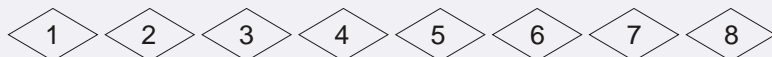


***KOFLOW***

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## BALL VALVES

### Ball Valve Model Schedule Illustration



#### 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

#### ⑥ Codes 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.

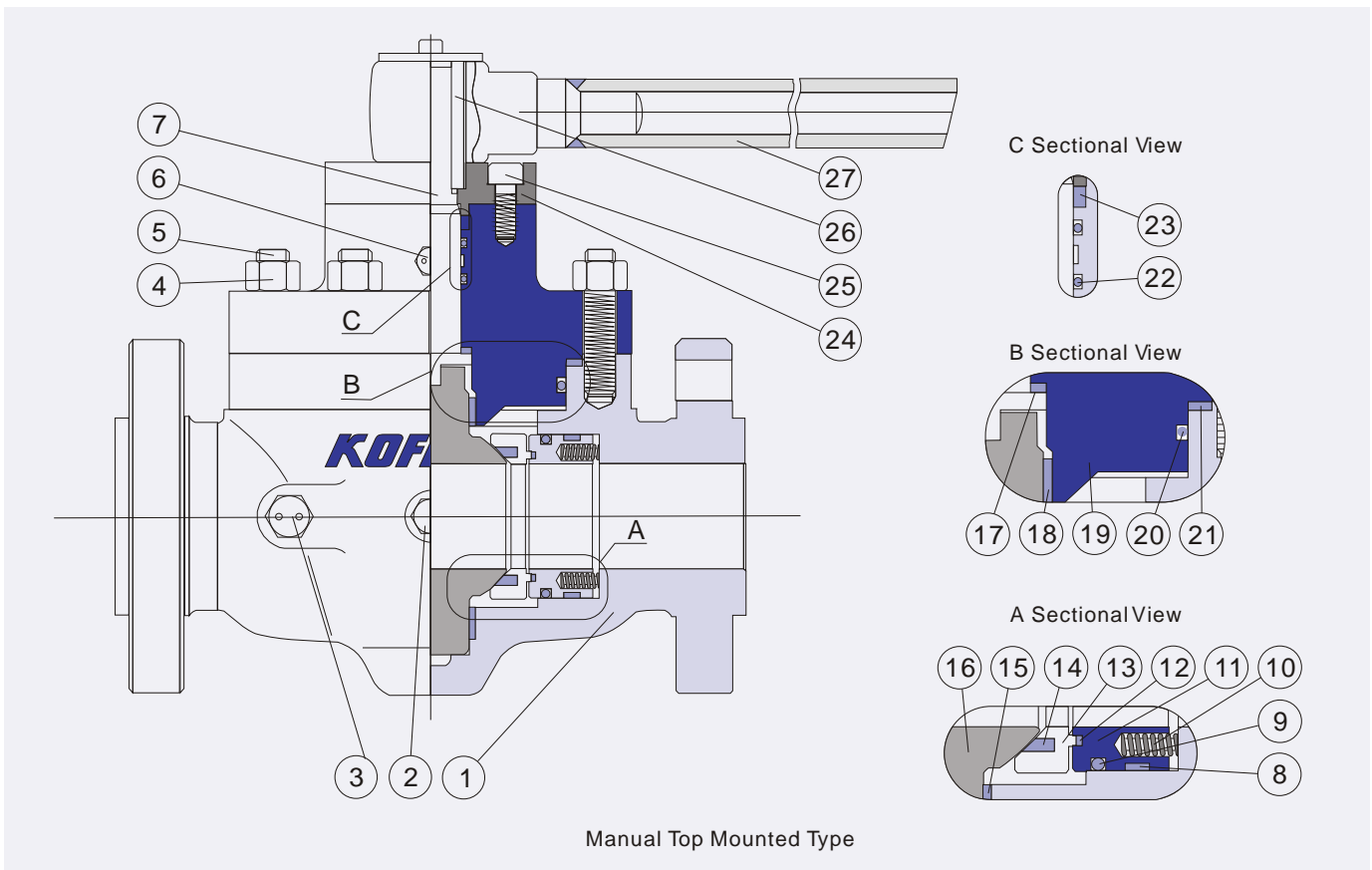
### Technical Specifications of Ball Valve

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

## TOP ENTRY BALL VALVE

Valve Structural Diagram (Manual)

DN < 150



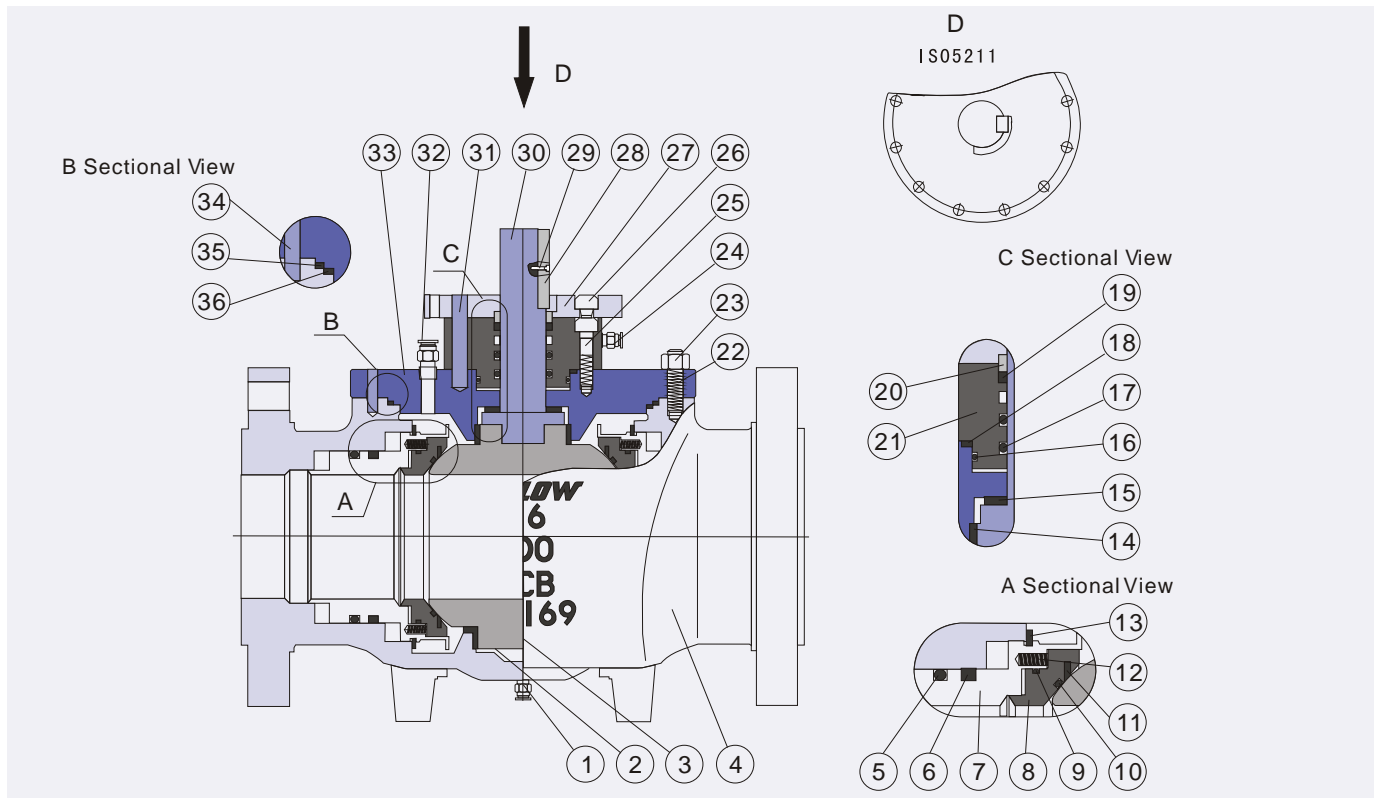
### Materials of Main Parts

No.	Part Name	Materials			No.	Part Name	Materials		
		Carbon Steel	Stainless Steel	Low Temperature Steel			Carbon Steel	Stainless Steel	Low Temperature Steel
1	Valve Body	A216 WCB	A351 CF8M	A352 LCC	15	Lower Bushing	PTFE+CS	PTFE+SS	PTFE+SS
2	Discharge Valve	A105+ENP	A182 F316	A350 LF3	16	Ball	A105+ENP	A182 F316	A350 LF3
3	Greasing Valve	A105+ENP	A182 F316	A350 LF3	17	Flat Bushing	PTFE+CS	PTFE+SS	PTFE+SS
4	Nut	A194 2H	A194 8	A194 7	18	Upper Bushing	PTFE+CS	PTFE+SS	PTFE+SS
5	Stud	A193 B7	A193 B8	A320 L7	19	Bonnet	A216 WCB	A351 CF8M	A352 LCC
6	Greasing Valve	A105+ENP	A182 F316	A350 LF3	20	O-ring	VITON		
7	Valve Stem	A182 F6a	A182 F316	A182 F316	21	Gasket	Flexible graphite+SS		
8	Fireproofing Seat	Flexible graphite			22	O-ring	VITON		
9	O-ring	VITON			23	Packing	Flexible graphite		
10	Spring	Flexible graphite+SS			24	Stem Nut Retainer	A105+ENP	A182 F316	A350 LF3
11	Bracing Ring	A105+ENP	A182 F316	A350 LF3	25	Bolt	A193 B7	A193 B8	A320 L7
12	Gasket	Incone1600			26	Key	ANSI 1045	ANSI 1045	ANSI 1045
13	Valve Seat	A105+ENP	A182 F316	A350 LF3	27	Handle	Q235A		
14	Sealing Ring	PTFE、NYLON、PEEK、PCTFE			Note: different materials to be used to deal with different working conditions and different requests of users.				

## TOP ENTRY BALL VALVE

### Valve Structural Diagram

DN ≥ 150



### Materials of Main Parts

No.	Part Name	Materials			No.	Part Name	Materials		
		Carbon Steel	Stainless Steel	Low Temperature Steel			Carbon Steel	Stainless Steel	Low Temperature Steel
1	Discharge Valve	A105+ENP	A182 F316	A350 LF3	21	Upper Stem Seat	A105+ENP	A182 F316	A350 LF3
2	Lower Bushing	PTFE+CS	PTFE+SS	PTFE+SS	22	Stud	A193 B7	A193 B8	A320 L7
3	Ball	A105+ENP	A182 F316	A350 LF3	23	Nut	A194 2H	A194 8	A194 7
4	Valve Stem	A216 WCB	A351 CF8M	A352 LCC	24	Greasing Valve	A105+ENP	A182 F316	A350 LF3
5	O-ring	Viton	Viton	Viton	25	Bolt	A193 B7	A193 B8	A320 L7
6	Fireproofing Seat	Flexible graphite	Flexible graphite	Flexible graphite	26	Bolt	A193 B7	A193 B8	A320 L7
7	Bracing Ring	A105+ENP	A182 F316	A350 LF3	27	Connecting Plate	A105+ENP		
8	Valve Seat	A105+ENP	A182 F316	A350 LF3	28	Key	ANSI 1045		
9	O-ring	Viton			29	Bolt	A193 B7		
10	O-ring	Viton			30	Valve Stem	A182 F6a	A182 F316	A182 F316
11	Sealing Ring	PTFE、NYLON、PCTFE、MOLON			31	Locating Pin	A182 F6a		
12	Spring	Incone1600			32	Discharge Valve	A105+ENP	A182 F316	A350 LF3
13	C Type Spring	17-4			33	Bonnet	A216 WCB	A351 CF8M	A352 LCC
14	Upper Bushing	PTFE+CS	PTFE+SS	PTFE+SS	34	Locating Pin	A182 F6a		
15	Flat Bushing	PTFE+CS	PTFE+SS	PTFE+SS	35	Gasket	Flexible graphite+SS		
16	O-ring	Viton			36	O-ring	Viton		
17	O-ring	Viton			Note: 1. Different materials of sealing ring to be used to deal with different working conditions and different temperature and pressure of medium. 2. Besides the materials listed, we offer others according to users' requests. 3. We offer material suitable for acidic gas, and to the standard of NACE MR-01-75 (latest edition).				
18	Gasket	Flexible graphite+SS							
19	Packing	Flexible graphite+SS							
20	Pressing Sleeve	A182 F6a	A182 F316	A182 F6a					

Remark: in the table of dimensions, RF means raised face flanged connection in valve, RJ means ring joint face flanged connection in valve, and WE means butt welded end connection in valve.

# TOP ENTRY BALL VALVE

## Structural Characteristics

Top installed ball valves are new products developed upon the advanced technology abroad and through many years of manufacturing experience of ours. With technology up to domestic leading level, these products can compete with the international counterparts. Besides the features borne by the side installed fixed ball valve (see fixed ball valve), they are also given the features below:

- 1、 One-piece valve body, top installed trunnion to fix and support, flanged or butt welded structure.
- 2、 Inconel bellows spring makes the sealed metal seat moving toward the ball, providing the two way seal function of inlet and outlet.
- 3、 Distinctive technology of retractable valve seat, inline replace ability of ball arm, valve stem sealing ring, metal seat and bellows spring, and torque down to the minimum for the ease of operation.
- 4、 Ease of repair and installation, long performance life. Access for repair and replacement of trims may be done with no need to remove the valve from the pipeline, thus to lengthen the service life.
- 5、 Low torque, reliable sealing, and spherical seat different from ordinary ball valves, which can automatically adjust the position of seal.
- 6、 Preset platform and bolt holes for drive device, and to ISO5211. Drive device can be installed according to users' different requirements.
- 7、 DBB (double block and bleed) function.
- 8、 Hand operated top installed ball valve adopts high strength one piece ball arm structure to ensure the precise positioning of the ball.
- 9、 Anti-blowout protective structure of valve stem to enhance the operational safety of the valve.

## Product Performance Specifications

Performance Specifications		Class						
		150	300	400	600	900	1500	2500
Test Pressure	Strength Test	2.93	7.58	10.0	15.0	22.5	37.5	63.0
	Seal Test	2.07	5.52	7.31	11.03	16.5	27.5	46.2
	Air Pressure Test	0.6 MPa						
Suitable Temperature		-196 ℃~550℃ (Note: different materials to be used to deal with different ambient temp.)						
Suitable Medium		Water, steam, petroleum, LPG and natural gas etc.						
Range of Dimensions		DN50~1200 (NP2 “~48” ), custom-made to users' requests.						
Body/Trim Materials		Carbon steel, stainless steel, duplex stainless steel, nickel alloy and titanium						
End Connection		Flanged and butt welded connection						
Actuating Mechanism		Manual, worm gear drive, electric and pneumatic						

## TOP ENTRY BALL VALVE

### Torque table

The torque ratings listed below are for the reference to choose a drive device. The properties of medium, trims and valve open frequency shall be considered as extra factors. For instance, valves with corrosion-resistant trims to deal with clean lubricating mediums, their torque may be lowered by 20%. However, to deal with stringent mediums like slurry, granular medium and oxygen, the torque may be increased by 50%. The operating torque of drawing-down valves is subject to the corresponding diameter to their necking. (Specific options as per the actual).

Diameter		CLASS						
DN	in	150	300	400	600	900	1500	2500
50×40	1 1/2	61	81	85	102	149	/	/
50	2	68	108	97	136	203	333	562
80×50	3×2	68	108	97	136	203	333	562
80	3	149	244	204	305	422	811	1460
100×80	4×3	149	244	204	305	422	811	1460
100	4	244	407	422	453	583	1505	1923
150×100	6×4	244	407	422	453	583	1505	1923
150	6	323	544	647	1006	1299	2940	5840
200×150	8×6	323	544	647	1006	1299	2940	5840
200	8	647	955	1157	2532	2766	6489	12181
250×200	10×8	647	955	1157	2532	2766	6489	12181
250	10	882	1822	2178	3941	5446	12181	15281
300×250	12×10	882	1822	2178	3941	5446	12181	15281
350×250	14×10	882	1822	2178	3941	5446	12181	15281
300	12	1577	2591	3064	6893	7909	15564	19834
350×300	14×12	1577	2591	3064	6893	7909	15564	/
400×300	16×12	1577	2591	3064	6893	7909	15564	/
350	14	1873	3224	3853	6205	10948	23512	/
400×350	16×14	1873	3224	3853	6205	10948	23512	/
400	16	3050	5447	6529	8817	13682	27039	/
450×400	18×16	3050	5447	6529	8817	13682	27039	/
500×400	20×16	3050	5447	6529	8817	13682	27039	/
450	18	3819	6197	7461	11231	17705	37085	/
500	20	4508	7830	9348	14919	29866	40309	/
550	22	5490	9453	11302	16058	39324	/	/
600×500	24×20	4508	7830	9348	15140	29866	40309	/
600	24	6723	11457	15535	21840	40810	64671	/
650	26	9289	15139	17869	24889	51322	/	/
700	28	11647	18067	21063	28767	53515	/	/
750×600	30×24	6723	11457	15535	21840	40810	/	/
750	30	13558	19207	24966	34398	57057	/	/
800	32	15224	24095	28235	38880	61123	/	/
850	34	17846	30249	33291	41789	70277	/	/
900×750	36×30	13558	19207	24966	34398	57057	/	/
900	36	22032	33331	36227	51521	81349	/	/
1000	40	25972	36490	45269	60368	/	/	/
1050	42	27034	40425	53515	70277	/	/	/
1200	48	42606	64985	79311	112293	/	/	/

## TOP ENTRY BALL VALVE

### Product Line

Nominal Diameter		Class					
DN	in	150	300	600	900	1500	2500
50×40	2×2 1/2		●/△			☆/△	
50	2		●/△			☆/△	
80×50	3×2		●/△			☆/△	
80	3		☆/△			☆/△	
100×80	4×3		☆/△			☆/△	
100	4		☆/△			☆/△	
150×100	6×4		☆/△			☆/△	
150	6	●/☆/△/★		☆/△/★		☆/△/★	
200×150	8×6	☆/△/★		●/☆/△/★		☆/△/★	
200	8		☆/△/★			☆/△/★	☆/△/★
250×200	10×8		☆/△/★			☆/△/★	☆/△/★
250	10		☆/△/★			☆/△/★	☆/△/★
300×250	12×10		☆/△/★			☆/△/★	☆/△/★
350×250	14×10		☆/△/★			☆/△/★	☆/△/★
300	12		☆/△/★			☆/△/★	☆/△/★
350×300	14×12		☆/△/★			☆/△/★	/
400×300	16×12		☆/△/★			☆/△/★	/
350	14		☆/△/★			☆/△/★	/
400×350	16×14		☆/△/★			☆/△/★	/
400	16		☆/△/★			☆/△/★	/
450×400	18×16		☆/△/★			☆/△/★	/
500×400	20×16		☆/△/★			☆/△/★	/
450	18		☆/△/★			☆/△/★	/
500	20		☆/△/★			☆/△/★	/
550	22		☆/△/★			☆/△/★	/
600×500	24×20		☆/△/★			☆/△/★	/
600	24		☆/△/★			☆/△/★	/
650	26		☆/△/★				/
700	28		☆/△/★				/
750×600	30×24		☆/△/★				/
750	30		☆/△/★				/
800	32		☆/△/★				/
850	34		☆/★				/
900×750	36×30		☆/△/★				/
900	36		☆/★				/
1000	40		☆/★				/
1050	42		☆/★				/
1200	48		☆/★				/

Note: 1、● stands for handle operated valves; ☆ stands for gear box operated valves;  
 △ stands for air operated valves; ★ stands for electrically operated valves;  
 / stands for no option of this.

Those not covered in the table can be custom made to users' requirements.

2、Order of pneumatic and electric not covered in the table shall be subject to the actual conditions.

## TOP ENTRY BALL VALVE

CLASS 150~2500

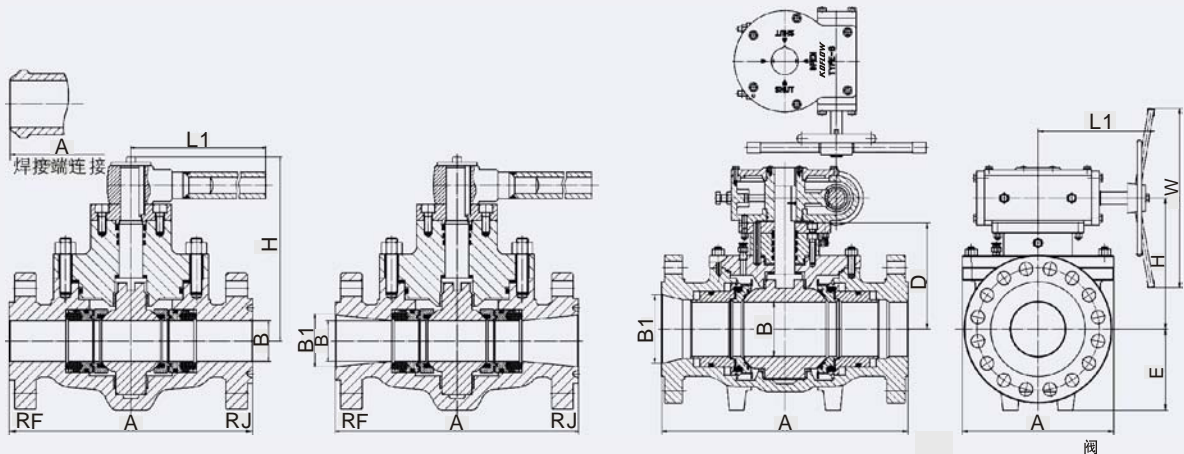


Figure No.

ATB (1~25) RF5  
ATB (1~25) BW5

ATB (1~25) RF5A  
ATB (1~25) BW5A

A3TB (1~25) RF5(5A)  
A3TB (1~25) BW5(5A)

### Main Dimensions

CLASS 150 mm

DN	NPS	A			B	B1	D	E	F	H	L1	W	RF Weight
		RF	RJ	WE									
50×40	2×1 1/2	292	295	292	38	51	/	85	180	212	450	/	25
50	2	292	295	292	51	51	/	85	180	212	450	/	28
80×50	3×2	356	359	356	51	77	/	85	180	212	450	/	37
80	3	356	359	356	77	77	/	112	230	228	600	/	55
100×80	4×3	432	435	432	77	102	/	112	230	228	600	/	75
100	4	432	435	432	102	102	/	145	283	272	600	/	105
150×100	6×4	559	562	559	102	152	/	145	283	272	600	/	140
150	6	559	562	559	152	152	281	220	325	333	297	350	235
200×150	8×6	660	664	660	152	203	281	220	325	333	297	350	265
200	8	660	664	660	203	203	320	260	405	384	360	500	430
250×200	10×8	787	791	787	203	254	320	260	405	384	360	500	480
250	10	787	791	787	254	254	360	311	490	424	360	500	475
300×250	12×10	838	841	838	254	305	360	311	490	424	360	500	510
350×250	14×10	889	892	889	254	337	360	311	490	424	360	500	690
300	12	838	841	838	305	305	403	366	570	467	340	700	610
350×300	14×12	889	892	889	305	337	403	366	570	467	340	700	820
400×300	16×12	991	994	991	305	387	403	366	570	467	340	700	970
350	14	889	892	889	337	337	453	428	660	517	340	700	795
400×350	16×14	991	994	991	387	337	453	428	660	517	340	700	955
400	16	991	994	991	387	387	459	450	700	549	545	700	1160
450×400	18×16	1092	1095	1092	387	438	450	450	700	549	545	700	1295
500×400	20×16	1194	1200	1194	387	489	459	450	700	549	545	700	1590
450	18	1092	1095	1092	438	438	502	473	755	577	575	700	1570
500×450	20×18	1194	1200	1194	438	489	502	473	755	577	575	700	1800
500	20	1194	1200	1194	489	489	551	580	870	626	575	700	2000
600×500	24×20	1397	1406	1397	489	591	551	580	870	626	575	700	2440
550	22	1295	1305	1295	540	540	578	590	955	653	575	700	2830
600	24	1397	1406	1397	591	591	606	600	1030	696	579	700	3300
750×600	30×24	1651	1664	1651	591	736	606	600	1030	696	579	700	4100
650	26	1448	1460	1448	635	635	675	635	1075	765	570	700	3970
700	28	1549	1562	1549	686	686	735	700	1165	825	579	700	4755
750	30	1651	1664	1651	736	736	795	775	1250	865	579	700	5820
900×750	36×30	2083	2098	2083	736	876	795	775	1250	865	579	700	7200
800	32	1778	1794	1778	781	781	840	825	1325	1012	605	620	7240
850	34	1930	1946	1930	832	832	875	880	1410	1047	605	620	7960
900	36	2083	2098	2083	876	876	931	930	1475	1103	605	620	9300
1000	40	2337	2337	2337	978	978	1015	1025	1640	1170	950	1400	12950
1050	42	2437	2437	2437	1022	1022	1065	1080	1710	1220	950	1400	15200
1200	48	2540	2540	2540	1168	1168	1180	1225	1940	1335	950	1400	22750



## TOP ENTRY BALL VALVE

### Main Dimensions

**CLASS 300**
**mm**

DN	NPS	A			B	B1	D	E	F	H	L1	W	RF Weight
		RF	RTJ	WE									
50×40	2×1 1/2	292	295	292	38	51	/	85	180	212	450	/	29
50	2	292	295	292	51	51	/	85	180	212	450	/	33
80×50	3×2	356	359	356	51	77	/	85	180	212	450	/	43
80	3	356	359	356	77	77	/	112	230	228	600	/	64
100×80	4×3	432	435	432	77	102	/	112	230	228	600	/	88
100	4	432	435	432	102	102	/	145	283	272	1000	/	123
150×100	6×4	559	562	559	102	152	/	145	283	272	1000	/	164
150	6	559	562	559	152	152	281	220	325	345	360	500	275
200×150	8×6	660	664	660	152	203	281	220	325	345	360	500	311
200	8	660	664	660	203	203	330	260	405	385	340	700	505
250×200	10×8	787	791	787	203	254	330	260	405	385	340	700	563
250	10	787	791	787	254	254	371	311	490	426	340	700	557
300×250	12×10	838	841	838	254	305	371	311	490	426	340	700	598
350×250	14×10	889	892	889	254	337	371	311	490	426	340	700	809
300	12	838	841	838	305	305	418	366	570	473	340	700	715
350×300	14×12	889	892	889	305	337	418	366	570	473	340	700	960
400×300	16×12	991	994	991	305	387	418	366	570	473	340	700	1135
350	14	889	892	889	337	337	470	428	660	530	545	700	932
400×350	16×14	991	994	991	387	337	470	428	660	530	545	700	1120
400	16	991	994	991	387	387	477	450	700	537	545	700	1360
450×400	18×16	1092	1095	1092	387	438	477	450	700	537	545	700	1518
500×400	20×16	1194	1200	1194	387	489	477	450	700	537	545	700	1865
450	18	1092	1095	1092	438	438	522	473	755	597	575	700	1840
500×450	20×18	1194	1200	1194	438	489	522	473	755	597	575	700	2110
500	20	1194	1200	1194	489	489	573	580	880	663	579	700	2340
600×500	24×20	1397	1406	1397	489	591	573	580	880	663	579	700	2860
550	22	1295	1305	1295	540	540	600	590	965	690	579	700	3320
600	24	1397	1406	1397	591	591	631	600	1040	721	579	700	3870
750×600	30×24	1651	1664	1651	591	736	631	600	1040	721	579	700	4810
650	26	1448	1460	1448	635	635	702	635	1085	874	605	620	4655
700	28	1549	1562	1549	686	686	764	700	1175	919	950	1400	5575
750	30	1651	1664	1651	736	736	827	775	1265	982	950	1400	6825
900×750	36×30	2083	2098	2083	736	876	827	775	1265	982	950	1400	8440
800	32	1778	1794	1778	781	781	874	825	1340	1029	950	1400	8490
850	34	1930	1946	1930	832	832	910	880	1425	1065	950	1400	9335
900	36	2083	2098	2083	876	876	968	930	1490	1123	950	1400	10900
1000	40	2337	2337	2337	978	978	1056	1025	1655	1211	950	1400	15185
1050	42	2437	2437	2437	1022	1022	1107	1080	1725	1262	950	1400	17820
1200	48	2540	2540	2540	1168	1168	1228	1225	1960	1499	1045	1400	26675

## TOP ENTRY BALL VALVE

### Main Dimensions

CLASS 600 mm

DN	NPS	A			B	B1	D	E	F	H	L1	W	RF Weight
		RF	RTJ	WE									
50×40	2×1 1/2	292	295	292	38	51	/	85	180	212	450	/	33
50	2	292	295	292	51	51	/	85	180	212	600	/	37
80×50	3×2	356	359	356	51	77	/	85	180	212	600	/	48
80	3	356	359	356	77	77	/	112	230	228	1000	/	72
100×80	4×3	432	435	432	77	102	/	112	230	228	1000	/	97
100	4	432	435	432	102	102	/	145	283	250	1000	/	137
150×100	6×4	559	562	559	102	152	/	145	283	250	1000	/	181
150	6	559	562	559	152	152	281	220	325	336	340	700	302
200×150	8×6	660	664	660	152	203	281	220	325	336	340	700	340
200	8	660	664	660	203	203	340	260	415	395	340	700	560
250×200	10×8	787	791	787	203	254	340	260	415	395	340	700	625
250	10	787	791	787	254	254	355	311	505	415	545	700	710
300×250	12×10	838	841	838	254	305	355	311	505	415	545	700	760
350×250	14×10	889	892	889	254	337	355	311	505	415	545	700	1030
300	12	838	841	838	305	305	401	366	585	461	545	700	910
350×300	14×12	889	892	889	305	337	401	366	585	461	545	700	1230
400×300	16×12	991	994	991	305	387	401	366	585	461	545	700	1450
350	14	889	892	889	337	337	451	428	680	526	575	700	1190
400×350	16×14	991	994	991	387	337	451	428	680	526	575	700	1430
400	16	991	994	991	387	387	493	450	730	568	575	700	1735
450×400	18×16	1092	1095	1092	387	438	493	450	730	568	575	700	1940
500×400	20×16	1194	1200	1194	387	489	493	450	730	568	575	700	2380
450	18	1092	1095	1092	438	438	539	473	784	629	579	700	2350
500×450	20×18	1194	1200	1194	438	489	539	473	784	629	579	700	2700
500	20	1194	1200	1194	489	489	592	580	900	682	579	700	3000
600×500	24×20	1397	1406	1397	489	591	592	580	900	682	579	700	3660
550	22	1295	1305	1295	540	540	621	590	890	711	579	700	4240
600	24	1397	1406	1397	591	591	653	600	1070	808	950	1400	4950
750×600	30×24	1651	1664	1651	591	736	653	600	1070	808	950	1400	6150
650	26	1448	1460	1448	635	635	725	635	1115	880	950	1400	5950
700	28	1549	1562	1549	686	686	790	700	1210	945	950	1400	7130
750	30	1651	1664	1651	736	736	850	775	1300	1005	950	1400	8730
900×750	36×30	2083	2098	2083	736	876	850	775	1300	1005	950	1400	10800
800	32	1778	1794	1778	781	781	900	825	1380	1055	950	1400	10850
850	34	1930	1946	1930	832	832	940	880	1460	1095	950	1400	11930
900	36	2083	2098	2083	876	876	1000	930	1535	1155	950	1400	13950
1000	40	2337	2337	2337	978	978	1090	1025	1700	1360	1045	1400	19420
1050	42	2437	2437	2437	1022	1022	1140	1080	1775	1410	1045	1400	22350
1200	48	2540	2540	2540	1168	1168	1270	1225	2015	1570	1080	1400	32340

## TOP ENTRY BALL VALVE

Main Dimensions											CLASS900		mm
DN	NPS	A			B	B1	D	E	F	H	L1	W	RF Weight
		RF	RTJ	WE									
50×40	2×1 1/2	368	371	368	38	51	/	85	195	215	450	/	49
50	2	368	371	368	51	51	/	85	195	215	600	/	52
80×50	3×2	381	384	381	51	77	/	85	195	215	600	/	70
80	3	381	384	381	77	77	/	112	240	193	1000	/	108
100×80	4×3	457	460	457	77	102	/	112	240	193	1000	/	146
100	4	457	460	457	102	102	227	145	295	291	360	500	200
150×100	6×4	610	613	610	102	152	227	145	295	291	360	500	273
150	6	610	613	610	152	152	258	225	330	313	340	700	456
200×150	8×6	737	740	737	152	203	258	225	330	313	340	700	573
200	8	737	740	737	203	203	318	260	425	378	545	700	845
250×200	10×8	838	841	838	203	254	318	260	425	378	545	700	943
250	10	838	841	838	254	254	370	320	525	430	545	700	1070
300×250	12×10	965	968	965	254	305	370	320	525	430	545	700	1150
350×250	14×10	1029	1038	1029	254	324	370	320	525	430	545	700	1550
300	12	965	1140	965	305	305	418	375	600	493	575	700	1675
350×300	14×12	1029	1038	1029	324	305	418	375	600	493	575	700	1855
400×300	16×12	1130	1140	1130	305	375	418	375	600	493	575	700	2185
350	14	1029	1038	1029	324	324	470	440	695	545	575	700	1800
400×350	16×14	1130	1140	1130	324	375	470	440	695	545	575	700	2160
400	16	1130	1140	1130	375	375	515	465	750	605	579	700	2650
450×400	18×16	1219	1232	1219	375	425	515	465	750	605	579	700	2925
500×400	20×16	1321	1334	1321	375	473	515	465	750	605	579	700	3590
450	18	1219	1232	1219	425	425	560	485	800	650	579	700	3550
500×450	20×18	1321	1331	1321	425	473	560	485	800	650	579	700	4100
500	20	1321	1331	1321	473	473	620	600	925	775	950	1400	4530
600×500	24×20	1549	1568	1549	473	571	620	600	925	775	950	1400	5520
600	24	1549	1568	1549	571	571	680	620	1095	835	950	1400	7450
750×600	30×24	1880	1902	1880	571	714	680	620	1095	835	950	1400	9225
650	26	1651	1674	1651	619	619	760	655	1145	915	950	1400	8925
700	28	1753	1775	1753	667	667	824	720	1240	979	950	1400	10695
750	30	1880	1902	1880	714	714	886	800	1335	1157	950	1400	13095
900×750	36×30	2286	2315	2286	714	857	886	800	1335	1157	950	1400	15700
800	32	2032	2054	2032	762	762	938	848	1415	1209	1045	1400	16200
850	34	2159	2188	2159	810	810	980	905	1495	1251	1045	1400	17800
900	36	2286	2315	2286	857	857	1042	957	1570	1313	1045	1400	20930

## TOP ENTRY BALL VALVE

### Main Dimensions

CLASS 150 mm

DN	NPS	A			B	B1	D	E	F	H	L1	W	RF Weight
		RF	RTJ	WE									
50×40	2×1 1/2	368	371	368	38	51	/	85	205	179	450	/	49
50	2	368	371	368	51	51	/	85	205	179	600	/	52
80×50	3×2	470	473	470	51	77	/	85	205	179	600	/	98
80	3	470	473	470	77	77	/	120	250	201	1000	/	152
100×80	4×3	546	549	546	77	102	/	120	250	201	1000	/	205
100	4	546	549	546	102	102	240	155	310	295	340	700	280
150×100	6×4	705	711	705	102	146	240	155	310	295	340	700	382
150	6	705	711	705	146	146	273	240	370	333	545	700	640
200×150	8×6	832	841	832	146	194	273	240	370	333	545	700	720
200	8	832	841	832	194	194	335	280	455	410	575	700	1180
250×200	10×8	991	1000	991	194	241	335	280	455	410	575	700	1320
250	10	991	1000	991	241	241	385	340	565	460	575	700	1500
300×250	12×10	1130	1146	1130	241	289	385	340	565	460	575	700	1600
350×250	14×10	1257	1276	1257	241	317	385	340	565	460	575	700	2170
300	12	1130	1146	1130	289	289	436	400	670	511	575	700	2065
350×300	14×12	1257	1276	1257	317	317	436	400	670	511	575	700	2780
400×300	16×12	1384	1406	1384	289	362	436	400	670	511	575	700	3280
350	14	1257	1276	1257	317	317	485	467	730	575	579	700	2700
400×350	16×14	1384	1406	1384	317	362	485	467	730	575	579	700	3240
400	16	1384	1406	1384	362	362	530	495	790	620	579	700	3980
450	18	1537	1559	1537	407	407	585	520	840	740	950	1400	5325
500	20	1664	1686	1664	457	457	640	639	965	795	950	1400	6800
600	24	2043	2071	2043	534	534	708	640	1145	979	1045	1400	11900

CLASS 2500 mm

DN	NPS	A			B	B1	D	E	F	H	L1	W	RF Weight
		RF	RTJ	WE									
50×40	2×1 1/2	451	454	451	38	44.5	/	93	250	150	600	/	80
50	2	451	454	451	44.5	44.5	198	105	270	250	297	300	120
80×50	3×2	578	584	578	44.5	63.5	198	105	270	250	297	300	160
80	3	578	584	578	63.5	63.5	250	127	350	305	340	700	246
100×80	4×3	673	683	673	63.5	89	250	127	350	305	340	700	300
100	4	673	683	673	89	89	305	156	400	360	340	700	470
150×100	6×4	914	927	914	89	133	305	156	400	360	340	700	670
150	6	914	927	914	133	133	355	240	480	430	575	700	937
200×150	8×6	1022	1038	1022	133	181	355	240	480	430	575	700	1150
200	8	1022	1038	1022	181	181	438	280	530	513	575	700	1410
250×200	10×8	1270	1292	1270	181	226	438	280	530	513	575	700	2100
250	10	1270	1292	1270	226	226	530	365	720	620	590	700	2600
300×250	12×10	1422	1445	1422	226	267	530	365	720	620	590	700	3300
300	12	1422	1445	1422	267	267	590	430	860	740	505	620	4200