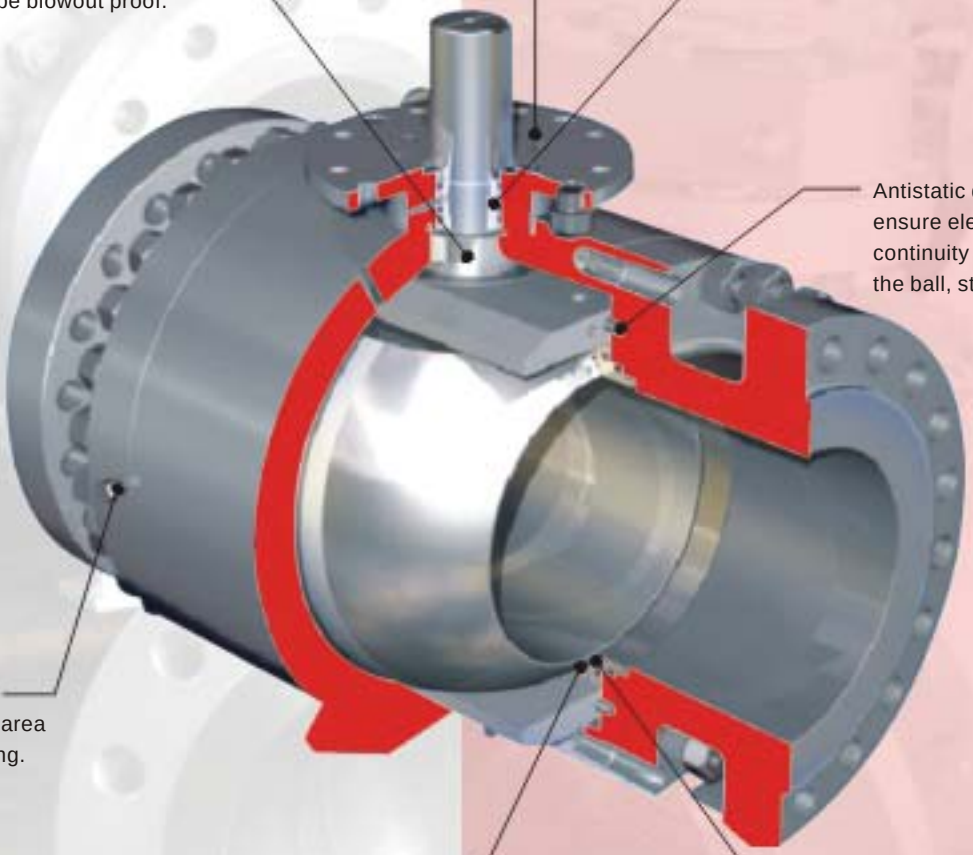
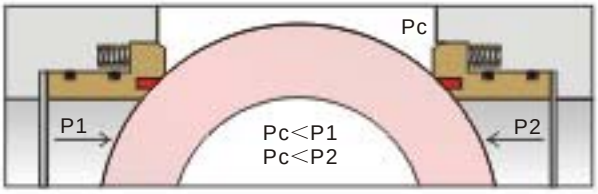
TRUNNION MOUNTED BALL VALVE



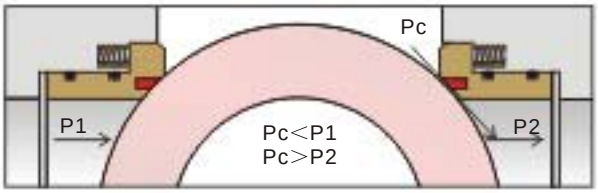
TRUNNION MOUNTED BALL VALVE
DESIGN FEATURES

SEAT DESIGN FEATURE

Spring loaded metal seat with soft seat insert to maintain constant contact with the ball, assuring tight seal even at low pressure.

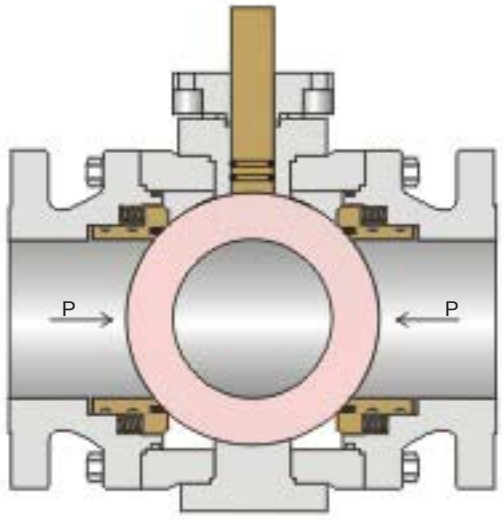


This design can also automatically relieve excess cavity pressure into the line when the cavity pressure exceeds line pressure.



DOUBLE BLOCK AND BLEED(DBB)

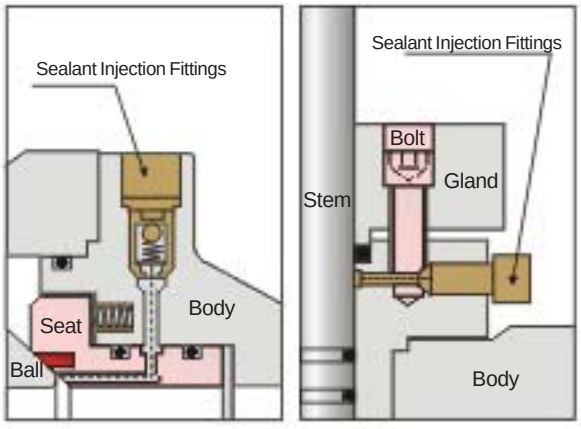
In the closed position, the spring loaded seat rings provides a positive seal against pressure from both ends of the valve, when the body cavity between the seating surfaces is vented through vent and drain valve. The drain valve can also be used to test for seat integrity.



Valve in Closed Position

SEALANT INJECTION FITTINGS

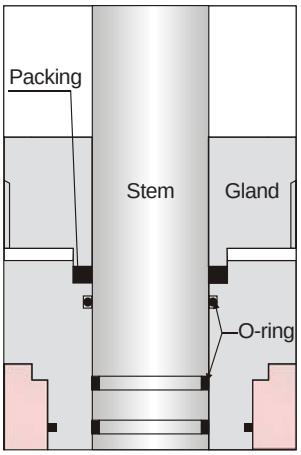
In the event of stem seal or seat insert damage, emergency sealant injection can keep the integrity of the valve by incorporating a sealant seal around the stem or between the seat and the ball.



TRUNNION MOUNTED BALL VALVE
DESIGN FEATURES

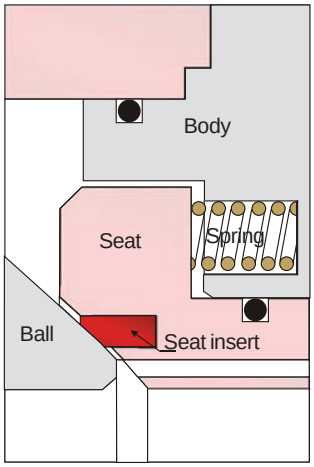
STEM SEAL DESIGN

Double O-ring seal prevent leakage from stem area.



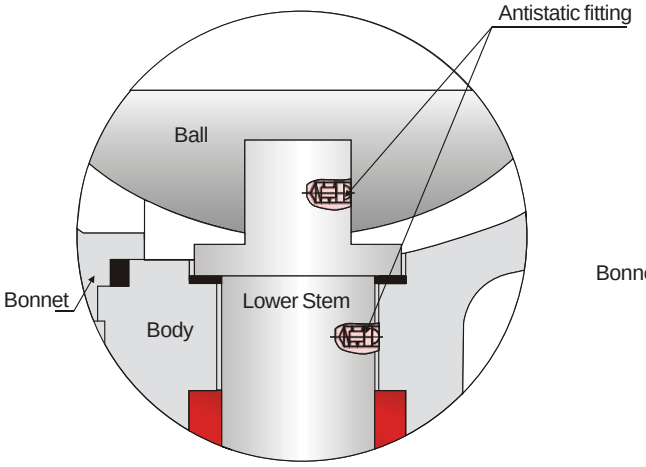
FIRE SAFE DESIGN

A secondary metal to metal sealing shuts off the valve flow in the event of soft seat inserts are destroyed by fire. Fire tested to API 607 latest edition.



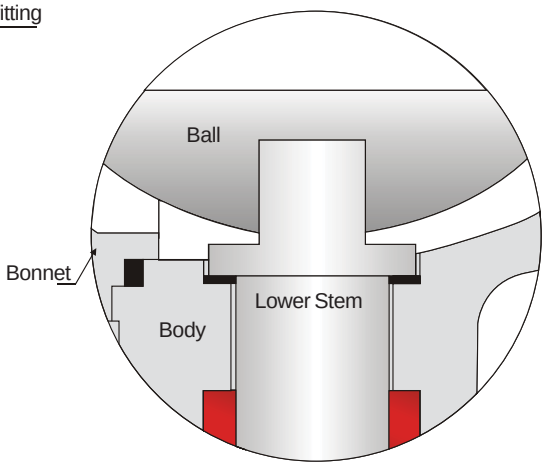
ANTISTATIC DESIGN

Antistatic devices to ensure electrical continuity between the ball, stem and body, to eliminate electrostatic charging during service.



ANTI-BLOWOUT DESIGN

The lower end of stem is designed with an integral collar to be blowout proof, assuring stem sealing at all pressures.



FORGED STEEL

TRUNNION MOUNTED BALL VALVE

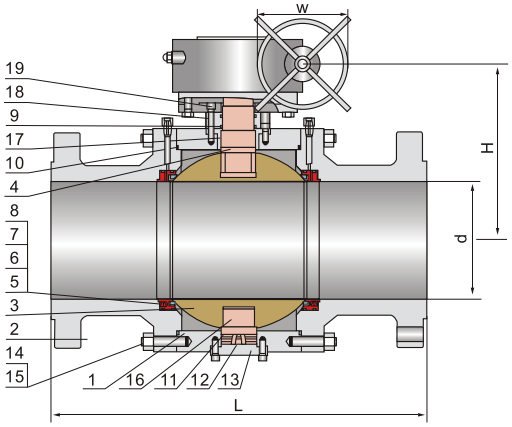
150Lb

Features:

Trunnion Mounted Ball Type
Split Body, End Entry
3-piece Body
Full Port for Pigging Operation
Gear or Actuator Available

Applicable Standards:

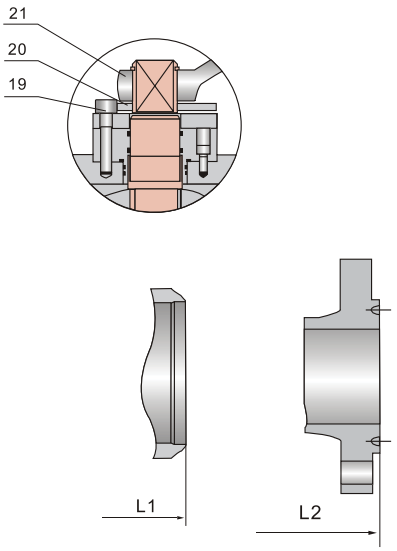
Design: API 6D / API 608 / BS 5351
Wall Thickness: API 600 / BS 5351
Fire Safe: API 607 / API 6FA
Antistatic: API608
Face-to-face: ASME B16.10 / API 6D
Flange Ends: ASME B16.5 / B16.47
Butt-welding End: ASME B16.25
Testing: API 598 / API 6D



Materials of parts

No	Part Name	ASTM Material		
		Carbon Steel	Stainless Steel	Low Temp. Steel
1	Body	A105	A182-F316	A350-LF2
2	Bonnet	A105	A182-F316	A350-LF2
3	Ball	A182-F304[1)]	A182-F316	A182-F304[1)]
4	Stem	A276-420	A276-316	A276-420
5	Seat	A105+ENP	A182-F316	A350-LF2+ENP
6	Seat Insert	PTFE,RPTFE,PPL,NYLON,PEEK, etc.		
7	Seat Spring	A276-304	Inconel X-750	A313-304
8	Seat O-Ring	NBR,EPDN,VITON, etc.		
9	Stem O-Ring	NBR,EPDN,VITON, etc.		
10	Bonnet Gasket	Graphite+304[2)]	Graphite+316[2)]	Graphite+304[2)]
11	Bonnet O-Ring	NBR,EPDN,VITON, etc.		
12	Antistatic Spring	A276-304	A276-316	A276-304
13	Back Cover	A105	A182-F316	A350-LF2
14	Bonnet Bolt	A193-B7	A193-B8M	A320-L7
15	Bonnet Bolt Nut	A194-2H	A194-8M	A194-4
16	Trunnion	A276-420[1)]	A276-316	A276-420[1)]
17	Bearing	304+PTFE	316+PTFE	304+PTFE
18	Gland Flange	A216-WCB	A351-CF8M	A352-LCB
19	Gland Bolt	A193-B7	A193-B8	A193-B7
20	Stop Plate	Carbon Steel	Carbon Steel+Zn	Carbon Steel
21	Wrench	Carbon Steel		

Note: 1). A105+ENP optional
2). Spiral wound construction.



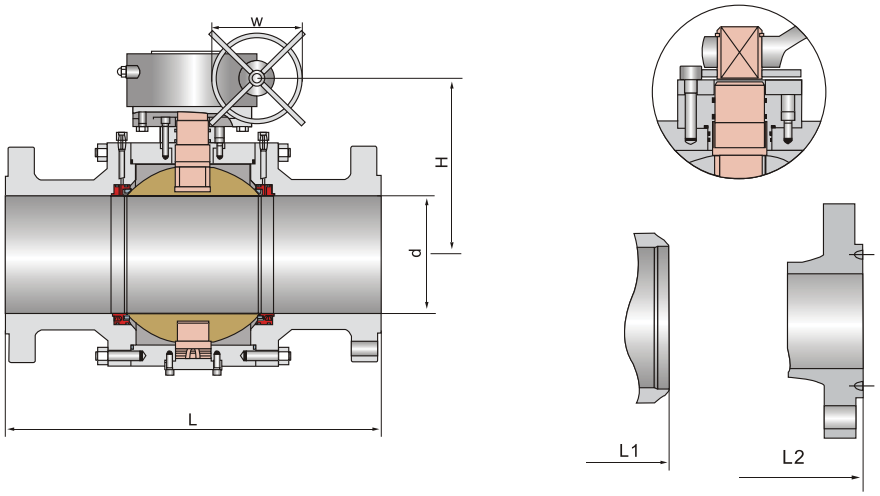
Dimensions data

NPS / DN	2 / 50	2½ / 65	3 / 80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300	14 / 350	16 / 400	18 / 450	20 / 500	24 / 600	26 / 650	28 / 700	30 / 750	32 / 800	36 / 900	in / mm
ANSI Class 150Lb																			
L (RF)	7.00	7.50	8.00	9.00	15.50	18.00	21.00	24.00	27.00	30.00	34.00	36.00	42.00	45.00	49.00	51.00	54.00	60.00	in
	178	190	203	229	394	457	533	610	686	762	864	914	1067	1143	1245	1295	1372	1524	mm
L1 (BW)	8.50	9.50	11.12	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00	49.00	53.00	55.00	60.00	68.00	in
	216	241	283	305	457	521	559	635	762	838	914	991	1143	1245	1346	1397	1524	1727	mm
H	4.00	6.00	7.00	9.25	9.88	11.00	12.62	15.38	16.50	21.88	23.62	25.00	28.00	29.50	31.50	34.00	36.00	38.50	in
	120	150	180	235	250	280	320	390	420	555	600	635	710	750	800	865	915	980	mm
(d)	49	62	74	100	150	201	252	303	334	385	436	487	589	633	684	735	779	874	mm
W	16	16	24	24	24	24	32	32	32	32	32	32	32	40	40	40	40	40	in
	400	400	600	600	600	600	800	800	800	800	800	800	800	1000	1000	1000	1000	1000	mm
WT (kg)	28	35	55	80	190	290	445	570	780	1520	2300	2500	3950	4890	6300	7100	8950	13500	RF
	25	28	49	71	182	277	423	553	747	1481	2266	2460	3904	4939	6362	8149	9000	13570	BW

FORGED STEEL

TRUNNION MOUNTED BALL VALVE

300Lb~600Lb



Dimensions data

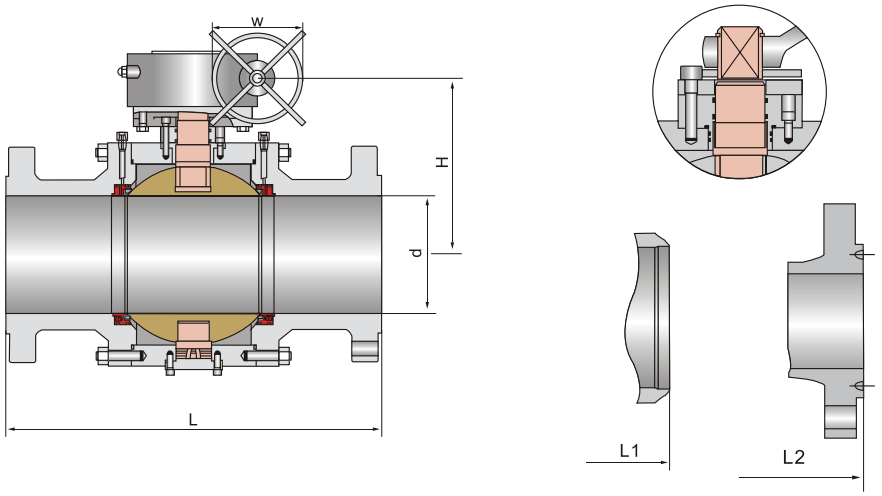
NPS / DN	2 / 50	2½ / 65	3 / 80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300	14 / 350	16 / 400	18 / 450	20 / 500	24 / 600	26 / 650	28 / 700	30 / 750	32 / 800	in / mm
ANSI Class 300Lb																		
L (RF)	8.50	9.50	11.12	12.00	15.88	19.75	22.38	25.50	30.00	33.00	36.00	39.00	45.00	49.00	53.00	55.00	60.00	in
	216	241	283	305	403	502	568	648	762	838	914	991	1143	1245	1346	1397	1524	mm
L1 (BW)	8.50	9.50	11.12	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00	49.00	53.00	55.00	60.00	in
	216	241	283	305	403	521	559	635	762	838	914	991	1143	1245	1346	1397	1524	mm
H	4.00	6.00	7.00	9.25	9.88	11.00	12.62	15.38	16.50	21.88	23.62	25.00	28.00	29.50	31.50	34.00	36.00	in
	120	150	180	235	250	280	320	390	420	555	600	635	710	750	800	865	915	mm
(d)	49	62	74	100	150	201	252	303	334	385	436	487	589	633	684	735	779	mm
W	16	16	24	24	24	24	32	32	32	32	32	32	32	40	40	40	40	in
	400	400	600	600	600	600	800	800	800	800	800	800	800	1000	1000	1000	1000	mm
WT (kg)	30	40	60	90	200	325	490	690	990	1810	2620	2860	4430	5430	6810	7655	9590	RF
	24	31	49	72	169	280	424	598	872	1665	2440	2635	4075	4880	6225	7115	9230	BW

NPS / DN	2 / 50	2½ / 65	3 / 80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300	14 / 350	16 / 400	18 / 450	20 / 500	24 / 600	26 / 650	28 / 700	in / mm
ANSI Class 600Lb																
L/L1 (RF/BW)	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00	57.00	61.00	in
	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1448	1549	mm
L2 (RTJ)	11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38	57.50	61.50	in
	295	333	359	435	562	664	791	841	892	994	1095	1200	1407	1461	1562	mm
H	6.50	7.00	7.88	11.00	12.25	14.00	16.12	18.00	19.25	21.00	24.88	25.62	30.12	31.88	34.62	in
	165	180	200	280	310	355	410	455	490	535	630	650	765	810	880	mm
(d)	49	62	74	100	150	201	252	303	334	385	436	487	589	633	684	mm
W	16	24	24	24	32	32	32	32	32	32	40	40	40	40	40	in
	400	600	600	600	800	800	800	800	800	800	1000	1000	1000	1000	1000	mm
WT (kg)	34	53	65	125	245	505	640	910	1380	2250	3400	3850	4900	6700	8300	RF
	27	43	49	95	188	418	495	740	1185	1960	3050	3406	4275	6025	7590	BW

FORGED STEEL

TRUNNION MOUNTED BALL VALVE

900Lb~2500Lb



Dimensions data

NPS / DN	2 / 50	2½ / 65	3 / 80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300	14 / 350	16 / 400	18 / 450	20 / 500	24 / 600	in / mm
ANSI Class 900Lb														
L/L1 (RF/BW)	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	52.00	61.00	in
	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	mm
L2 (RTJ)	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.50	52.50	61.75	in
	371	422	384	460	613	740	841	968	1038	1140	1232	1334	1568	mm
H	6.72	7.50	8.25	11.38	12.62	15.38	17.00	18.50	20.88	24.00	26.00	27.50	30.75	in
	170	190	210	290	320	390	430	470	530	610	660	700	780	mm
(d)	49	62	74	100	150	201	252	303	322	373	423	471	570	mm
W	24	24	24	32	32	32	32	32	32	40	40	40	40	in
	600	600	600	800	800	800	800	800	800	1000	1000	1000	1000	mm
WT (kg)	45	65	73	135	360	650	930	1350	1890	3100	4300	4950	7100	RF
	37	53	56	98	291	545	760	1145	1650	2750	3875	4410	6485	BW

NPS / DN	2 / 50	2½ / 65	3 / 80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300	14 / 350	16 / 400	in / mm
ANSI Class 1500Lb											
L/L1 (RF)/(BW)	14.50	16.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	54.50	in
	368	419	470	546	705	832	991	1130	1257	1384	mm
L2 (RTJ)	14.62	16.62	18.62	21.62	28.00	33.12	39.38	45.12	50.25	55.38	in
	371	422	473	549	711	841	1000	1146	1276	1407	mm
H	6.75	7.50	8.25	11.38	13.00	15.75	17.38	22.00	25.25	27.12	in
	170	190	210	290	330	400	440	560	640	690	mm
(d)	49	62	74	100	144	192	239	287	315	360	mm
W	24	24	32	32	32	32	32	40	40	40	in
	600	600	800	800	800	800	800	1000	1000	1000	mm
WT (kg)	55	75	95	150	540	880	1360	1980	3100	4650	RF/RTJ
	40	55	65	115	420	685	1025	1555	2600	3930	BW

2 / 50	2½ / 65	3 / 80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300	in / mm
ANSI Class 2500Lb								
17.75	20.00	22.75	26.50	36.00	40.25	50.00	56.00	in
451	508	578	673	914	1022	1270	1422	mm
17.88	21.25	23.00	26.88	36.50	40.88	50.88	56.88	in
454	540	584	683	927	1038	1292	1445	mm
7.50	9.00	11.00	14.12	15.75	18.88	20.50	26.38	in
190	230	280	360	400	480	520	670	mm
42	52	62	87	131	179	223	265	mm
24	32	32	32	32	40	40	40	in
600	800	800	800	800	1000	1000	1000	mm
68	95	120	185	675	1100	1650	2300	RF/RTJ
54	74	91	122	555	918	1355	1950	BW