

TRUNNION BALL VALVE

INTRODUCTION

FEATURES



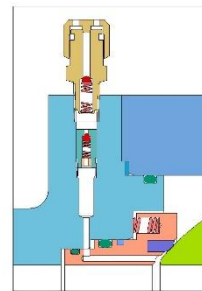
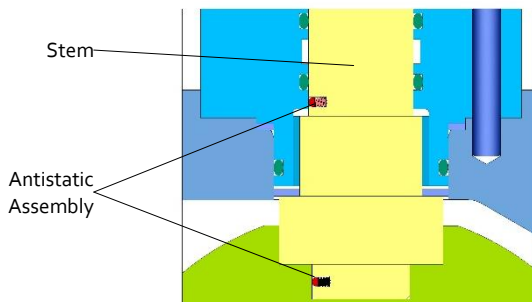
INTRODUCTION

A ball valve is a valve with a spherical disc, the part of the valve which controls the flow through it. The sphere has a hole, or port, through the middle so that when the port is in line with both ends of the valve, flow will occur. When the valve is closed, the hole is perpendicular to the ends of the valve, and flow is blocked.

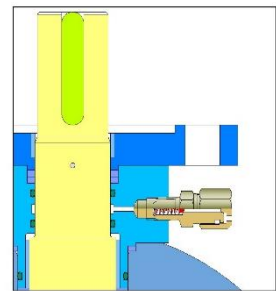
A trunnion ball valve has additional mechanical anchoring of the ball at the top and the bottom, suitable for larger and higher pressure services. To ensure tight sealing at low pressure, high-tensile springs force the seats against the ball while at higher pressure, the medium pressure pushes upstream seat towards the ball.

EMERGENCY SEALS

For trunnion mounted ball valve size NPS 6 (DN 150) and above, it comes with provisions for sealant injection on both the stem and seat while for sizes NPS 5 (DN 125) and below on body cavity. In case of failed underperformed seals, a temporary emergency seal can be achieved by injecting sealants.



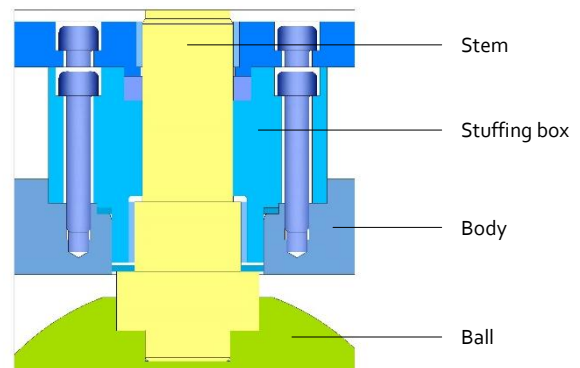
Seat Sealant Valve



Stem Sealant Valve

ANTI-STATIC

Because the ball and stem in a ball valve are suspended on non-metallic parts, i.e. the seat seal and stem seal, there is a possibility a static charge may build up on the stem-ball, a mechanical (antistatic metal spring and ball) is introduced in the design to maintain the metal-to-metal contact between the rotating ball/stem and the valve body which will ground any charges to the valve body.



BLOWOUT PROOF STEM

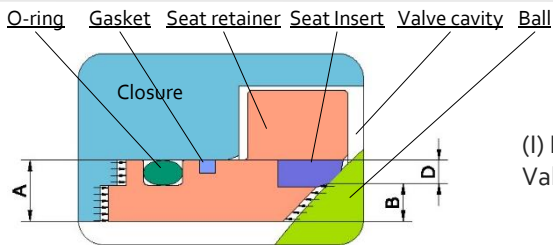
The valve stem is made with a shoulder at the bottom end. It's securely retained by the stuffing box, to avoid that the stem, under certain operating conditions, accidentally blows out. Other designs are available on request.

TRUNNION BALL VALVE

INTRODUCTION (CONT'D)

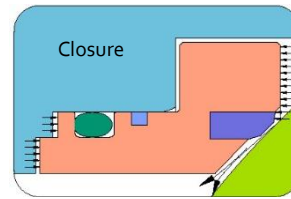
FEATURES

SINGLE PISTON EFFECT



(I) Downstream Valve Seat

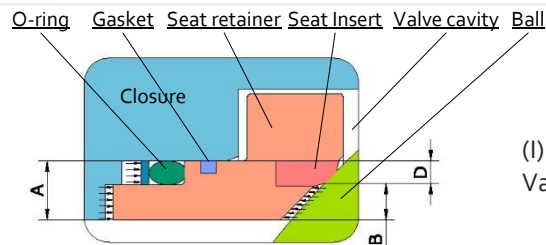
The difference in area (D) times the line pressure creates a "piston effect" force which pushes the seat against the ball surface resulting in a tight effect seal.



(II) Upstream Valve Seat

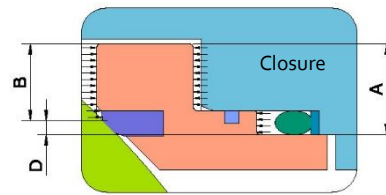
When the pressure in the valve cavity reaches a level that the total force from cavity acting on the seat is larger than the total force from upstream line pressure, the seat will be pushed away from the ball to relieve the valve cavity pressure.

DOUBLE PISTON EFFECT



(I) Downstream Valve Seat

The different in area (D) times the line pressure creates a "piston effect" force which pushes the seat against the ball surface resulting in a tight seal.

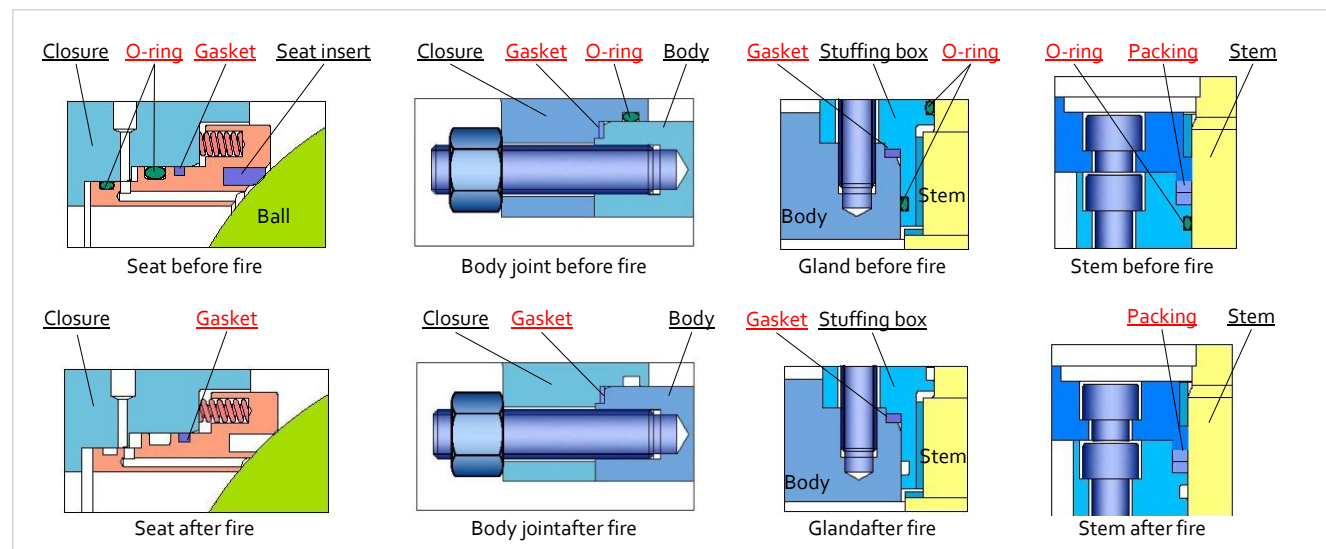


(II) Upstream Valve Seat

The difference in the area (D) times the cavity pressure creates a "piston effect" force which pushes the seat against the ball surface resulting in a tight seal.

FIRE SAFE DESIGN

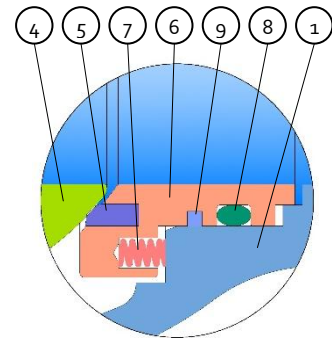
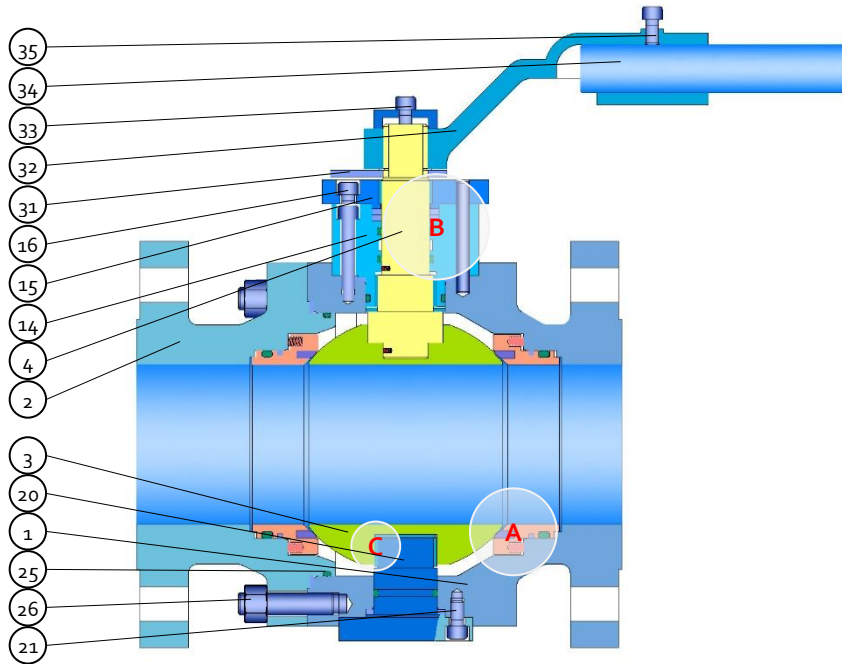
During a fire, non-metallic soft material will be burnt, subsequently seat leakage or external leakage may occur and cause the fire spread or contaminate the environment. YDV ball valves are fire tested in accordance with API 6FA or API 607, witnessed and certified by TUV SUD. If valve is not covered according to the standards, they are designed to be fire safe.



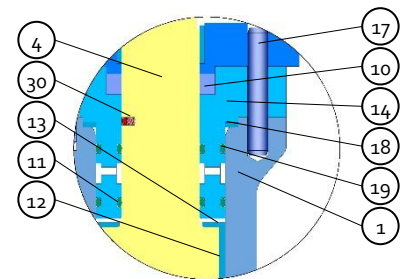
TRUNNION BALL VALVE

OVERVIEW

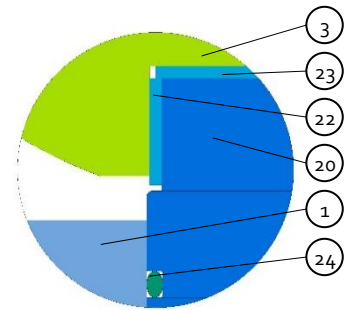
2-PIECE SPLIT BODY



A

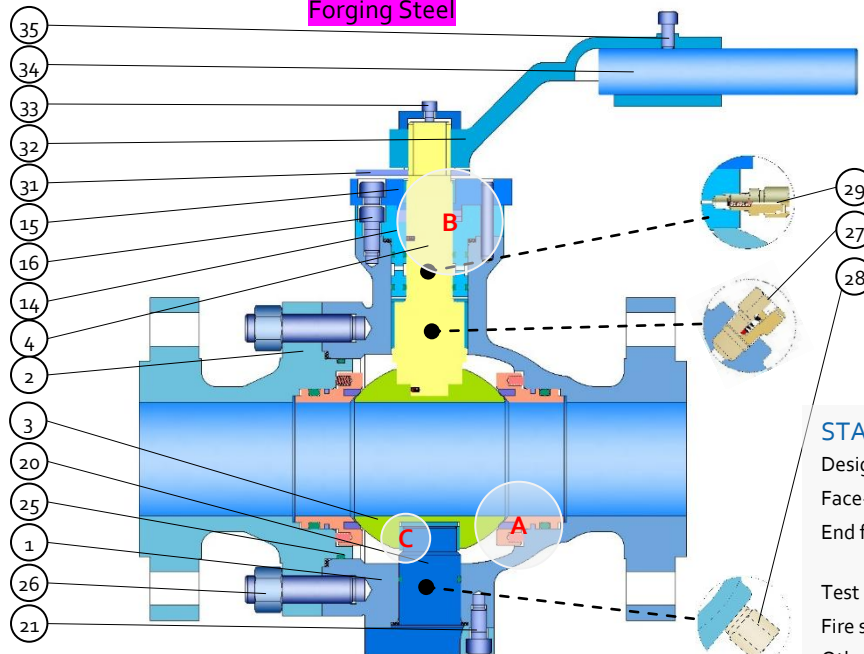


B



C

Forging Steel



STANDARDS

Design & manufacture	API 6D, ISO 14313, ISO 17292
Face-to-face	API 6D, ASME B16.10
End flanges	ASME B16.5, ASME B16.47 MSS SP-44 (NPS 22 Only)
Test & inspection	API 6D, API 598
Fire safe	API 6FA, API 607
Other	NACE MR01-75, MR 0103 ISO 15848, API 622, API 624

PART LIST

Casting Steel

1 Body	13 Thrust washer	25 Body seal
2 Closures	14 Stuffing box	26 Stud bolt & nut
3 Ball	15 Gland cover	27 Vent valve
4 Stem	16 Gland socket bolt	28 Drain plug
5 Seat insert	17 Gland pin	29 Stem sealant valve
6 Seat retainer	18 Gland seal	30 Antistatic assembly
7 Seat spring	19 Gland O-ring	31 Stopper
8 Seat O-ring	20 Trunnion	32 Lever
9 Seat seal	21 Trunnion socket bolt	33 Lever lock screw
10 Stem packing	22 Trunnion bushing	34 Extension pipe
11 Stem O-ring	23 Trunnion thrust washer	35 Pipe lock screw
12 Stem bushing	24 Trunnion O-ring	

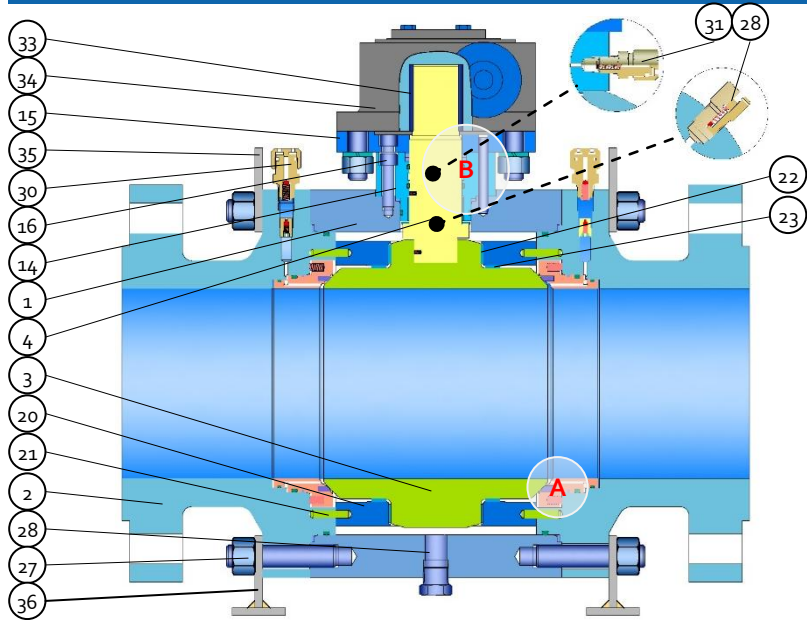
TYPICAL MATERIALS

Body/Closures	A105, A182 F304, F304L, F316, F316L, F51, F53, A350 LF2, LF3, LF5, Monel, Inconel, Hastelloy (Forging) A216 WCB, A351 CF3, CF8, CF3M, CF8M, A995 4A, 5A, A352 LCB, LCC, LC2 (Casting)
Ball	CS+ENP, A182 F304, F304L, F316, F316L, F51, F53, CS+TCC, CS+Ni60
Seat retainer	CS+ENP, A182 F304, F304L, F316, F316L, F51, F53, CS+TCC, CS+Ni55
Seat insert	PTFE, RPTFE, Nylon, Devlon, PEEK
Stem	A182 F6a, F316, F51, A105+ENP, AISI 4140+ENP, 17-4PH
Packing	Graphite, PTFE, RPTFE
O-ring	Viton, NBR, HNBR, AFLAS

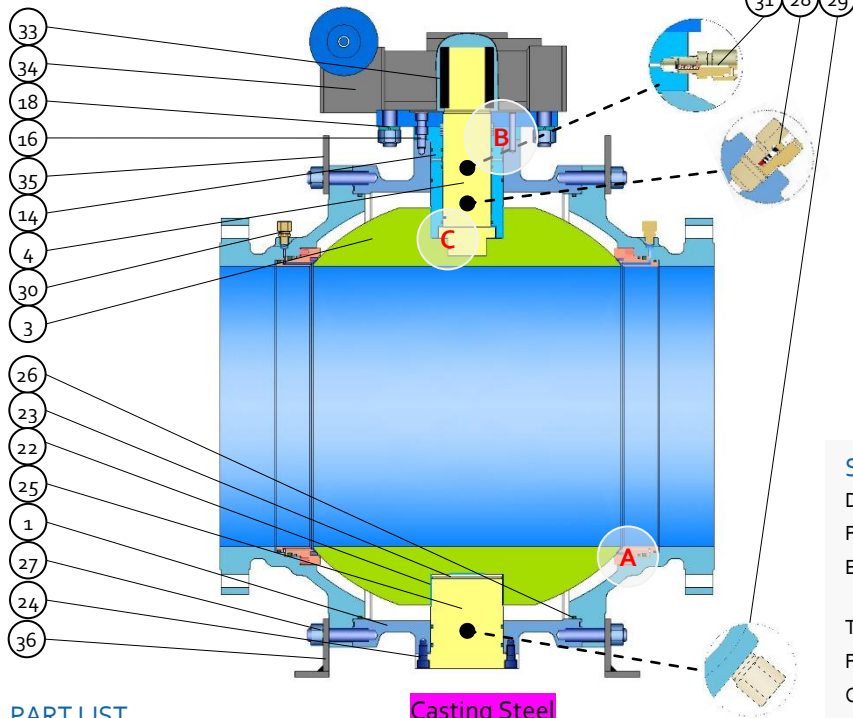
TRUNNION BALL VALVE

OVERVIEW

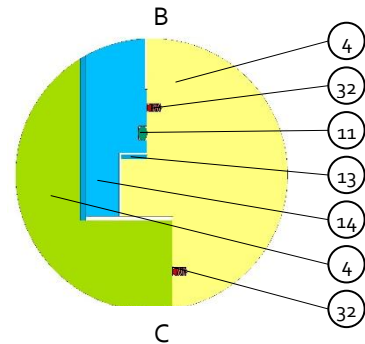
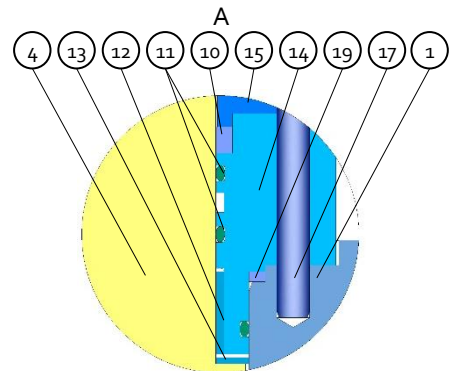
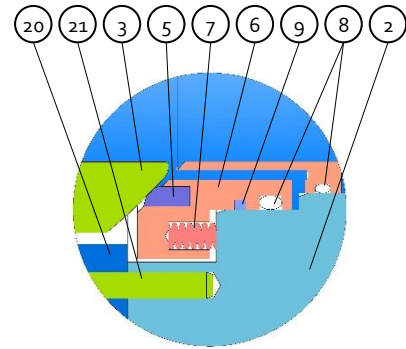
3-PIECE SPLIT BODY



Forging Steel



Casting Steel



STANDARDS

Design & manufacture	API 6D, ISO 14313, ISO 17292
Face-to-face	API 6D, ASME B16.10
End flanges	ASME B16.5, ASME B16.47 MSS SP-44 (NPS 22 Only)
Test & inspection	API 6D, API 598
Fire safe	API 6FA, API 607
Other	NACE MR01-75, MR 0103 ISO 15848, API 622, API 624

PART LIST

1 Body	13 Thrust washer	25 Trunnion
2 Closures	14 Stuffing box	26 Body seal
3 Ball	15 Gland cover	27 Stud bolt & nut
4 Stem	16 Gland socket bolt	28 Vent valve
5 Seat insert	17 Gland pin	29 Drain plug
6 Seat retainer	18 Gland bolt & nut	30 Seat sealant valve
7 Seat spring	19 Gland seal	31 Stem sealant valve
8 Seat O-ring	20 Trunnion support	32 Antistatic assembly
9 Seat seal	21 Trunnion support pin	33 Drive key
10 Stem packing	22 Bushing	34 Gearbox assembly
11 Stem O-ring	23 Thrust washer	35 Lifting lug
12 Stem bushing	24 Trunnion socket bolt	36 Supporting leg

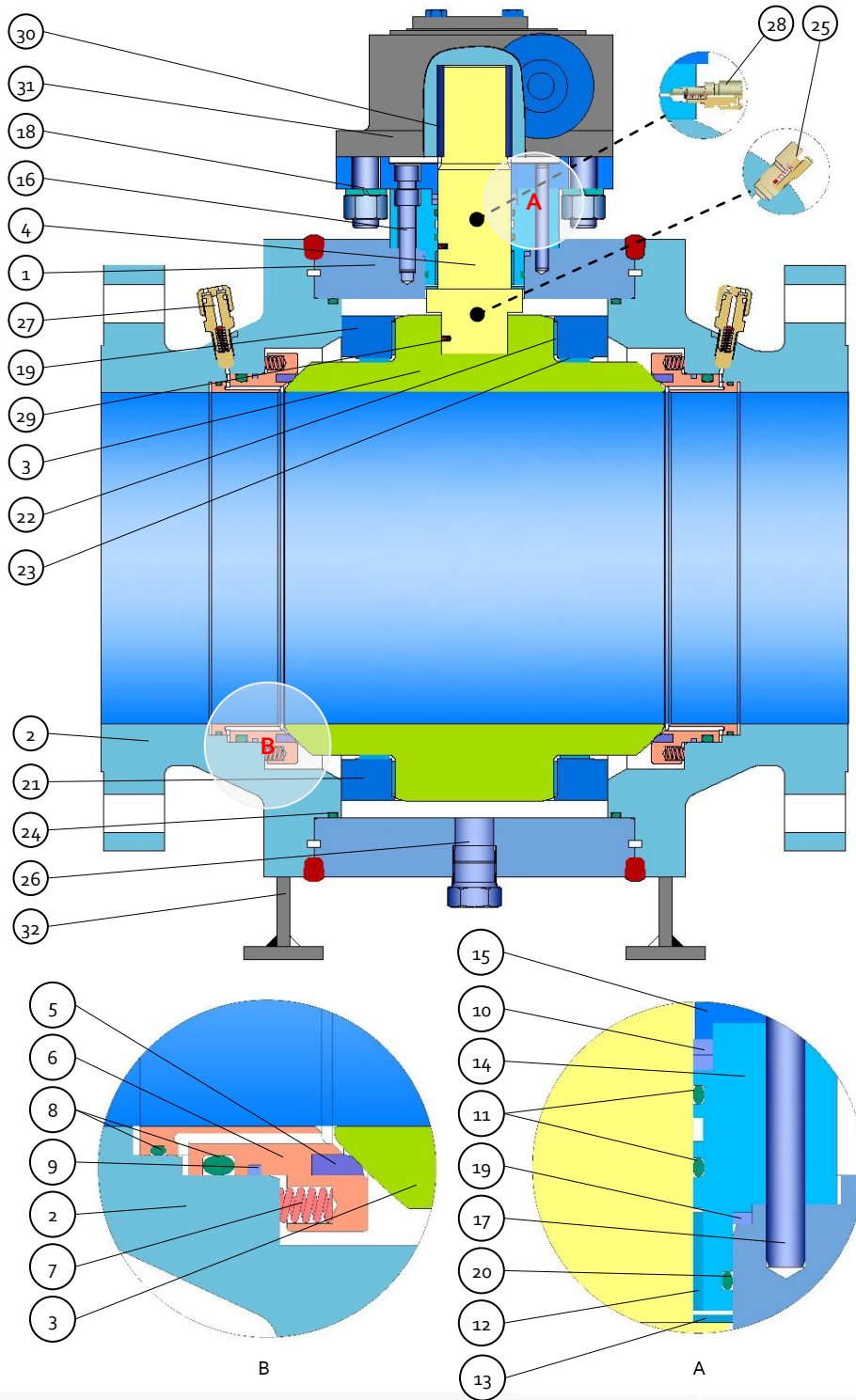
TYPICAL MATERIALS

Body/Closures	A105, A182 F304, F304L, F316, F316L, F51, F53, A350 LF2, LF3, LF5, Monel, Inconel, Hastelloy (Forging) A216 WCB, A351 CF3, CF8, CF3M, CF8M, A995 4A, 5A, A352 LCB, LCC, LC2 (Casting)
Ball	CS+ENP, A182 F304, F304L, F316, F316L, F51, F53, CS+TCC, CS+Ni60
Seat retainer	CS+ENP, A182 F304, F304L, F316, F316L, F51, F53, CS+TCC, CS+Ni55
Seat insert	PTFE, RPTFE, Nylon, Devlon, PEEK
Stem	A182 F6a, F316, F51, A105+ENP, AISI 4140+ENP, 17-4PH
Packing	Graphite, PTFE, RPTFE
O-ring	Viton, NBR, HNBR, AFLAS

TRUNNION BALL VALVE

OVERVIEW

WELDED BODY



PART LIST

- | | |
|----|--------------------------------|
| 1 | Body |
| 2 | Closures |
| 3 | Ball |
| 4 | Stem |
| 5 | Seat Insert |
| 6 | Seat retainer |
| 7 | Seat spring |
| 8 | Seat O-ring |
| 9 | Seat seal |
| 10 | Stem packing |
| 11 | Stem O-ring |
| 12 | Stem bushing |
| 13 | Thrust washer |
| 14 | Stuffing box |
| 15 | Gland cover |
| 16 | Gland socket bolt |
| 17 | Gland pin |
| 18 | Gland bolt & nut |
| 19 | Gland seal |
| 20 | Gland O-ring |
| 21 | Trunnion support |
| 22 | Trunnion support bushing |
| 23 | Trunnion support thrust washer |
| 24 | Body seal |
| 25 | Vent valve |
| 26 | Drain plug |
| 27 | Seat sealant valve |
| 28 | Stem sealant valve |
| 29 | Antistatic assembly |
| 30 | Drive key |
| 31 | Gearbox assembly |
| 32 | Supporting leg |

TYPICAL MATERIALS

Body/Closures	A105, A182 F304, F304L, F316, F316L, F51, F53 A350 LF2, LF3, LF5, Monel, Inconel, Hastelloy (Forging only)
Ball	CS+ENP, A182 F304, F304L, F316, F316L, F51, F53 CS+TCC, CS+Ni60
Seat retainer	CS+ENP, A182 F304, F304L, F316, F316L, F51, F53 CS+TCC, CS+Ni55
Seat insert	PTFE, RPTFE, Nylon, Devlon, PEEK
Stem	A182 F6a, F316, F51, A105+ENP, AISI 4140+ENP, 17-4PH
Packing	Graphite, PTFE, RPTFE
O-ring	Viton. NBR. HNBR. AFLAS

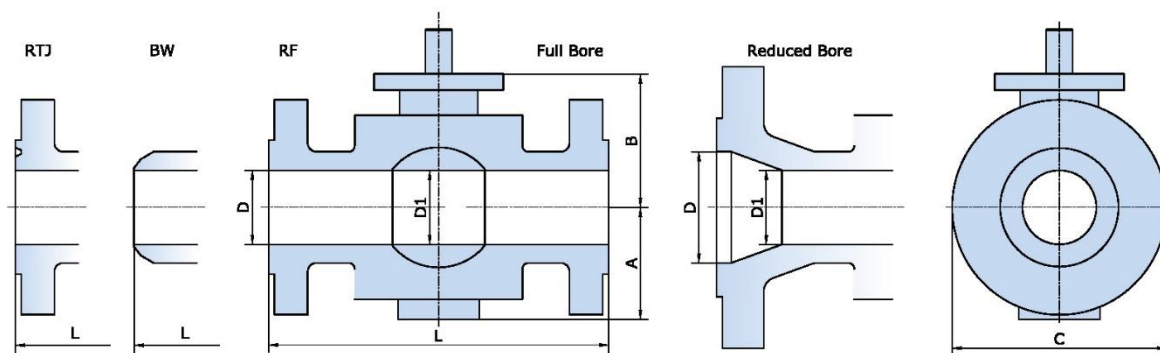
STANDARDS

Design& manufacture	API 6D, ISO 14313, ISO 17292
Face-to-face	API 6D, ASME B16.10
End flanges	ASME B16.5, ASME B16.47 MSS SP-44 (NPS 22 Only)
Test & inspection	API 6D, API 598
Fire safe	API 6FA, API 607
Other	NACE MR01-75, MR 0103 ISO 15848, API 622, API 624

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 150 (PN 20)



ASME CLASS 150 (PN 20) FULL BORE

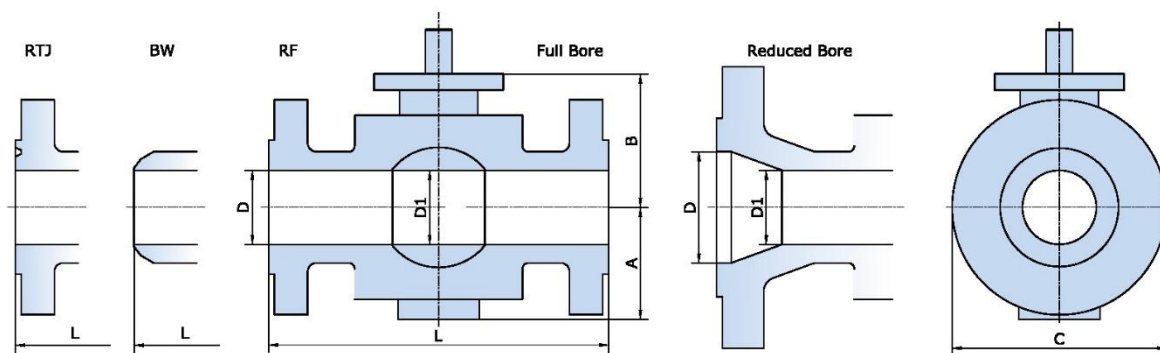
Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2	1.93	1.93	7	7.5	8.5	3.4	5.3	5.9	3.1	4.6	5.9	40	35
50	49	49	178	191	216	86	135	150	79	117	150	18	16
2 1/2	2.44	2.44	7.5	8	9.5	3.9	5.9	7.3	3.6	5.7	7.1	53	48
65	62	62	191	203	241	100	150	185	92	145	180	24	22
3	2.91	2.91	8	8.5	11	4.9	6.3	7.8	4	5.6	7.7	73	66
80	74	74	203	216	283	125	161	198	102	141	195	33	30
4	3.94	3.94	9	9.5	12	5.2	7.5	9	4.8	6.7	9	110	99
100	100	100	229	242	305	132	190	230	123	170	230	50	45
5	5	5	14	14.53	14	6.1	8.1	11.2	5.9	7.9	11	238	224
125	127	127	356	369	356	155	205	285	150	200	280	108	102
6	5.91	5.91	15.5	16	18	7.2	9.2	12.6	6.6	8.7	12.1	319	286
150	150	150	394	407	457	184	233	320	168	222	308	145	130
8	7.91	7.91	18	18.5	20.5	9	10	15.7	9	10	15.3	562	368
200	201	201	457	470	521	228	253	398	230	255	388	255	235
10	9.92	9.92	21	21.5	22	10.6	11.4	19.1	11.2	11.8	18.7	859	811
250	252	252	533	546	559	268	290	485	285	300	475	390	368
12	11.94	11.94	24	24.5	25	12.9	15.6	22.2	13.4	14.4	21.4	1,342	1232
300	303	303	610	623	635	327	395	565	340	340	543	610	560
14	13.15	13.15	27	27.5	30	14.8	15.6	14	14.2	15	23.5	1718	1652
350	334	334	686	699	762	375	395	610	360	381	598	780	750
16	15.16	15.16	30	30.5	33	16	17.8	27.9	15.7	16.5	26.7	2640	2420
400	385	385	762	775	838	405	452	708	400	419	678	1200	1100
18	17.17	17.17	34	34.5	36	18.3	18.5	30.1	18.1	18.5	29.9	3304	3124
450	436	436	864	877	914	465	470	765	460	470	760	1500	1420
20	19.17	19.17	36	36.5	39	21.7	21.7	34.3	19.3	19.9	33.1	4207	4075
500	487	487	914	927	991	550	550	870	490	505	840	1910	1850
22	21.19	21.19	39	39.5	43	19.1	19.1	37	18.9	21.5	36.8	4928	4774
550	538	538	991	1003	1092	485	550	940	480	545	935	2240	2170
24	23.19	23.19	42	42.5	46	24	24.1	40.4	23.6	23.9	39.8	6820	6006
600	589	589	1067	1080	1143	610	612	1026	600	607	1010	3100	2730
26	24.94	24.94	45	(1)	49	24.8	26	43.7	24.5	25.6	42.5	7048	6894
650	633	633	1143		1245	630	660	1110	623	651	1080	3200	3130
28	26.94	26.94	49	(1)	53	27	28	46.3	26.8	27.2	45.6	7963	7963
700	684	684	1245		1346	685	700	1175	680	690	1157	3615	3540
30	28.94	28.94	51	(1)	55	28	30.6	49.8	29	29	48.8	11814	10780
750	735	735	1295		1397	710	777	1265	737	737	1240	5370	4900
32	30.69	30.69	54	(1)	60	30.3	30.7	45.1	30.1	30.5	52.6	13310	12716
800	779	779	1372		1524	770	780	1145	765	775	1335	6050	5780
34	32.69	32.69	58	(1)	64	31.3	30.9	45.3	30.7	30.3	44.5	15180	14146
850	830	830	1473		1626	795	785	1150	780	770	1130	6900	6430
36	34.41	34.41	60	(1)	68	35.6	34.4	58.3	33.5	33.5	57.8	18920	16720
900	874	874	1524		1727	905	875	1480	850	852	1468	8600	7600
40	38.44	38.44	70.87	(1)	70.87	37	37	66.9	36.6	36.6	64.2	24200	21340
1000	976	976	1800		1800	940	940	1700	930	930	1630	11000	9700
42	40.19	40.19	74.8	(1)	74.8	38.4	38.4	66.9	37.4	37.94	66.5	31900	24816
1050	1010	1010	1900		1900	975	975	1700	950	950	1690	14500	11280
48	45.94	45.94	82.68	(1)	82.68	42.7	45.3	76.4	42.3	43.3	76	39600	35420
1200	1166	1166	2100		2100	1085	1150	1940	1075	1100	1930	18000	16100
56	53.56	53.56	94.49	(1)	94.49	50.4	51.6	90.2	50	51.6	89.6	61600	55660
1400	1360	1360	2400		2400	1280	1310	2290	1270	1310	2275	28000	25300

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 150 (PN 20)



ASME CLASS 150 (PN 20) REDUCED BORE

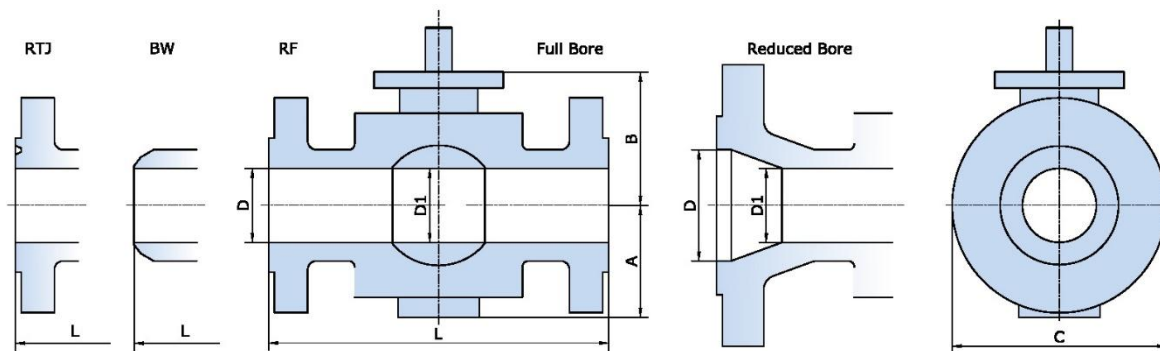
Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2x1 1/2	1.93	1.5	7	7.5	8.5	3.3	4.9	5.9	3	4.3	5.9	33	26
50x40	49	38	178	191	216	85	125	150	75	110	150	15	12
2 1/2x2	2.44	1.93	7.5	8	9.5	3.3	5.3	7.1	3.1	4.6	7.1	49	42
65x50	62	49	190	203	241	86	135	180	79	117	180	22	19
3x2	2.94	1.93	8	8.5	11.13	3.3	5.3	7.5	3.1	4.6	7.5	68	48
80x50	74	49	203	216	283	86	135	190	79	117	190	31	22
4x3	3.94	2.94	9	9.5	12	4.9	9.1	7.8	4	5.5	9.1	97	81
100x80	100	74	229	241	305	125	230	198	102	141	230	44	37
6x4	5.94	3.94	15.5	16	18	5.5	7.5	11	4.8	6.7	11	264	209
150x100	150	100	394	406	457	140	190	280	123	170	280	120	95
8x6	7.94	5.94	18	18.5	20.5	7.2	9.2	13.6	6.8	8.7	13.6	463	414
200x150	201	150	457	470	521	184	233	345	172.5	222	345	210	188
10x8	9.94	7.94	21	21.5	22	9	10	1.6	9.1	10	15.9	728	671
250x200	252	201	533	546	559	228	253	405	230	255	405	330	305
12x10	11.94	9.94	24	24.5	25	10.6	11.4	19.1	11.2	11.8	19.1	1123	925
300x250	303	252	610	622	635	268	290	485	285	300	485	510	420
14x10	13.19	9.94	27	27.5	30	10.6	11.4	21	11.2	11.8	21	1542	1211
350x250	334	252	686	699	762	268	290	535	285	300	535	700	550
16x12	15.19	11.94	30	30.5	33	12.9	15.6	22.2	13.4	13.4	23.4	2004	1674
400x300	385	303	762	775	838	327	395	565	340	340	595	910	760
18x14	17.19	13.19	34	34.5	36	14.8	15.6	25	14.2	15	25	2974	2600
450x350	436	334	864	877	914	375	395	635	360	381	635	1350	1180
20x16	19.19	15.19	36	36.5	39	15.9	17.8	27.9	15.7	21.7	27.6	3722	3304
500x400	487	385	914	927	991	405	452	708	400	419	700	1690	1500
24x20	23.19	19.19	42	42.5	45	21.7	21.7	34.3	19.3	19.9	33.1	5352	4780
600x500	589	487	1067	1080	1143	550	550	870	490	505	840	2430	2170
30x24	28.94	23.19	51	(1)	55	24	24.1	40.4	23.6	23.9	39.8	9097	8150
750x600	735	589	1295	(1)	1397	610	612	1026	600	607	1010	4130	3700
36x30	34.44	28.94	60	(1)	68	28	30.6	49.8	29	29	48.8	16300	14978
900x750	874	735	1524	(1)	1727	710	777	1265	737	737	1240	74100	6800

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 300 (PN 50)



ASME CLASS 300 (PN 50) FULL BORE

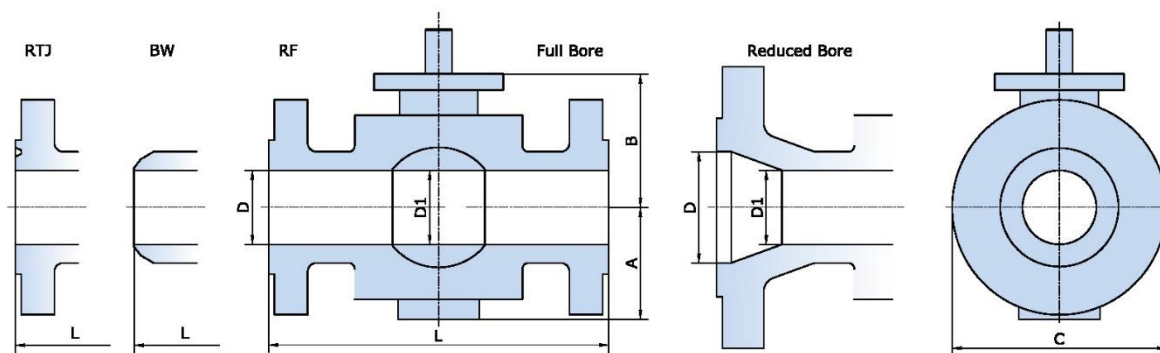
Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2	1.93	1.93	8.5	9.13	8.5	3.6	5.3	6.5	3.3	4.6	6.5	62	51
50	49	49	216	232	216	91	135	165	83	117	165	28	23
2 1/2	2.44	2.44	9.5	10.12	9.5	3.7	5.9	7.3	3.6	5.7	7.1	77	73
65	62	62	241	257	241	95	150	185	92	145	180	35	33
3	2.94	2.94	11.13	11.75	11.13	5	6.3	8.3	4.1	5.6	8.3	95	88
80	74	74	282	298	283	126	161	210	105	141	210	43	40
4	3.94	3.94	12	12.63	12	5.2	7.5	10	5	6.7	10	152	143
100	100	100	305	321	305	132	190	255	128	170	255	69	65
5	5	5	15.75	16.26	15.75	6.3	8.3	11.6	6.1	8	11.2	328	304
125	125	125	400	413	400	160	210	295	155	202	285	149	138
6	5.94	5.94	15.88	16.5	18	7.4	9.2	13	6.6	8.7	12.6	396	308
150	150	150	403	419	457	189	233	330	168	222	320	180	140
8	7.91	7.91	19.75	20.38	20.5	9	10	15.7	9.3	10	15.4	647	539
200	201	201	502	518	521	228	253	398	235	255	392	294	245
10	9.92	9.92	22.38	23	22	10.6	11.4	10.1	11.4	12	19.1	976	903
250	252	252	568	584	559	268	290	485	290	305	485	443	410
12	11.94	11.94	25.5	28.13	25.5	12.9	15.6	23.2	13.4	13.4	21.8	1542	1432
300	303	303	648	664	635	327	395	590	340	340	554	700	650
14	13.19	13.19	30	30.62	30	15.2	15.7	24.8	14.5	15	23.9	2042	1949
350	334	334	762	778	762	385	400	630	368	384	606	927	885
16	15.19	15.19	33	33.63	33	15.9	17.8	28.2	16.5	16.5	27.1	2863	2731
400	385	385	838	854	838	405	452	716	420	419	689	1300	1240
18	17.19	17.19	36	36.63	36	18.9	19.3	31.5	18.5	18.9	30.7	3744	3480
450	436	436	914	930	914	480	490	800	470	480	780	1700	1580
20	19.17	19.17	39	39.75	39	21.7	21.7	34.3	19.5	19.9	33.5	5066	4405
500	487	487	991	1010	991	550	550	870	495	505	850	23000	2000
22	21.19	21.19	43	43.88	43	20.3	21.7	37.8	20.1	21.5	37.2	5390	4840
550	538	538	1092	1114	1092	515	550	960	510	545	945	2450	2200
24	23.19	23.19	45	45.888	45	24	24.8	40.6	24.8	23.9	40.9	8436	7600
600	589	589	1143	1165	1143	610	630	1030	630	607	1038	3830	3450
26	24.94	24.94	49	50	49	28.4	26	43.1	24.5	25.6	42.7	9295	8480
650	633	633	1245	1270	1245	630	660	1095	623	651	1085	4220	3850
28	26.94	26.94	53	54	53	27.6	28	46.9	27.2	27.6	46.3	10604	9372
700	684	684	1346	1372	1346	700	710	1190	690	700	1175	4820	4260
30	28.94	28.94	55	56	55	28	30.6	49.8	29.4	29.4	49.8	12320	11330
750	735	735	1397	1422	1397	710	777	1265	747	747	1266	5600	5150
32	30.69	30.69	60	61.13	60	30.7	31.1	53.1	30.3	30.7	53	15088	13767
800	779	779	1524	1552	1524	780	790	1350	770	780	1345	6850	6250
34	32.69	32.69	64	65.1	64	31.9	30.5	47.8	31.9	30.5	47.8	15510	14190
850	830	830	1626	1654	1626	810	775	1215	810	775	1215	7050	6450
36	34.41	34.41	68	69.13	68	35.6	34.4	58.3	34	34	58.7	19800	18480
900	874	874	1727	1756	1727	905	875	1480	864	864	1492	9000	8400
40	38.44	38.44	76.77	(1)	76.77	37	37	65	36.6	36.6	64.6	24200	22660
1000	976	976	1950	(1)	1950	940	940	1650	930	930	1640	11000	10300
42	40.19	40.19	82.68	(1)	82.68	38.2	38.2	66.9	37.8	37.8	66.5	31900	29920
1050	1020	1020	2100	(1)	2100	970	970	1700	960	960	1690	14500	13600
48	45.94	45.94	85.43	(1)	85.43	44.1	44.1	77.4	43.3	43.3	76.6	39600	37620
1200	1166	1166	2170	(1)	1270	1120	1120	1965	1100	1100	1945	18000	17100
56	53.56	53.56	98.43	(1)	98.43	50.4	53.1	90.4	50	52.2	89.8	60060	56760
1400	1360	1360	2500	(1)	2500	1280	1350	2295	1270	1325	2282	27300	25800

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 300 (PN 50)



ASME CLASS 300 (PN 50) REDUCED BORE

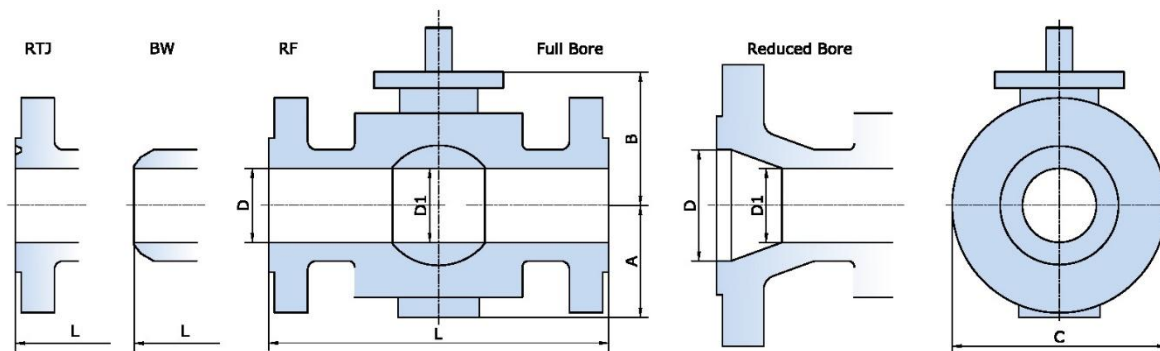
Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2x1 1/2 50x40	1.93 49	1.5 38	8.5 216	9.11 232	8.5 216	3.5 90	5.1 130	6.5 165	3.3 83	4.3 110	6.5 165	48 22	41 18.5
2 1/2x2 65x50	2.44 62	1.93 49	9.5 241	10.13 257	9.5 241	3.6 91	5.3 135	6.5 165	3.3 83	4.6 117	7.5 190	62 28	55 25
3x2 80x50	2.94 74	1.93 49	11.13 283	11.75 298	11.13 283	3.6 91	5.3 135	8.3 210	3.3 83	4.6 117	8.3 210	81 37	75 34
4x3 100x80	3.94 100	2.94 74	12 305	12.63 321	12 305	5 128	6.3 161	10 255	5 128	5.6 141	10 255	119 54	90 41
6x4 150x100	5.94 150	3.94 100	15.88 403	16.5 419	18 457	6.3 160	7.5 190	12.6 320	6.3 160	6.7 170	12.6 320	242 110	187 85
8x6 200x150	7.94 201	5.94 150	19.75 518	20.38 518	20.5 521	7.5 190	9.2 233	15 380	7.5 190	8.7 222	15 380	495 225	451 205
10x8 250x200	9.94 252	7.94 201	22.38 568	23 584	22 559	9 228	10 253	17.5 445	9.3 235	10 255	17.5 445	803 365	748 340
12x10 300x250	11.94 303	9.94 252	25.5 648	26.13 664	25 635	10.6 268	11.4 290	20.5 520	11.4 290	12 305	20.5 520	1320 600	1239 563
14x10 350x250	13.19 334	9.94 252	30 762	30.63 778	30 762	10.6 268	11.4 290	23 585	11.4 290	12 305	23 585	1762 800	1432 650
16x12 400x300	15.19 385	11.94 334	33 838	33.63 854	33 838	12.9 327	15.6 395	23.2 590	13.4 340	13.4 340	21.8 554	2445 1110	2269 1030
18x14 450x350	17.19 436	13.19 334	36 914	36.62 930	36 914	15.2 385	15.7 400	28 710	14.5 368	15.1 384	28 710	3300 1500	3102 1410
20x16 500x400	19.19 487	15.19 385	39 991	49.75 1010	39 991	16 405	17.8 452	28.2 716	16.5 420	16.5 419	27.1 689	4626 2100	4185 1900
24x20 600x500	23.19 589	19.19 487	45 1143	45.88 1165	45 1143	21.7 550	21.7 550	36 915	19.5 495	19.9 505	36 915	6057 2750	5617 2550
30x24 750x600	28.94 735	23.19 589	55 1397	56 1422	55 1397	24 610	24.8 630	42.9 1090	24.85 630	23.9 607	42.9 1090	9350 4250	8492 3860
36x30 900x750	34.44 874	28.94 735	55 1397	56 1422	55 1397	28 710	30.6 777	50 1270	29.4 747	29.4 747	50 1270	16740 7600	14450 6560

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 600 (PN 100)



ASME CLASS 600 (PN 100) FULL BORE

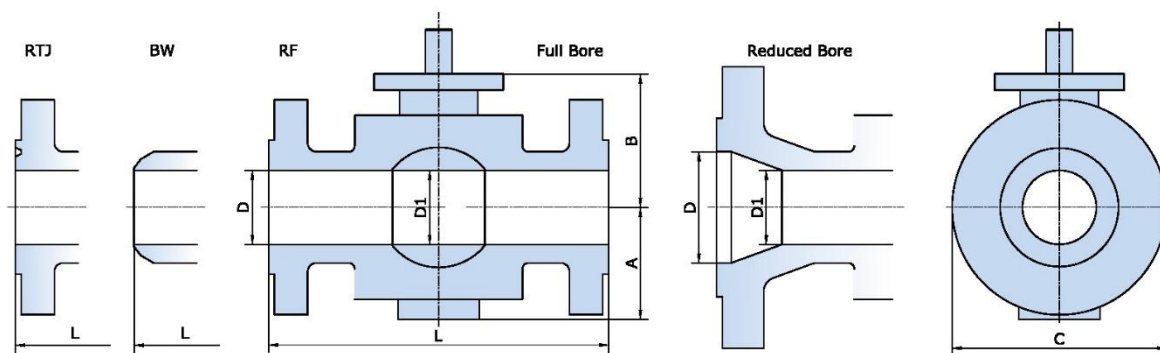
Size in/mm	D	D ₁	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2	1.93	1.93	11.5	11.63	11.5	3.7	5.7	6.5	3.3	5	6.5	62	57
50	49	49	292	295	292	95	145	165	83	126	165	28	26
2 1/2	2.44	2.44	13	13.13	13	3.9	6.3	7.7	3.7	5.9	7.4	119	106
65	62	62	330	333	330	100	160	195	95	150	188	54	48
3	2.94	2.94	14	14.13	14	5	7.2	8.3	4.6	6.1	8.3	165	159
80	74	74	356	359	356	128	184	210	117	155	210	75	72
4	3.94	3.94	17	17.13	17	5.8	8.2	11.6	5.4	7	10.8	242	209
100	100	100	432	435	432	148	209	295	138	177	275	110	95
5	5	5	20	20.12	20	6.7	8.2	13.4	6.5	8	13	407	352
125	127	125	508	511	508	170	208	340	165	202	330	185	160
6	5.94	5.94	22	22.13	22	7.7	9.8	14	7	9	14	551	511
150	150	150	559	562	559	195	250	355	178	228	355	250	232
8	7.91	7.91	26	26.13	26	9.6	11.1	16.5	9.6	10.5	16.5	914	727
200	201	201	660	663	660	245	283	420	245	267	420	415	330
10	9.92	9.92	31	31.13	31	11.4	12.6	20	11.9	12.3	20	1652	1564
250	252	252	787	790	787	290	320	510	302	312	510	750	710
12	11.94	11.94	33	33.13	33	14.2	15.3	22.8	13.8	14.5	22.6	2024	1808
300	303	303	838	841	835	360	390	580	350	368	573	919	820
14	13.19	13.19	35	35.12	35	15.6	16.1	25	15	15.6	24.8	2863	2445
350	334	334	889	891	889	395	410	635	380	396	630	1300	1110
16	15.19	15.19	39	39.13	39	16.7	17.2	28.3	17.3	17.5	16.7	3722	33304
400	385	385	991	994	991	425	436	720	440	444	423	1690	1500
18	17.19	17.19	43	43.13	43	19.3	20.3	32.3	18.9	20	31.9	5176	4670
450	436	435	1092	1095	1092	490	515	820	480	510	810	2350	2120
20	19.17	19.17	47	47.25	47	22.6	22.7	36.2	20.6	20.7	34.4	6500	6013
500	487	487	1194	1200	1194	575	576	920	522	525	875	2950	2730
22	21.19	21.19	51	51.38	51	20.5	22	37.8	20.3	26.7	37.4	6938	6432
550	538	538	1295	1305	1295	520	560	960	515	550	950	3150	2920
24	23.19	23.19	55	55.38	55	23.8	25.2	41	24.4	25.2	41.3	10573	9692
600	589	589	1397	1407	1397	605	640	1043	619	641	1050	4800	4400
26	24.94	24.94	57	57.5	57	25.6	26.4	43.9	25.5	26.2	43.3	11718	10683
650	633	633	1448	1461	1448	650	670	1115	640	665	1100	5320	4850
28	26.94	26.94	61	61.5	61	26.8	23.3	48	26.6	28.1	47.6	17400	16410
700	684	684	1549	1562	1594	680	720	1220	675	715	1210	7900	7450
30	28.94	28.94	65	65.5	65	29.9	30.6	51.8	29.1	30.6	51	19600	18612
750	735	735	1651	1664	1651	760	777	1315	740	776	1295	8900	8450
32	30.69	30.69	70	70	70.63	31.1	31.5	55.5	30.9	31.3	53.9	20240	18260
800	779	779	1778	1778	1794	790	790	1410	785	794	1370	9200	8300
34	32.69	32.69	76	76.61	76	33.1	33.9	56.3	32.7	33.5	57.5	29295	25300
850	830	830	1930	1946	1930	840	860	1480	830	850	1460	13300	11500
36	34.41	34.41	82	82.63	82	35	36.6	60.9	35.4	36.2	60.9	30176	27533
900	874	874	2083	2099	2083	890	930	1546	900	920	1548	13700	12500
40	38.44	38.44	80.71	(1)	80.71	37.8	38	65.6	37.4	37.6	65.2	31460	29172
1000	976	976	2050	(1)	2050	960	965	1665	950	955	1655	14300	13260
42	40.19	40.19	82.68	(1)	82.68	40.9	41.7	72.8	40.6	41.3	71.7	36080	33660
1050	1020	1020	2100	(1)	2100	1040	1060	1850	1030	1050	1820	16400	15300
48	45.94	45.94	94.49	(1)	94.49	46.9	46.3	78.3	46.5	45.9	77.6	49940	46200
1200	1166	1166	2400	(1)	2400	1190	1175	1990	1180	1165	1970	22700	21000
56	53.56	53.56	106.3	(1)	106.3	54.5	54.3	93.5	54.2	53.5	92.6	81400	30800
1400	1360	1360	2700	(1)	2700	1385	1380	2375	1376	1360	2352	37000	14000

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 600 (PN 100)



ASME CLASS 600 (PN 100) REDUCED BORE

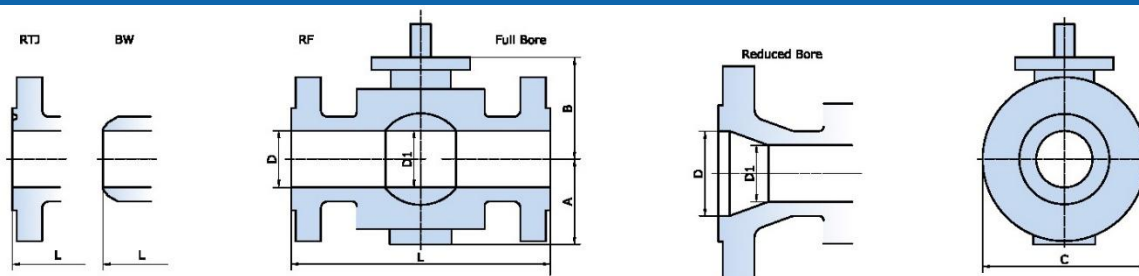
Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2x1 1/2	1.93	1.5	11.5	11.62	11.5	3.7	5.28	6.5	3.3	4.5	6.5	53	46
50x40	49	38	292	295	292	94	134	165	83	115	165	24	21
2 1/2x2	2.44	1.93	13	13.13	13	3.7	5.7	7.5	3.3	5	7.5	95	64
65x50	62	49	330	333	330	95	145	190	83	126	190	43	29
3x2	2.94	1.93	14	14.13	14	3.7	5.7	8.3	3.3	5	8.3	93	86
80x50	74	49	356	359	356	95	145	210	83	126	210	42	39
4x3	3.94	2.94	17	17.13	17	5.4	7.2	10.8	5.5	6.1	10.8	187	150
100x80	100	74	432	435	432	138	184	275	138	155	275	85	68
6x4	5.94	3.94	22	22.13	22	7	8.2	14	7	7	14	330	187
150x100	150	100	559	562	559	178	208	355	178	177	355	150	85
8x6	7.94	5.94	26	26.13	26	8.3	9.8	16.5	8.3	9	16.5	638	528
200x150	201	150	660	663	660	210	250	420	210	228	420	290	240
10x8	9.94	7.94	31	31.13	31	9.6	11.1	20	9.6	10.5	20	1256	1167
250x200	252	201	787	790	787	245	283	510	245	267	510	570	530
12x10	11.94	9.94	33	33.13	33	11.4	12.6	22	11.9	12.3	22	1762	1608
300x250	303	252	838	841	838	290	320	560	302	312	560	800	730
14x10	13.19	9.94	35	35.13	35	11.4	12.6	23.8	11.9	12.3	23.8	2489	2247
350x250	334	252	889	892	889	290	320	605	302	312	605	1130	1020
16x12	15.19	11.94	39	39.13	39	14.1	15.4	27	13.8	14.5	27	3414	2930
400x300	385	303	991	994	991	360	390	685	350	368	685	1550	1330
18x14	17.19	13.19	43	43.13	43	15.6	16.1	29.3	15.2	15.6	29.3	4405	3965
450x350	436	334	1092	1095	1092	395	410	745	385	396	745	2000	1800
20x16	19.19	15.19	47	47.25	47	16.7	17.2	32	17.3	17.5	32.1	5727	5286
500x400	487	385	1194	1200	1194	425	436	815	440	444	815	2600	2400
24x20	23.19	19.19	55	55.38	55	22.6	22.7	37	20.6	20.7	37	6500	7819
600x500	589	487	1397	1407	1397	575	576	940	522	525	940	3950	3550
30x24	28.94	23.19	61	65.5	65	23.8	25.2	42.9	24.4	25.2	42.9	18722	17621
750x600	735	589	1651	1664	1651	605	640	1090	619	641	1090	8500	8000
36x30	34.41	28.94	82	82.63	82	35	36.6	60.9	35.4	36.2	60.9	23965	20925
900x750	874	735	2083	2099	2083	890	930	1546	900	920	1548	10880	9500

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 900 (PN 150)



ASME CLASS 900 (PN 150) FULL BORE

Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2	1.93	1.93	14.5	14.63	14.5	4.3	5.5	8.5	4.3	5.5	8.5	128	119
50	49	49	368	371	368	108	140	215	108	140	215	58	54
2 1/2	2.44	2.44	16.5	16.62	16.5	4.8	6.3	9.6	4.8	6.3	9.6	152	139
65	62	62	419	422	419	123	160	245	123	160	245	69	63
3	2.94	2.94	15	15.13	15	4.7	6.3	9.4	4.7	6.3	9.4	198	187
80	74	74	381	384	381	120	161	240	120	161	240	90	85
4	3.94	3.94	18	18.13	18	5.7	7.1	11.4	5.7	7.1	11.4	295	253
100	100	100	457	460	457	145	180	290	145	180	290	134	115
5	4.76	4.76	22	22.13	22	6.7	8.5	13.8	6.7	8.5	13.8	517	429
125	121	121	559	562	559	170	215	350	170	215	350	235	195
6	5.94	5.94	24	24.13	24	7.3	9.4	15	7.3	9.4	15	661	617
150	150	150	610	613	610	185	239	380	185	239	380	300	280
8	7.94	7.94	29	29.13	29	7.7	11.3	18.5	7.7	11.3	18.5	1196	1123
200	201	201	737	740	737	295	288	470	295	288	470	543	510
10	9.94	9.94	33	33.13	33	13.8	13.8	21.5	13.8	13.8	21.5	2115	1872
250	252	252	838	841	838	350	350	545	350	350	545	960	850
12	11.94	11.94	38	38.13	38	14.6	15.3	24	14.6	15.3	24	3062	2863
300	303	303	965	968	965	370	388	610	370	388	610	1390	1300
14	12.69	12.69	40.5	40.88	40.5	16.9	16.9	26.2	16.1	16.1	25.9	3414	2930
350	322	322	1029	1039	1029	430	430	665	410	410	658	1550	1330
16	14.69	14.69	44.5	44.88	44.5	17.7	18.1	29.5	17.7	18.1	29.5	4092	3190
400	373	373	1130	1140	1130	450	460	750	450	460	750	1860	1450
18	16.69	16.69	48	48.5	48	19.3	20.9	32.3	19.3	20.9	32.3	5841	5220
450	423	423	1219	1232	1219	490	530	820	490	530	820	2655	2370
20	18.56	18.56	52	52.5	52	23.2	22.2	36.5	23.2	22.2	36.5	7379	6828
500	471	471	1321	1334	1321	590	565	928	590	565	928	3500	3100
24	22.44	22.44	61	61.75	61	24.8	24.2	41.7	24.8	24.2	41.7	14053	13436
600	570	570	1549	1568	1549	630	615	1060	630	615	1060	6380	6100
26	24.31	24.31	65	65.88	(1)	26.8	27.6	45.7	26.8	27.6	45.7	14850	11968
650	617	617	1651	1673	(1)	680	700	1160	680	700	1160	6750	5440
28	26.19	26.19	69	69.88	(1)	29.3	29.5	50.6	29.3	29.5	50.6	19250	16390
700	665	665	1753	1775	(1)	743	750	1285	743	750	1285	8750	7450
30	28.06	28.06	74	74.88	(1)	31.5	31.5	53.5	31.5	31.5	53.5	25300	21340
750	712	712	1880	1902	(1)	800	800	1360	800	800	1360	11500	9700

ASME CLASS 900 (PN 150) REDUCED BORE

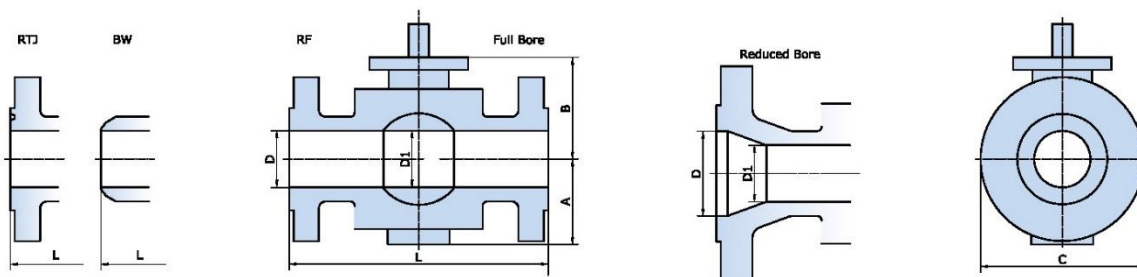
Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2x1 1/2	1.93	1.5	14.5	14.62	14.5	4.3	4.5	8.5	4.3	4.5	8.5	99	88
50x40	49	38	215	371	368	108	115	215	108	115	215	45	40
2 1/2x2	2.44	1.93	16.5	16.63	16.5	4.3	5.1	9.6	4.3	5.1	9.6	128	115
65x50	62	49	419	422	419	108	140	245	108	140	245	58	52
3x2	2.94	1.93	15	15.13	15	4.3	5.1	9.4	4.3	5.1	9.4	163	110
80x50	74	49	381	384	381	108	140	240	108	140	240	74	50
4x3	3.94	2.94	18	18.13	18	5.7	6.3	11.4	5.7	6.3	11.4	264	220
100x80	100	74	457	460	457	145	161	290	145	161	290	120	100
6x4	5.94	3.94	24	24.13	24	7.5	7.1	15	7.5	7.1	15	471	436
150x100	150	100	610	613	610	190	180	380	190	180	380	214	198
8x6	7.94	5.94	29	29.13	29	9.3	9.4	18.5	9.3	9.4	18.5	817	771
200x150	201	150	737	740	737	235	239	470	235	239	470	371	350
10x8	9.94	7.94	33	33.13	33	11.3	11.3	21.5	11.3	11.3	21.5	1542	1366
250x200	252	201	838	841	838	295	288	545	295	288	545	700	620
12x10	11.94	9.94	38	38.13	38	13	13.8	24	13	13.8	24	2643	1936
300x250	303	252	965	968	965	330	350	610	330	350	610	1200	880
14x10	14.69	11.94	44.5	44.88	44.5	14.6	15.3	24	14.6	15.3	24	2974	2467
350x250	322	303	1130	1140	1130	370	388	610	370	388	610	1350	1120
16x12	14.69	11.94	44.5	44.88	44.5	14.6	15.6	24	14.6	15.6	24	3855	3729
400x300	373	303	1130	1140	1130	370	388	610	370	388	610	1750	1720
18x14	16.69	12.69	48	48.5	48	16.9	16.9	30.9	16.1	16.1	30.9	5286	4956
450x350	423	322	1219	1232	1219	430	430	785	410	410	785	2400	2250
20x16	18.56	14.69	52	52.5	52	17.7	18.1	33.7	17.7	18.1	33.7	6993	6388
500x400	471	373	1321	1334	1321	450	460	855	450	460	855	3175	2900
24x20	22.44	18.56	61	61.75	61	23.2	22.2	40.9	23.2	22.2	40.9	11650	10793
600x500	570	471	1549	1568	1549	590	565	1040	590	565	1040	5289	4900
30x24	28.06	22.44	74	74.88	(1)	24.8	24.2	48.4	24.8	24.2	48.4	(1)	(1)
750x600	712	570	1880	1902	(1)	630	615	1230	630	615	1230	(1)	(1)

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 1500 (PN 250)



ASME CLASS 1500 (PN 250) FULL BORE

Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2	1.93	1.93	14.5	14.63	14.5	4.3	5.5	8.5	4.3	5.5	8.5	128	97
50	49	49	368	371	368	108	140	215	108	140	215	58	44
2 1/2	2.44	2.44	16.5	16.62	16.5	4.8	6.3	9.6	4.8	6.3	9.6	176	165
65	62	62	419	422	419	123	160	245	123	160	245	80	75
3	2.94	2.94	18.5	18.63	18.5	5.5	7.4	10.4	5.5	7.4	10.4	333	274
80	74	74	470	473	470	140	187	265	140	187	265	151	135
4	3.94	3.94	21.5	21.63	21.5	6.5	7.9	12.2	6.5	7.9	12.2	441	414
100	100	100	546	549	546	165	201	310	165	201	310	200	188
5	4.37	4.37	26.5	27.04	26.5	6.9	8.7	14.8	6.9	8.7	14.8	847	642
125	111	111	673	676	673	175	220	375	175	220	375	385	292
6	5.69	5.69	27.75	28	27.75	9.6	11.3	16.3	9.6	11.3	16.3	1123	1057
150	144	144	705	711	705	219	288	415	219	288	415	510	480
8	7.56	7.56	32.75	33.13	32.75	11.6	12.8	19.1	11.6	12.8	19.1	1804	1608
200	192	191	832	842	832	295	325	485	295	325	485	819	730
10	9.44	9.44	39	39.38	39	14.2	15.9	23.6	14.2	15.9	23.6	3282	2753
250	239	239	991	1001	991	360	405	600	360	405	600	1490	1250
12	11.31	11.31	44.5	45.13	44.5	15.7	17	27.2	15.7	17	27.2	4626	4295
300	287	287	1130	1146	1130	400	432	692	400	432	692	2100	1950
14	12.44	12.44	49.5	50.25	49.5	19.3	18.9	30.7	18.7	18.5	30.1	6454	6057
350	315	315	1259	1276	1257	490	480	780	475	469	765	2930	2750
16	14.19	14.19	54.5	55.38	54.5	24.8	23.5	38.6	24.8	23.5	38.6	8194	7709
400	360	360	1384	1407	1384	629	598	980	629	598	980	3720	3500
18	16	16	60.5	61.38	(1)	24	24.4	39.4	24	24.4	39.4	12775	11013
450	406	406	1537	1559	(1)	610	620	1000	610	620	1000	5800	5100
20	17.88	17.88	65.5	66.38	(1)	25.6	25.6	41.9	25.6	25.6	41.9	19383	17621
500	454	454	1664	1686	(1)	650	650	1065	650	650	1065	8800	8000
24	21.5	21.5	76.5	77.63	(1)	29.9	31.4	50.2	29.9	31.4	50.2	28634	26432
600	546	546	1943	1972	(1)	760	798	1275	760	798	1275	13000	12000

ASME CLASS 1500 (PN 250) REDUCED BORE

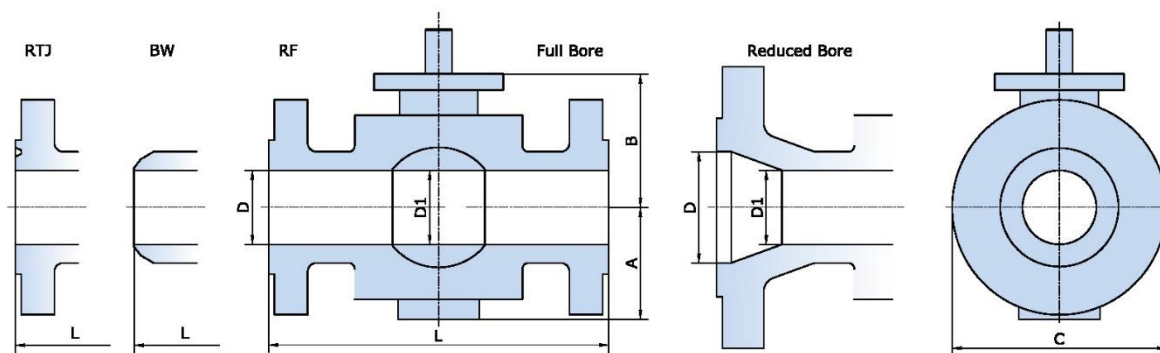
Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2x1 1/2	1.93	1.5	14.5	14.62	14.5	4.3	4.5	8.5	4.3	4.5	8.5	95	75
50x40	49	38	368	371	368	108	115	215	108	115	215	43	34
2 1/2x2	2.44	1.93	16.5	16.63	16.5	4.3	5.5	9.6	4.3	5.5	9.6	150	139
65x50	62	49	419	422	419	108	140	245	108	140	245	68	63
3x2	2.94	1.93	18.5	18.63	18.5	4.3	5.5	10.6	4.3	5.5	10.6	189	167
80x50	74	49	470	473	470	108	140	265	108	140	265	86	76
4x3	3.94	2.94	21.5	21.63	21.5	6.1	7.4	12.2	6.1	7.4	12.2	414	388
100x80	100	74	546	549	546	155	187	310	155	187	310	188	176
6x4	5.69	3.94	27.75	28	27.75	7.8	7.9	15.6	7.8	7.9	15.6	678	645
150x100	144	100	705	711	705	198	201	395	198	201	395	308	293
8x6	7.56	5.69	32.75	33.13	32.75	9.6	11.3	19.1	9.6	11.3	19.1	1575	1476
200x150	192	144	832	841	832	243	288	485	243	288	485	715	670
10x8	9.44	7.56	39	39.38	39	11.6	12.8	23	11.6	12.8	23	2698	2533
250x200	239	192	991	1001	991	295	325	585	295	325	585	1225	1150
12x10	11.31	9.44	44.5	45.13	44.5	14.2	15.9	26.6	14.2	15.9	26.6	4031	3634
300x250	287	239	1130	1146	1130	360	405	675	360	405	675	1830	1650
14x10	12.44	9.44	49.5	50.25	49.5	14.2	15.9	29.5	14.2	15.9	29.5	5595	4846
350x250	315	239	1257	1276	1257	360	405	750	360	405	750	2540	2200
16x12	14.19	11.31	54.5	55.38	54.5	15.7	17	32.5	15.7	17	32.5	7390	6608
400x300	360	287	1384	1407	1384	400	432	825	400	432	825	3355	3000
18x14	16	12.44	60.5	61.38	60.5	18.7	18.5	36	18.7	18.5	36	10474	8811
450x350	406	315	1537	1559	1537	475	469	915	475	469	915	4755	4000
20x16	17.88	14.19	65.5	66.38	(1)	24.8	23.5	38.8	24.8	23.5	38.8	16079	14978
500x400	454	360	1664	1686	(1)	629	598	985	629	598	985	7300	6800
24x20	21.5	17.88	76.5	77.63	76.5	25.6	25.6	46.1	25.6	25.6	46.1	20220	17621
600x500	546	454	1943	1971	1943	650	650	1170	650	650	1170	9180	8000

(1) Contact our sales representative for more information.

TRUNNION BALL VALVE

DIMENSIONS AND WEIGHTS

ASME CLASS 2500 (PN 420)



ASME CLASS 2500 (PN 420) FULL BORE

Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2	1.69	1.69	17.75	17.88	17.75	/	/	/	5.5	7.2	9.3	348	308
50	42	42	451	454	451	/	/	/	139	183	235	158	140
2 1/2	2.06	2.06	20.32	20.56	20.32	/	/	/	5.2	6.8	10.4	378	341
65	52	52	508	514	508	/	/	/	133	173	265	172	155
3	2.44	2.44	22.75	23	22.75	/	/	/	6.3	8.1	12	529	474
80	62	62	578	584	578	/	/	/	160	205	305	240	215
4	3.44	3.44	26.5	26.88	26.5	/	/	/	7.4	6.8	14	969	881
100	87	87	673	683	673	/	/	/	188	173	355	440	400
5	3.62	3.62	31.26	31.77	31.26	/	/	/	7.1	10	16.5	1652	1586
125	92	92	794	807	794	/	/	/	180	255	420	750	720
6	5.19	5.19	36	36.5	36	/	/	/	10.8	13.4	19.1	2115	1982
150	131	131	914	927	914	/	/	/	275	341	485	960	900
8	7.06	7.06	40.25	40.88	40.25	/	/	/	15	16.5	24.2	2885	2643
200	179	179	1022	1038	1022	/	/	/	380	418	615	1310	1200
10	8.81	8.81	50	50.88	50	/	/	/	18.9	20.5	31.9	4626	4295
250	223	223	1270	1292	1270	/	/	/	480	520	810	2110	1950
12	10.44	10.44	56	56.88	56	/	/	/	19.7	21.3	33.9	7115	6608
300	265	265	1422	1444	1422	/	/	/	500	540	860	3230	3000

ASME CLASS 2500 (PN 420) REDUCED BORE

Size in/mm	D	D1	L			Casting			Forging			Weight	
			RF	RTJ	BW	A	B	C	A	B	C	RF/RTJ (lb/kg)	BW (lb/kg)
2x1 1/2	1.69	1.5	17.75	17.88	17.75	/	/	/	4.6	5.5	9.3	275	231
50x40	42	38	368	454	451	/	/	/	118	140	235	125	105
2 1/2x2	2.06	1.69	20	20.25	20	/	/	/	5.5	7.2	10.4	330	297
65x50	52	42	508	514	508	/	/	/	139	183	265	150	135
3x2	2.44	1.69	22.75	23	22.75	/	/	/	5.5	7.2	12	430	396
80x50	62	42	578	584	578	/	/	/	139	183	305	195	180
4x3	3.44	2.66	26.5	26.88	26.5	/	/	/	7	10.4	14	859	771
100x80	87	62	673	683	673	/	/	/	178	265	355	390	350
6x4	5.19	3.44	36	36.5	36	/	/	/	9.6	10.7	19.1	1432	1322
150x100	131	87	914	927	914	/	/	/	243	273	485	650	600
8x6	7.06	5.19	40.25	40.88	40.25	/	/	/	10.8	13.4	21.7	2500	2203
200x150	179	131	1022	1038	1022	/	/	/	275	341	550	1135	1000
10x8	8.81	7.06	50	50.88	50	/	/	/	15	16.5	26.6	3778	3304
250x200	223	179	1270	1292	1270	/	/	/	380	418	675	1715	1500
12x10	10.44	8.81	56	56.88	56	/	/	/	18.9	20.5	31.9	5881	5286
300x250	265	223	1422	1445	1422	/	/	/	480	520	810	2670	2400

(1) Contact our sales representative for more information.