

Design

SG 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.

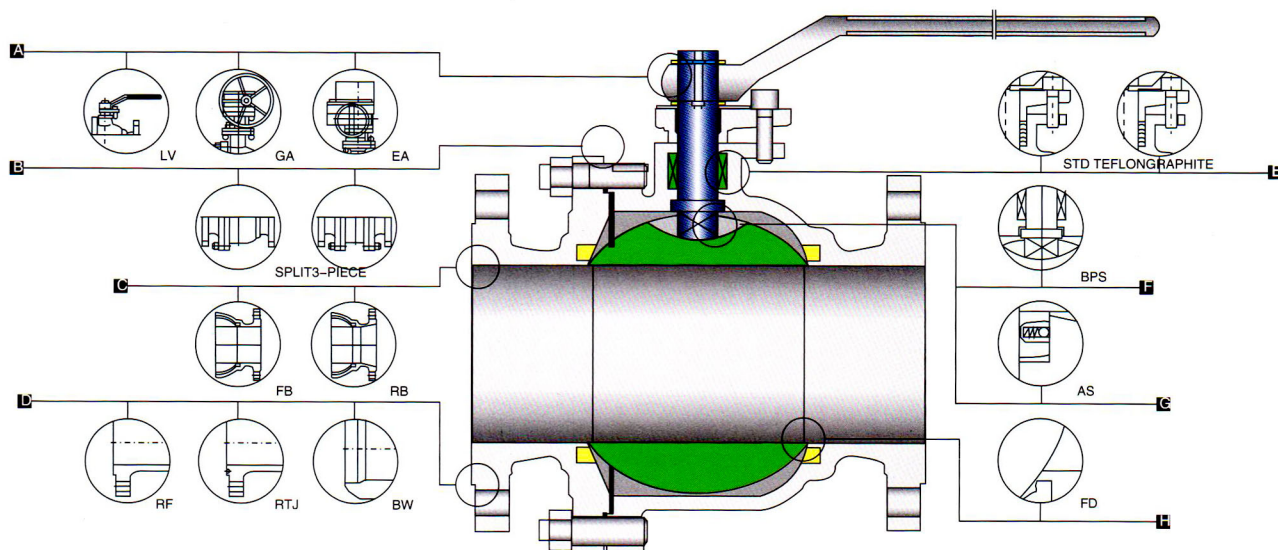
Ranges of Materials

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 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 Steel Valves

Trim changes
End connection modifications
Packing and gasket change
Operator mounting
Handwheel extensions

Pressure equalizing
As or fd
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 Body&Bonnet

Split or 3-piece, split body& bonnet for 12" & small. disassembles easily for repair components.

C BORE

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

D End Connections

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

E Packing

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

F BPS

Blow-out proof stem
A pressure-safe stem shoulder design that protects against failure under excess pressure.

G AS

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

H FS

Fire safe 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.

Applicable Standards:

- STEEL BALL VALVES API 608/API 6D
- STEEL BALL VALVES ISO 14313
- FIRE SAFE, API 607
- ANTI STATIC, 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

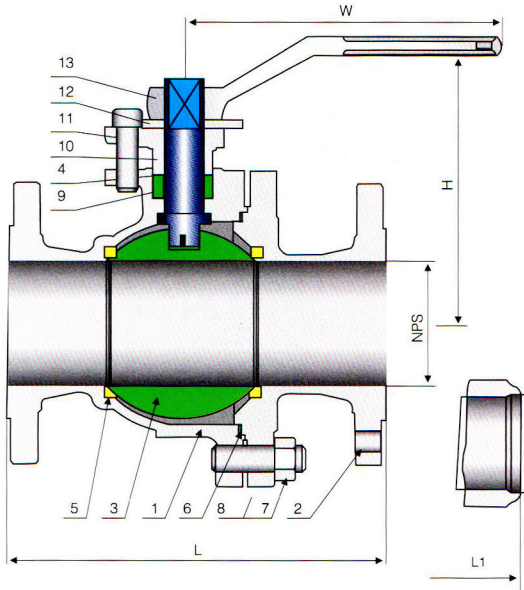
Design descriptions:

- FULL PORT DESIGN
- BG. BOLTED BONNET. SPLIT BODY
- FLOATING BALL TYPE
- BLOW-OUT PROOF STEM
- FIRE DURABLE CONSTRUCTION
- ANTI STATIC 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	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 Ring	R.PTFE		
6	Bonnet Gasket	Graphite+304 ²⁾	PTFE	Graphite+304 ²⁾
7	Bonnet stud	A193-B7	A193-B8	A320-L7
8	Bonnet Stud Nut	A194-2H	A194-8	A194-4
9	Packing	PTFE		
10	Gland Flange	A216-WCB	A351-CF8M	A352-LCB
11	Gland Bolt	A193-B7	A193-B8	A193-B7
12	Stop Plate	Carbon Steel	Carbon steel+Zn	Carbon Steel
13	Handle	Carbon Steel		

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



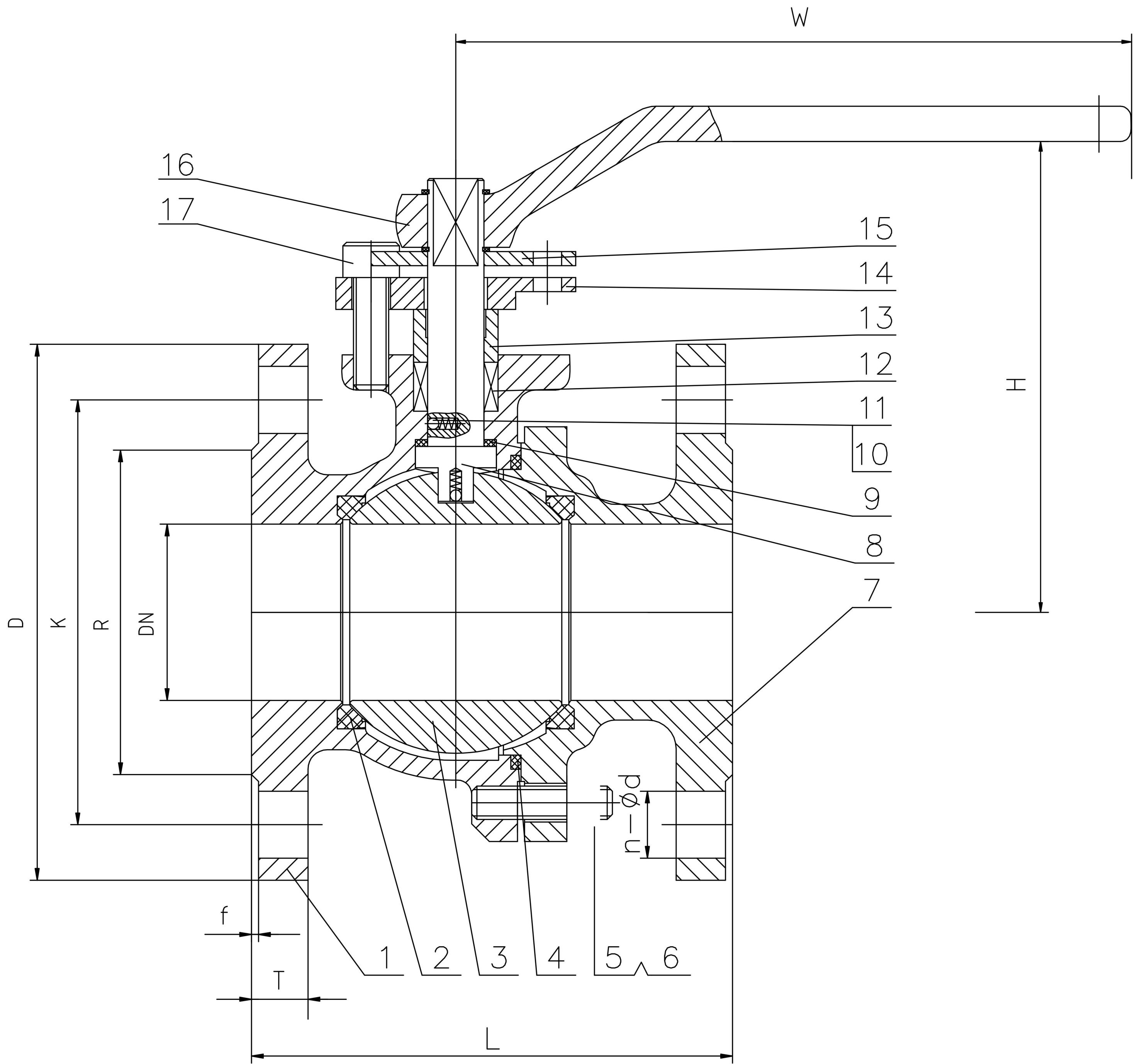
Dimensional datas of ANSI Class 150Lb

NPS DN	1/2 15	3/4 20	1 25	1 1/2 40	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250	12 300	in mm
L (RF)	4.25 108	4.62 117	5.00 127	6.50 165	7.00 178	7.50 190	8.00 203	9.00 229	15.50 394	18.00 457	21.00 533	24.00 610	in mm
L1 (BW)	5.50 140	6.00 152	6.50 165	7.50 190	8.50 216	9.50 241	11.12 283	12.00 305	18.00 457	20.50 521	22.00 559	25.00 635	in mm
H	2.12 55	2.12 55	2.75 70	3.50 90	4.12 105	6.12 155	7.25 185	8.00 205	10.00 255	11.00 280	13.50 345	16.50 420	in mm
W	5 130	5 130	6 160	8 200	14 350	16 400	20 500	20 500	24 600	32 800	32 800	32 800	in mm

Dimensional datas of ANSI Class 300Lb

NPS DN	1/2 15	3/4 20	1 25	1 1/2 40	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250	12 300	in mm
L (RF)	5.50 140	6.00 152	6.50 165	7.50 190	8.50 216	9.50 241	11.12 283	12.00 305	15.88 403	19.75 502	22.38 568	25.50 648	in mm
L1 (BW)	5.50 140	6.00 152	6.50 165	7.50 190	8.50 216	9.50 241	11.12 283	12.00 305	18.00 457	20.50 521	22.00 559	25.00 635	in mm
H	2.12 55	2.12 55	2.75 70	3.50 90	4.12 105	6.12 153	7.25 187	8.00 206	10.00 255	11.00 280	13.50 345	16.50 420	in mm
W	5 130	5 130	6 160	8 200	14 350	16 400	20 500	20 500	24 600	32 800	32 800	32 800	in mm

D I M E N S I O N S										Unit: mm	APPROX MASS (Kg)	Q'ty	ITEM No.
Class/PN	NOMINAL DIAMETER	L	FLANGE---ASME B16.5						REFERENCE				
			D	K	R	n-Ød	T	f	H	W			
150#	5"	356	254	216	186	8-Ø22	24	2	280	800	-	1	1



TECHNICAL SPECIFICATION				
DESIGN STD			API 6D	
FACE TO FACE			ASME B16.10	
RF END CONNECTION			ASME B16.5	
TEST & INSPECTION			API 598	
TESTING PRESSURE (BAR)				
CLASS: 150LB			SHELL	SEAT
HYDROSTATIC			30	22
AIR				6 bar
TIME			120S	120S
Rated Pressure @ Max. & Min. Design Temperature				
MIN WORKING TEMPERTURE			-29~38°C/19bar	
MAX WORKING TEMPERTURE			160°C/15bar	
APPLICABLE MEDIUM			W.O.G	
17	BOLT		ASTM A193 B7	
16	HANDLE		CARBON STEEL	
15	LIMITE PLATE		A276 410	
14	GLAND FLANGE		WCB	
13	GLAND		WCB	
12	PACKING		RPTFE	
11	SPRING		SS	
10	BALL		SS304	
9	THRUST		PTFE	
8	STEM		2CR13	
7	BONNET		A216 WCB	
6	BONNET NUT		ASTM A194 2H	
5	BONNET BOLT		ASTM A193 B7	
4	GASKET		SS+GRAPHITE	
3	BALL		SS304	
2	SEAT RING		PTFE	
1	BODY		A216 WCB	
NO.	PARTS		MATERIALS	
BALL VALVE 2 pcs floating type			5"-150LB-RF	
			Floating type RF END	
			BODY WCB BALL SS304 PTFE SEAT	
STANDARD				
DESIGN BY	K.Y	SCALE		
CHECK BY		UNIT	⌀ inch	
SIGN BY		APP'D BY		
FILE NO.		REV.NO		
DWG NO.	Q41F-150C	DATE	OCT 5,2017	