

## Design

KATA 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 BS5351 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.

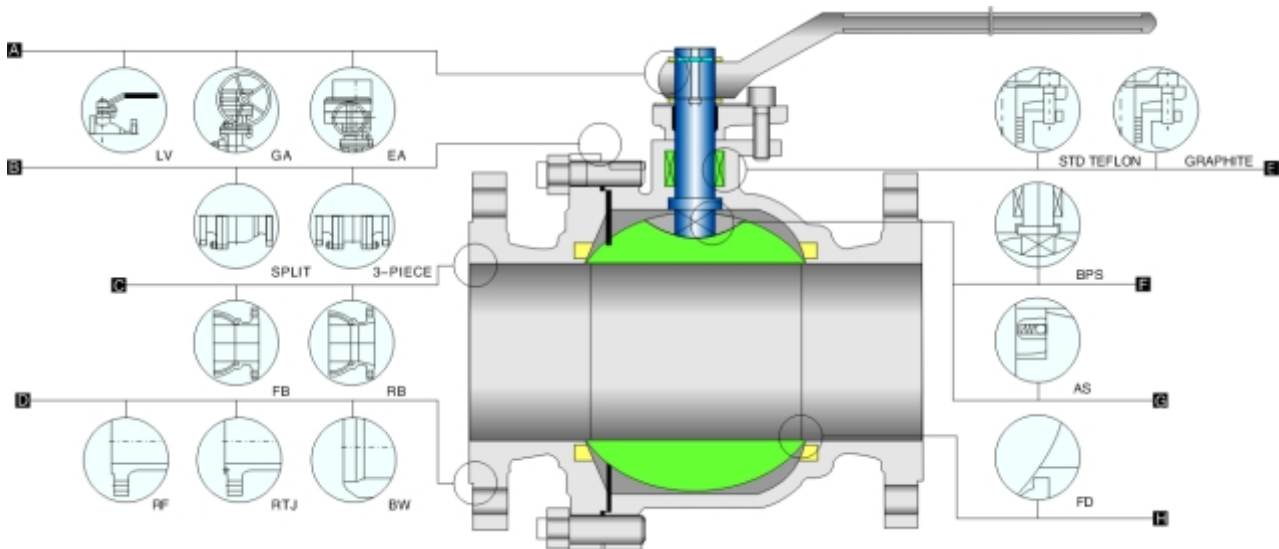
## Ranges of Materials

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 KATA 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

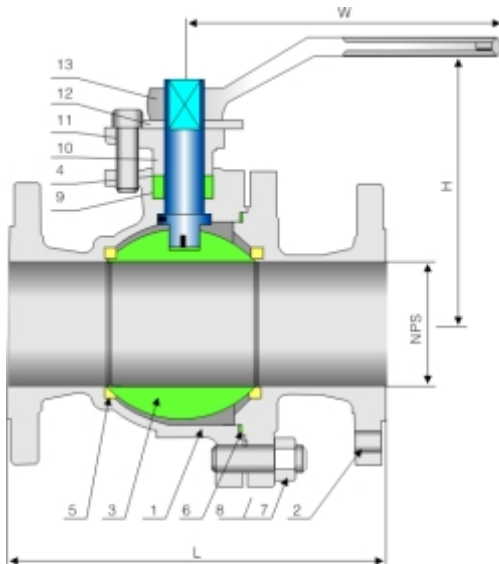
Fire safe designed to API 607 or BS 6755 to grant their operation suitability in case of fire. Secondary metal-to-metal seal acts as backup if primary seal is destroyed by fire. Valves ordered for compliance with API 607 will be provided with graphite packing and gaskets.

### 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 <sup>1)</sup>	A182-F316	A182-F304 <sup>1)</sup>
4	Stem	A276-304	A276-316	A276-304
5	Seat Ring	R,PTFE		
6	Bonnet Gasket	Graphite+304 <sup>2)</sup>	PTFE	Graphite+304 <sup>2)</sup>
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	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12	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
wt(kg)	2.3 1.8	3 2.8	4.5 3.7	7 6.2	9.5 8.5	15 14	19 21	33 35	93 98	160 170	200 225	280 295	RF BW

# Floating, Cast Steel Ball Valve 300Lb/600Lb

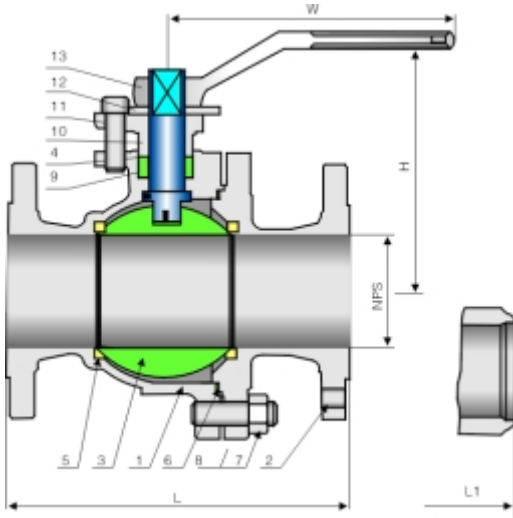


## Applicable Standards:

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- STEEL BALL VALVES ISO 14313
- FIRE SAFE, API 607
- ANTI STATIC, API 608
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4	Stem	A276-304	A276-316	A276-304
5	Seat Ring	R, PTFE		
6	Bonnet Gasket	Graphite+304 <sup>2)</sup>	PTFE	Graphite+304 <sup>2)</sup>
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 300Lb

NPS DN	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12	in
	15	20	25	40	50	65	80	100	150	200	250	300	mm
L (RF)	5.50	6.00	6.50	7.50	8.50	9.50	11.12	12.00	15.88	19.75	22.38	25.50	in
	140	152	165	190	216	241	283	305	403	502	568	648	mm
L1 (BW)	5.50	6.00	6.50	7.50	8.50	9.50	11.12	12.00	18.00	20.50	22.00	25.00	in
	140	152	165	190	216	241	283	305	457	521	559	635	mm
H	2.12	2.12	2.75	3.50	4.12	6.12	7.25	8.00	10.00	11.00	13.50	16.50	in
	55	55	70	90	105	153	187	206	255	280	345	420	mm
W	5	5	6	8	14	16	20	20	24	32	32	32	in
	130	130	160	200	350	400	500	500	600	800	800	800	mm
wt(kg)	2.5	3.5	5.5	10.5	14.5	23.5	30	55	118	200	250	330	RF
	1.8	2	3.2	5.5	8.7	15	18	36	85	152	182	232	BW

## Dimensional datas of ANSI Class 600Lb

NPS DN	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12	in
	15	20	25	40	50	65	80	100	150	200	250	300	mm
L/L1 (RF/BW)	6.50	7.50	8.50	9.50	11.50	13.00	14.00	17.00	22.00	-	-	-	in
	165	190	216	241	292	330	356	432	559	-	-	-	mm
L2 (RTJ)	-	-	-	-	11.62	13.12	14.12	17.12	22.12	-	-	-	in
	-	-	-	-	295	333	359	435	562	-	-	-	mm
H	2.38	2.38	3.00	4.00	4.75	6.88	8.38	9.25	11.38	-	-	-	in
	61.5	61.5	78	101	120	174	212	234	289	-	-	-	mm
W	5	6	8	14	16	20	24	24	32	-	-	-	in
	130	160	200	350	400	500	600	600	800	-	-	-	mm
wt(kg)	3.3	4.5	7.2	13.5	19	31	39	71	153	-	-	-	RF/RTJ
	2.6	3.1	4.8	8	3	22	27	53	120	-	-	-	BW