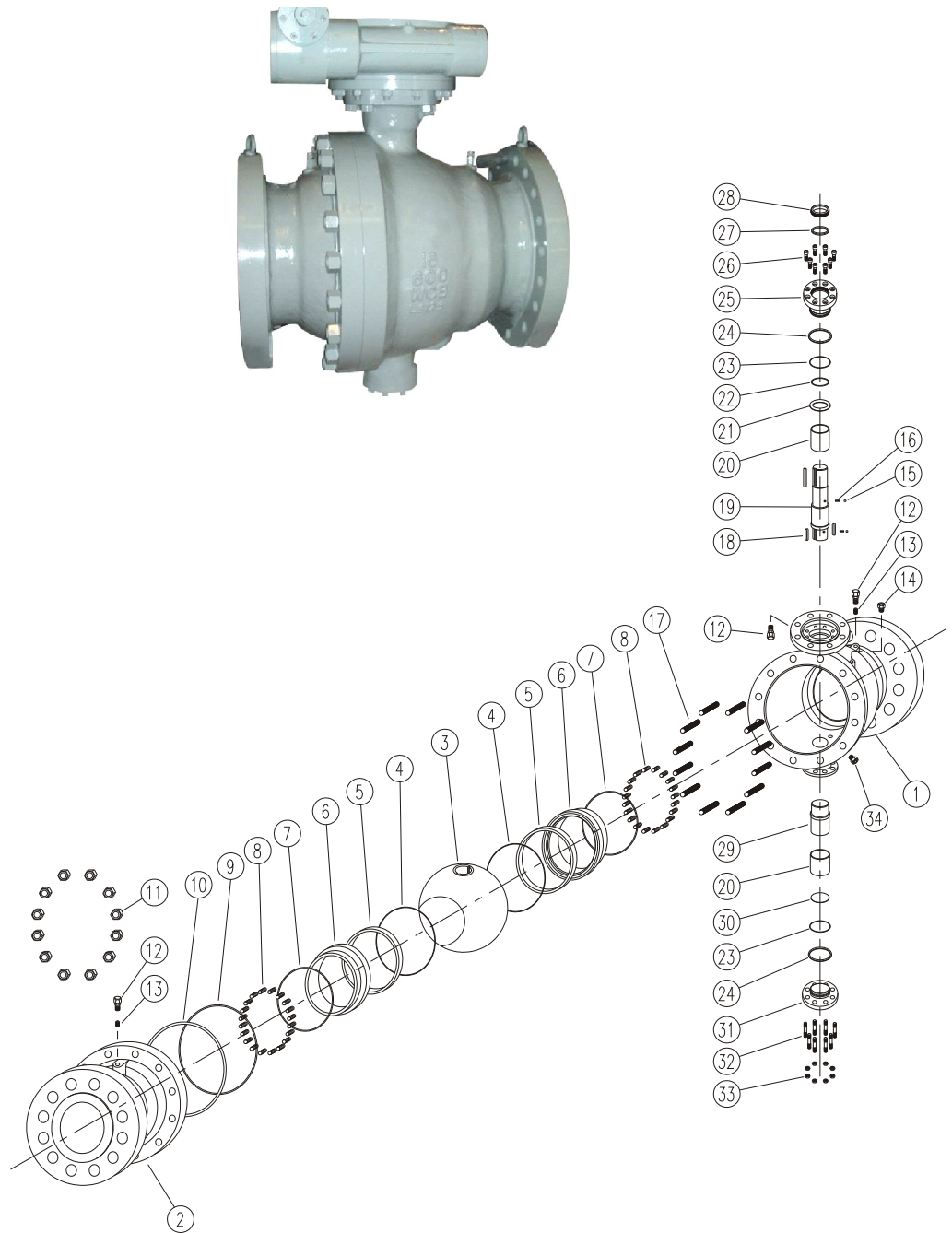




1	Body
2	Bonnet
3	Ball
4	Anti-fire Washer
5	Seat
6	Seat Retainer
7	"O" Ring
8	Spring
9	"O" Ring
10	Anti-fire Gasket
11	Hexagon Nut
12	Sealant Fitting
13	Check Valve
14	Release Valve
15	Anti-static Ball
16	Anti-static Spring
17	Stud
18	Key
19	Stem
20	Stem Bearing
21	Thrust Bearing
22	"O" Ring
23	"O" Ring
24	Anti-fire Gasket
25	Gland
26	Hexagon Screw
27	Packing
28	Packing Gland
29	Lower Stem
30	Sliding Gasket
31	Lower Cover
32	Stud
33	Hexagon Nut
34	Drain plug

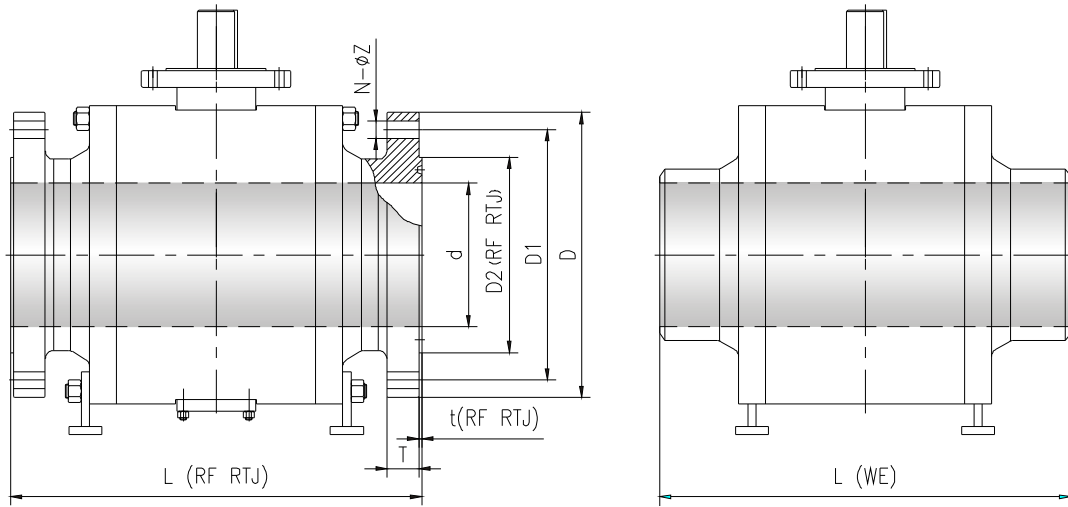


## Main Materials

Part Name	A	B	C	D	E	F
Body	WCB	WCB	WCB	CF8	CF8M	LCC
Seat Retainer	A105+ENP	F304	F316	F304	F316	LF2+ENP
Ball	A105+ENP	F304	F316	F304	F316	LF2+ENP
Stem	A105+ENP	F304	F316	F304	F316	LF2+ENP
Stud	B7M	B7M	B7M	B8M	B8M	L7
Nut	2HM	2HM	2HM	8M	8M	7M
Spring	17-7PH/INCONEL					
Seat	PTFE/PPL/NYLON/DEVLON					
O Ring	VITON					
Packing	GRAPHITE/PTFE					
Anti-fire Gasket	304+GRAPHITE					



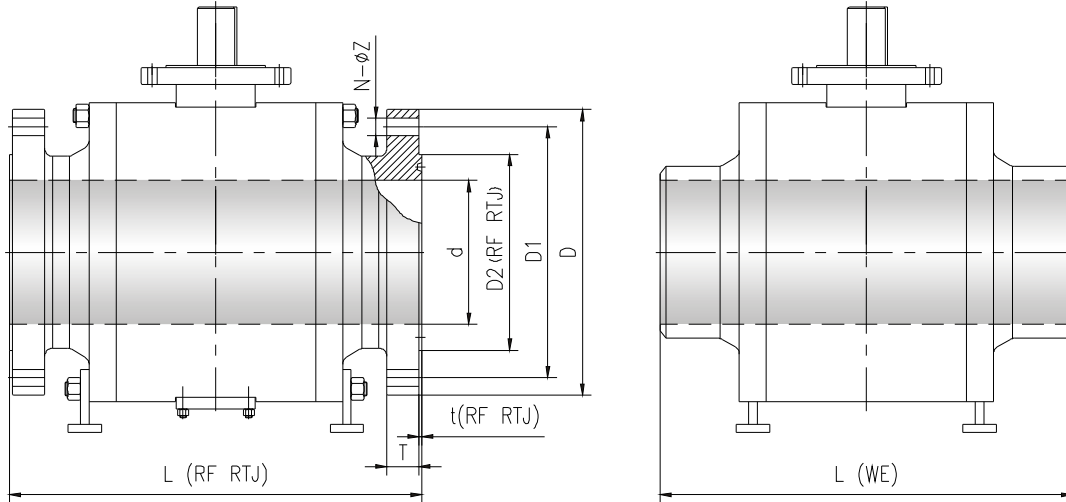
**ANSI Class 150  
285 psi**



Nominal Size		(RF)								(RTJ)				(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N-φZ	L(RTJ)	D2(RTJ)	t(RTJ)	R	L(WE)
50	2	49	178	150	120.5	92	14	2.0	4-φ19	191	102	6.4	R22	216
65	2 1/2	62	191	180	139.5	105	16	2.0	4-φ19	203	121	6.4	R25	241
80	3	74	203	190	152.5	127	17	2.0	4-φ19	216	133	6.4	R29	283
100	4	100	229	230	190.5	157	22	2.0	8-φ19	241	171	6.4	R36	305
150	6	150	394	280	241.5	216	24	2.0	8-φ22	406	219	6.4	R43	457
200	8	201	457	345	298.5	270	27	2.0	8-φ22	470	273	6.4	R48	521
250	10	252	533	405	362	324	29	2.0	12-φ25	546	330	6.4	R52	559
300	12	303	610	485	432	381	30	2.0	12-φ25	622	406	6.4	R56	635
350	14	334	686	535	476	413	33	2.0	12-φ28.5	699	425	6.4	R59	762
400	16	385	762	600	540	470	35	2.0	16-φ28.5	775	483	6.4	R64	838
450	18	436	864	635	578	533	38	2.0	16-φ32	876	546	6.4	R68	914
500	20	487	914	700	635	584	41	2.0	20-φ32	927	597	6.4	R72	991
550	22	538	1016	750	692	641	44	2.0	20-φ35	-	-	-	-	1092
600	24	589	1067	815	749.5	692	46	2.0	20-φ35	1080	711	6.4	R76	1143
650	26	633	1143	870	806.5	749	67	2.0	24-φ35	-	-	-	-	1245
700	28	684	1245	925	863.6	800	70	2.0	28-φ35	-	-	-	-	1346
750	30	735	1295	985	914.4	857	73	2.0	28-φ35	-	-	-	-	1397
800	32	779	1372	1060	978	914	79	2.0	28-φ41	-	-	-	-	1524
850	34	830	1473	1110	1028.7	965	81	2.0	32-φ41	-	-	-	-	1626
900	36	874	1524	1170	1086	1022	89	2.0	32-φ41	-	-	-	-	1727
950	38	925	1840	1240	1149.4	1073	86	2.0	32-φ41	-	-	-	-	-
1000	40	976	1900	1290	1200	1124	89	2.0	36-φ41	-	-	-	-	-
1050	42	1020	2050	1346	1257.3	1194	95	2.0	36-φ41	-	-	-	-	-
1150	46	1120	2100	1455	1365.3	1295	103	2.0	40-φ41	-	-	-	-	-
1200	48	1166	2180	1511	1422.4	1359	106	2.0	44-φ41	-	-	-	-	-



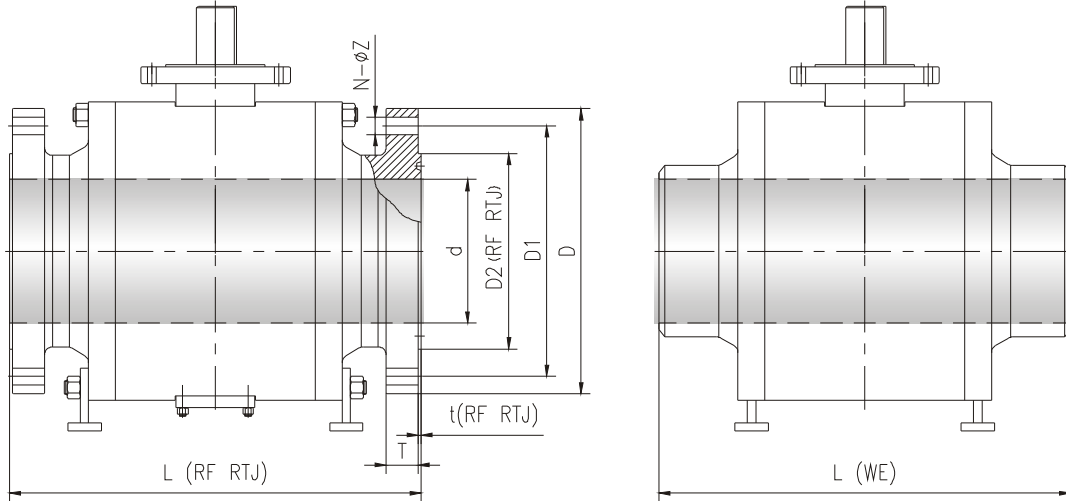
**ANSI Class 300  
740 psi**



Nominal Size		(RF)								(RTJ)				(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N-φZ	L(RTJ)	D2(RTJ)	t(RTJ)	R	L(WE)
50	2	49	216	165	127	92	21	2.0	8-φ19	232	108	8	R23	216
65	2½	62	241	190	149	105	24	2.0	8-φ22	257	127	8	R26	241
80	3	74	283	210	168.5	127	27	2.0	8-φ22	298	146	8	R31	283
100	4	100	305	255	200	157	30	2.0	8-φ22	321	175	8	R37	305
150	6	150	403	320	270	216	35	2.0	12-φ22	419	241	8	R45	403
200	8	201	502	380	330	270	40	2.0	12-φ25	518	302	8	R49	521
250	10	252	568	445	387.5	324	46	2.0	16-φ28.5	584	356	8	R53	559
300	12	303	648	520	451	381	49	2.0	16-φ32	664	413	8	R57	635
350	14	334	762	585	514.5	413	52	2.0	20-φ32	778	457	8	R61	762
400	16	385	838	650	571.5	470	56	2.0	20-φ35	854	508	8	R65	838
450	18	436	914	710	628.5	533	59	2.0	24-φ35	930	575	8	R69	914
500	20	487	991	775	686	584	62	2.0	24-φ35	1010	635	9.5	R73	991
550	22	538	1092	840	743	641	65	2.0	24-φ41	1114	685	11.2	R81	1092
600	24	589	1143	915	813	692	68	2.0	24-φ41	1165	749	11.2	R77	1143
650	26	633	1245	970	876.3	749	78	2.0	28-φ44.5	1270	810	12.7	R93	1245
700	28	684	1346	1035	940	800	84	2.0	28-φ44.5	1372	861	12.7	R94	1346
750	30	735	1397	1090	997	857	90	2.0	28-φ48	1422	918	12.7	R95	1397
800	32	779	1524	1150	1054	914	97	2.0	28-φ51	1553	984	14.3	R96	1524
850	34	830	1626	1205	1105	965	100	2.0	28-φ51	1654	1035	14.3	R97	1626
900	36	874	1727	1270	1168.4	1022	103	2.0	32-φ54	1756	1092	14.3	R98	1727
950	38	925	1840	1170	1092	1029	106	2.0	32-φ41.3	-	-	-	-	-
1000	40	976	1900	1240	1155.7	1086	113	2.0	32-φ44.5	-	-	-	-	-
1050	42	1020	2050	1290	1206.5	1137	118	2.0	32-φ44.5	-	-	-	-	-
1150	46	1120	2100	1415	1320.8	1245	129	2.0	28-φ51	-	-	-	-	-
1200	48	1166	2180	1465	1371.6	1302	132	2.0	32-φ51	-	-	-	-	-



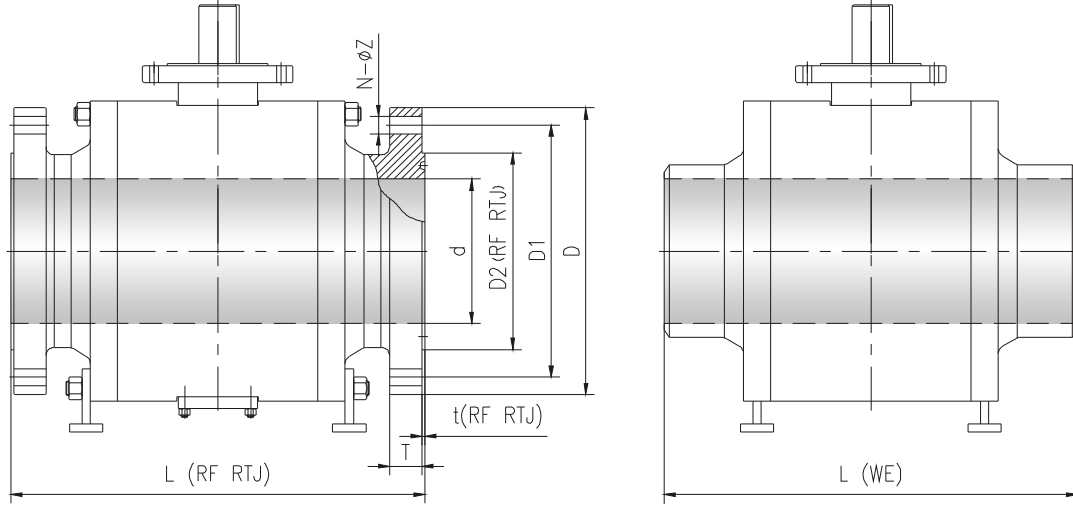
**ANSI Class 600**  
**1480 psi**



Nominal Size		(RF)								(RTJ)				(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N-φZ	L(RTJ)	D2(RTJ)	t(RTJ)	R	L(WE)
50	2	49	292	165	127	92	26	7.0	8-φ19	295	108	8	R23	292
65	2½	62	330	190	149	105	29	7.0	8-φ22	333	127	8	R26	330
80	3	74	356	210	168.5	127	32	7.0	8-φ22	359	146	8	R31	356
100	4	100	432	275	216	157	38	7.0	8-φ25	435	175	8	R37	432
150	6	150	559	355	292	216	48	7.0	12-φ29	562	241	8	R45	559
200	8	201	660	420	349	270	56	7.0	12-φ32	664	302	8	R49	660
250	10	252	787	510	432	324	64	7.0	16-φ35	791	356	8	R53	787
300	12	303	838	560	489	381	67	7.0	20-φ35	841	413	8	R57	838
350	14	334	889	605	527	413	70	7.0	20-φ38	892	457	8	R61	889
400	16	385	991	685	603	470	77	7.0	20-φ41	994	508	8	R65	991
450	18	436	1092	745	654	533	83	7.0	20-φ44	1095	575	8	R69	1092
500	20	487	1194	815	724	584	89	7.0	20-φ44	1200	635	9.5	R73	1194
550	22	538	1295	870	777.7	641	95	7.0	24-φ48	1305	685	11.2	R81	1295
600	24	589	1397	940	838	692	102	7.0	24-φ52	1407	749	11.2	R77	1397
650	26	633	1448	1015	914.4	749	108	7.0	28-φ51	1461	810	12.7	R93	1448
700	28	684	1549	1075	965	800	111	7.0	28-φ54	1562	861	12.7	R94	1549
750	30	735	1651	1130	1022.4	857	114	7.0	28-φ54	1664	918	12.7	R95	1651
800	32	779	1778	1195	1073	914	117	7.0	28-φ60.5	1794	984	14.3	R96	1778
850	34	830	1930	1245	1130.3	965	121	7.0	28-φ60.5	1946	1035	14.3	R97	1930
900	36	874	2083	1315	1194	1022	124	7.0	28-φ66.5	2099	1092	14.3	R98	2083
950	38	925	1900	1270	1162	1054	152	7.0	28-φ60.5	-	-	-	-	-
1000	40	976	1960	1320	1213	1111	159	7.0	32-φ60.5	-	-	-	-	-
1050	42	1020	2100	1405	1282.7	1168	168	7.0	28-φ66.5	-	-	-	-	-
1150	46	1120	2180	1510	1390.7	1276	179	7.0	32-φ66.5	-	-	-	-	-
1200	48	1166	2400	1595	1460.5	1333	189	7.0	32-φ73	-	-	-	-	-



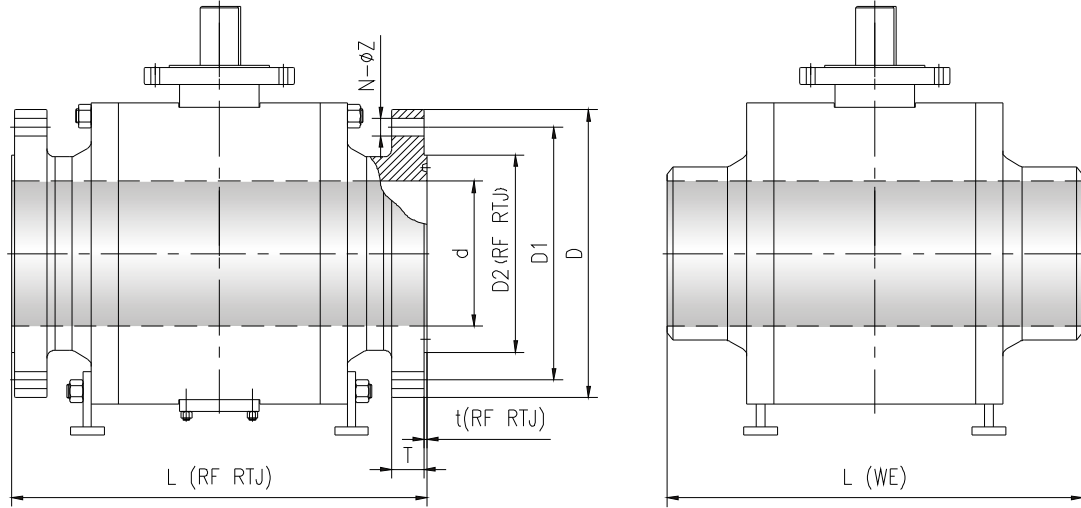
**ANSI Class 900  
2220 psi**



Nominal Size		(RF)								(RTJ)				(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N-ØZ	L(RTJ)	D2(RTJ)	t(RTJ)	R	L(WE)
50	2	49	368	215	165	92	38.5	7.0	8-Ø26	371	124	7.9	R24	368
65	2½	62	419	245	190.5	105	41.5	7.0	8-Ø29	422	137	7.9	R27	419
80	3	74	381	240	190.5	127	38.5	7.0	8-Ø26	384	156	7.9	R31	381
100	4	100	457	290	234.9	157	44.5	7.0	8-Ø32	460	181	7.9	R37	457
150	6	150	610	380	317.5	216	56	7.0	12-Ø32	613	241	7.9	R45	610
200	8	201	737	470	393.7	270	63.5	7.0	12-Ø39	740	308	7.9	R49	737
250	10	252	838	545	469.9	324	70	7.0	16-Ø39	841	362	7.9	R53	838
300	12	303	965	610	533.4	381	79.5	7.0	20-Ø39	968	419	7.9	R57	965
350	14	322	1029	640	558.8	413	86	7.0	20-Ø42	1038	467	11.1	R62	1029
400	16	373	1130	705	615.9	470	89	7.0	20-Ø45	1140	524	11.1	R66	1130
450	18	423	1219	785	685.8	533	102	7.0	20-Ø51	1232	594	12.7	R70	1219
500	20	471	1321	855	749.3	584	108	7.0	20-Ø54	1334	648	12.7	R74	1321
600	24	570	1549	1040	901.7	692	140	7.0	20-Ø67	1568	772	15.9	R78	1549
650	26	617	1727	1085	952.5	749	140	7.0	20-Ø73	1749	832	17.5	R100	1727
700	28	665	1753	1170	1022.4	800	143	7.0	20-Ø79	1775	889	17.5	R101	1753
750	30	712	1780	1230	1086	857	149	7.0	20-Ø79	1802	946	17.5	R102	1780
800	32	760	1850	1315	1155.7	914	159	7.0	20-Ø86	1872	1003	17.5	R103	1850
850	34	808	1900	1395	1225.6	965	165	7.0	20-Ø92	1929	1067	20.6	R104	1900
900	36	855	2050	1460	1289	1022	171.5	7.0	20-Ø92	2079	1124	20.6	R105	2050



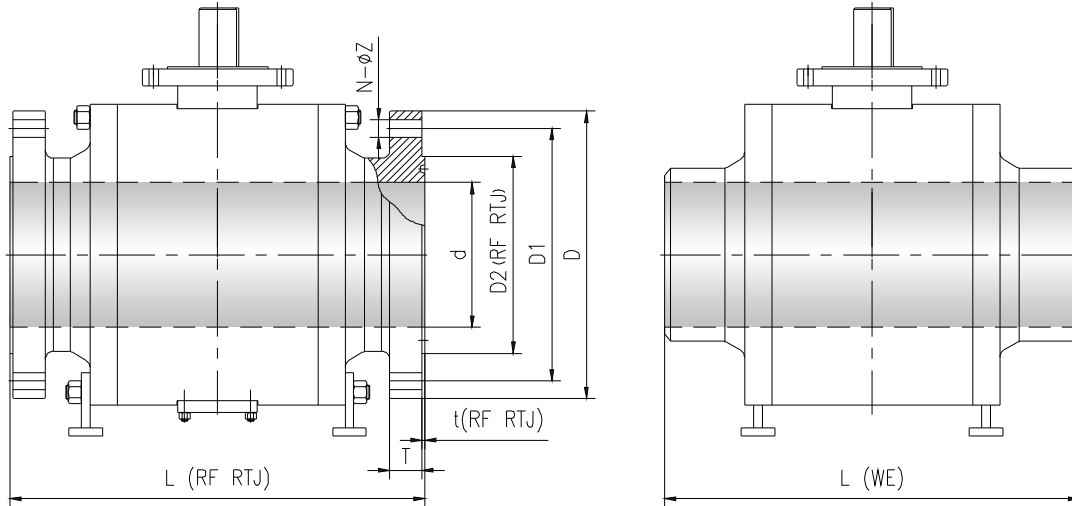
**ANSI Class 1500  
3750psi**



Nominal Size		(RF)								(RTJ)				(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N-φZ	L(RTJ)	D2(RTJ)	t(RTJ)	R	L(WE)
50	2	49	368	215	165	92	38.5	7.0	8-φ25.5	371	124	7.9	R24	368
65	2½	62	419	245	190.5	105	41.5	7.0	8-φ28.5	422	137	7.9	R27	419
80	3	74	470	265	203.2	127	48	7.0	8-φ32	473	168	7.9	R35	470
100	4	100	456	310	241.3	157	54	7.0	8-φ35	549	194	7.9	R39	456
150	6	144	705	395	317.5	216	83	7.0	12-φ38	711	248	9.5	R46	705
200	8	192	832	485	393.7	270	93	7.0	12-φ44.5	840	318	11.1	R50	832
250	10	239	991	585	482.6	324	108	7.0	12-φ51	1000	371	11.1	R54	991
300	12	287	1130	675	571.5	381	124	7.0	16-φ54	1146	438	14.3	R58	1130
350	14	315	1257	750	635	413	133.5	7.0	16-φ60.5	1276	489	15.9	R63	1257
400	16	360	1384	825	704.8	470	146.5	7.0	16-φ66.6	1407	546	17.5	R66	1384
450	18	405	1537	915	774.7	533	162	7.0	16-φ73.2	1559	613	17.5	R71	1537
500	20	455	1664	985	831.8	584	178	7.0	16-φ79.3	1686	673	17.5	R75	1664
600	24	530	2040	1170	990.6	692	203.5	7.0	16-φ92	2071	794	20.6	R79	2040



**ANSI Class 2500**  
**6000 psi**



Nominal Size		(RF)								(RTJ)				(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N-φZ	L(RTJ)	D2(RTJ)	t(RTJ)	R	L(WE)
25	1	25	308	160	107.9	51	35	7.0	4-φ25.5	308	82.5	6.4	R18	308
32	1 1/4	32	349	185	130.2	64	38.5	7.0	4-φ28.5	352	102	7.9	R21	349
40	1 1/2	38	384	205	146	73	44.5	7.0	4-φ32	387	114	7.9	R23	384
50	2	42	451	235	171.4	92	51	7.0	8-φ28.5	454	133	7.9	R26	451
65	2 1/2	52	508	265	196.8	105	57.5	7.0	8-φ32	540	149	9.5	R28	508
80	3	62	578	305	228.6	127	67	7.0	8-φ35	584	168	9.5	R32	578
100	4	87	673	355	273	157	76.5	7.0	8-φ41.3	683	203	11.1	R38	673
150	6	131	914	485	368.3	216	108	7.0	8-φ54	927	279	12.7	R47	914
200	8	179	1022	550	438.1	270	127	7.0	12-φ54	1038	340	14.3	R51	1022
250	10	223	1270	675	539.7	324	165.5	7.0	12-φ66.6	1292	425	17.5	R55	1270
300	12	265	1422	760	619.1	381	184.5	7.0	12-φ73.2	1445	495	17.5	R60	1422