METAL SPECIAL VALVES FOR HIGH TEMPERATURE SERVICE TAG .** MHT

\* All ITP trunnion mounted Ball Valves are available in **METAL TO METAL** seating design for high temperature service. Metal to Metal seating design , with special stem extension ,special gasket or ring joint , seals and alloys for high temperature service .



# *ITP Industrial Valves*

## *Offshore & Onshore*

