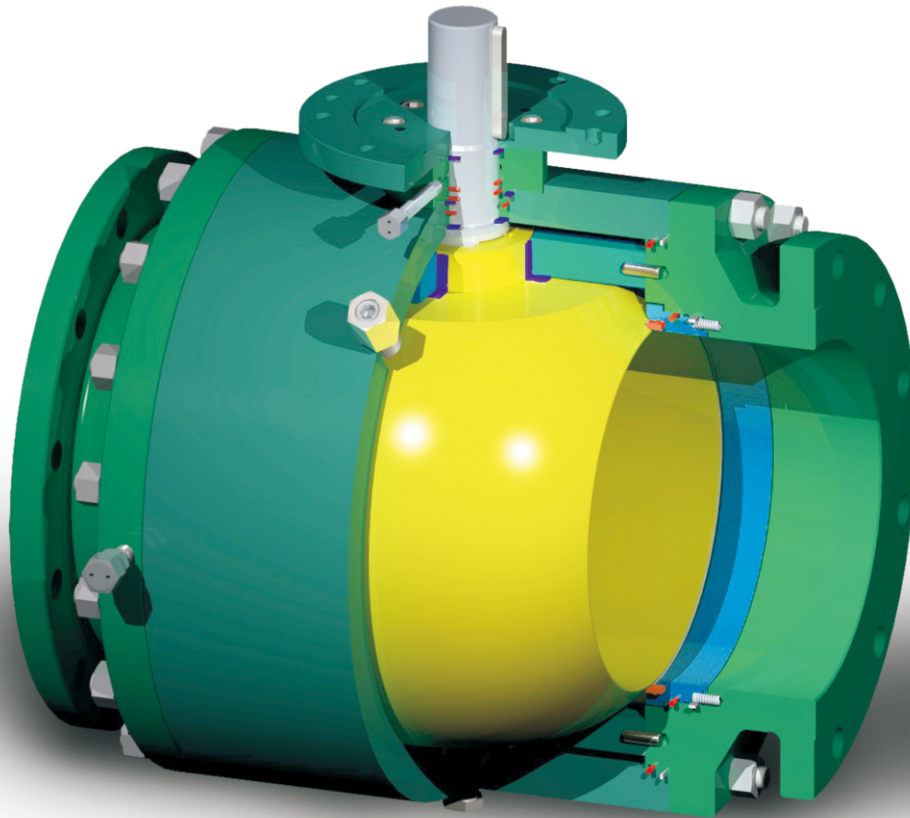


Series TF

Part number: C-TF-1504

3PC Body Forged Trunnion Mounted Ball Valve



Features:

Size: 2"-24"
Class: 150-2500
Three Pieces Forged Steel Body
Trunnion Mounted Ball, Full & Reduced Bore
Anti-static Device
Blow-out Proof Stem
Double Block and Bleed
Fire Safe Design
Emergency Sealant Injector (6" & Larger)
Vent Valve and Safety Valve
Lifting Lugs & Supporting Feet (8" & Larger)
Seat Pocket SS Overlay (Optional)
Seals Area ENP Coated

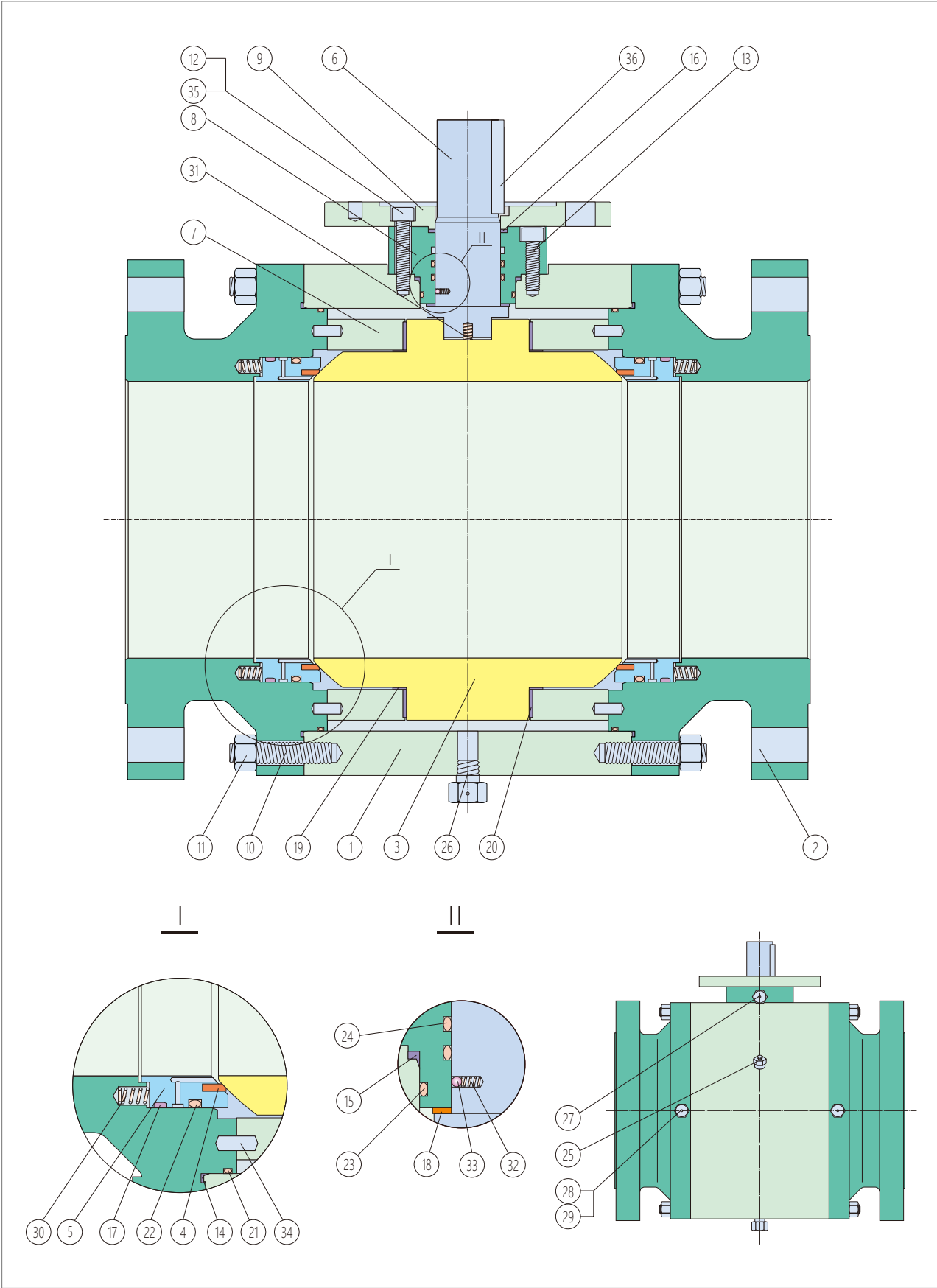
Specifications

Design	ASME B16.34/API 6D
Face to Face	ASME B16.10/API 6D
End to End	ASME B16.10/API 6D
End Flange	ASME B16.5/B16.47A
BW End	ASME B16.25
Test	API 6D
Fire Safe Test	API 607/API 6FA
Special	NACE MR 01 75

Series TF

3PC Body Forged Trunnion Mounted Ball Valve

MATERIAL SPECIFICATIONS



Series TF

3PC Body Forged Trunnion Mounted Ball Valve

MATERIAL SPECIFICATIONS

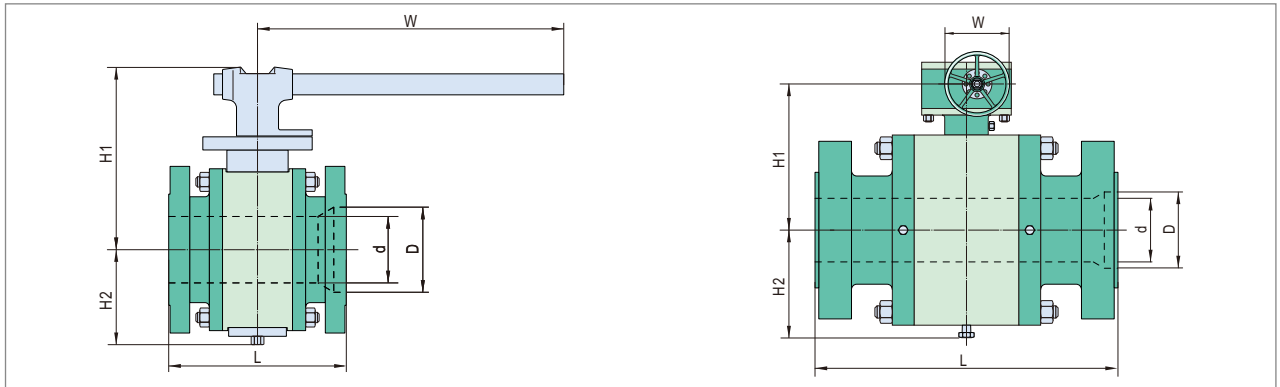
No.	Part	A105/ENP	A105/316	F316/316	LF2/316 NACE
1	Body	ASTM A105N	ASTM A105N	ASTM A182-F316	ASTM A350-LF2
2	Adapter	ASTM A105N	ASTM A105N	ASTM A182-F316	ASTM A350-LF2
3	Ball	ASTM A105N/ENP AISI 4140/ENP (2500LB)	ASTM A182-F316 ASTM A182-F51 (900LB~2500LB)	ASTM A182-F316 ASTM A182-F51 (900LB~2500LB)	ASTM A182-F316 ASTM A182-F51 (900LB~2500LB)
4	Seat Insert	PTFE/Molon/PEEK	PTFE/Molon/PEEK	PTFE/Molon/PEEK	PTFE/Molon/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	Body Stud	ASTM A193-B7	ASTM A193-B7	ASTM A193-B8	ASTM A320-L7M
11	Body Nut	ASTM A194-2H	ASTM A194-2H	ASTM A194-8	ASTM A194-7M
12	Screw	Carbon Steel	Carbon Steel	Stainless Steel	ASTM A320-L7M
13	Screw	Carbon Steel	Carbon Steel	Stainless Steel	ASTM A320-L7M
14	* Body Gasket	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite
15	* Gland Gasket	Graphite	Graphite	Graphite	Graphite
16	* Stem Firesafe Packing	Graphite	Graphite	Graphite	Graphite
17	* Seat Firesafe Packing	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite
18	Thrust Washer	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE
19	Washer	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE	PTFE/SS+Copper+PTFE
20	Bearing	SS+Copper+PTFE	SS+Copper+PTFE	SS+Copper+PTFE	SS+Copper+PTFE
21	* O-ring	Viton	Viton	Viton	Viton
22	* O-ring	Viton	Viton	Viton	Viton
23	* O-ring	Viton	Viton	Viton	Viton
24	* O-ring	Viton	Viton	Viton	Viton
25	Vent Valve	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
26	Drain	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
27	Stem Injection	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
28	Seat Injection	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
29	Check Valve	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
30	Seat Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
31	Antistatic Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
32	Antistatic Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
33	Grounding Plunger	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
34	ALignment Pin	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
35	Gland Pin	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel
36	key	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel

* Recommended Spare Parts

Series TF

3PC Body Forged Trunnion Mounted Ball Valve

DIMENSIONS AND WEIGHT



Full Bore		Class 150				
Size in	d mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2	51	178	176	96	350	10
3	76	203	220	119	400	31
4	102	229	241	139	450	46
6	152	394	230	167	*300	128
8	203	457	285	210	*400	234
10	254	533	335	251	*400	406
12	305	610	384	290	*400	596
14	337	686	414	319	*610	829
16	387	762	454	354	*610	1092
18	438	864	498	397	*610	1577
20	489	914	623	435	*610	2001
22	538	991	662	464	*610	2535
24	591	1067	635	515	*700	3075
26	635	1143	750	550	*760	3862
28	686	1245	753	585	*760	4429
30	737	1295	895	656	*760	5782
32	781	1372	900	659	*760	6356
34	832	1473	940	700	*760	7911
36	876	1524	975	735	*760	8712
40	976	1727	1046	810	*760	11737
42	1020	1987	1074	835	*800	12200
48	1168	2120	1722	1040	*800	18400

* Gear Operation

Reduce Bore		Class 150					
Size in	d mm	D mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2*1-1/2	38	51	178	168	87	350	13
3*2	51	76	203	176	96	350	21
4*3	76	102	229	220	119	400	38
6*4	102	152	394	241	139	450	73
8*6	152	203	457	230	167	*300	160
10*8	203	254	533	285	210	*400	260
12*10	254	305	610	335	251	*400	444
14*10	254	337	686	335	251	*400	520
14*12	305	337	686	384	290	*400	664
16*12	305	387	762	384	290	*400	734
16*14	337	387	762	414	319	*610	907
18*14	337	438	864	414	319	*610	986
18*16	387	438	864	454	354	*610	1214
20*16	387	489	914	454	354	*610	1316
20*18	438	489	914	498	397	*610	1728
22*18	438	538	991	498	397	*610	1783
24*20	489	591	1067	623	435	*610	2258
26*22	538	635	1143	662	464	*610	2904
28*24	591	686	1245	635	515	*700	3508
30*24	591	737	1295	635	515	*700	3733
32*26	635	781	1372	750	550	*760	4493
34*28	686	832	1473	753	585	*760	5198
36*30	737	876	1524	895	656	*760	6302
40*34	832	976	1727	940	700	*760	9824

Full Bore		Class 300				
Size in	d mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2	51	216	177	89	400	23
3	76	283	220	119	450	42
4	102	305	243	137	500	60
6	152	403	228	167	*305	154
8	203	502	286	206	*400	282
10	254	568	335	252	*500	449
12	305	648	391	289	*610	658
14	337	762	422	323	*610	986
16	387	838	467	367	*610	1440
18	438	914	635	411	*610	1908
20	489	991	684	450	*700	2425
22	538	1092	637	488	*700	3213
24	591	1143	674	519	*760	3710
28	686	1346	794	602	*760	5618
30	737	1397	810	655	*760	7396
32	781	1524	872	685	*800	8469
34	832	1626	900	720	*800	9908
36	876	1727	1031	740	*800	10771
40	976	1956	1109	818	*800	13632
42	1020	2032	1133	848	*800	13000
48	1168	2170	1346	969	*1016	19000

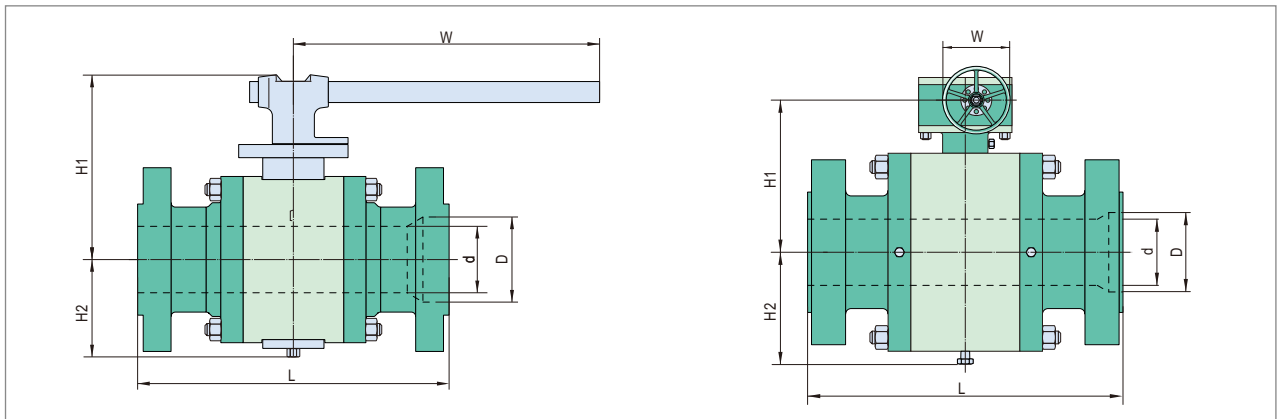
* Gear Operation

Reduce Bore		Class 300					
Size in	d mm	D mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2*1-1/2	38	51	216	168	75	350	17
3*2	51	76	283	177	89	400	35
4*3	76	102	305	220	119	450	55
6*4	102	152	403	243	137	500	91
8*6	152	203	502	228	167	*305	184
10*8	203	254	568	286	206	*400	320
12*10	254	305	648	335	252	*500	500
14*10	254	337	762	335	252	*500	579
14*12	305	337	762	391	289	*610	763
16*12	305	387	838	391	289	*610	862
16*14	337	387	838	422	323	*610	1109
18*14	337	438	914	422	323	*610	1231
18*16	387	438	914	467	367	*610	1547
20*16	387	489	991	467	367	*610	1632
20*18	438	489	991	635	411	*610	2060
22*18	438	538	1092	635	411	*610	2251
24*20	489	591	1143	684	450	*700	2821
28*24	591	686	1346	674	519	*760	4373
30*24	591	737	1397	674	519	*760	4577
34*28	686	832	1626	794	602	*760	5664
36*30	737	876	1727	810	655	*760	9083
40*34	832	976	1956	900	720	*800	12005

Series TF

3PC Body Forged Trunnion Mounted Ball Valve

DIMENSIONS AND WEIGHT



Full Bore		Class 600				
Size in	d mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2	51	292	176	100	400	27
3	76	356	223	125	500	61
4	102	432	268	148	650	107
6	152	559	259	181	*400	269
8	203	660	304	225	*500	423
10	254	787	366	278	*610	741
12	305	838	412	323	*610	1074
14	337	889	521	339	*610	1264
16	387.4	991	609	398	*610	2008
18	438.2	1092	620	443	*700	3720
20	489	1194	612	490	*760	3650
22	538	1295	686	513	*760	3816
24	591	1397	741	555	*810	5373
28	685	1549	966	643	*810	8076
30	737	1651	1018	688	*810	9664
32	781	1778	900	775	*1016	12030
34	832	1930	940	820	*1016	14399
36	874	2083	1177	800	*1016	16013
40	976	2159	1267	883	*1219	20553
42	1020	2175	1213	918	*1219	16400
48	1168	2435	1765	1070	*1219	24200

* Gear Operation

Reduce Bore		Class 600					
Size in	d mm	D mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2*1-1/2	38	51	292	168	75	350	21
3*2	51	76	356	176	100	400	41
4*3	76	102	432	223	125	500	76
6*4	102	152	559	268	148	650	158
8*6	152	203	660	259	181	*400	334
10*8	203	254	787	304	225	*500	574
12*10	254	305	838	366	278	*610	836
14*10	254	337	889	366	278	*610	894
14*12	305	337	889	412	323	*610	1177
16*12	305	387.4	991	412	323	*610	1306
16*14	337	387.4	991	521	339	*610	1531
18*14	337	438.2	1092	521	339	*610	1629
18*16	387.4	438.2	1092	609	398	*610	2208
20*16	387.4	489	1194	609	398	*610	2438
20*18	438.2	489	1194	620	443	*700	2960
22*18	438.2	538	1295	620	443	*700	3214
24*20	489	591	1397	612	490	*760	4241
28*24	591	685	1549	741	555	*810	6022
30*24	591	737	1651	741	555	*810	7669
34*28	685	832	1930	966	643	*810	11238
36*30	737	874	2083	1018	735	*800	12838
40*34	832	976	2159	940	820	*1016	17876

Full Bore		Class 900				
Size in	d mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2	51	368	216	115	450	60
3	76	381	255	125	650	77
4	102	457	217	165	*406	138
6	152	610	274	195	*400	340
8	203	737	328	245	*610	588
10	254	838	485	302	*610	1022
12	305	965	517	334	*610	1378
14	324	1029	588	369	*710	1828
16	375	1130	613	426	*710	1999
18	425	1219	635	458	*760	3456
20	473	1321	810	510	*812	4760
24	572	1549	954	598	*800	5497
28	667	1753	1063	668	*1016	10202
30	712	1880	1085	713	*1016	11442
32	760	2032	1036	752	*1219	17462
36	855	2286	1130	836	*1219	20154

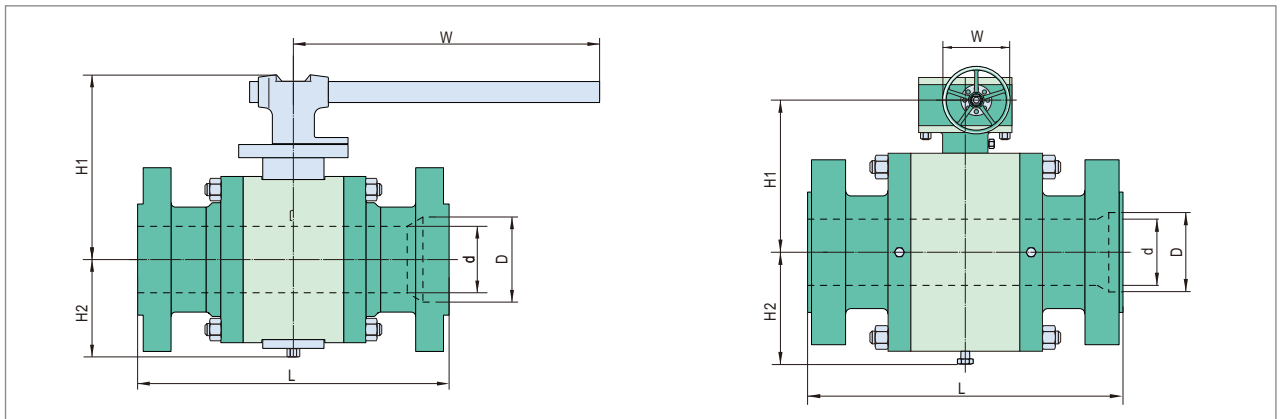
* Gear Operation

Reduce Bore		Class 900					
Size in	d mm	D mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2*1-1/2	38	51	368	168	75	400	48
3*2	51	76	381	216	115	450	60
4*3	76	102	457	255	125	650	106
6*4	102	152	610	217	165	*400	208
8*6	152	203	737	274	195	*400	430
10*8	203	254	838	328	245	*610	738
12*10	254	305	965	485	302	*610	1145
14*10	254	324	1029	485	302	*610	1081
14*12	305	324	1029	517	334	*610	1495
16*12	305	375	1130	517	334	*610	1742
16*14	324	375	1130	588	369	*710	2123
18*16	375	425	1219	613	426	*710	2299
20*16	375	473	1321	613	426	*710	2596
20*18	425	473	1321	635	458	*760	3749
24*20	473	572	1549	810	510	*812	5793
28*24	572	667	1753	954	598	*800	7580
30*24	572	712	1880	954	598	*800	7981
36*30	712	855	2286	1085	713	*1016	15653

Series TF

3PC Body Forged Trunnion Mounted Ball Valve

DIMENSIONS AND WEIGHT



Full Bore		Class 1500				
Size in	d mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2	51	368	216	105	450	68
3	76	470	270	132	650	130
4	102	546	244	159	*406	219
6	146	705	308	200	*610	474
8	194	832	366	262	*610	904
10	241	991	479	294	*710	1442
12	289	1130	551	360	*710	2348
14	318	1257	558	390	*760	3066
16	362	1384	657	462	*760	4563
18	406	1537	823	490	*812	5916
20	456	1664	933	596	*1016	6700
24	546	1944	1068	654	*1016	7151

* Gear Operation

Reduce Bore		Class 1500					
Size in	d mm	D mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2*1-1/2	38	51	368	191	98	400	45
3*2	51	76	470	216	105	450	96
4*3	76	102	546	270	132	650	142
6*4	102	146	705	244	159	*406	306
8*6	146	194	832	308	200	*610	592
10*8	194	241	991	366	262	*610	1142
12*10	241	289	1130	479	294	*710	1719
14*10	241	318	1257	479	294	*710	1992
14*12	289	318	1257	551	360	*710	2638
16*12	289	362	1384	551	360	*710	2993
16*14	318	362	1384	558	390	*760	3432
18*16	362	406	1537	657	462	*760	5042
20*16	362	456	1664	657	462	*760	5601
20*18	406	456	1664	823	490	*812	6482
24*20	456	546	1944	933	596	*1016	5850

Full Bore		Class 2500				
Size in	d mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2	44.5	454	247	108	650	80
3	64	584	241	152	*400	243
4	89	683	270	172	*500	389
6	133	927	365	233	*610	1145
8	181	1038	561	305	*610	1675
10	223	1292	600	370	*710	2871
12	265	1445	638	465	*760	3267

* Gear Operation

Reduce Bore		Class 2500					
Size in	d mm	D mm	L mm	H1 mm	H2 mm	W mm	Weight Kg
2*1-1/2	38	44.5	454	216	110	450	79
3*2	44.5	64	584	247	108	650	130
4*3	64	89	683	241	152	*400	260
6*4	89	133	927	270	172	*500	578
8*6	133	181	1038	365	233	*610	1074
10*8	181	223	1292	561	305	*610	2173
12*10	223	265	1445	600	370	*710	3500

Flow Control Expert

