KOFLOW

BALL VALVES

Ball Valve Model Schedule Illustration

1 2 3 4 5 6 7 8

① Codes of Nominal Diameter

British series indicated by A××in value, and metric series indicated by G××mm value.

② Codes of Driving Modes (For handle or lever drive, this code can be omitted.)

3—Manual Operator; 6—Pneumatic; 6S—Pneumatic Spring Return; 6A—Pneumatic Control; 5—Gear Drive; 7—Hydraulic; 8—Airdraulic; 8H—Airdraulic with Emergency Cutoff; 9—Electric

③ Codes of Valve Types

FB-Float Ball Valve; TB-Fixed Ball Valve

④ Codes of Nominal Pressure Class

1—PN1.6 class150 ; 2—PN2.5; 3—class300; 4—PN4.0 class400 ; 6—PN6.4 class600

9—class900; 10—PN10.0; 15—class1500; 16—PN16.0; 20—PN20.0; 25—class2500;

⑤ Codes of Connecting Modes

RF—Raised Face Flange; FF—Fully Flat Face Flange; MFM—Male and Female Flange; TG—Tongued and Grooved Flange; RJ—Ring Junction Flange; BW—Butt Welding; SW—Socket Welding; NPT—Threaded Connection

⑥Codes of Structural Modes

1—Full Bore Straightway; 2—Reducing Straightway; 3T—T-shaped Three-Way; 3L—L-shaped Three-way; 4—Four-way; 5—Overall Top Installed (Full Bore); 5A—Overall Top Installed (Reducing); 6—Track Ball Valve (Full Bore); 6A—Track Ball Valve (Reducing); 7H—Eccentric Half Ball; 7F—Eccentric Full Ball; 8—All Welded (Full Bore); 8A—All Welded (Reducing)

⑦ Codes of Shell Materials

C—WCB; C5—C5; C6—WC6; C9—WC9; BL—LCB; CL—LCC

8—CF8; 8M—CF8M; 3—CF3; 3M—CF3M; ML—MONEL

⑧ Codes of Ball Materials

1—WCB; 2—CF8; 3—CF8M; 4—CF3; 5—CF3M

1F—A105or25 2F—304; 3F—316; 4F—304L; 5F—316L

⑨ Codes of Seat Materials

F—PTFE; N—Nylon; G—Carbon Fiber; P—PPL; E—PEEK; M—MOLON

Note:* The letters of " K " 、 " E " 、 " O " and " J " are placed in front of the codes of valve types, respectively representing hydrogen sulphide resistant, extension bar, oxygen, and jacketed ball valve.

Example: A8 " TB3RF1C2F means API 8 " worm gear drive, fixed ball valve, 300Lb, raised face flange, full bore, body material WCB, ball material CF8, and seat of F4.

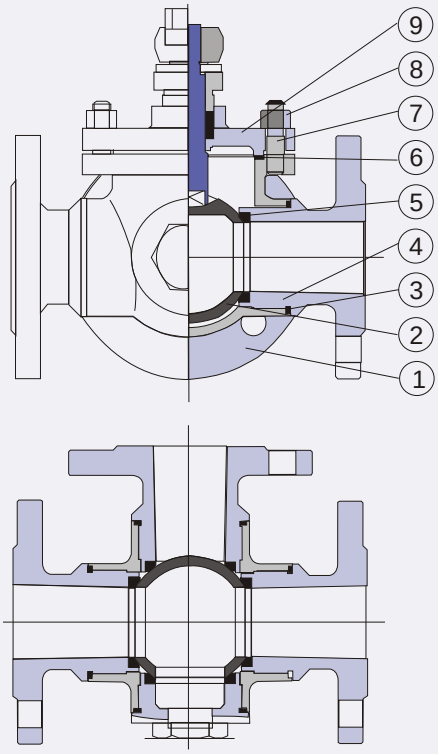
*** The figures mentioned hereunder don't have the codes of caliber and valve material, they are to be specified by users.**

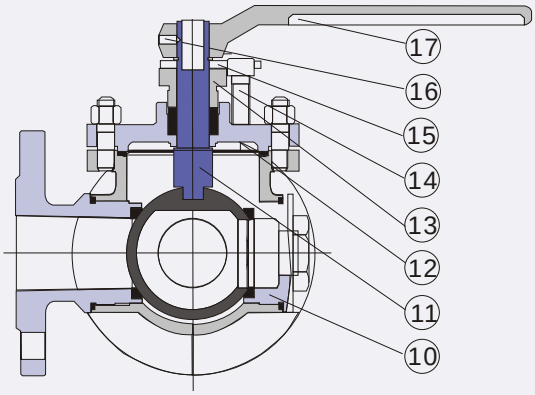
Technical Specifications of Ball Valve

Technical Specifications	API Series	GB Series
Design Specifications	API6D、API608、BS5351	GB/T12237、JB/T7745
Pressure and Temperature Class	ASME B16.34	GB/T9124
Face-to-face	ASME B16.10	GB/T12221、GB/T15188.1
Flange Type and Dimensions	ASME B16.5 、ASME B16.47	GB/T9113 、JB/T79
Butt Welded	ASME B16.25	GB/T12224
Socket Welded	ASME B16.11	/
Threaded	ASME B16.1.20	/
Inspection and Test	API598 、API6D	JB/T9092、GB/T13927
Fireproofing Test	API6FA 、API607	JB/T6899-1993
Quality Inspection of Cast Steel Body	MSS -SP-55	JB/T9092-1999

THREE WAY BALL VALVE

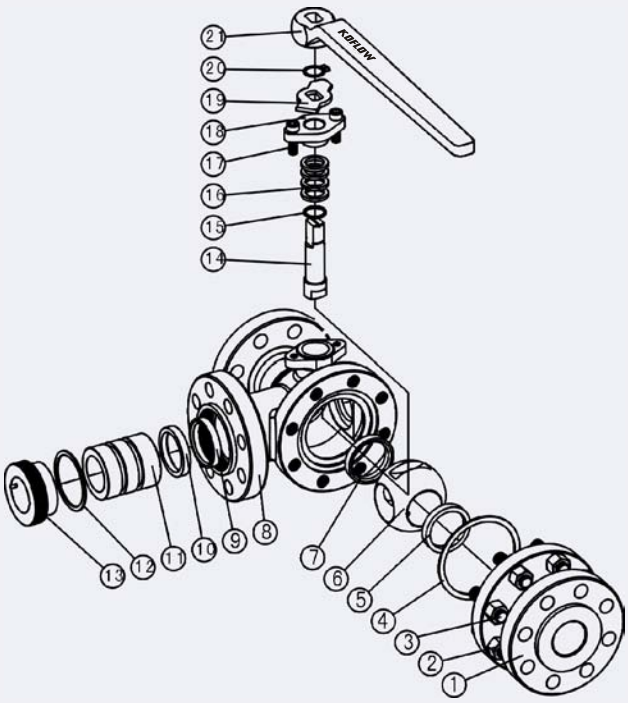
Valve Structural Diagram and Materials of Main Parts





No.	Part Name	No.	Part Name
1	Valve Body	10	Valve Seat Ring
2	Ball	11	Valve Stem
3	O-ring	12	Packing
4	Flange	13	Packing Gland
5	Sealing Ring	14	Limit screw
6	Gasket	15	Spacer
7	Bolt	16	Set screw
8	Nut	17	Handle
9	Bonnet		

Materials of Main Parts (Taking side mounted structure as an example)



Explosion Diagram of Side Mounted Floating Type

No.	Part Name	Materials		
		Carbon Steel	Stainless Steel	Low Temperature Steel
1	Bonnet	A216 WCB	A351 CF8M	A352 LCB
2	Nut	A194 2H	A194 8	A194 4
3	Bolt	A193 B7	A193 B8	A320 L7
4	Gasket	Flexible graphite + SS		
5	Sealing Ring	PTFE/RPTFE		
6	Ball	A105+ENP	A182 F316/A351 CF8M	A350 LF3/A352 LCB
7	Sealing Ring	PTFE/RPTFE		
8	Ball	A216 WCB	A351 CF8M	A352 LCB
9	Sealing Ring	PTFE/RPTFE		
10	Sealing Ring	PTFE/RPTFE		
11	Valve Seat	A105+ENP	A182 F316	A350 LF3
12	O-ring	VITON		
13	Plug Screw	A105+ENP	A182 F316	A350 LF3
14	Valve Stem	A182 F6a	A182 F316	A182 F316
15	Gasket	PTFE/RPTFE		
16	Packing	PTFE/Flexible graphite		
17	Bolt	A193 B7	A193 B8	A320 L7
18	Packing Gland	A216 WCB	A351 CF8M	A352 LCB
19	Spacer	A105+ENP		
20	Ring	65Mn		
21	Handle	Q235A		

THREE WAY BALL VALVE

Function:

Three-way ball valves are used to switch over, mix and divide the flow of corrosive or noncorrosive liquid, gas or powdery mediums. Upon opening and closing, the smooth flow channel effects less pressure loss, making operation quite labor-saving and maintenance fairly easy. The five types of flow direction (figure on the below, 1 for L-shaped and 4 for T-shaped) to meet different technological requirements. It can be hand, air and electrically operated.

Structural Characteristics:

1、Valve seatcan be designed intofour-side seated float ball andfixed ball, with smooth fluidstate and reliable seal;

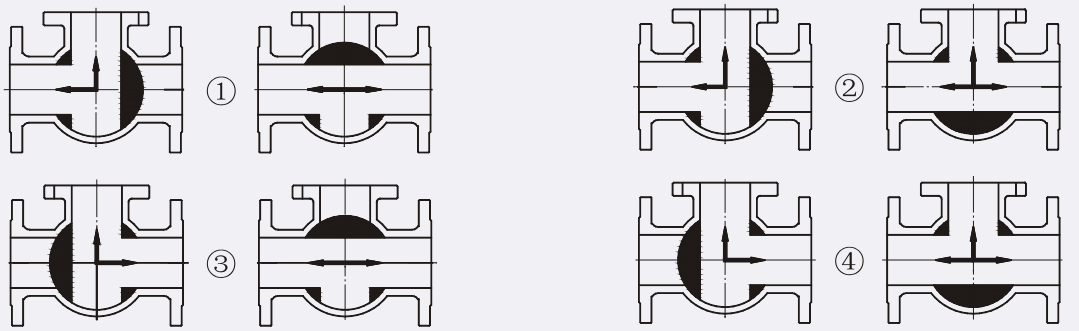
2、The structure may be designed into side installed type and top in stalled type, with two way seal, no series flow upon switch overof flow direction;

3、Anti-flyout design ofvalve stem;

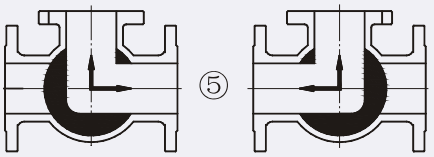
4、Antistatic design;

5、Two position(ON and OFF)lockup design.

T Type



L型 L Type



Range of Supply

Nominal Diameter		Class	
DN	in	150	300
15	1/2	●	●
20	3/4	●	●
25	1	●	●
32	1 1/4	●	●
40	1 1/2	●	●
50	2	●	●
65	2 1/2	●	●
80	3	●	●
100	4	●	●
125	5	●	●
150	6	☆	☆
200	8	☆	☆
250	10	☆	☆

Manufacturing Specifications of Three Way Ball Valve

Standard	API Series	GB Series
Basic Design Specifications	ANSI B16.34	
Pressure-Temperature Rating	ANSI B16.34	GB/T12224
Structural Length	ASME B16.10	
Connecting Flange	ASME B16.5	GB/T9113
Inspection & Test	API598	JB/T9092

Note: ●stands for handle operated valves;
☆stands for gearbox operated valves;
—stands for no option of this. Those not covered in the table can be custom made to users' requirements.

THREE WAY BALL VALVE

PN1.6~4.0MPa CLASS150~300

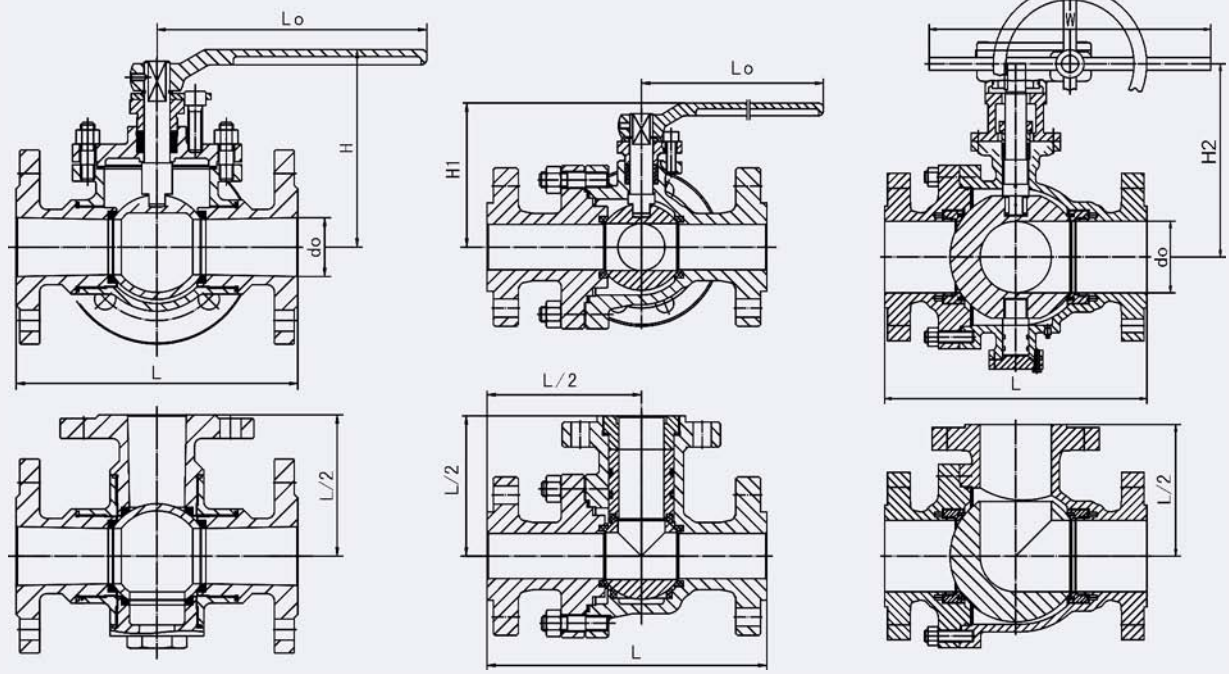


Figure No.

A(G)(3)FB1(TB)RF3L(4)

Main Dimensions

CLASS 150 PN1.6MPa mm

DN	NPS	L	do	H	H1	H2	Lo	W	Weight
15	1/2	140	13	90	70	/	160	/	3
20	3/4	150	15	106	86	/	230	/	4
25	1	160	25	109	88	/	230	/	6
32	1 1/4	/	32	125	106	/	400	/	10
40	1 1/2	210	38	149	132	/	400	/	14
50	2	220	51	154	137	/	400	/	20
65	2 1/2	250	64	189	162	/	700	/	25
80	3	260	76	198	170	/	700	/	32
100	4	330	102	254	229	/	1050	/	45
125	5	430	127	273	247	/	1050	/	/
150	6	510	152	/	/	314	/	450	/
200	8	580	203	/	/	430	/	600	/
250	10	670	250	/	/	475	/	600	/

CLASS 300 PN2.5、4.0MPa mm

DN	NPS	L	do	H	H1	H2	Lo	W	Weight	
									PN2.5	PN4.0
15	1/2	140	13	90	70	/	160	/	3	3
20	3/4	165	15	106	86	/	230	/	4	4
25	1	165	25	109	88	/	230	/	6.5	6.5
32	1 1/4	220	32	125	106	/	400	/	11	11
40	1 1/2	250	38	149	132	/	400	/	15	15
50	2	260	51	154	137	/	400	/	21.5	21.5
65	2 1/2	320	64	189	162	/	700	/	/	/
80	3	320	76	198	170	/	700	/	35	45
100	4	370	102	254	229	/	1050	/	49	49
125	5	510	127	273	247	/	1050	/	/	/
150	6	510	152	/	/	314	/	450	/	/
200	8	580	203	/	/	430	/	600	/	/
250	10	670	250	/	/	475	/	600	/	/