BALL VALVE, CS, TM

Design

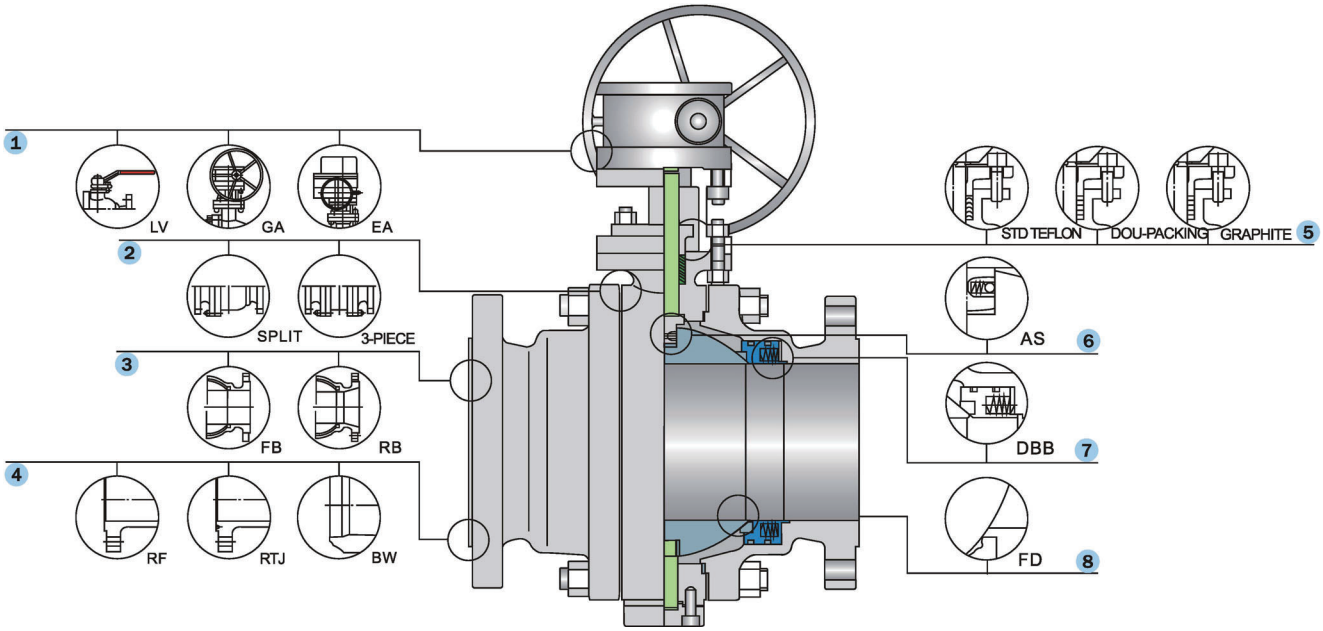
Cast steel ball valve are designed and manufactured to provide maximum service life and dependability. All gate valves are full ported and meet the design requirements of American petroleum Institute Standard API 600 & API 6D, British Standard BS 5351 and generally conform to American Society of Mechanical Engineers Standard ASME B 16.34. Valves are available in a complete range of body/bonnet materials and trims.

Rang of Materials

Standard body/bonnet materials include nine grades of carbon, low alloy and stainless steels. For special applications they can be supplied in other grades of alloy 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 Cast Steel Valves

* Trim changes
* End connection Modifications
* Packing and Gasket Changes
* Operator Mounting
* Handwheel Extensions
* Pressure Equalizing
* AS or FD
* Customer specified Coatings
* Weld End Bore Changes
* Oxygen & Chlorine Cleaning & Packaging



1 Operating

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

3 BORE

Full Bore or Reduced Bore. Full-bore design provides exceptional flow control

5 Packing

STD Packing Multiple V-TEFLON packing, combined with live loading, maintains packing compression under high-cycle and severe service applications. Graphite packing use situatior for high-temperature.

7 DDB

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

2 BODY & BONNET

Split or 3-piece, split body & bonnet for 12 " & Small. Disassembles easily for repair or replacement of internal components.

4 End Connections

A choice of Flanged, RTJ flanged or Buttwelding end for piping flexibility

6 AS

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

8 FD

Fire Durable. Designed to API 607 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.

Charlies

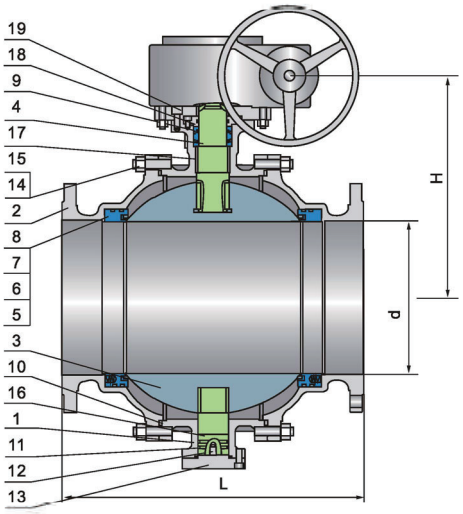
TRUNNION MOUNTED
CAST STEEL BALL VALVE
1500LB/2500LB

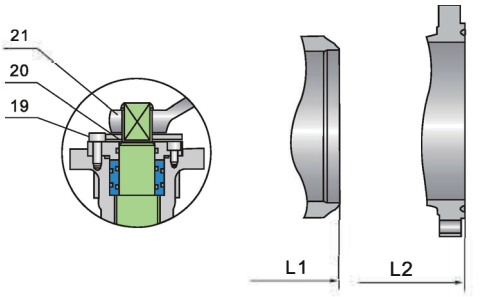
Applicable standards:

STEEL BALL VALVES, API 608/API 6D
STEEL BALL VALVES, ISO 10434/ISO 14313
FIRE DURABLE, API 607
ANTI STATIC, API 608
STEEL VALVES, ASME B 16.34
FACE TO FACE, ASME B 16.10
END FLANGES, ASME B 16.5
BUTTWELDING ENDS, ASME B 16.25
INSPECTION AND TEST, API 598/API 6D

Design description:

FULL PORT DESIGN
BB, BOLTED BONNET, SPLIT BODY
THREE PIECE BODY FOR 12 " & ABOVE
TRUNNION MOUNTED BALL TYPE
BLOW-OUT PROOF STEM
FIRE DURABLE CONSTRUCTION
ANTI STATIC DEVICE
STOPPER DEVICE
ISO5211 MOUNTING PAD
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH BG OPERATOR





Materials of parts

No	Part Name	ASTM Material		
		Carbon Steel	18Cr-9Ni-2Mo	Carbon Steel
1	Body	A216-WCB	A351-CF8M	A352-LCB
2	Bonnet	A216-WCB	A351-CF8M	A352-LCB
3	Ball	A182-F304[1)]	A182-F316	A182-F304[1)]
4	Stem	A276-304	A276-316	A276-304
5	Seat	A105+ENP	A182-F316	A350-LF2+ENP
6	Seat Insert	Glass Filled PTFE		
7	Seat Spring	A313-304	Inconel X-750	A313-304
8	Seat O-Ring	NBR	Viton	Viton
9	Stem O-Ring	NBR	Viton	Viton
10	Bonnet Gasket	Graphite+304[2)]	Graphite+316[2)]	Graphite+304[2)]
11	Bonnet O-Ring	NBR	Viton	Viton
12	Antistatic Spring	A313-304	A313-316	A313-304
13	Grounding Plunger	A216-WCB	A182-F316	A182-F304
14	Bonnet Stud	A193-B7	A193-B8	A320-L7
15	Bonnet Stud Nut	A194-2H	A194-8	A194-4
16	Trunnion	A276-304	A276-316	A276-304
17	Trunnion 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	StopPlate	Carbon Steel	Carbon Steel+Zn	Carbon Steel
21	Handle		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	2 / 50	2½ / 65	3 / 80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300	in / mm
	ANSI Class 1500Lb										ANSI Class 2500Lb								
L/L1 (RF)/(BW)	14.50	16.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	54.50	17.75	20.00	22.75	26.50	36.00	40.25	50.00	56.00	in
	368	419	470	546	705	832	991	1130	1257	1384	451	508	578	673	914	1022	1270	1422	mm
L2 (RTJ)	14.62	16.62	18.62	21.62	28.00	33.12	39.38	45.12	50.25	55.38	17.88	21.25	23.00	26.88	36.50	40.88	50.88	56.88	in
	371	422	473	549	711	841	1000	1146	1276	1407	454	540	584	683	927	1038	1292	1445	mm
H	11.25	12.00	13.25	20.00	33.50	39.38	41.12	49.38	50.00	58.50	12.00	12.88	14.25	21.25	35.88	42.12	44.00	53.00	in
	285	306	338	506	852	1000	1045	1255	1270	1485	304	327	362	540	911	1070	1120	1345	mm
(d)	49	62	74	100	144	192	239	287	315	360	42	52	62	87	131	179	223	265	mm
W	20	20	24	24	24	32	32	32	32	32	20	24	24	24	32	32	32	32	in
	500	500	600	600	600	800	800	800	800	800	500	600	600	600	800	800	800	800	mm
WT (kg)	49	67	106	153	268	540	1020	1475	1885	2455	55	76	120	173	302	612	1150	1665	RF/RTJ
	33	44	73	87	145	345	685	1050	1385	1735	41	55	91	110	182	430	855	1315	BW