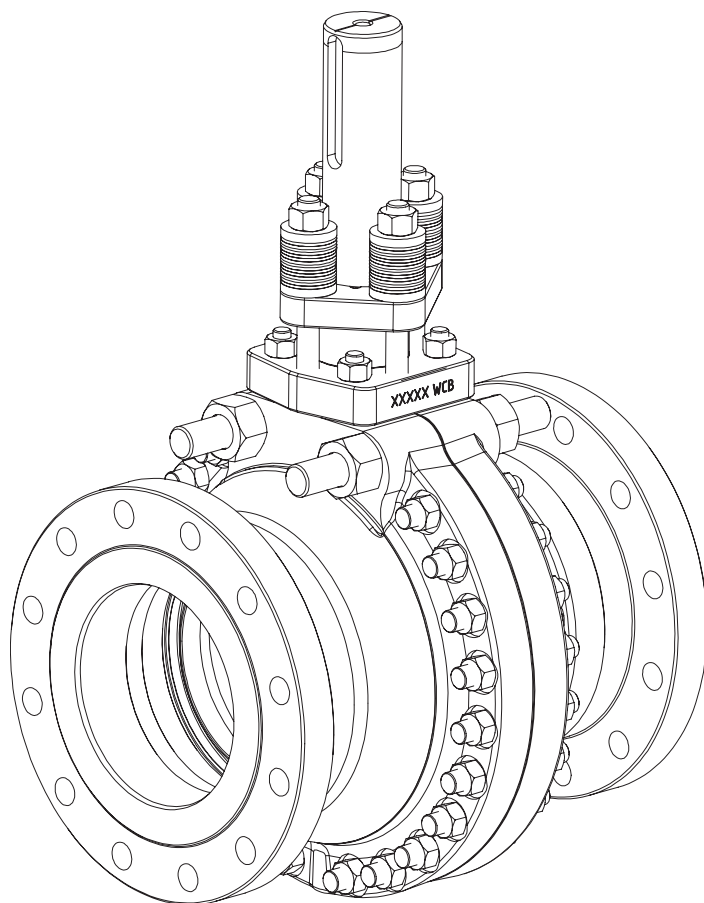


BALL VALVE

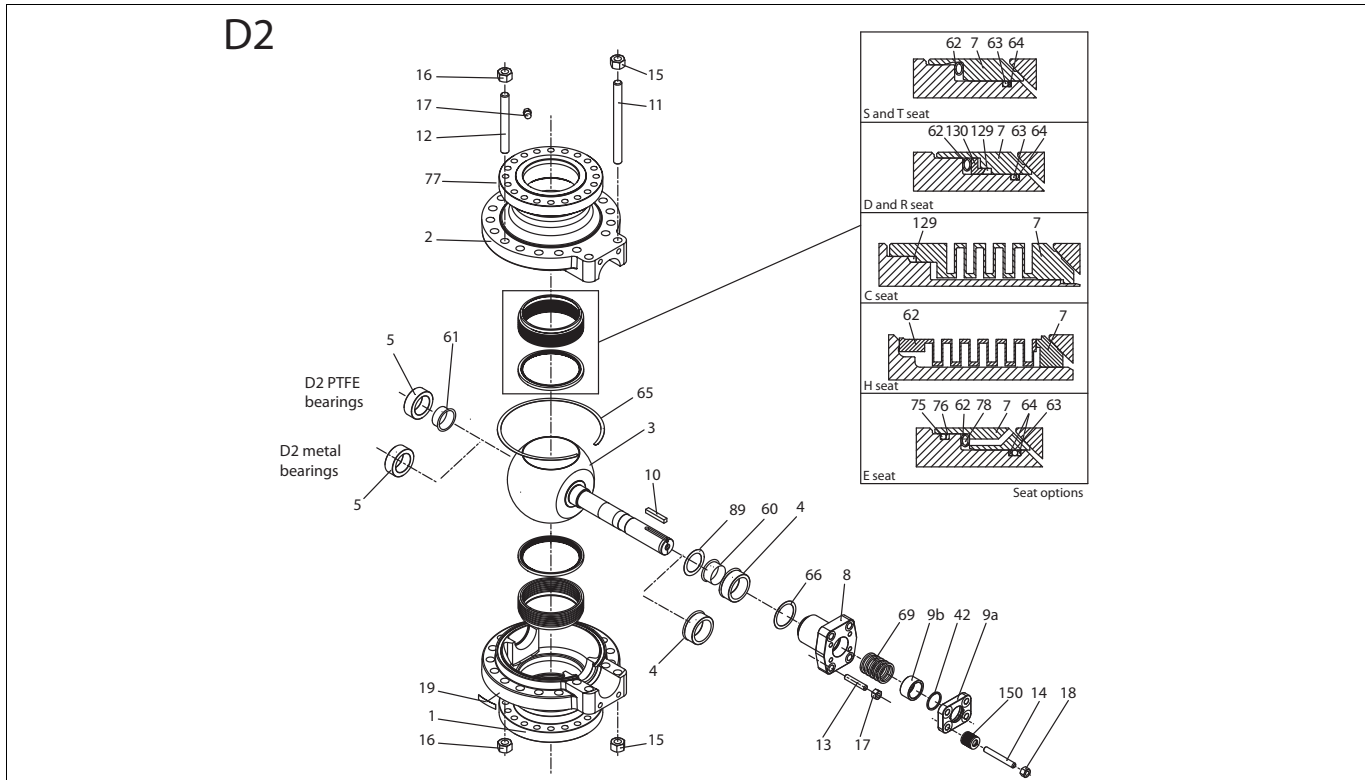
Series D

Installation, Maintenance and
Operating Instructions



10 EXPLODED VIEWS AND LISTS OF PARTS

10.1 D2 valves



Part	Qty	Description	Spare part category
1	1	Body half, female	
2	1	Body half, male	
3	1	Ball	3
4	1	Trunnion bearing	3
5	1	Trunnion bearing	3
7	2	Ball seat	2
8	1	Bonnet	
9a	1	Gland	
9b	1	Compression sleeve	
10	1	Key	3
11		Stud	
12		Stud	
13		Stud	
14		Stud	
15		Hexagon nut	
16		Hexagon nut	
17		Hexagon nut	
18		Hexagon nut	
19	1	Identification plate	
42	1	Retainer ring	
60*	1	Bearing strip	1
61*	1	Bearing strip	1
62	2	Spring	1
63	2	O-ring	1
64	2	Back-up ring	1
65	2	Seal strip	1
66	1	Sheet ring	1
69		Packing ring	1
75	1	O-ring	
76	1	Back-up ring	
77	1	Hexagon plug	
78	1	Spring pin	
89*	1	Thrust bearing	1
129	1	Back seal	1
130	1	Set ring	
150	4	Disc spring set	

Spare part (spare part set) category 1: Recommended soft parts, always needed for the repair. Delivered as a set.

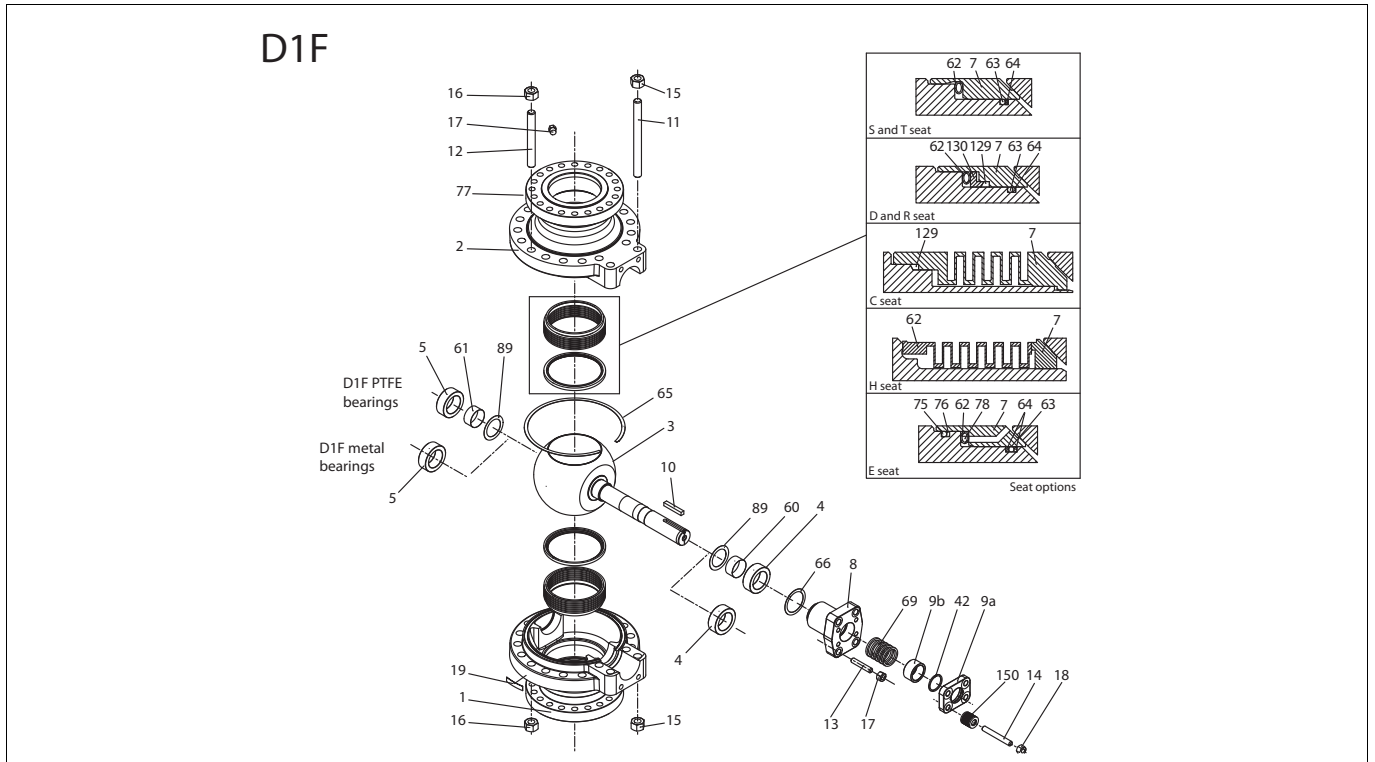
Spare part category 2: Parts for replacing of the seat. Available also as a set.

Spare part category 3: Parts for replacing of the closing element.

Spares for the full overhaul: All parts from the categories 1, 2 and 3.

Note: * Only in PTFE bearing construction.

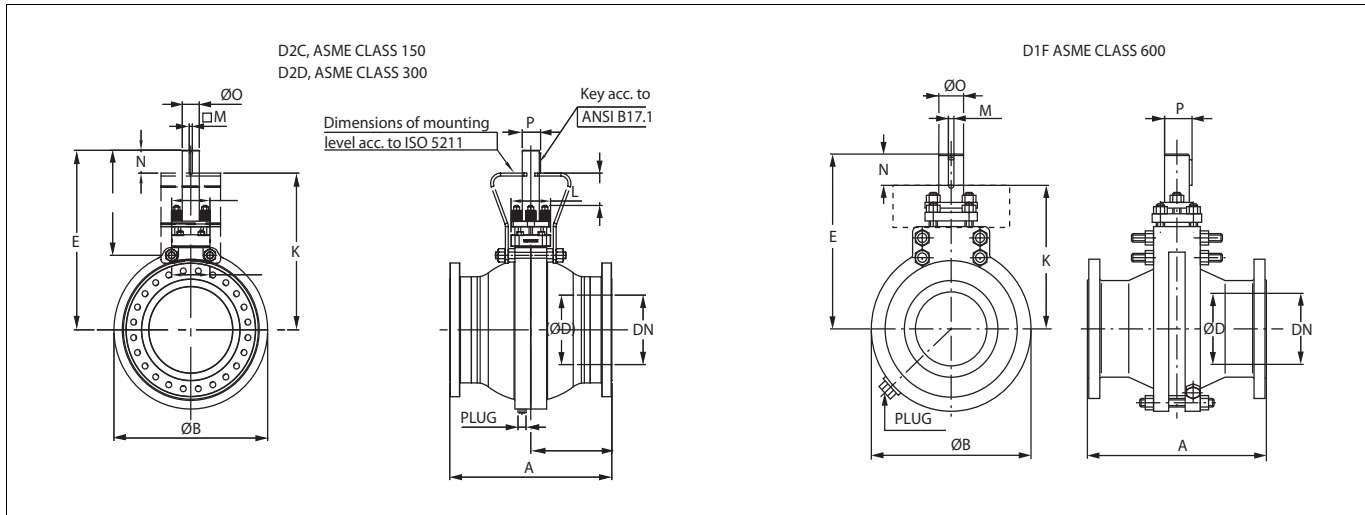
10.2 D1F valves



Part	Qty	Description	Spare part category
1	1	Body half, female	
2	1	Body half, male	
3	1	Ball	3
4	1	Trunnion bearing	3
5	1	Trunnion bearing	3
7	2	Ball seat	2
8	1	Bonnet	
9a	1	Gland	
9b	1	Compression sleeve	
10	1	Key	3
11		Stud	
12		Stud	
13		Stud	
14		Stud	
15		Hexagon nut	
16		Hexagon nut	
17		Hexagon nut	
18		Hexagon nut	
19	1	Identification plate	
42	1	Retainer ring	
60*	1	Bearing strip	1
61*	1	Bearing strip	1
62	2	Spring	1
63	2	O-ring	1
64	2	Back-up ring	1
65	2	Seal strip	1
66	1	Sheet ring	1
69		Packing ring	1
75	1	O-ring	
76	1	Back-up ring	
77	1	Hexagon plug	
78	1	Spring pin	
89*	2	Thrust bearing	1
129	1	Back seal	1
130	1	Set ring	
150	4	Disc spring set	

Spare part (spare part set) category 1: Recommended soft parts, always needed for the repair. Delivered as a set.
 Spare part category 2: Parts for replacing of the seat. Available also as a set.
 Spare part category 3: Parts for replacing of the closing element.
 Spares for the full overhaul: All parts from the categories 1, 2 and 3.
 Note: * Only in PTFE bearing construction.

11 DIMENSIONS AND WEIGHTS



D2C, ASME CLASS 150

Type	Dimensions, mm										Mounting face	Plug NPTF	kg
	DN	A	ØB	ØD	E	K	M	N	ØO	P			
D2C 12	300	610	596	304	756	600	22.22	156	95	104.8	F16, F25, F30	1	420
D2C 14	350	686	668	337	818	662	22.22	156	95/105	104.8	F16, F25, F30	1	550
D2C 16	400	762	744	387	840	684	22.22	156	95/120	104.8	F16, F25, F30	1	720
D2C 18	450	864	814	440	890	734	22.22	156	95/120	104.8	F16, F25, F30	1	1300
D2C 20	500	914	904	490	969	789	25.40	180	95/105	116.1	F16, F25, F30, F35	1	1500
D2C 24	600	1067	1084	590	1128	923	31.75	205	95/120	133.8	F25, F30, F35, F40	1	2300
D2C 28	700	1244	1245	692	1263	1038	31.75	225	105/135	149	F30, F35, F40	1	3800
D2C 30	750	1295	1318	740	1485	1235	38.10	250	150	166.6	F30, F35, F40	1	4400
D2C 36	900	1524	1560	880	1661	1381	38.10	280	165	181.8	F40, F48	1	6500

Type	Dimensions, inch										Mounting face	Plug NPTF	lb
	Size	A	ØB	ØD	E	K	M	N	ØO	P			
D2C 12	12	24.02	23.46	11.97	29.76	23.62	0.87	6.14	3.74	4.13	F16, F25, F30	1	924
D2C 14	14	27.01	26.30	13.27	32.20	26.06	0.87	6.14	3.74/4.13	4.13	F16, F25, F30	1	1210
D2C 16	16	30.00	29.29	15.24	33.07	26.93	0.87	6.14	3.74/4.72	4.13	F16, F25, F30	1	1584
D2C 18	18	34.02	32.05	17.32	35.04	28.90	0.87	6.14	3.74/4.72	4.13	F16, F25, F30	1	2860
D2C 20	20	35.98	35.59	19.29	38.15	31.06	1.00	7.09	3.74/4.13	4.57	F16, F25, F30, F35	1	3300
D2C 24	24	42.01	42.68	23.23	44.41	36.34	1.25	8.07	3.74/4.72	5.27	F25, F30, F35, F40	1	5060
D2C 28	28	48.98	49.02	27.24	49.72	40.87	1.25	8.86	4.13/5.31	5.87	F30, F35, F40	1	8360
D2C 30	30	50.98	51.89	29.13	58.46	48.62	1.50	9.84	5.91	6.56	F30, F35, F40	1	9680
D2C 36	36	60.00	61.42	34.65	65.39	54.37	1.50	11.02	6.50	7.16	F40, F48	1	14300

D2D, ASME CLASS 300

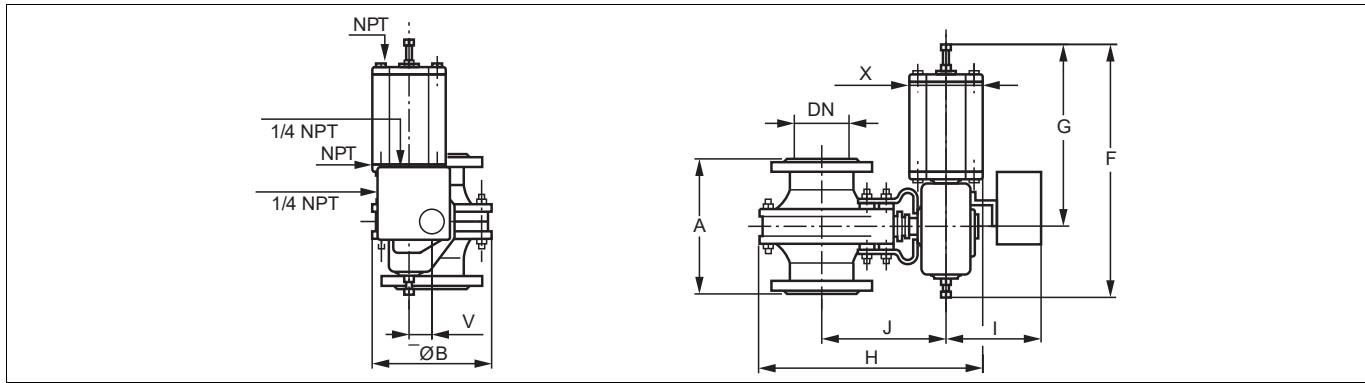
Type	Dimensions, mm										Mounting face	Plug NPTF	kg
	DN	A	ØB	ØD	E	K	M	N	ØO	P			
D2D 04	100	305	262	100	373	305	9.52	68	40	44.2	F10, F12, F14	1/2	60
D2D 06	150	403	368	152	480	390	12.70	90	55	60.6	F12, F14, F16	3/4	140
D2D 08	200	502	454	202	575	456	19.05	119	70	78.2	F14, F16, F25	3/4	240
D2D 10	250	568	558	254	684.5	538.5	22.22	146	85	94.6	F16, F25, F30	1	380
D2D 12	300	648	630	304	756	600	22.22	156	95	104.8	F16, F25, F30, F35	1	590
D2D 14	350	762	706	337	818	638	25.40	180	105	116.2	F25, F30, F35	1	770
D2D 16	400	838	792	387	910.5	705.5	31.75	205	120	133.8	F25, F30, F35	1	1050
D2D 18	450	914	884	440	1005	849	22.22	156	95	104.8	F25, F30, F35	1	1250
D2D 20	500	991	966	490	1085	905	25.40	180	105	116.2	F25, F30, F35, F40	1	1950
D2D 24	600	1143	1130	590	1229	1024	31.75	205	120	133.8	F30, F35, F40	1	3100
D2D 28	700	1346	1340	690	1323	1098	31.75	225	135	149	F35, F40	1	5250
D2D 30	750	1397	1414	740	1485	1235	38.10	250	150	166.6	F35, F40, F48	1	5500
D2D 32	800	1524	1490	785	1521	1271	38.10	250	150	166.6	F35, F40	1	6700
D2D 36	900	1727	1684	880	1720	1440	38.10	280	165	181.8	F40, F48	1	8700

Type	Dimensions, inch										Mounting face	Plug NPTF	lb
	Size	A	ØB	ØD	E	K	M	N	ØO	P			
D2D 4	4	12.01	10.31	3.94	14.69	12.01	0.37	2.68	1.57	1.74	F10, F12, F14	1/2	132
D2D 6	6	15.87	14.49	5.98	18.90	15.35	0.50	3.54	2.17	2.39	F12, F14, F16	3/4	308
D2D 8	8	19.76	17.87	7.95	22.64	17.95	0.75	4.69	2.76	3.08	F14, F16, F25	3/4	528
D2D 10	10	22.36	21.97	10.00	26.95	21.20	0.87	5.75	3.35	3.72	F16, F25, F30	1	836
D2D 12	12	25.51	24.80	11.97	29.76	23.62	0.87	6.14	3.74	4.13	F16, F25, F30, F35	1	1298
D2D 14	14	30.00	27.80	13.27	32.20	25.12	1.00	7.09	4.13	4.57	F25, F30, F35	1	1694
D2D 16	16	32.99	31.18	15.24	35.85	27.78	1.25	8.07	4.72	5.27	F25, F30, F35	1	2310
D2D 18	18	35.98	34.80	17.32	39.57	33.43	0.87	6.14	3.74	4.13	F25, F30, F35	1	2750
D2D 20	20	39.02	38.03	19.29	42.72	35.63	1.00	7.09	4.13	4.57	F25, F30, F35, F40	1	4290
D2D 24	24	45.00	44.49	23.23	48.39	40.31	1.25	8.07	4.72	5.27	F30, F35, F40	1	6820
D2D 28	28	52.99	52.76	27.17	52.09	43.23	1.25	8.86	5.31	5.87	F35, F40	1	11550
D2D 30	30	55.00	55.67	29.13	58.46	48.62	1.50	9.84	5.91	6.56	F35, F40, F48	1	12100
D2D 32	32	60.00	58.66	30.90	59.88	50.04	1.50	9.84	5.91	6.56	F35, F40	1	14740
D2D 36	36	68.00	66.30	34.65	67.72	56.69	1.50	11.02	6.50	7.16	F40, F48	1	19140

D1F, ASME CLASS 600

Type	Dimensions, mm										Plug NPTF	kg
	DN	A	ØB	ØD	E	K	M	N	ØO	P		
D1F 02	50	292	206	50	305	300	6.35	46	25	27.8	1/2	35
D1F 03	80	356	262	77	375	340	9.52	58	35	39.1	1/2	60
D1F 04	100	432	314	100	427	387	9.52	68	40	44.2	1/2	120
D1F 06	150	559	404	152	540	485	12.70	90	55	60.6	3/4	280
D1F 08	200	660	507	202	645	575	19.05	119	70	78.2	3/4	380
D1F 10	250	787	610	254	765	680	22.22	146	85	94.6	1	690
D1F 12	300	838	748	302	890	795	22.22	156	95	104.8	1	1134
D1F 14	350	889	824	340	970	865	25.40	180	105	116.1	1	1500
D1F 16	400	991	954	390	1068	948	31.75	205	120	133.8	1	2500
D1F 18	450	1092	1090	440	1200	1065	31.75	225	135	149.0	1	3300
D1F 20	500	1194	1176	490	1355	1205	38.10	250	150	166.6	1	3880
D1F 24	600	1397	1224	591	1440	1275	38.10	280	165	181.8	1	6500

Type	Dimensions, inch										Plug NPTF	lb
	Size	A	ØB	ØD	E	K	M	N	ØO	P		
D1F 2	2	11.50	8.11	1.97	12.01	11.81	0.25	1.81	0.98	1.09	1/2	77
D1F 3	3	14.02	10.31	3.03	14.76	13.39	0.37	2.28	1.38	1.54	1/2	132
D1F 4	4	17.01	12.36	3.94	16.81	15.24	0.37	2.68	1.57	1.74	1/2	264
D1F 6	6	22.01	15.91	5.98	21.26	19.09	0.50	3.54	2.17	2.39	3/4	616
D1F 8	8	25.98	19.96	7.95	25.39	22.64	0.75	4.69	2.76	3.08	3/4	836
D1F 10	10	30.98	24.02	10.00	30.12	26.77	0.87	5.75	3.35	3.72	1	1518
D1F 12	12	32.99	29.45	11.89	35.04	31.30	0.87	6.14	3.74	4.13	1	2495
D1F 14	14	35.00	32.44	13.39	38.19	34.06	1.00	7.09	4.13	4.57	1	3300
D1F 16	16	39.02	37.56	15.35	42.05	37.32	1.25	8.07	4.72	5.27	1	5500
D1F 18	18	42.99	42.91	17.32	47.24	41.93	1.25	8.86	5.31	5.87	1	7260
D1F 20	20	47.01	46.30	19.29	53.35	47.44	1.50	9.84	5.91	6.56	1	8536
D1F 24	24	55.00	48.19	23.27	56.69	50.20	1.50	11.02	6.50	7.16	1	14300

**D2C + BC**

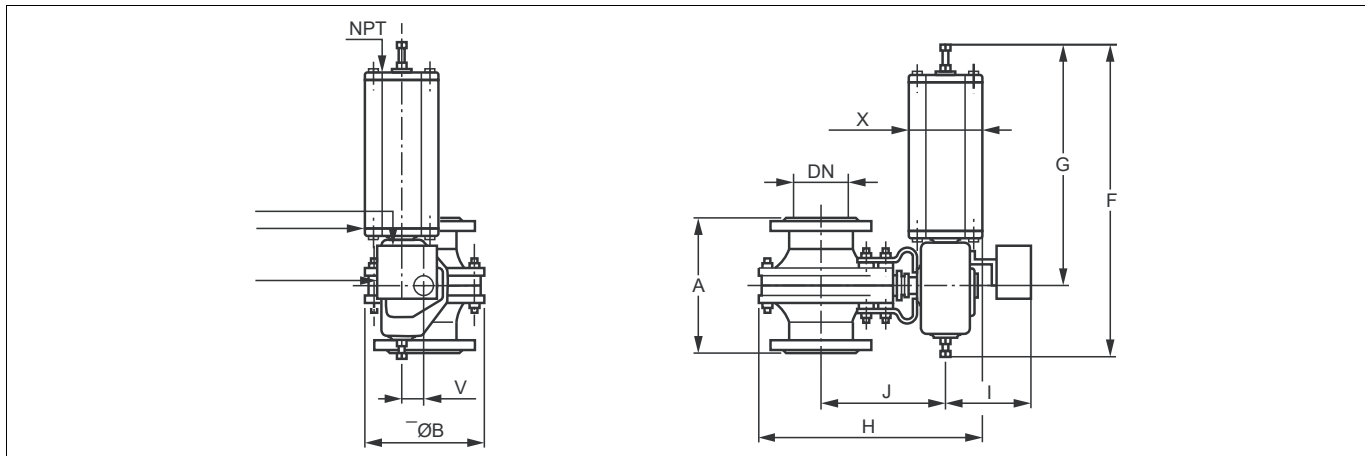
Type	Dimensions, mm										UNC	kg
	DN	A	B	F	G	H	I	J	V	X		
D2C 12 - BC25	300	610	596	1040	710	1215	310	752	121	265	1/2	560
D2C 12 - BC32	300	610	596	1330	910	1290	350	790	153	395	3/4	680
D2C 14 - BC25	350	686	668	1040	710	1313	310	813	121	265	1/2	690
D2C 14 - BC32	350	686	668	1330	910	1373	350	835	153	395	3/4	820
D2C 14 - BC40	350	686	668	1660	1150	1478	370	889	194	505	3/4	1015
D2C 16 - BC32	400	762	744	1330	910	1435	350	859	153	395	3/4	1340
D2C 16 - BC40	400	762	744	1660	1150	1515	370	889	194	505	3/4	1185
D2C 18 - BC40	450	864	814	1660	1150	1620	370	961	194	505	3/4	1775
D2C 18 - BC50	450	864	814	1970	1350	1735	415	1021	242	610	1	2160
D2C 20 - BC40	500	914	904	1660	1150	1719	370	1014	194	505	3/4	1975
D2C 20 - BC50	500	914	904	1970	1350	1839	415	1082	242	610	1	2360
D2C 24 - BC40	600	1067	1084	1660	1150	1943	370	1148	194	505	3/4	2795
D2C 24 - BC50	600	1067	1084	1970	1350	2048	415	1198	242	610	1	3180
D2C 28 - BC50	700	1244	1245	1970	1350	2324	415	1395	242	610	1	4680

D2D + BC

Type	Dimensions, mm										UNC	kg
	DN	A	B	F	G	H	I	J	V	X		
D2D 04 - BC13	100	305	262	645	445	619	235	394	65	175	3/8	96
D2D 04 - BC17	100	305	262	770	545	649	255	409	78	215	1/2	120
D2D 04 - BC20	100	305	262	840	575	689	270	428	97	215	1/2	140
D2D 06 - BC17	150	403	368	770	545	795	255	499	78	215	1/2	200
D2D 06 - BC20	150	403	368	840	575	830	270	518	97	215	1/2	220
D2D 08 - BC20	200	502	454	840	575	946	270	591	97	215	1/2	320
D2D 08 - BC25	200	502	454	1040	710	1006	310	614	121	265	1/2	380
D2D 10 - BC25	250	568	558	1040	710	1146	310	701	121	265	1/2	520
D2D 10 - BC32	250	568	558	1330	910	1221	350	738	153	395	3/4	645
D2D 12 - BC25	300	648	630	1040	710	1230	310	753	121	265	1/2	730
D2D 12 - BC32	300	648	630	1330	910	1305	350	790	153	395	3/4	855
D2D 14 - BC25	350	762	706	1040	710	1333	310	817	121	265	1/2	915
D2D 14 - BC32	350	762	706	1330	910	1393	350	839	153	395	3/4	1040
D2D 14 - BC40	350	762	706	1660	1150	1498	370	889	194	505	3/4	1255
D2D 16 - BC32	400	838	792	1330	910	1531	350	932	153	395	3/4	1330
D2D 16 - BC40	400	838	792	1660	1150	1611	370	960	194	505	3/4	1525
D2D 18 - BC40	450	914	884	1660	1150	1790	370	1092	194	505	3/4	1735
D2D 18 - BC50	450	914	884	1970	1350	1885	415	1136	242	610	1	2130
D2D 20 - BC40	500	991	966	1660	1150	1890	370	1154	194	505	3/4	2435
D2D 20 - BC50	500	991	966	1970	1350	1990	415	1198	242	610	1	2840
D2D 24 - BC40	600	1143	1130	1660	1150	2089	370	1249	194	505	3/4	3600
D2D 24 - BC50	600	1143	1130	1970	1350	2194	415	1299	242	610	1	3990
D2D 28 - BC50	700	1346	1340	1970	1350	2287	415	1393	242	610	1	6140
D2D 30 - BC50	750	1397	1414	1970	1350	2550	415	1535	242	610	1	6410

D1F + BC

Type	Dimensions, mm										UNC	kg
	DN	A	B	F	G	H	I	J	V	X		
D1F 02 - BC9	50	292	206	455	315	505	220	325	43	110	1/4	47
D1F 02 - BC11	50	292	206	540	375	510	225	324	51	135	3/8	52
D1F 02 - BC13	50	292	206	635	445	545	235	347	65	175	3/8	68
D1F 02 - BC17	50	292	206	770	545	575	255	362	78	215	1/2	91
D1F 03 - BC13	80	356	262	635	445	630	235	404	65	175	3/8	94
D1F 03 - BC17	80	356	262	770	545	660	255	419	78	215	1/2	120
D1F 03 - BC20	80	56	262	840	575	695	270	438	97	215	1/2	140
D1F 04 - BC13	100	432	314	635	445	700	235	448	65	175	3/8	155
D1F 04 - BC17	100	432	314	770	545	730	255	463	78	215	1/2	180
D1F 04 - BC20	100	432	314	840	575	765	270	482	97	215	1/2	200
D1F 04 - BC25	100	432	314	1040	710	825	310	505	121	265	1/2	255
D1F 06 - BC17	150	559	404	770	545	870	255	554	78	215	1/2	340
D1F 06 - BC20	150	559	404	840	575	915	270	573	97	215	1/2	360
D1F 06 - BC25	150	559	404	1040	710	960	310	596	121	265	1/2	415
D1F 06 - BC32	150	559	404	1330	910	1035	350	633	153	395	3/4	535
D1F 08 - BC20	200	660	507	840	575	1030	270	655	97	215	1/2	470
D1F 08 - BC25	200	660	507	1040	710	1090	310	678	121	265	1/2	525
D1F 08 - BC32	200	660	507	1330	910	1165	350	715	153	395	3/4	645
D1F 08 - BC40	200	660	507	1660	1150	1270	370	765	194	505	3/4	840
D1F 10 - BC25	250	787	610	1040	710	1245	310	775	121	265	1/2	835
D1F 10 - BC32	250	787	610	1330	910	1320	350	812	153	395	3/4	960
D1F 10 - BC40	250	787	610	660	1150	1420	370	862	194	505	3/4	1155
D1F 12 - BC32	300	838	748	1330	910	1498	350	923	153	395	3/4	1410
D1F 12 - BC40	300	838	748	1660	1150	1603	370	973	194	505	3/4	1605
D1F 12 - BC50	300	838	748	1970	1350	1703	415	1023	242	610	1	1990
D1F 14 - BC32	350	889	824	1330	910	1600	350	987	153	395	3/4	1890
D1F 14 - BC40	350	889	824	1660	1150	1705	370	1037	194	505	3/4	2085
D1F 14 - BC50	350	889	824	1970	1350	1805	415	1087	242	610	1	2470
D1F 16 - BC40	400	991	954	1660	1150	1850	370	1113	194	505	3/4	2980
D1F 16 - BC50	400	991	954	1970	1350	1945	415	1163	242	610	1	3370
D1F 18 - BC40	450	1092	1090	1660	1150	2025	370	1223	194	505	3/4	3820
D1F 18 - BC50	450	1092	1090	1970	1350	2125	415	1273	242	610	1	4210
D1F 20 - BC50	500	1194	1176	1970	1350	2300	415	1404	242	610	1	4810
D1F 24 - BC50	600	1397	1402	1970	1350	2385	415	1465	242	610	1	7360

**D2C + BJ**

Type	Dimensions, mm										UNC	kg
	DN	A	B	F	G	H	I	J	V	X		
D2C 12 - BJ25	300	610	596	1530	1200	1305	310	752	121	505	3/4	770
D2C 12 - BJ32	300	610	596	1830	410	360	350	790	153	540	1	1085
D2C 14 - BJ25	350	686	668	1530	1200	1403	310	813	121	505	3/4	900
D2C 14 - BJ32	350	686	668	1830	1410	1443	350	835	153	540	1	1220
D2C 16 - BJ32	400	762	744	1830	1410	1505	350	859	153	540	1	1390
D2C 18 - BJ32	450	864	814	1830	1410	1590	350	911	153	540	1	1970
D2C 20 - BJ32	500	914	904	1830	1410	1689	350	964	153	540	1	2170
D2C 24 - BJ32	600	1067	1084	1830	1410	1903	350	1098	153	540	1	2970
D2C 28 - BJ32	700	1244	1245	1830	1410	2192	350	1298	153	540	1	4470

D2D + BJ

Type	Dimensions, mm										UNC	kg
	DN	A	B	F	G	H	I	J	V	X		
D2D 04 - BJ16	100	305	262	990	760	674	255	409	78	265	1/2	160
D2D 04 - BJ20	100	305	262	1200	935	759	270	428	97	395	3/4	235
D2D 06 - BJ16	150	403	368	990	760	820	255	499	78	265	1/2	240
D2D 06 - BJ20	150	403	368	1200	935	900	270	518	97	395	3/4	315
D2D 08 - BJ20	200	502	454	1200	935	1016	270	591	97	395	3/4	415
D2D 08 - BJ25	200	502	454	1530	1200	1096	310	614	121	505	3/4	590
D2D 10 - BJ25	250	568	558	1530	1200	1236	310	701	121	505	3/4	730
D2D 10 - BJ32	250	568	558	1830	1410	1291	350	738	153	540	1	1050
D2D 12 - BJ32	300	648	630	1830	1410	1375	350	790	153	540	1	1260
D2D 14 - BJ32	350	762	706	1830	1410	1463	350	839	153	540	1	1440
D2D 16 - BJ32	400	838	792	1830	1410	1601	530	932	153	540	1	1720
D2D 18 - BJ32	450	914	884	1830	1410	1750	350	1036	153	540	1	1920

D1F + BJ

Type	Dimensions, mm										UNC	kg
	DN	A	B	F	G	H	I	J	V	X		
D1F 02 - BJ10	50	292	206	650	490	525	225	331	51	175	3/8	65
D1F 02 - BJ12	50	292	206	800	620	560	235	347	65	215	1/2	92
D1F 02 - BJ16	50	292	206	990	760	600	255	362	78	265	1/2	135
D1F 03 - BJ12	80	356	262	800	620	645	235	404	65	215	1/2	120
D1F 03 - BJ16	80	356	262	990	760	685	255	419	78	265	1/2	160
D1F 03 - BJ20	80	356	262	1200	935	770	270	438	97	395	3/4	235
D1F 04 - BJ12	100	432	314	800	620	715	235	448	65	215	1/2	180
D1F 04 - BJ16	100	432	314	990	760	815	255	463	78	265	1/2	220
D1F 04 - BJ20	100	432	314	1200	935	840	270	482	97	395	3/4	295
D1F 06 - BJ20	150	559	404	1200	935	975	270	573	97	395	3/4	455
D1F 06 - BJ25	150	559	404	1530	1200	1055	310	596	121	505	3/4	630
D1F 06 - BJ32	150	559	404	1830	1410	1105	350	633	153	540	1	950
D1F 08 - BJ25	200	660	507	1530	1200	1180	310	678	121	505	3/4	730
D1F 08 - BJ32	200	660	507	1830	1410	1235	350	715	153	540	1	1050
D1F 10 - BJ25	250	787	610	1530	1200	1335	310	775	121	505	3/4	1040
D1F 10 - BJ32	250	787	610	1830	1410	1390	350	812	153	540	1	1360
D1F 12 - BJ32	300	838	748	1830	1410	1568	350	923	153	540	1	1805
D1F 14 - BJ32	350	889	824	1830	1410	1670	350	987	153	540	1	2170

12 TYPE CODE

BALL VALVE, Series D

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	
D2	D	E	06	D	A	E	02	G	/	-	-

Q-CODE	PRODUCT OPTIONS
Q	Standard low noise trim for gas and liquid application, single seated (const. E or B) with open down stream side ball surface
Q2G	Q2-trim for gas application (single seated const.E or B)

1.	SERIES
D	Center split body, trunnion mounted, bonnet
STANDARD	
D2, D1(F)	Full bore, flanged
NON-STANDARD	
D3	Full bore, weld ends
D4	Reduced bore, weld ends
D5	Reduced bore, flanged

2.	PRESSURE RATING
C	ASME class 150
D	ASME class 300
F	ASME class 600

3.	CONSTRUCTION
STANDARD	
A	General construction, PTFE bearings, 2 seats, temperature range: -50 °C to +230 °C.
B	Single seated, one-way tight, metal bearings, temperature range: -50 °C to +450/600 °C
E	Single seated, one-way tight, PTFE bearings, temperature range: -50 °C to +230 °C
H	High-temperature construction, metal bearings, 2 seats, temperature range: -50 °C to +450/600 °C
NON-STANDARD	
C	Cryogenic construction, PTFE bearings, temperature range: -200 °C to +230 °C
S	Subsea construction
Z	OXYGEN CONSTRUCTION BAM tested non-metallic materials temperature range: -50 °C to +200 °C. See IMO '10O270EN.pdf'.
Y	Special construction

4.	SIZE (in)
D1F	02, 03, 04, 06, 08, 10, 12, 14, 16, 18, 20, 24, 28
D2D	04, 06, 08, 10, 12, 14, 16, 18, 20, 24, 26*, 28*, 30*, 32*, 36*
D2C	10, 12, 14, 16, 18, 20, 24, 28*, 30*, 36*
D5F	03, 04, 06, 08, 10, 12, 14, 16, 18, 20, 24
D5D	06, 08, 10, 12, 14, 16, 18, 20, 24, 28*, 30*, 32*, 36*
D5C	12, 14, 16, 18, 20, 24, 28*, 30*, 36*

^{*)} Flanges acc. to ASME B16.47 series A in sizes 26" or larger.
Flanges in sizes up to NPS 24" are acc. to ASME B 16.5.

5.	BODY	BOLTING
STANDARD MATERIALS		
A	CF8M	B8M / 8M
D	WCB	L7M / 2HM
Y	Special	

***) When soft seat, then ball without chrome.

6.	BALL
A	CF8M / AISI 316 + Chrome**
D	CF8M / AISI 316 + NiBo, only size ≤ 24"
Y	Special

7.	SEAT TYPE
T	Soft seat
D	Soft seat, fire safe
S	Metal seat
E	Metal seat
H	Bellows seat
C	Bellows seat
K	Solids Proof metal seat
R	Fire safe metal seat
F6	Special metal seat.

8.	STANDARD MATERIALS				
	Seat seal	Body gasket	Gland packing	Wound spring or bellows spring	
02	Viton GF	Graphite	Graphite	W	X-750
03		Graphite Graphite	Graphite Graphite	B W	W.no.1.4418 X-750

NON-STANDARD MATERIALS					
63	Viton GF, graphite	Graphite	Graphite	W	X-750
64	Lip seal, grafoil	Graphite	Graphite	W	X-750

9.	PACKING CONSTRUCTION CODE
G	Standard packing, live loaded graphite packing, ISO 15848-1 certified
-	Non-live loaded packing. Obsolete.

10.	FLANGE FACING
-	ASME B16.5 raised face Ra 3.2-6.3 or EN 1092-1 Type B1 (Ra 3.2-12.5) (without sign)
05	Ring Joint

11.	FLANGE DRILLING
-	Acc. to valve pressure rating, without sign (standard)
C	ASME class 150***
D	ASME class 300***
F	ASME class 600***
J	EN PN 10
K	EN PN 16
L	EN PN 25
M	EN PN 40
N	EN PN 64
P	EN PN 100
R	JIS 10K
S	JIS 16K
T	JIS 20K
U	JIS 30K
W	JIS 40K
Y	Special

***) Flange drilling acc. to ASME B16.47 series A in sizes 26" or larger.
Flange drilling in sizes up to NPS 24" are acc. to ASME B 16.5