

Charlies BALL VALVE, CS, TM

Design

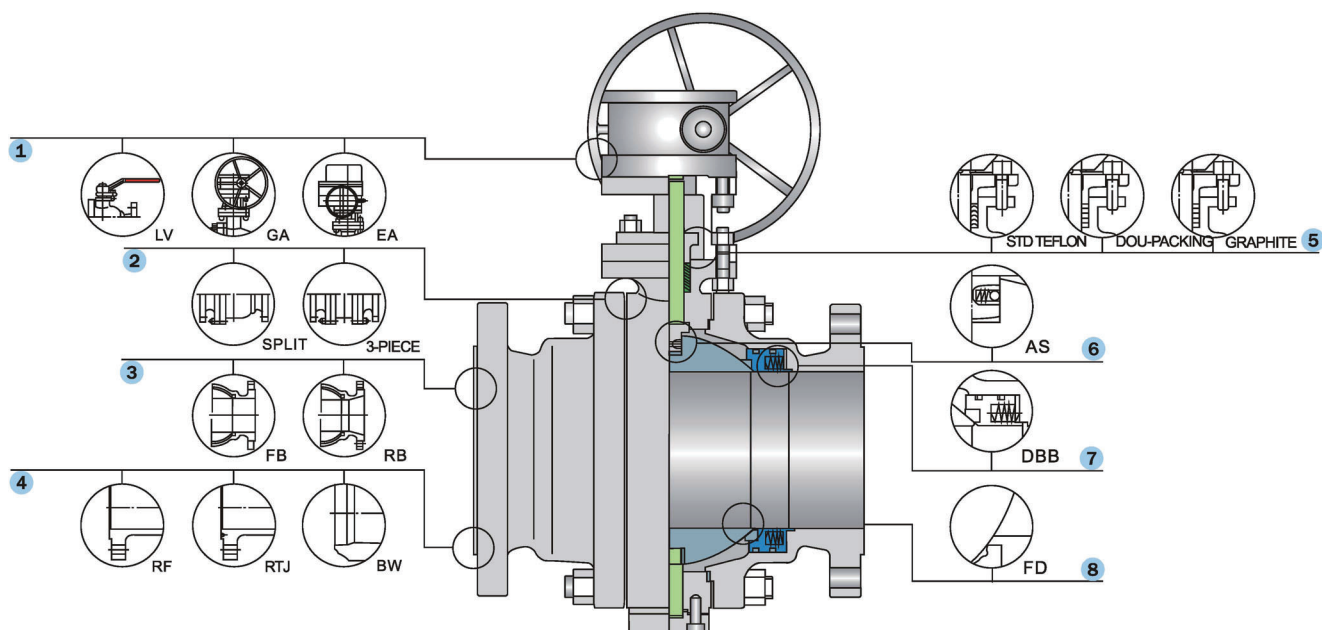
Cast steel ball valve are designed and manufactured to provide maximum service life and dependability. All gate valves are full ported and meet the design requirements of American petroleum Institute Standard API 600 & API 6D, British Standard BS 5351 and generally conform to American Society of Mechanical 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 situation for high-temperature.

7 DDB

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.

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-up 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.

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:

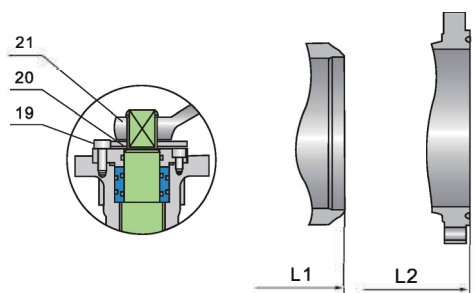
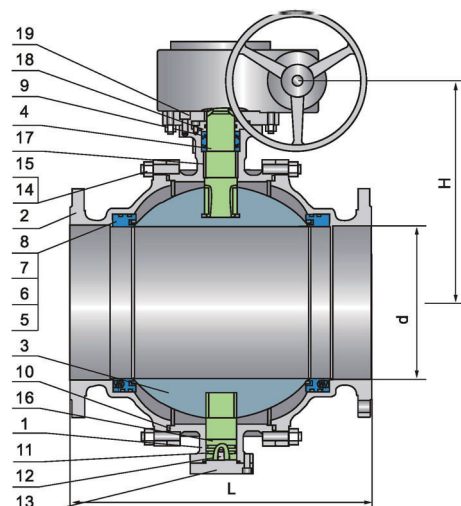
FULL PORT DESIGN
BB, BOLTED BONNET, SPLIT BODY
THREE PIECE BODY FOR 12" & ABOVE
TRUNNION MOUNTED BALL TYPE
BLOW-OUT PROOF STEM
FIRE DURABLE CONSTRUCTION
ANTI STATIC DEVICE
STOPPER DEVICE
ISO5211 MOUNTING PAD
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH BG OPERATOR

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)	14.50 368	16.50 419	18.50 470	21.50 546	27.75 705	32.75 832	39.00 991	44.50 1130	49.50 1257	54.50 1384	17.75 451	20.00 508	22.75 578	26.50 673	36.00 914	40.25 1022	50.00 1270	56.00 1422	in mm
L2 (RTJ)	14.62 371	16.62 422	18.62 473	21.62 549	28.00 711	33.12 841	39.38 1000	45.12 1146	50.25 1276	55.38 1407	17.88 454	21.25 540	23.00 584	26.88 683	36.50 927	40.88 1038	50.88 1292	56.88 1445	in mm
H	11.25 285	12.00 306	13.25 338	20.00 506	33.50 852	39.38 1000	41.12 1045	49.38 1255	50.00 1270	58.50 1485	12.00 304	12.88 327	14.25 362	21.25 540	35.88 911	42.12 1070	44.00 1120	53.00 1345	in mm
(d)	49	62	74	100	144	192	239	287	315	360	42	52	62	87	131	179	223	265	mm
W	20 500	20 500	24 600	24 600	24 600	32 800	32 800	32 800	32 800	32 800	20 500	24 600	24 600	24 600	32 800	32 800	32 800	32 800	in mm
WT (kg)	49 33	67 44	106 73	153 87	268 145	540 345	1020 685	1475 1050	1885 1385	2455 1735	55 41	76 55	120 91	173 110	302 182	612 430	1150 855	1665 1315	RF/RTJ BW