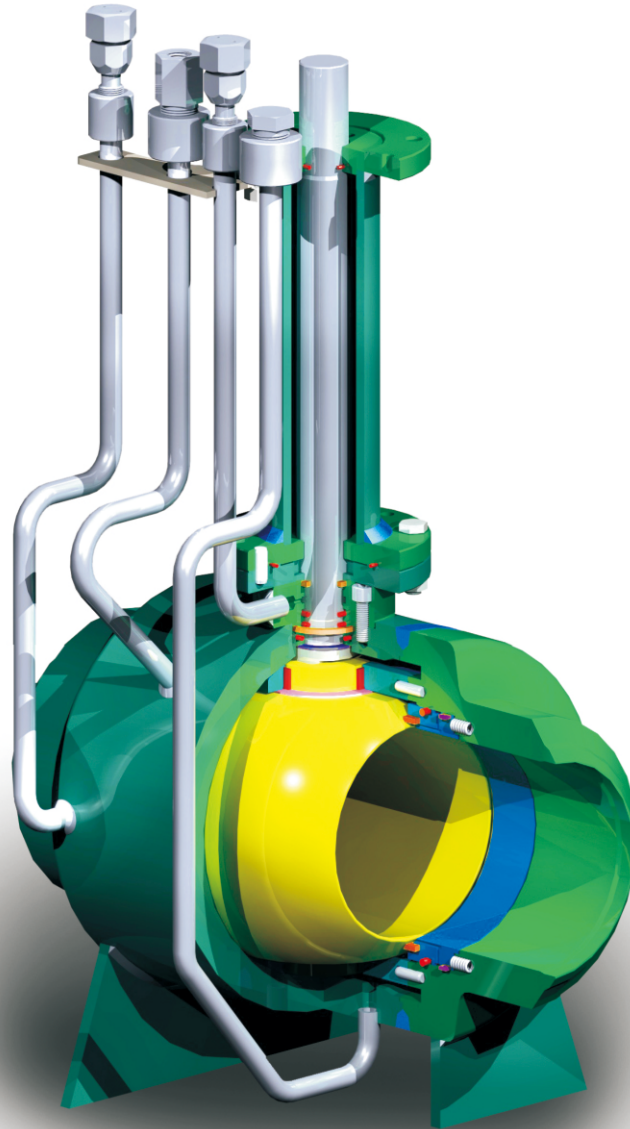


Series TW

Part number: C-TW-1504

Welded Body Trunnion Mounted Ball Valve



Features:

Size: 2"~40"
Class: 150~2500
Welded Forged Steel Body
Trunnion Mounted Ball
Anti-static Device
Blow-out Proof Stem
Fire Safe Design
For Underground Use (On Request)

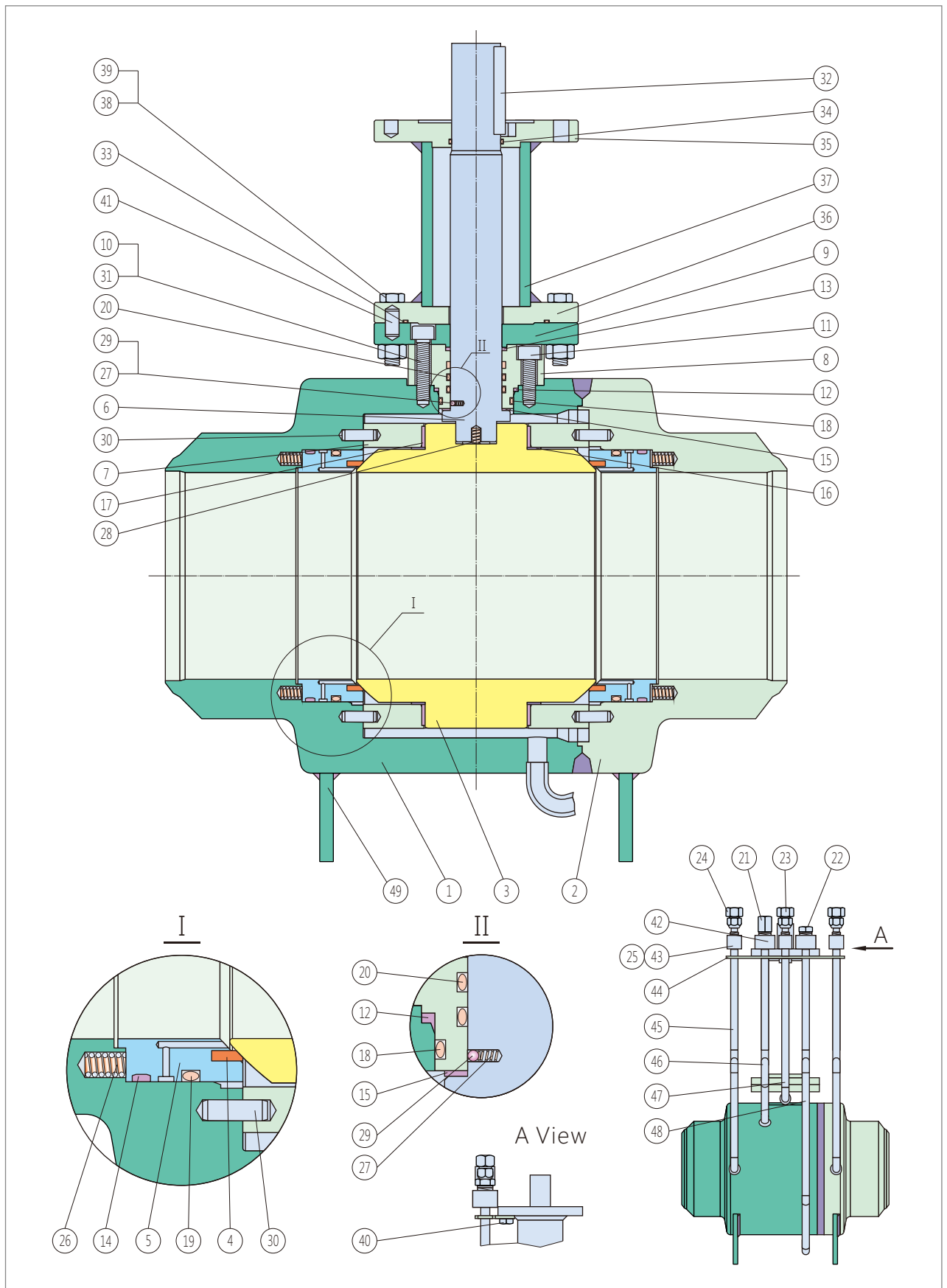
Specifications

Design	ASMEB16.34/API6D
Face to Face	ASMEB16.34/API6D
End to End	ASMEB16.34/API6D
End Flange	ASMEB16.5/B16.47A
BW End	ASME B16.25
Test	API6D
Fire Safe Test	API607/6FA
Special	NACE MR0175

Series TW

Welded Body Trunnion Mounted Ball Valve

MATERIAL SPECIFICATIONS



Series TW

Welded Body Trunnion Mounted Ball Valve

MATERIAL SPECIFICATIONS

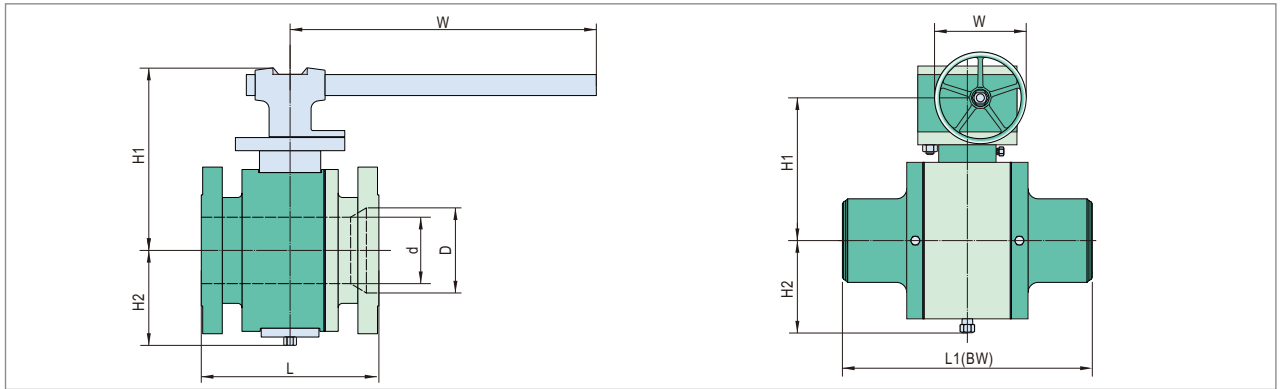
No.	Part	A105/ENP	A105/316	F316/316	LF2/316 NACE
1	Body	ASTM A105N	ASTM A105N	ASTM A182-F316	ASTM A350-LF2
2	Adapter	ASTM A105N	ASTM A105N	ASTM A182-F316	ASTM A350-LF2
3	Ball	ASTM A105N/ENP AISI 4140/ENP (2500LB)	ASTM A182-F316 ASTM A182-F51 (900LB~2500LB)	ASTM A182-F316 ASTM A182-F51 (900LB~2500LB)	ASTM A182-F316 ASTM A182-F51 (900LB~2500LB)
4	Seat Insert	PTFE/Nylon/PEEK	PTFE/Nylon/PEEK	PTFE/Nylon/PEEK	PTFE/Nylon/PEEK
5	Seat Ring	ASTM A105N/ENP	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
6	Stem	AISI 4140/ENP	ASTM A182-F51	ASTM A182-F51	ASTM A182-F51
7	Trunnion Support	ASTM A105N/ENP	ASTM A105N/ENP	ASTM A182-F316	ASTM A350-LF2/ENP
8	Gland Flange	ASTM A105N/ENP	ASTM A105N/ENP	ASTM A182-F316	ASTM A350-LF2/ENP
9	Top Flange	ASTM A105N	ASTM A105N	ASTM A182-F316	ASTM A350-LF2
10	Screw	Carbon Steel	Carbon Steel	Stainless Steel	ASTM A320-L7M
11	Screw	Carbon Steel	Carbon Steel	Stainless Steel	ASTM A320-L7M
12	* Gland Gasket	Graphite	Graphite	Graphite	Graphite
13	* Stem Firesafe Packing	Graphite	Graphite	Graphite	Graphite
14	* Seat Firesafe Packing	Carbon Fibre+Graphite	Carbon Fibre+Graphite	Carbon Fibre+Graphite	Carbon Fibre+Graphite
15	Thrust Washer	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE
16	Washer	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE
17	Bearing	SS+Copper+PTFE	SS+Copper+PTFE	SS+Copper+PTFE	SS+Copper+PTFE
18	* O-ring	Viton	Viton	Viton	Viton
19	* O-ring	Viton	Viton	Viton	Viton
20	* O-ring	Viton	Viton	Viton	Viton
21	Vent Valve	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
22	Drain	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
23	Stem Injection	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
24	Seat Injection	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
25	Check Valve	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
26	Seat Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
27	Antistatic Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
28	Antistatic Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
29	Grounding Plunger	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
30	ALignment Pin	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
31	Gland Pin	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
32	key	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
33	O-ring	Viton	Viton	Viton	Viton
34	O-ring	Viton	Viton	Viton	Viton
35	Upper Flange	ASTM A105N	ASTM A105N	ASTM A182-F316	ASTM A105N
36	Under Flange	ASTM A105N	ASTM A105N	ASTM A182-F316	ASTM A105N
37	Steel Tube	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
38	Stud	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
39	Nut	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
40	Stud	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
41	Pin	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
42	Adapter Sleeve	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
43	Adapter Sleeve	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
44	Fixed Plate	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
45	Eduction Tube 1	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
46	Eduction Tube 2	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
47	Eduction Tube 3	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
48	Eduction Tube 4	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
49	Supporting Feet	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel

* Recommended Spare Parts

Series TW

Welded Body Trunnion Mounted Ball Valve

DIMENSIONS AND WEIGHT



Full Bore							Class 150		
Size in	d mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	BW Weight Kg	
2	51	178	216	155	85	350	30	29	
3	76	203	283	191	110	400	60	54	
4	102	229	305	211	130	450	91	83	
6	152	394	457	231	160	*305	189	177	
8	203	457	521	282	235	*406	344	325	
10	254	533	559	336	290	*406	492	461	
12	305	610	635	373	315	*406	702	657	
14	337	686	762	413	345	*406	854	807	
16	387	762	838	457	383	*600	1014	948	
18	438	864	914	501	435	*600	1431	1338	
20	489	914	991	551	495	*600	1907	1783	
22	540	991	1092	600	555	*600	2338	2186	
24	591	1067	1143	635	590	*700	2789	2607	
26	635	1143	1245	710	620	*700	3181	2974	
28	686	1245	1346	760	670	*760	4021	3759	
30	737	1295	1397	800	710	*760	4791	4479	
32	781	1372	1524	840	745	*760	5457	5120	
34	832	1473	1626	890	775	*760	6664	6230	
36	876	1524	1727	930	805	*760	7569	7077	
40	978	1727	1956	1010	900	*760	10209	9545	

* Gear Operation

Reduce Bore							Class 150		
Size in	d mm	D mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	
2*1-1/2	38	51	178	216	152	80	350	26	
3*2	51	76	203	283	155	85	400	34	
4*3	76	102	229	305	191	110	450	62	
6*4	102	152	394	457	211	130	450	101	
8*6	152	203	457	521	231	160	*305	224	
10*8	203	254	533	559	282	235	*406	372	
12*10	254	305	610	635	336	290	*406	530	
14*10	254	337	686	762	336	290	*406	623	
14*12	305	337	686	762	373	315	*406	727	
16*12	305	387	762	838	373	315	*406	787	
16*14	337	387	762	838	413	345	*406	839	
18*14	337	438	864	914	413	345	*406	1005	
18*16	387	438	864	914	457	383	*600	1089	
20*16	387	489	914	991	457	383	*600	1109	
20*18	438	489	914	991	501	435	*600	1143	
22*18	438	540	991	1092	501	435	*600	2332	
24*20	489	591	1067	1143	551	495	*600	2046	
26*22	540	635	1143	1245	600	555	*600	2201	
28*24	591	686	1245	1346	635	590	*700	2784	
30*24	591	737	1295	1397	635	590	*700	2779	
32*26	635	781	1372	1524	710	620	*700	3976	
34*28	686	832	1473	1626	760	670	*760	4412	
36*30	737	876	1524	1727	820	710	*760	4955	
40*34	832	978	1727	1956	935	775	*760	8154	

Full Bore							Class 300		
Size in	d mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	BW Weight Kg	
2	51	216	216	155	85	400	30	26	
3	76	283	283	191	110	450	68	62	
4	102	305	305	211	130	500	108	97	
6	152	403	457	229	160	*305	208	193	
8	203	502	521	291	235	*406	370	347	
10	254	568	559	340	290	*406	531	498	
12	305	648	635	375	315	*500	760	713	
14	337	762	762	417	345	*600	895	830	
16	387	838	838	466	400	*600	1294	1214	
18	438	914	914	506	440	*600	1706	1618	
20	489	991	991	563	495	*600	2079	1966	
22	540	1092	1092	605	560	*700	2206	2068	
24	591	1143	1143	684	590	*760	2876	2717	
28	686	1346	1346	770	680	*760	4552	4297	
30	737	1397	1397	810	720	*760	5562	5251	
32	781	1524	1524	850	760	*800	6209	5861	
34	832	1626	1626	900	790	*800	7333	6922	
36	876	1727	1727	940	820	*800	8393	7923	
40	978	1956	1956	1025	915	*800	11144	10528	

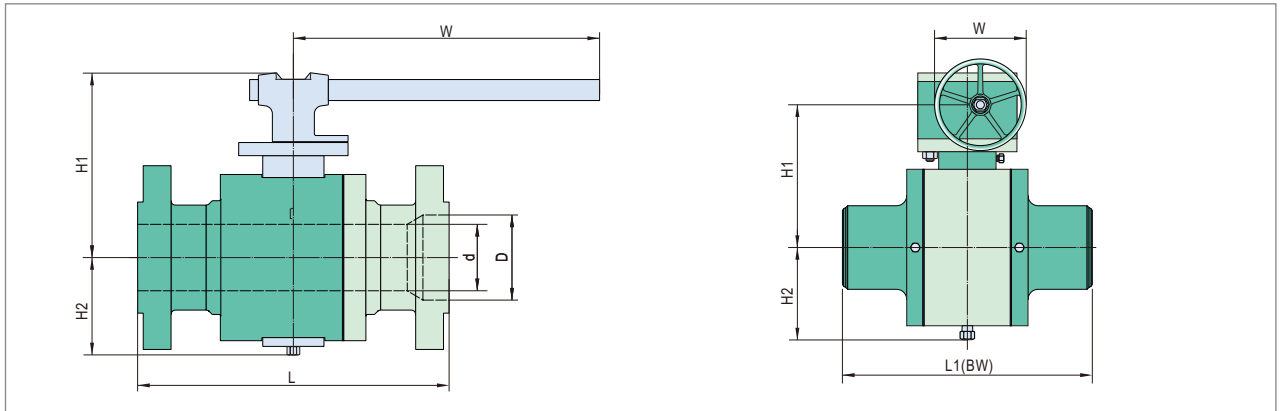
* Gear Operation

Reduce Bore							Class 300		
Size in	d mm	D mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	
2*1-1/2	38	51	216	216	152	80	350	30	
3*2	51	76	283	283	155	85	400	36	
4*3	76	102	305	305	191	110	450	72	
6*4	102	152	403	457	211	130	500	139	
8*6	152	203	502	521	229	160	*305	247	
10*8	203	254	568	559	291	235	*406	401	
12*10	254	305	648	635	340	290	*406	577	
14*10	254	337	762	762	340	315	*406	678	
14*12	305	337	762	762	375	315	*500	825	
16*12	305	387	838	838	375	360	*500	1045	
16*14	337	387	838	838	417	360	*600	1116	
18*14	337	438	914	914	417	400	*600	1309	
18*16	387	438	914	914	466	400	*600	1516	
20*16	387	489	991	991	466	420	*600	1766	
20*18	438	489	991	991	506	440	*600	1807	
22*18	438	540	1092	1092	506	440	*600	1982	
24*20	489	591	1143	1143	563	495	*600	2189	
28*24	591	686	1346	1346	684	590	*760	3163	
30*24	591	737	1397	1397	684	590	*760	3158	
34*28	686	832	1626	1626	770	680	*760	4789	
36*30	737	876	1727	1727	810	720	*760	5525	
40*34	832	978	1956	1956	900	790	*800	8112	

Series TW

Welded Body Trunnion Mounted Ball Valve

DIMENSIONS AND WEIGHT



Full Bore							Class 600	
Size in	d mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	BW Weight Kg
2	51	292	292	155	85	400	44	41
3	76	356	356	193	112	500	79	73
4	102	432	432	239	140	700	148	138
6	152	559	559	266	175	*406	243	227
8	203	660	660	310	250	*406	432	408
10	254	787	787	354	290	*600	690	655
12	305	838	838	411	345	*600	841	790
14	337	889	889	435	370	*600	1211	1141
16	387	991	991	493	420	*600	1511	1424
18	438	1092	1092	544	462	*700	2106	1997
20	489	1194	1194	629	515	*760	2605	2473
22	540	1295	1295	683	570	*800	3318	3162
24	591	1397	1397	728	610	*800	3901	3703
28	686	1549	1549	810	695	*800	5969	5671
30	737	1651	1651	863	735	*800	6590	6261
32	781	1778	1778	900	775	*800	7708	7323
34	832	1930	1930	940	820	*800	8333	7916
36	876	2083	2083	990	885	*800	10490	9966
40	978	2337	2337	1070	935	*900	14480	13756

* Gear Operation

Reduce Bore							Class 600	
Size in	d mm	D mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg
2*1-1/2	38	51	292	292	152	80	350	40
3*2	51	76	356	356	155	85	400	53
4*3	76	102	432	432	193	112	500	98
6*4	102	152	559	559	239	140	700	210
8*6	152	203	660	660	266	175	*406	299
10*8	203	254	787	787	310	250	*406	504
12*10	254	305	838	838	354	290	*600	783
14*10	254	337	889	889	354	345	*600	832
14*12	305	337	889	889	411	345	*600	896
16*12	305	387	991	991	411	370	*600	951
16*14	337	387	991	991	435	370	*600	1291
18*14	337	438	1092	1092	435	410	*600	1501
18*16	387	438	1092	1092	493	420	*600	1616
20*16	387	489	1194	1194	493	440	*600	2041
20*18	438	489	1194	1194	544	462	*700	2241
22*18	438	540	1295	1295	544	462	*700	2401
24*20	489	591	1397	1397	629	515	*760	3405
28*24	591	686	1549	1549	728	610	*800	4191
30*24	591	737	1651	1651	728	610	*800	4671
34*28	686	832	1930	1930	810	695	*800	7109
36*30	737	876	2083	2083	863	735	*800	8500
40*34	832	978	2337	2337	940	820	*800	9903

Full Bore							Class 900	
Size in	d mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	BW Weight Kg
2	51	368	368	178	100	450	50	47
3	76	381	381	221	125	600	85	78
4	102	457	457	215	150	*305	156	142
6	152	610	610	268	215	*406	379	351
8	203	737	737	324	260	*600	554	512
10	254	838	838	371	305	*600	809	738
12	305	965	965	425	360	*600	1110	1027
14	324	1029	1029	463	390	*600	1591	1491
16	375	1130	1130	513	440	*710	1986	1844
18	425	1219	1219	614	500	*760	2781	2605
20	473	1321	1321	644	530	*760	3416	3193
24	572	1549	1549	745	630	*800	5443	5113
28	667	1753	1753	830	720	*800	10132	9473
30	714	1880	1880	880	755	*800	11385	10645
32	810	2159	2159	970	850	*900	17375	16246
36	857	2286	2286	1030	930	*900	20053	18750

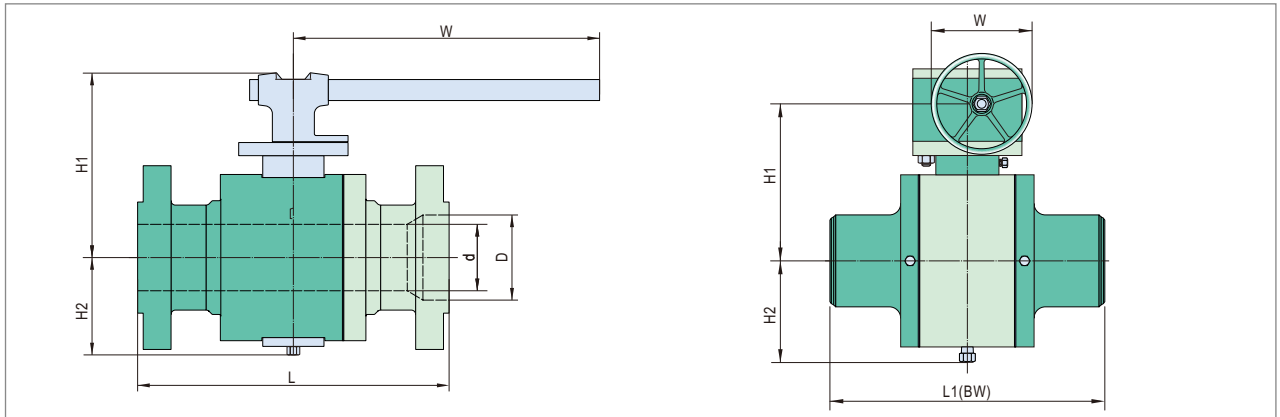
* Gear Operation

Reduce Bore							Class 900	
Size in	d mm	D mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg
2*1-1/2	38	51	368	368	152	80	400	44
3*2	51	76	381	381	178	100	450	54
4*3	76	102	457	457	221	125	600	92
6*4	102	152	610	610	215	150	*305	222
8*6	152	203	737	737	268	260	*406	474
10*8	203	254	838	838	324	305	*600	644
12*10	254	305	965	965	371	335	*600	857
14*10	254	324	1029	1029	371	360	*600	1039
14*12	305	324	1029	1029	425	360	*600	1295
16*12	305	375	1130	1130	425	390	*600	1370
16*14	324	375	1130	1130	463	390	*600	1811
18*16	375	425	1219	1219	513	440	*710	2181
20*16	375	473	1321	1321	513	470	*710	2711
20*18	425	473	1321	1321	614	500	*760	3111
24*20	473	572	1549	1549	644	550	*760	3766
28*24	572	667	1753	1753	745	630	*800	7526
30*24	572	714	1880	1880	745	665	*800	7927
34*28	667	810	2159	2159	830	750	*800	11132
36*30	714	857	2286	2286	880	780	*800	15596

Series TW

Welded Body Trunnion Mounted Ball Valve

DIMENSIONS AND WEIGHT



Full Bore							Class 1500		
Size in	d mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	BW Weight Kg	
2	51	368	368	178	100	450	50	47	
3	76	470	470	226	130	700	112	100	
4	102	546	546	241	162	*406	190	215	
6	146	705	705	319	255	*600	574	460	
8	194	832	832	345	280	*600	742	900	
10	241	991	991	411	345	*600	1184	1086	
12	289	1130	1130	478	405	*600	1952	1818	
14	318	1257	1257	517	435	*700	2224	2070	
16	362	1384	1384	599	485	*760	2717	2528	
18	407	1537	1537	663	545	*800	3584	3317	
20	457	1664	1664	695	580	*800	4421	4088	
24	534	2045	2045	842	730	*900	7029	6383	

* Gear Operation

Reduce Bore							Class 1500		
Size in	d mm	D mm	L mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	
2*1-1/2	38	51	368	368	152	80	400	55	
3*2	51	76	470	470	178	100	450	80	
4*3	76	102	546	546	226	130	700	147	
6*4	102	146	705	705	241	162	*406	291	
8*6	146	194	832	832	319	270	*600	684	
10*8	194	241	991	991	345	325	*600	920	
12*10	241	289	1130	1130	411	370	*600	1329	
14*10	241	318	1257	1257	411	405	*600	1829	
14*12	289	318	1257	1257	478	405	*600	2052	
16*12	289	362	1384	1384	478	435	*600	2502	
16*14	318	362	1384	1384	517	435	*700	2644	
18*16	362	407	1537	1537	599	485	*760	2907	
20*16	362	457	1664	1664	599	545	*760	3782	
20*18	407	457	1664	1664	663	545	*800	4088	
24*20	457	534	2045	2045	695	640	*800	5774	

Full Bore							Class 2500		
Size in	d mm	L(RTJ) mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	BW Weight Kg	
2	44	454	451	214	118	700	87	71	
3	64	584	578	216	150	*406	194	159	
4	89	683	673	265	180	*406	375	320	
6	133	927	914	371	305	*600	756	614	
8	181	1038	1022	426	360	*600	1319	1108	
10	225	1292	1270	463	390	*710	2096	1688	
12	267	1445	1422	550	465	*760	3216	2639	

* Gear Operation

Reduce Bore							Class 2500		
Size in	d mm	D mm	L(RTJ) mm	L1 mm	H1 mm	H2 mm	W mm	RF Weight Kg	
2*1-1/2	38	44	454	451	175	95	450	78	
3*2	44	64	584	578	214	118	700	157	
4*3	64	89	683	673	216	150	*406	314	
6*4	89	133	927	914	265	270	*406	630	
8*6	133	181	1038	1022	371	305	*600	1148	
10*8	181	225	1292	1270	426	370	*600	1886	
12*10	225	267	1445	1422	463	415	*710	2921	

Flow Control Expert

