

Charlies BALL VALVE, CS, TM

Design

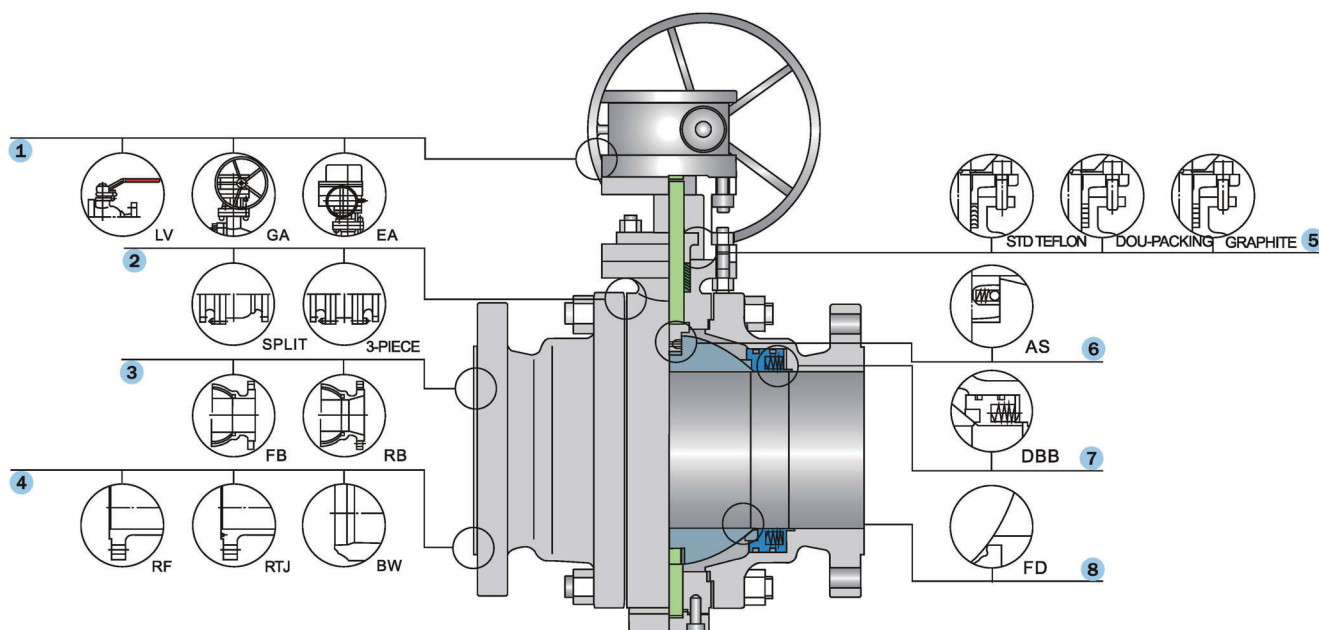
Cast steel ball valve are designed and manufactured to provide maximum service life and dependability. All gate valves are full ported and meet the design requirements of American petroleum Institute Standard API 600 & API 6D, British Standard BS 5351 and generally conform to American Society of Mechanical 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 300LB

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:

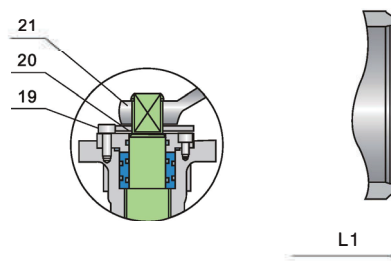
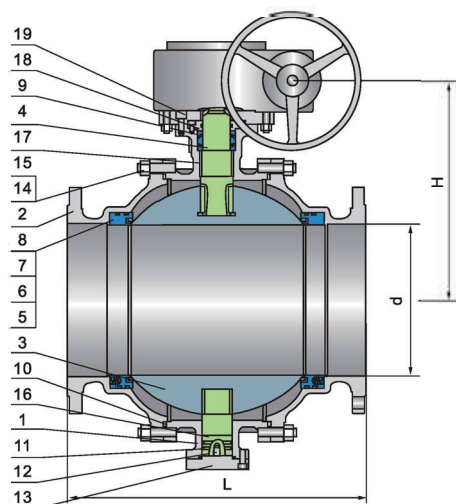
FULL PORT DESIGN
BB, BOLTED BONNET, SPLIT BODY
THREE PIECE BODY FOR 12" & ABOVE
TRUNNION MOUNTED BALL TYPE
BLOW-OUT PROOF STEM
FIRE DURABLE CONSTRUCTION
ANTI STATIC DEVICE
STOPPER DEVICE
ISO5211 MOUNTING PAD
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH BG OPERATOR

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	Stop Plate	Carbon Steel	Carbon Steel+Zn	Carbon Steel
21	Handle	Carbon Steel		

Note: 1). A105+ENP optional

2). Spiral wound construction.



Dimensions data

NPS	2	2½	3	4	6	8	10	12	14	16	18	20	24	26	28	30	32	in
DN	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	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	7.00	7.50	8.25	9.25	20.88	24.62	56.62	30.75	31.00	36.25	38.25	43.38	45.25	50.75	55.12	64.12	70.88	in
	177	190	210	235	530	625	650	780	790	920	970	1100	1150	1290	1400	1630	1800	mm
(d)	49	62	74	100	150	201	252	303	334	385	436	487	589	633	684	735	779	mm
W	14	16	20	20	24	24	24	24	32	32	32	32	32	32	32	32	32	in
	350	400	500	500	600	600	600	600	800	800	800	800	800	800	800	800	800	mm
WT (kg)	19	24	34	48	101	175	200	255	325	485	635	935	1500	1750	2225	2450	2870	RF
	14	16	25	34	82	145	155	185	238	375	516	782	1280	1375	1825	2180	2260	BW