Ball Valve , Forged Steel , Trunnion mounted

Design

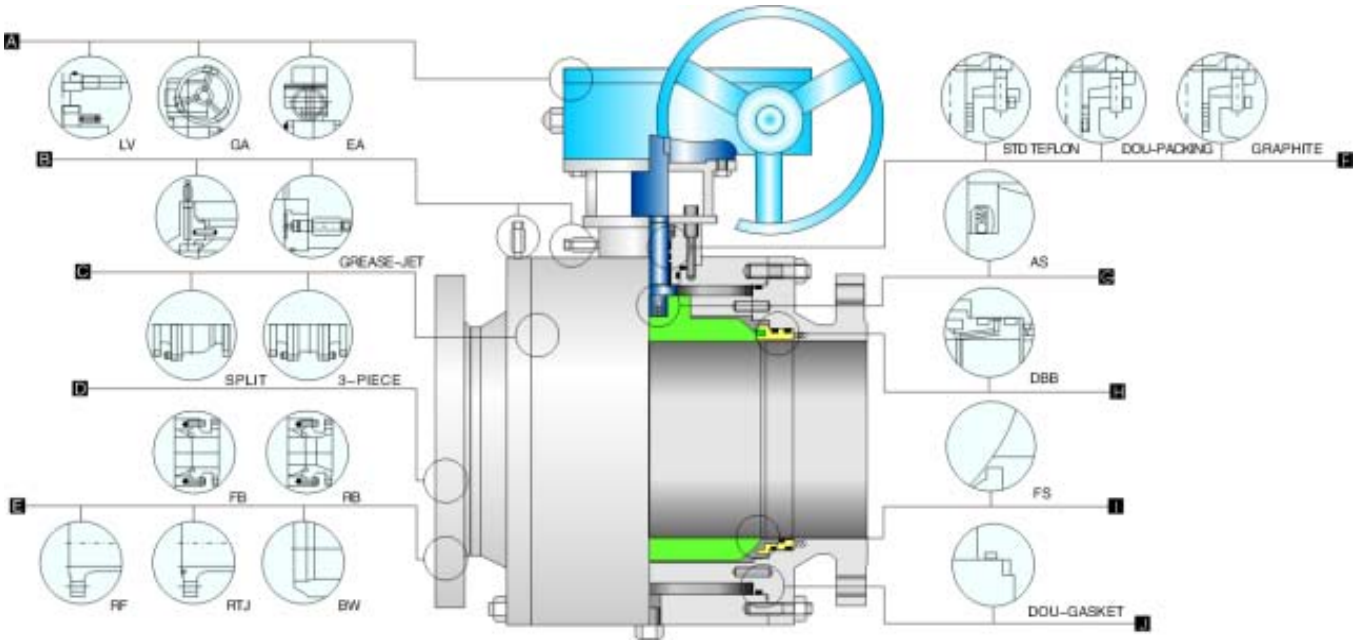
SS VALVE steel ball valves are designed manufactured to provide maximum service life and dependability. All ball valves are full ported and meet the design requirements of American Petroleum Institute standard API 608&API 6D, British standard BS 5351 and generally conform to American Society of Mechanical Engineers standard ASME B16.34 valves are available in a complete range of body/bonnet materials and trims.

Ranges of Materials

Standard body/bonnet materials include nine grades of carbon, low alloy and stainless steel, for special applications they can be supplied in other grades of ally and stainless steel, there's a full range of trim materials to match any service optional packing and gasket materials are available for a full range of service conditions.

Available Modifications for SS VALVE Steel Valves

Trim changes
End connection modifications
Packing and gasket change
Operator mounting
Handwheel extensions
Pressure equalizing
Customer specified coatings
Weld end bore changes
Oxygen&chlorine cleaning&packaging



A Operation

Extended lever for easy operation. Also available with gearing, motor actuators, pneumatic or hydraulic actuators for more difficult services

B Grease-jet joint

Installed in prescriptive part accord to the apply and satisfied with ecumenical situations and realize seal in spot with maintenance easily.

C Body&Bonnet

Split or 3-piece,split body& bonnet for 8" & small. Disassembles easily for repair or replacement of internal components.

D BORE

Full bore or reduced bore . Full-bore design provides exceptional flow control.

E End Connectios

A choice of flanged RTJ flanged or buttwelding end for piping flexibility.

F Packing

Std packing multiple v-teflon packing, combined with live loading, maintains packing compression under highcycle and severe service applications. Graphite packing is used for hightemperature situation.

G AS

Anti statics. A metallic contact is always granted between ball and stem /body to discharge eventual statics build-up during service.

H DBB

Double block&bleed.The body cavity is isolated when the ball is in either fully closed or fully opened position, the medium entrapped in it can easily be bled to avoid over pressure.

I FS

Fire Safe. Designed to API607 or BS 6755 to grant their operation suitability in case of fire. Secondary metal-to metal seal acts as backup if primary seal is destroyed by fire.
Valves ordered for compliance with API 607 will be provided with graphite packing and gaskets.

J Gasket

Adopt high-performance rubber seal ring and spiral wound graphite.

Ball Valve , Forged Steel , Trunnion mounted 150Lb/300Lb

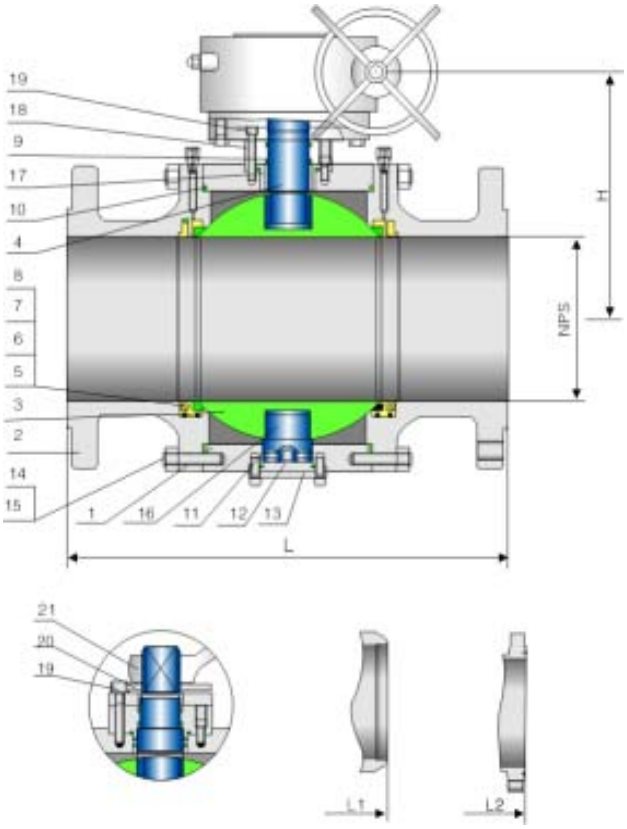
VALVES

Applicable Standards:

- STEEL BALL VALVES API 608/API 6D
- STEEL BALL VALVES ISO 14313
- FIRE SAFE,API 607
- ANTI STATICS,API 608
- STEEL VALVES,ASME B16.34
- FACE TO FACE ASME B16.10
- END FLANGES,ASME B16.5
- BUTTWELDING ENDS ASME B16.25
- INSPECTION AND TEST, API 598/ API 6D

Design descriptions:

- FULL PORT DESIGN
- BB.BOLTED BONNET.SPLIT BODY
- THREE PIECES BODY FOR 12"&ABOVE
- TRUNNION MOUNTED BALL TYPE
- BLOW-OUT PROOF STEM
- FIRE SAFE CONSTRUCTION
- ANTI STATICS DEVICE
- STOPPER DEVICE
- ISO 5211 MOUNTING PAD
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH WG OPERATOR



Materials of parts

NO	Part Name	Carbon Steel		ASTM Materials 18Cr-9Ni-2Mo
1	Body	A105	A350-LF2	A182-F316
2	Bonnet	A105	A350-LF2	A182-F316
3	Ball	A182-F304[1)]	A182-F304[1)]	A182-F316
4	Stem	A276-304	A276-304	A276-316
5	Seat	A105+ENP	A350-LF2+ENP	A182-F316
6	Seat Insert	Glass Filled PTFE		
7	Seat Spring	A313-304	A313-304	Inconel X-750
8	Seat O-Ring	NBR	Viton	Viton
9	Stem O-Ring	NBR	Viton	Viton
10	Gasket	Graphite+304[2)]	Graphite+304[2)]	Graphite+316[2)]
11	O-Ring	NBR	Viton	Viton
12	Antistatic Spring	A313-304	A313-304	A313-316
13	Lower Cover	A182-F304	A182-F304	A182-F316
14	Bonnet Stud	A193-B7	A320-L7	A193-B8
15	Stud Nut	A194-2H	A194-4	A194-8
16	Trunnion	A276-304	A276-304	A276-316
17	Bearing	304+PTFE	304+PTFE	316+PTFE
18	Gland	A105	A350-LF2	A182-F316
19	Bolt	A193-B7	A193-B7	A193-B8
20	Stop Plate	Carbon Steel	Carbon Steel	Carbon Steel+Zn
21	Handle	Carbon Steel		

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

Dimensional datas of ANSI class 150Lb

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)
L (RF)	7	7.5	8	9	15.5	18	21	24	27	30	34	36	42	45	49	51	54	60	in
	178	190	203	229	394	457	533	610	686	762	864	914	1067	1143	1245	1295	1372	1524	mm
L1 (BW)	8.5	9.5	11.12	12	18	20.5	22	25	30	33	36	39	45	49	53	55	60	68	in
	216	241	283	305	457	521	559	635	762	838	914	991	1143	1245	1346	1397	1524	1727	mm
H	4	6	7	9.25	9.88	11	12.62	15.38	16.5	21.8	23.62	25	28	29.5	31.5	34	36	38.5	in
	120	150	180	235	250	280	320	390	420	555	600	635	710	750	800	865	915	980	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	48	71	182	277	553	553	747	1481	2266	2460	3904	4939	6362	8149	9000	13570	BW

Dimensional datas of ANSI class 300Lb

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)
L (RF)	8.5	9.5	11.12	12	15.88	19.75	22.38	25.5	30	33	36	39	45	49	53	55	60	-	in
	216	241	283	305	403	502	568	648	762	838	914	991	1143	1245	1346	1397	1524	-	mm
L1 (BW)	8.5	9.5	11.12	12	18	20.5	22	25	30	33	36	39	45	49	53	55	60	-	in
	216	241	283	305	457	521	559	635	762	838	914	991	1143	1245	1346	1397	1524	-	mm
H	4	6	7	9.25	9.88	11	12.62	15.38	16.5	21.8	23.6	25	28	29.5	31.5	34	36	-	in
	120	150	180	235	250	280	320	390	420	555	600	635	710	750	800	865	915	-	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	600	600	800	800	800	800	800	1000	1000	1000	1000	-	mm
wt (kg)	30	40	60	90	200	325	490	690	900	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

Ball Valve , Forged Steel , Trunnion mounted 600Lb/900Lb

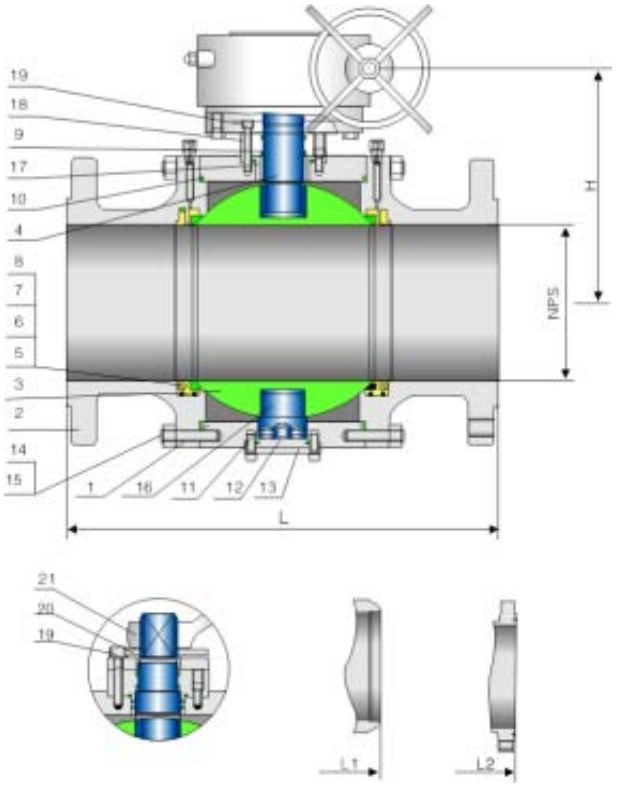
VALVES

Applicable Standards:

- STEEL BALL VALVES API 608/API 6D
- STEEL BALL VALVES ISO 14313
- FIRE SAFE,API 607
- ANTI STATICS,API 608
- STEEL VALVES,ASME B16.34
- FACE TO FACE ASME B16.10
- END FLANGES,ASME B16.5
- BUTTWELDING ENDS ASME B16.25
- INSPECTION AND TEST, API 598/ API 6D

Design descriptions:

- FULL PORT DESIGN
- BB.BOLTED BONNET.SPLIT BODY
- THREE PIECES BODY FOR 12"&ABOVE
- TRUNNION MOUNTED BALL TYPE
- BLOW-OUT PROOF STEM
- FIRE SAFE CONSTRUCTION
- ANTI STATICS DEVICE
- STOPPER DEVICE
- ISO 5211 MOUNTING PAD
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH WG OPERATOR



Materials of parts

NO	Part Name	Carbon Steel		ASTM Materials 18Cr-9Ni-2Mo
1	Body	A105	A350-LF2	A182-F316
2	Bonnet	A105	A350-LF2	A182-F316
3	Ball	A182-F304[1)]	A182-F304[1)]	A182-F316
4	Stem	A276-304	A276-304	A276-316
5	Seat	A105+ENP	A350-LF2+ENP	A182-F316
6	Seat Insert	Glass Filled PTFE		
7	Seat Spring	A313-304	A313-304	Inconel X-750
8	Seat O-Ring	NBR	Viton	Viton
9	Stem O-Ring	NBR	Viton	Viton
10	Gasket	Graphite+304[2)]	Graphite+304[2)]	Graphite+316[2)]
11	O-Ring	NBR	Viton	Viton
12	Antistatic Spring	A313-304	A313-304	A313-316
13	Lower Cover	A182-F304	A182-F304	A182-F316
14	Bonnet Stud	A193-B7	A320-L7	A193-B8
15	Stud Nut	A194-2H	A194-4	A194-8
16	Trunnion	A276-304	A276-304	A276-316
17	Bearing	304+PTFE	304+PTFE	316+PTFE
18	Gland	A105	A182-F316	A182-F316
19	Bolt	A193-B7	A193-B8	A193-B8
20	Stop Plate	Carbon Steel	Carbon Steel	Carbon Steel+Zn
21	Handle	Carbon Steel		

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

Dimensional datas of ANSI class 600Lb

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)
L/L1 (RF/BW)	11.5	13	14	17	22	26	31	33	35	39	43	47	55	57	61	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	57.5	61.5	in
	295	333	359	435	562	664	791	841	892	994	1095	1200	1407	1461	1562	mm
H	6.5	7	7.88	11	12.25	14	16.12	18	19.25	21	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
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/RTJ
	27	43	49	95	188	418	495	740	1185	1960	3050	3406	4275	6025	7590	BW

Dimensional datas of ANSI class 900Lb

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)
L/L1 (RF/BW)	14.5	16.5	15	18	24	29	33	38	40.5	44.5	48	52	61	in
	368	419	381	457	610	737	965	965	1029	1130	1219	1321	1549	mm
L2 (RTJ)	14.62	16.62	15.12	18.12	24.12	29.12	38.12	38.12	40.88	44.88	48.5	52.5	61.75	in
	371	422	384	460	613	740	968	968	1038	1140	1232	1334	1568	mm
H	6.72	7.5	8.25	11.38	12.62	15.38	18.5	18.5	20.88	24	26	27.5	30.75	in
	170	190	210	290	320	390	470	470	530	610	660	700	780	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	1350	1350	1890	3100	4300	4950	7100	RF/RTJ
	37	53	56	98	291	545	1145	1145	1650	2750	3875	4410	6485	BW

Ball Valve , Forged Steel , Trunnion mounted 1500Lb/2500Lb

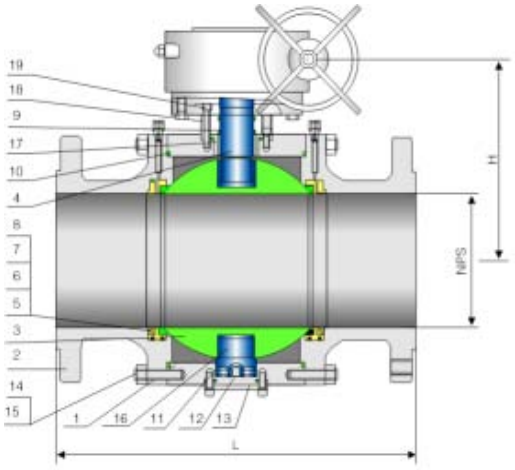
VALVES

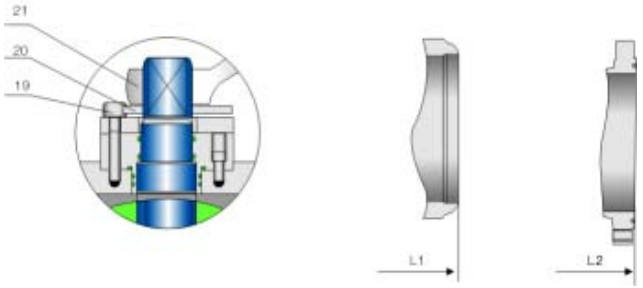
Applicable Standards:

- STEEL BALL VALVES API 608/API 6D
- STEEL BALL VALVES ISO 14313
- FIRE SAFE,API 607
- ANTI STATICS,API 608
- STEEL VALVES,ASME B16.34
- FACE TO FACE ASME B16.10
- END FLANGES,ASME B16.5
- BUTTWELDING ENDS ASME B16.25
- INSPECTION AND TEST, API 598/ API 6D

Design descriptions:

- FULL PORT DESIGN
- BB.BOLTED BONNET.SPLIT BODY
- THREE PIECES BODY FOR 12"&ABOVE
- TRUNNION MOUNTED BALL TYPE
- BLOW-OUT PROOF STEM
- FIRE SAFE CONSTRUCTION
- ANTI STATICS DEVICE
- STOPPER DEVICE
- ISO 5211 MOUNTING PAD
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH WG OPERATOR





Materials of parts

NO	Part Name	Carbon Steel		ASTM Materials 18Cr-9Ni-2Mo
1	Body	A105	A350-LF2	A182-F316
2	Bonnet	A105	A350-LF2	A182-F316
3	Ball	A182-F304[1)]	A182-F304[1)]	A182-F316
4	Stem	A276-304	A276-304	A276-316
5	Seat	A105+ENP	A350-LF2+ENP	A182-F316
6	Seat Insert	Glass Filled PTFE		
7	Seat Spring	A313-304	A313-304	Inconel X-750
8	Seat O-Ring	NBR	Viton	Viton
9	Stem O-Ring	NBR	Viton	Viton
10	Gasket	Graphite+304[2)]	Graphite+304[2)]	Graphite+316[2)]
11	O-Ring	NBR	Viton	Viton
12	Antistatic Spring	A313-304	A313-304	A313-316
13	Lower Cover	A182-F304	A182-F304	A182-F316
14	Bonnet Stud	A193-B7	A320-L7	A193-B8
15	Stud Nut	A194-2H	A194-4	A194-8
16	Trunnion	A276-304	A276-304	A276-316
17	Bearing	304+PTFE	304+PTFE	316+PTFE
18	Gland	A105	A350-LF2	A182-F316
19	Bolt	A193-B7	A193-B7	A193-B8
20	Stop Plate	Carbon Steel	Carbon Steel	Carbon Steel+Zn
21	Handle	Carbon Steel		

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

Dimensional datas of ANSI class 1500Lb

NPS / DN	2 (50)	2½ (65)	3 (80)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	in (mm)
L/L1 (RF/BW)	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5	54.5	in
	368	419	470	546	705	832	991	1130	1257	1384	mm
L2 (RTJ)	14.62	16.62	18.62	21.62	28	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	7.5	5.25	11.38	13	15.75	17.38	22	25.25	27.12	in
	170	190	210	290	330	400	440	560	640	690	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

Dimensional datas of ANSI class 2500Lb

NPS / DN	2 (50)	2½ (65)	3 (80)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	in (mm)
L/L1 (RF/BW)	17.75	20	22.75	26.5	36	40.25	50	56	in
	451	508	578	673	914	1022	1270	1422	mm
L2 (RTJ)	17.88	21.25	23	26.88	36.5	40.88	50.88	56.88	in
	454	540	584	683	927	1038	1292	1445	mm
H	7.5	9	11	14.12	15.75	18.88	20.5	26.38	in
	190	230	280	360	400	480	520	670	mm
W	24	32	32	32	32	40	40	40	in
	600	800	800	800	800	1000	1000	1000	mm
wt (kg)	68	95	120	185	675	1100	1650	2300	RF/RTJ
	57	74	91	122	555	918	1355	1950	BW