

A stylized green symbol representing a ball valve, consisting of a central circle with four curved segments extending outwards, resembling a cross or a valve handle.

## 9. Ball Valves

## Section 9. Ball Valves

### Side Entry Floating Ball Valves

#### Specifications

Design:	<b>ASME B16.34/BS 5351/API 6D</b>
Face to Face:	<b>ASME B16.10</b>
End to End:	<b>ASME B16.10</b>
End Flange:	<b>ASME B16.5</b>
BW End:	<b>ASME B16.25</b>
Test:	<b>API 598/BS 6755</b>
Fire Safe Test:	<b>API 607/API 6FA</b>
Special:	<b>NACE MR-01-75</b>

### Top Entry Trunnion Ball Valves

#### Specifications

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

Seat Pocket Overlay (On Request)

Seals Area Overlay (On Request)

RATING	150lb	300lb	400lb	600lb	900lb	1,500lb	2,500lb
MAX. WORKING PRESSURE	285 PSI	740 PSI	990 PSI	1480 PSI	2220 PSI	3705 PSI	6170 PSI
TEST PRESSURE	450 PSI	1125 PSI	1500 PSI	2225 PSI	3350 PSI	5575 PSI	9275 PSI
OPERATING TEMPERATURE RANGE	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C	-28 TO +540 DEG C

**MATERIAL REQUIREMENTS:** Carbon Steel, Alloy Steel, Stainless Steel, Duplex, Super Duplex, Inconel.

visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info

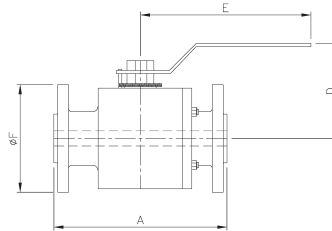
**GENERAL NOTE:** De-rating of maximum working pressure will occur as the operating temperature increases.

## Section 9. Ball Valves

### Side Entry Floating Ball Valves Full Bore



visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info



**Table 9.1 Class 150lbs**

Nominal Size		Flange	End to End		Other Data		
NS	DN	ØF	A-RF	A-RJ	D	E	Weight (kg)
½"	15	89	108	-	90	185	3
¾"	20	98	117	-	90	185	4
1"	25	108	127	140	95	185	6
1½"	40	127	165	178	125	365	11
2"	50	152	178	191	130	365	17
3"	80	191	203	216	155	455	28
4"	100	229	229	241	170	455	49
6"	150	279	394	406	300	800	65
8"	200	343	457	470	405	-	98

GENERAL NOTES: Dimensions are in mm.

Reduced bore option available on request.

**Table 9.2 Class 300lbs**

Nominal Size		Flange	End to End		Other Data		
NS	DN	ØF	A-RF	A-RJ	D	E	Weight (kg)
½"	15	95	140	151	90	185	4
¾"	20	118	152	165	90	185	6
1"	25	124	165	178	95	185	8
1½"	40	156	191	203	125	365	16
2"	50	165	216	232	130	365	21
3"	80	210	283	298	155	455	40
4"	100	254	305	321	170	455	65
6"	150	318	403	419	300	800	130

**Table 9.3 Class 600lbs**

Nominal Size		FLANGE	End to End		Other Data		
NS	DN	ØF	A-RF	A-RJ	D	E	Weight (kg)
½"	15	95	165	165	90	185	7
¾"	20	118	191	191	90	185	9
1"	25	124	216	216	95	185	12
1½"	40	156	241	241	125	365	19
2"	50	165	292	295	130	365	26
3"	80	210	356	359	155	455	50
4"	100	273	432	435	225	800	79

visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info

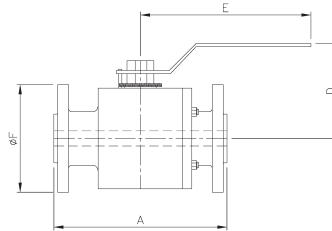
**GENERAL NOTES:** Dimensions are in mm.  
Reduced bore option available on request.

## Section 9. Ball Valves

### Side Entry Floating Ball Valves Full Bore



visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info



**Table 9.4 Class 900lbs**

Nominal Size		Flange	End to End		Other Data		
NS	DN	ØF	A-RF	A-RJ	D	E	Weight (kg)
½"	15	121	216	216	95	276	12
¾"	20	130	229	229	95	276	18
1"	25	149	254	254	105	276	24
1½"	40	178	305	305	130	365	32
2"	50	216	368	371	130	365	39
3"	80	241	381	384	150	-	42

GENERAL NOTES: Dimensions are in mm.

Reduced bore option available on request.

**Table 9.5 Class 1,500lbs**

Nominal Size		Flange	End to End		Other Data		
NS	DN	ØF	A-RF	A-RJ	D	E	Weight (kg)
½"	15	121	216	216	95	276	16
¾"	20	130	229	229	95	276	18
1"	25	149	254	254	105	276	26
1½"	40	178	305	305	305	110	34
2"	50	216	368	371	130	-	40

**Table 9.6 Class 2,500lbs**

Nominal Size		Flange	End to End		Other Data		
NS	DN	ØF	A-RF	A-RJ	D	E	Weight (kg)
½"	15	133	264	264	95	276	18
¾"	20	40	273	273	95	276	25
1"	25	159	308	308	105	276	33
1½"	40	203	384	387	130	-	36

visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info

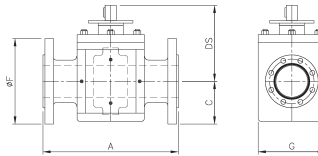
**GENERAL NOTES:** Dimensions are in mm.  
Reduced bore option available on request.

## Section 9. Ball Valves

### Top Entry Trunnion Ball Valves Full Bore



visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info



**Table 9.7 Class 150lbs**

Nominal Size		Flange	End to End		Other Data			
NS	DN	ØF	A-RF	A-RJ	C	DS	G	Weight (kg)
2"	50	152	292	295	78	231	185	31
3"	80	191	356	359	100	278	240	63
4"	100	229	432	435	120	297	296	95
6"	150	279	559	562	162	351	390	182
8"	200	343	660	664	207	393	470	285
10"	250	406	787	791	244	463	550	427
12"	300	483	838	841	290	485	630	577
14"	350	533	889	893	365	500	670	870
16"	400	597	991	994	405	528	720	1110
18"	450	635	1093	1096	445	585	810	1510
20"	500	699	1194	1201	520	625	940	2030
24"	600	813	1397	1407	595	810	1085	3590

GENERAL NOTES: Dimensions are in mm.

Side entry available on request.

**Table 9.8 Class 300lbs**

Nominal Size		Flange	End to End		Other Data			
NS	DN	ØF	A-RF	A-RJ	C	DS	G	Weight (kg)
2"	50	165	292	295	78	231	185	31
3"	80	210	356	359	100	278	240	68
4"	100	254	432	435	120	297	296	95
6"	150	318	559	562	162	376	390	202
8"	200	381	660	664	207	418	470	310
10"	250	445	787	791	244	488	550	484
12"	300	521	838	841	290	510	630	664
14"	350	584	889	893	365	535	670	1010
16"	400	648	991	994	405	573	720	1320
18"	450	711	1093	1096	445	608	810	1850
20"	500	775	1194	1201	520	663	940	2490
24"	600	914	1397	1407	595	825	1085	4190

visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info

**GENERAL NOTES:** Dimensions are in mm.  
Side entry available on request.

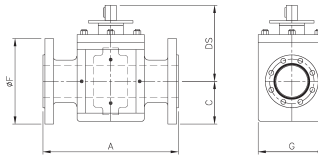


## Section 9. Ball Valves

### Top Entry Trunnion Ball Valves Full Bore



visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info



**Table 9.9 Class 600lbs**

Nominal Size		Flange	End to End		Other Data			
NS	DN	ØF	A-RF	A-RJ	C	DS	G	Weight (kg)
2"	50	165	292	295	78	231	185	42
3"	80	210	356	359	100	278	240	75
4"	100	273	432	435	120	316	296	155
6"	150	356	559	562	162	376	390	290
8"	200	419	660	664	207	453	470	480
10"	250	508	787	791	244	488	550	710
12"	300	559	838	841	290	512	630	1000
14"	350	603	889	893	365	555	670	1640
16"	400	686	991	994	430	630	760	1980
18"	450	743	1093	1096	475	722	820	2460
20"	500	813	1194	1201	540	813	940	3080
24"	600	940	1397	1407	620	901	1120	5010

GENERAL NOTES: Dimensions are in mm.

Side entry available on request.

**Table 9.10 Class 900lbs**

Nominal Size		Flange	End to End		Other Data			
NS	DN	ØF	A-RF	A-RJ	C	DS	G	Weight (kg)
1"	25	149	254	254	50	110	140	32
1½"	40	178	305	305	65	130	160	48
2"	50	216	369	372	110	251	218	67
3"	80	241	381	385	120	323	255	90
4"	100	292	458	461	150	348	308	185
6"	150	381	610	613	220	430	400	380
8"	200	470	737	740	270	501	516	620
10"	250	546	838	841	330	560	608	940
12"	300	610	965	968	375	640	708	1280
14"	350	641	1029	1038	450	670	712	1970
16"	400	705	1130	1140	490	720	820	2790
18"	450	787	1219	1232	533	775	880	3740
20"	500	857	1321	1334	580	870	970	5000
24"	600	1041	1549	1568	673	960	1170	7830

visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info

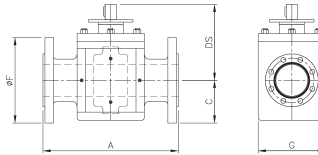
**GENERAL NOTES:** Dimensions are in mm.  
Side entry available on request.

## Section 9. Ball Valves

### Top Entry Trunnion Ball Valves Full Bore



visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info



**Table 9.11 Class 1,500lbs**

Nominal Size		Flange	End to End		Other Data			
NS	DN	ØF	A-RF	A-RJ	C	DS	G	Weight (kg)
1"	25	149	254	254	50	110	140	32
1½"	40	178	305	305	65	130	160	50
2"	50	216	369	372	90	251	218	72
3"	80	267	470	474	125	323	275	130
4"	100	311	547	550	145	375	350	260
6"	150	394	705	712	230	490	448	550
8"	200	483	832	841	250	560	540	870
10"	250	584	991	1000	350	597	640	1380
12"	300	673	1130	1146	430	705	740	2290
14"	350	749	1257	1277	475	773	840	2890
16"	400	826	1384	1407	520	823	890	4080
18"	450	914	-	-	570	910	960	5810
20"	500	984	-	-	650	1050	1075	7770
24"	600	1168	-	-	740	1130	1290	12980

GENERAL NOTES: Dimensions are in mm.

Side entry available on request.

**Table 9.12 Class 2,500lbs**

Nominal Size		Flange	End to End		Other Data			
NS	DN	FF	A-RF	A-RJ	C	DS	G	Weight (kg)
1"	25	159	305	305	55	110	140	37
1½"	40	203	384	387	65	130	160	65
2"	50	235	451	454	102	291	255	120
3"	80	305	578	584	140	362	319	216
4"	100	356	673	683	159	441	406	391
6"	150	483	914	927	190	505	490	950
8"	200	552	1022	1038	245	600	615	1790
10"	250	673	1270	1292	315	653	720	2650
12"	300	762	1422	1445	350	733	770	3490
14"	350	-	-	-	410	810	800	4800
16"	400	-	-	-	520	975	1030	6000

visit [www.rbvenergy.com](http://www.rbvenergy.com) for more info

**GENERAL NOTES:** Dimensions are in mm.  
Side entry available on request.