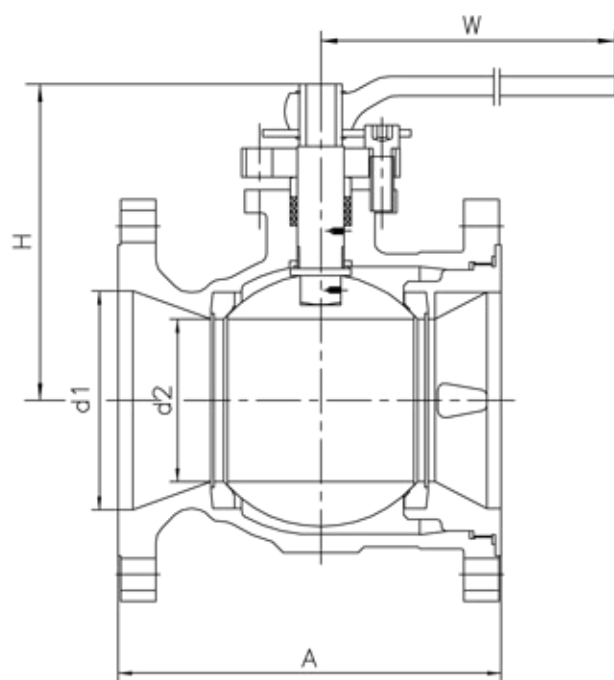




ONE PIECE REDUCED BORE FLOATING BALL VALVES – CLASS 150~300#

Size range: 2" to 10"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5
Butt-Weld Ends	ANSI B16.25

Class 150# Fig No.31150F

DIMENSIONS AND WEIGHTS

Size inch	d1	d2	A (RF)	H	W	Weight (kg)
2"	51	38	178	110	220	7.5
3"	76	64	203	145	380	17
4"	102	76	229	170	480	25
6"	152	102	394	245	650	56
8"	203	152	457	320	800	104
10"	254	203	533	340	1000	145

Class 300# Fig No.31300F

DIMENSIONS AND WEIGHTS

Size inch	d1	d2	A (RF)	H	W	Weight (kg)
2"	51	38	216	110	220	12
3"	76	64	283	145	380	30
4"	102	76	305	170	480	48
6"	152	102	403	245	650	85
8"	203	152	502	320	800	160
10"	254	203	568	340	1000	300

Other Sizes: On request

RF: Flanged BW: Butt Weld

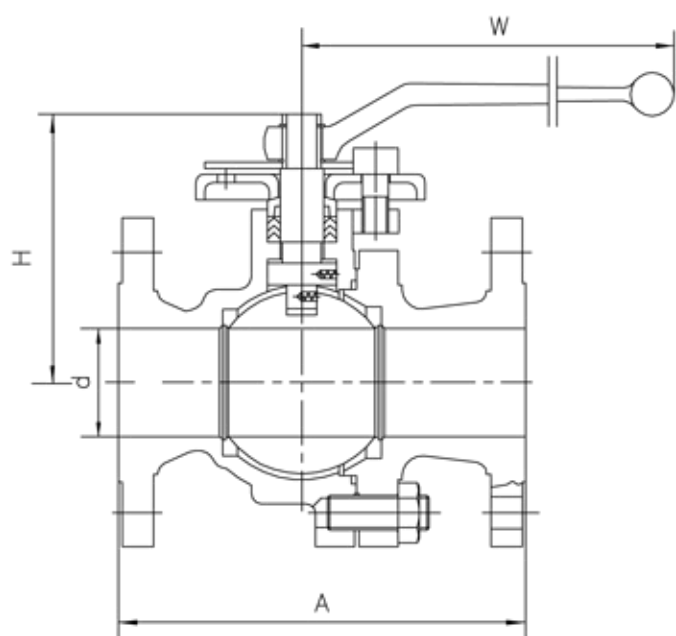
AVAILABLE OPTIONS:

STRUCTURE	End, Connection:	Flange Raised Face, Butt Weld, RTJ...
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



TWO PIECES FLOATING BALL VALVES – CLASS 150~300#

Size range: 2" to 10"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5
Butt-Weld Ends	ANSI B16.25

Class 150# Fig No.32150F

DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	178	110	230	10
3"	76	203	150	400	19
4"	102	229	180	700	33
6"	152	394	270	1100	93
8"	203	457	340	1200	150
10"	254	533	350	1300	200

Class 300# Fig No.32300F

DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	216	110	230	15
3"	76	283	150	400	35
4"	102	305	180	700	56
6"	152	403	270	1100	116
8"	203	502	340	1200	220
10"	254	568	350	1300	400

Other Sizes: On request

RF: Flanged BW: Butt Weld

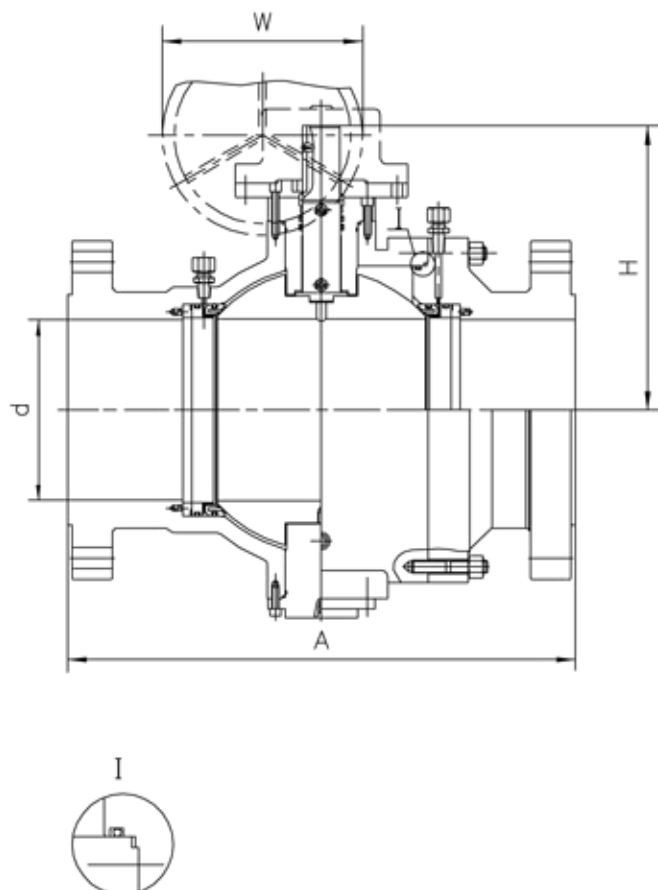
AVAILABLE OPTIONS:

STRUCTURE	End, Connection:	Flange Raised Face, Butt Weld, RTJ...
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



TWO PIECES TRUNNION BALL VALVES – CLASS 150~600#

Size range: 2" to 12"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5
Butt-Weld Ends	ANSI B16.25

Class 150# Fig No.32150T DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	178	165	230	20
3"	76	203	195	400	35
4"	102	229	230	700	60
6"	152	394	330	1100	100
8"	203	457	395	400	200
10"	254	533	495	400	300
12"	305	610	580	400	520

Class 300# Fig No.32300T DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	216	165	230	22
3"	76	283	195	400	42
4"	102	305	230	700	73
6"	152	403	330	1100	160
8"	203	502	395	400	280
10"	254	568	495	400	350
12"	305	648	580	400	600

Class 600# Fig No.32600T DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	292	165	400	32
3"	76	356	195	750	55
4"	102	432	230	1000	90
6"	152	559	330	1500	230
8"	203	660	395	400	390
10"	254	787	495	400	650
12"	305	838	580	400	850

2" ~6" LEVER OPERATED
Other Sizes: On request
RF: Flanged BW: Butt Weld

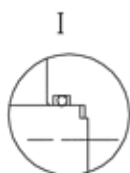
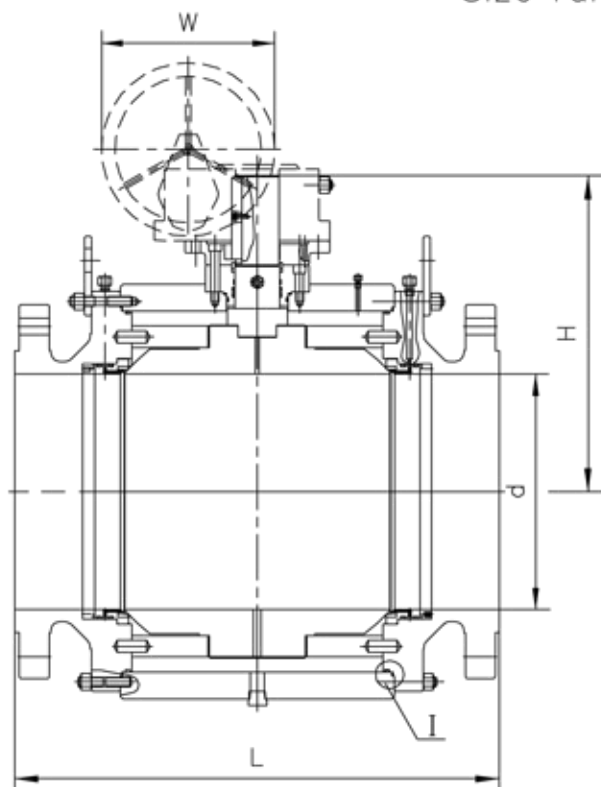
AVAILABLE OPTIONS:

STRUCTURE	End, Connection: Flange Raised Face, Butt Weld, RTJ...				
	Seat Rings:	Renewable			
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...			
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...			
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...			



THREE PIECES TRUNNION BALL VALVES – CLASS 150#

Size range: 2" to 42"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5(2" ~24")
	ANSI B16.47(26" ~42")
Butt-Weld Ends	ANSI B16.25

Class 150# Fig No.33150T

DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	178	165	400	29
3"	76	203	195	750	45
4"	102	229	230	1000	56
6"	152	394	330	1500	139
8"	203	457	395	400	245
10"	254	533	495	400	350
12"	305	610	580	400	620
14"	337	686	625	600	850
16"	387	762	670	600	1500
18"	438	864	700	750	1650
20"	489	914	840	750	2000
24"	591	1067	1050	750	2650
26"	635	1143	1150	750	2950
28"	686	1245	1210	900	3120
30"	737	1296	1300	900	3700
32"	781	1372	1375	900	4300
34"	832	1473	1425	900	5044
36"	876	1524	1500	900	5980
40"	978	1728	1600	900	6775
42"	1022	1930	1700	900	7440

Other Sizes: On request

RF: Flanged BW: Butt Weld

2" ~6" LEVER OPERATED

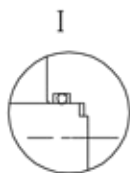
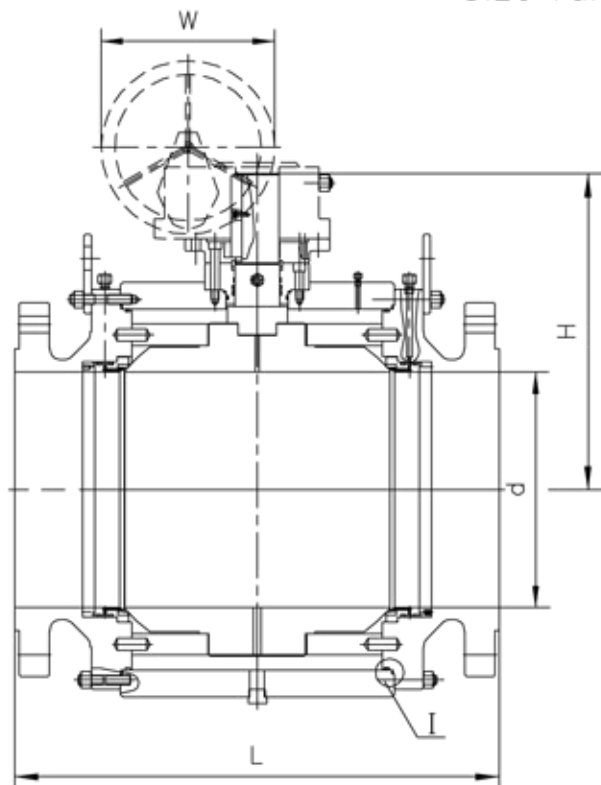
AVAILABLE OPTIONS:

STRUCTURE	End, Connection: Flange Raised Face, Butt Weld, RTJ...	
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



THREE PIECES TRUNNION BALL VALVES – CLASS 300#

Size range: 2" to 42"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5(2" ~24") ANSI B16.47(26" ~42")
Butt-Weld Ends	ANSI B16.25

Class 300# Fig No.33300T
DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	216	165	400	32
3"	76	283	195	750	52
4"	102	305	230	1000	60
6"	152	403	330	1500	149
8"	203	502	395	400	260
10"	254	568	495	400	380
12"	305	648	580	400	650
14"	337	762	625	600	960
16"	387	838	670	600	1850
18"	438	914	700	750	1950
20"	489	991	840	750	2250
24"	591	1143	1050	750	2800
26"	635	1245	1150	750	3150
28"	686	1346	1210	900	3200
30"	737	1397	1300	900	3860
32"	781	1524	1375	900	4650
34"	832	1626	1425	900	5330
36"	876	1727	1500	900	6050
40"	978	1905	1600	900	6900
42"	1022	1930	1700	900	7500

Other Sizes: On request

RF: Flanged BW: Butt Weld

2" ~6" LEVER OPERATED

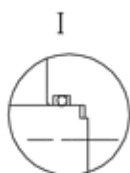
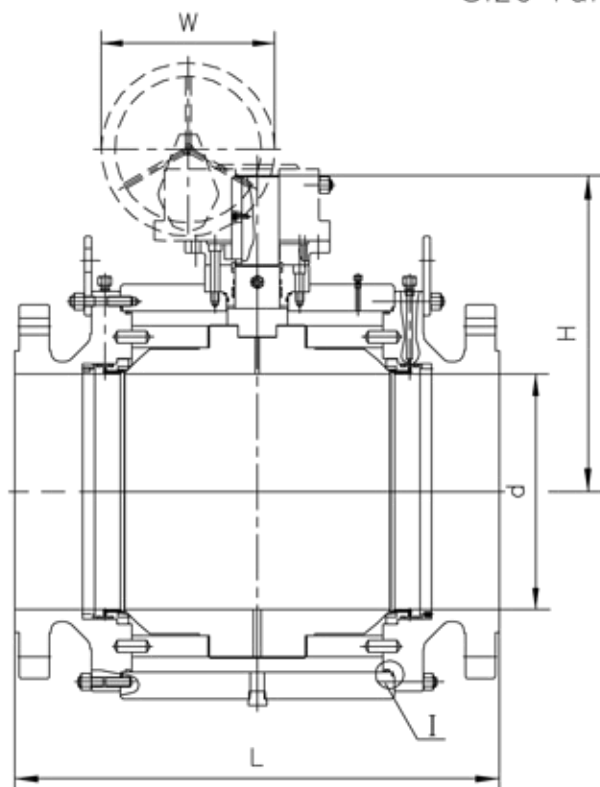
AVAILABLE OPTIONS:

STRUCTURE	End, Connection:	Flange Raised Face, Butt Weld, RTJ...
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



THREE PIECES TRUNNION BALL VALVES – CLASS 600#

Size range: 2" to 42"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5(2" ~24") ANSI B16.47(26" ~42")
Butt-Weld Ends	ANSI B16.25

Class 600# Fig No.33600T
DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	292	165	400	45
3"	76	356	195	750	65
4"	102	432	230	1000	100
6"	152	559	330	1500	250
8"	203	660	395	400	450
10"	254	787	495	400	750
12"	305	838	580	600	900
14"	337	889	625	600	1250
16"	387	991	670	750	2450
18"	438	1092	700	750	2400
20"	489	1194	840	750	2850
24"	591	1397	1050	750	3421
26"	635	1448	1150	750	3955
28"	686	1549	1210	900	4900
30"	737	1651	1300	900	5805
32"	781	1778	1375	900	6840
34"	832	1930	1425	900	7925
36"	876	2083	1500	900	9900
40"	978	2337	1600	900	13290
42"	1022	2388	1700	900	14700

Other Sizes: On request

RF: Flanged BW: Butt Weld

2" ~6" LEVER OPERATED

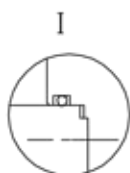
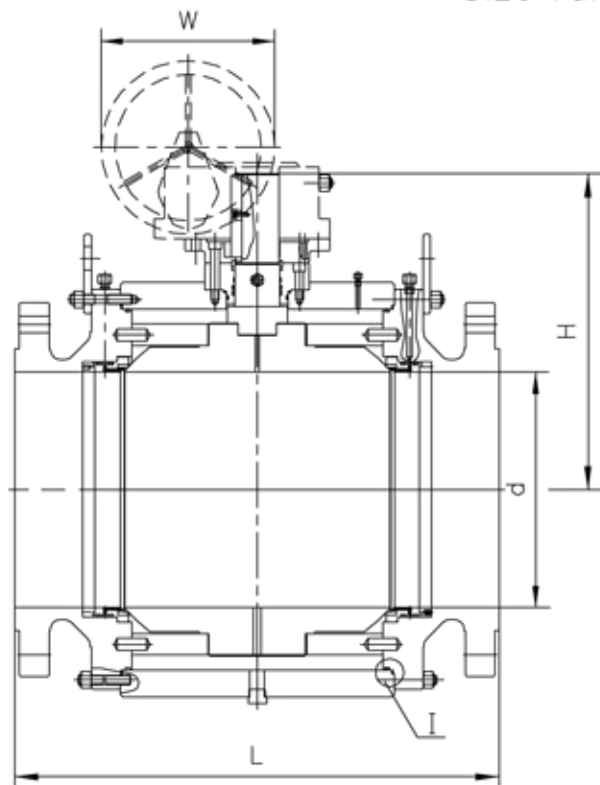
AVAILABLE OPTIONS:

STRUCTURE	End, Connection: Flange Raised Face, Butt Weld, RTJ...	
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



THREE PIECES TRUNNION BALL VALVES – CLASS 900#

Size range: 2" to 36"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5(2" ~24")
	ANSI B16.47(26" ~36")
Butt-Weld Ends	ANSI B16.25

Class 900# Fig No.33900T
DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (kg)
2"	51	368	200	600	57
3"	76	381	350	900	74
4"	102	457	580	400	140
6"	152	610	680	400	320
8"	203	737	800	600	655
10"	254	838	860	600	1010
12"	305	965	940	600	1450
14"	324	1029	1130	600	1985
16"	375	1130	1257	750	2475
18"	425	1219	1385	750	3260
20"	473	1321	1440	750	4250
24"	572	1549	1520	750	6075
26"	619	1676	1570	750	6900
28"	667	1803	1600	900	8800
30"	714	1905	1650	900	10700
32"	762	2032	1720	900	12800
34"	810	2159	1720	900	14600
36"	857	2286	1770	900	17000

Other Sizes: On request

RF: Flanged BW: Butt Weld

2" ~ 3" LEVER OPERATED

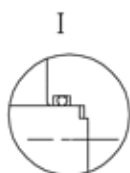
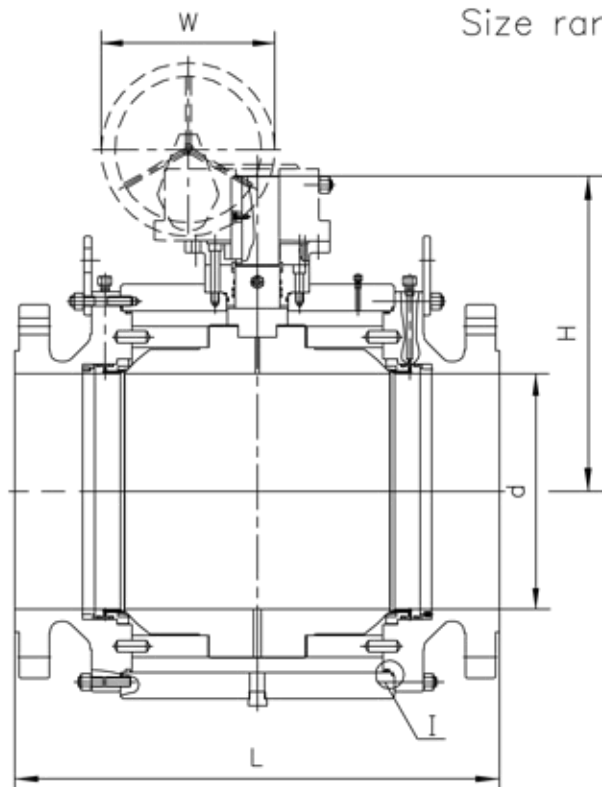
AVAILABLE OPTIONS:

STRUCTURE	End, Connection: Flange Raised Face, Butt Weld, RTJ...	
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



THREE PIECES TRUNNION BALL VALVES – CLASS 1500#

Size range: 2" to 24"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5
Butt-Weld Ends	ANSI B16.25

Class 1500# Fig No.331500T

DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	51	368	200	400	65
3"	76	470	500	400	110
4"	102	546	600	600	167
6"	146	705	820	600	383
8"	184	832	900	750	800
10"	241	991	940	750	1190
12"	289	1130	1130	750	1810
14"	318	1257	1210	750	2500
16"	362	1384	1300	900	3270
18"	425	1537	1440	900	4350
20"	473	1664	1470	900	6050
24"	572	1943	1580	900	8800

Other Sizes: On request

RF: Flanged BW: Butt Weld

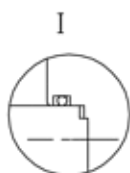
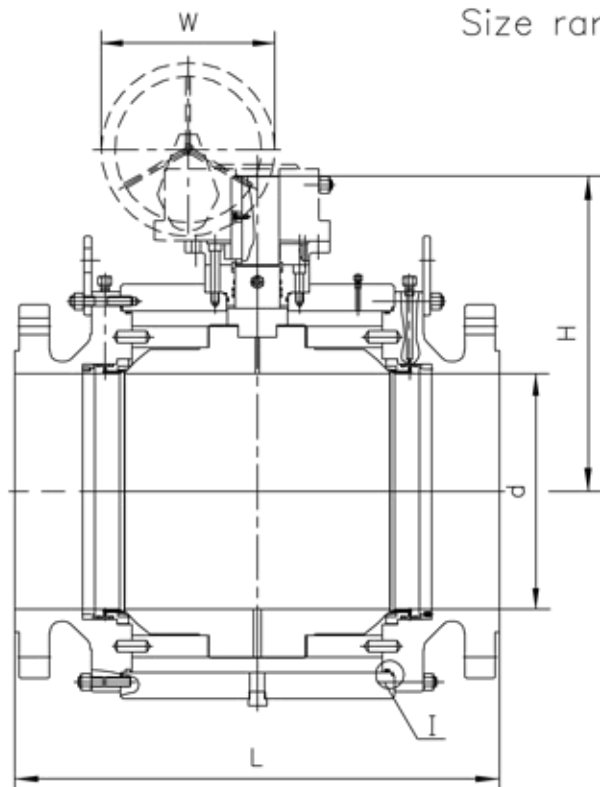
AVAILABLE OPTIONS:

STRUCTURE	End, Connection: Flange Raised Face, Butt Weld, RTJ...	
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



THREE PIECES TRUNNION BALL VALVES – CLASS 2500#

Size range: 2" to 12"



STANDARDS:

Design	API 6D & BS5351
Test	API 598
Face to Face Dimensions	ANSI B16.10
End Flange Dimensions	ANSI B16.5
Butt-Weld Ends	ANSI B16.25

Class 2500# Fig No.332500T

DIMENSIONS AND WEIGHTS

Size inch	d	A (RF)	H	W	Weight (Kg)
2"	44	451	215	600	80
3"	64	578	533	600	150
4"	89	673	660	750	230
6"	133	914	815	750	460
8"	181	1022	990	900	1000
10"	225	1270	1135	900	1400
12"	267	1422	1180	900	2175

Other Sizes: On request

RF: Flanged BW: Butt Weld

AVAILABLE OPTIONS:

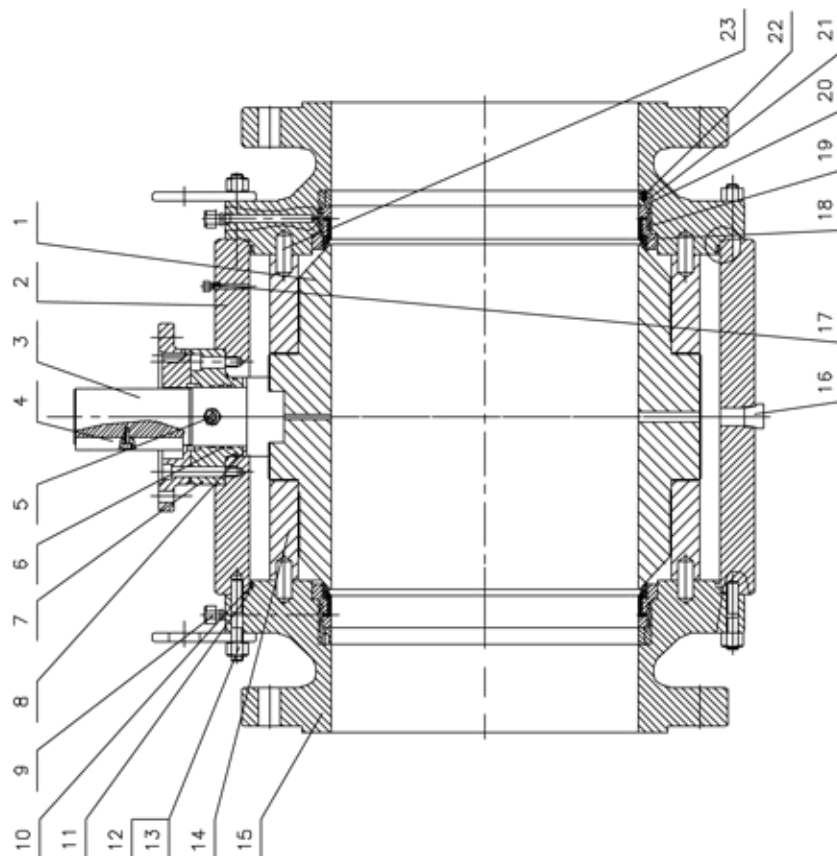
STRUCTURE	End, Connection: Flange Raised Face, Butt Weld, RTJ...	
	Seat Rings:	Renewable
	Operation:	Lever, Gear, Electric, Pneumatic, Hydraulic...
MATERIALS	Body:	WCB, WC1, WC6, WC9, LCB, LCC, LC3, C5, C12, CF8, CF8M, CF3, CF3M, CF8C...
	Trims:	13%Cr, 304, 304L, 316, 316L, 321, 347, F-51, Monel...



TOP ENTRY BALL VALVE

NO	Part Name	Qty	Material List
1	Ball	1	ASTM A216 WCB+0.003" ENP
2	Body	1	ASTM A216-WCB
3	Stem	1	ASTM A182-316
4	Key	1	ASTM A576-1045
5	Nipple	1	COMPONENT
6	O-Ring	2	VITON
7	Flange Gland	1	ASTM A105 ENP
8	Thrust Collar	1	PTFE
9	Grease Fitting	2	COMPONENT
10	O Ring	2	VITON
11	Seal Ring	2	GRAFOIL
12	Stud		ASTM A193 B7
13	Nut		ASTM A194 2H
14	Solid Plate	2	ASTM A105
15	Adapter	1	ASTM A216-WCB
16	Plug	1	ASTM A105 ENP
17	Drain	1	COMPONENT
18	Seat	2	ASTM A105 ENP-PTFE
19	O-Ring	2	VITON
20	Seal Ring	2	GRAFOIL
21	Pressure Ring	2	ASTM A105 ENP
22	Spring		ASTM A564 17-4PH
23	Cylindrical Pin	4	Carbon Steel

When mounting the valve again, the seat-holders have a system to regulate the compression of these to the ball, with this we have been able to arrange that the torque needed to operate the valve can be totally regulated, maintaining the tightness of the valve.



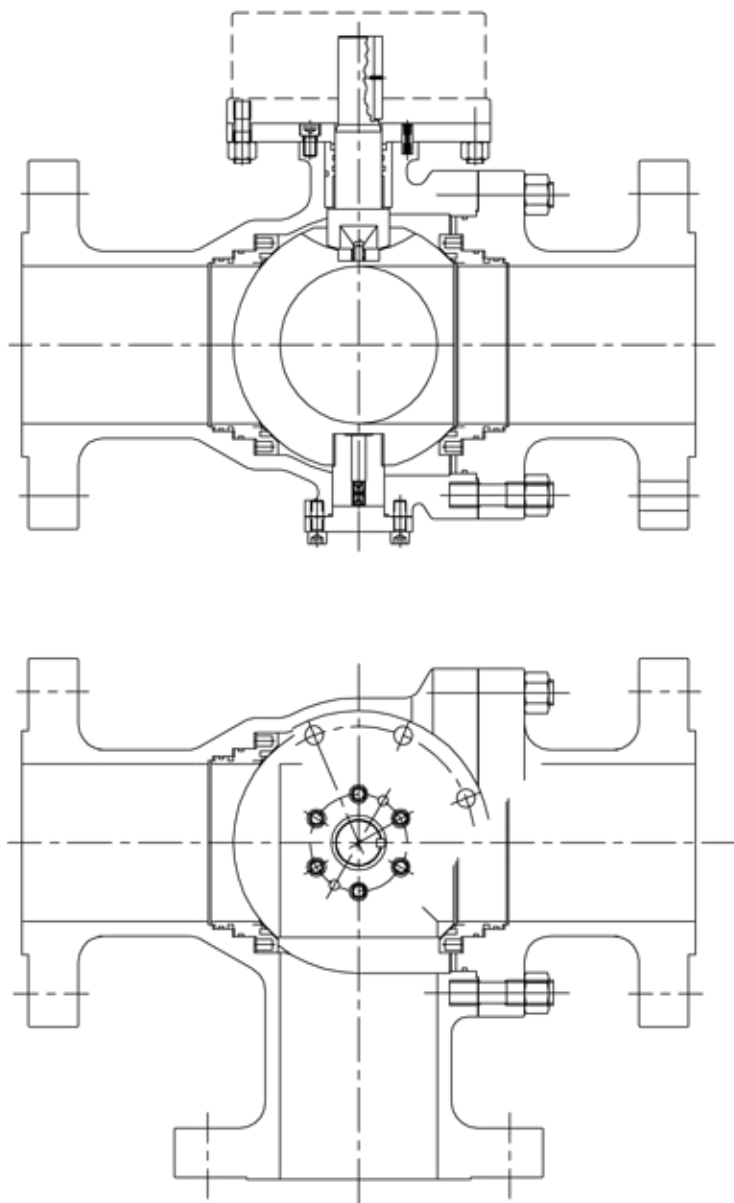
-VALVE ACCORDING TO API 6D
-END TO END ACCORDING TO ANSI B16.10
-FLANGED ACCORDING TO ANSI B16.5

The Top-entry Valve types have a major application when a frequent maintenance must be carried out and the valve can not be easily removed from the pipe as it is welded.

In this valve model, all the internals can be easily dismantled by loosening the bonnet of the valve on its upper side and removing the ball, the seat-holders and the shaft.



THREE-WAY BALL VALVES



Three-Way Valves

The three-way ball valves needs to be defined in relation to the three coordinates axes.

Two openings can be located on a plane and the third perpendicular to it or also the three openings on one plane.

In each case,the openings and their direction of flow must be clearly defined on the purchase order.

These valves can be mounted with different types of seats and operators,depending on the service conditions,and

The special requirements of each installations.