

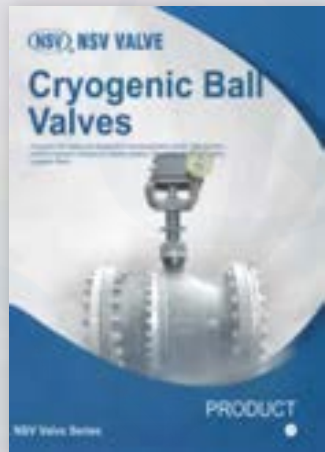
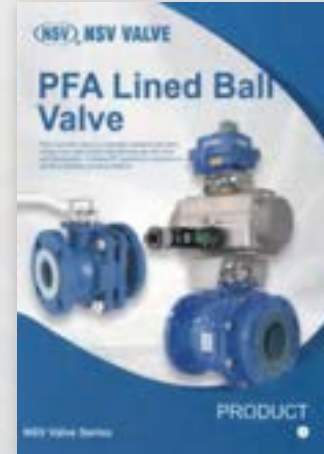
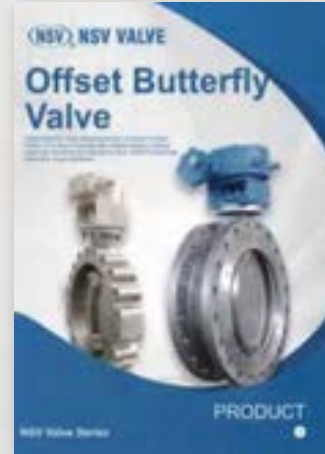
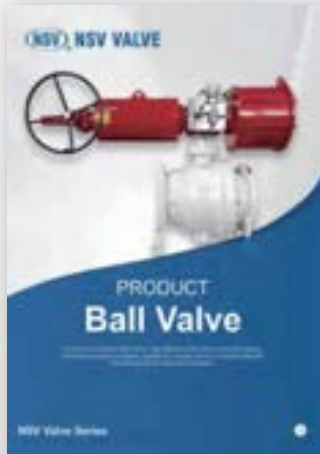
NSV® **NSV VALVE**



PRODUCT Ball Valve

Full series of precision ball valves, high-efficiency flow control, and tight sealing. Pressure & corrosion resistant, suitable for complex working conditions. Reliable industrial quality for stable fluid operation.

NSV Valve Series



Contact Us

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Puyi Road, Sangqiao Industrial Zone, Oubei
Street, Yongjia County, Zhejiang, China



COMPANY PROFILE



• Who We Are

NSV Valve is a young and dynamic organization, established in 2007, based in China. We are a Manufacturer and global trading and company supplier in the Valve industry specialized in standard & customized valves. Our clients and end-users are particularly operating in the market Petro-Chemical, Industrial Gas, Pulp & Paper, Chemical, Mechanical Construction, Power Generation, and Refining Etc.

• What We do

NSV Valve has been committed to manufacturing cast and forged steel industrial valves include Ball, GGC (Gate, Globe, Check, Strainer), Plug, Butterfly and Control valves (through our 5 workshops) that material are carbon steel, stainless steel, and also offer a wide range of materials such as Ni-Al-Bronze, Monel, Inconel, Duplex, Super Duplex, and Alloy Materials, with quality innovative designs, recognized by many global users and EPC's. All sizes, pressure classes, and metallurgical compositions are managed in house utilizing the strictest quality control measures to ensure the customer's total satisfaction.

• Why Choose NSV Valve

At the heart of our operations is our core philosophy: **New Innovation** · **Secure & Stable** · **Valve Solutions** three pillars that define everything we do.

- **New Innovation** - We don't just follow standards; we develop application-specific designs to solve unique challenges in oil & gas, LNG, power, and chemical industries.
- **Secure & Stable** - Every valve we deliver is built for safety and reliability, meeting rigorous international standards to protect your processes and assets.
- **Valve Solutions** - From standard API-certified products to fully customized ball, gate, globe, and butterfly valves, we provide the right solution for every project requirement.

We don't just manufacture valves; we provide security for critical flow control systems. By integrating advanced CNC machining, rigorous pressure testing, and a global supply chain mindset, we ensure that every valve bearing the NSV mark delivers on our promise: Innovation that solves. Security that protects. Solutions that deliver.

Whether you are looking for standard valves or custom solutions for complex projects, NSV Valve is your partner in flow control excellence.

CORPORATE CULTURE



COMPANY POSITIONING

- NSV Valve Corporation is a manufacturer and global trading company and supplier in the Valve industry specialized in standard & customized valves.



SENSE OF WORTH

- **N-New Innovation**
We develop advanced, application-specific valve designs to solve unique challenges in oil & gas, LNG, power, and chemical industries.
- **S-Secure & Stable**
Our valves are built for safety and stability, meeting international standards to protect your processes and assets.
- **V-Valve Solutions**
From standard to fully customized ball, gate, globe and plug valves etc, we deliver reliable solutions for every project requirement.



CORPORATE VISION

- To be the preferred global partner for innovative, reliable, and complete valve solutions — recognized for engineering excellence and customer-centric service.

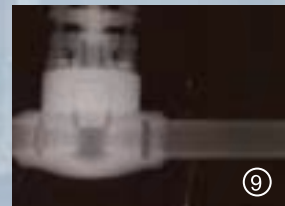




Quality Control

NSV developed an extensive and advanced inspection and test facilities to control the quality from rough casting/forging to final products. These facilities enable us to do Positive Material Identification (PMI), Radiographic test(RT), Ultra-sonic test(UT), Dye-penetration test, Magnetic particle test, Impact test, Tensile test, Hardness test, Fire-safe test, Cryogenic test, Vacuum test, Fugitive emission test, Pressure test.

1. All our valves are 100% Pressure tested prior to dispatch.
2. We can supply either 3.1B certification or Certificate of Conformity.
3. We accommodate other 3rd Party or user inspection by prior agreement.



- ① PMI Test
- ② Tensile Test
- ③ Magnetic Particle Test
- ④ Impact Test
- ⑤ Dye-penetration Test

- ⑥ Pressure Test
- ⑦ Ultrasonic Test
- ⑧ Fire-safe Test
- ⑨ RT Test
- ⑩ Cryogenic Test



PRODUCT WARRANTY

NSV will replace without charge or refund the purchase price of products provided by seller which prove to be defective in material or fabrication, provided in each case that product is properly installed and is used in the service for which Seller recommends it and that written claim, specifying the alleged defect, is presented to the Seller within 18 months from the date of shipment or 12 months after installation, whichever occurs first. Seller shall in no event bear any labor, equipment, engineering or other costs incurred in connection with repair or replacement. The warranty stated in paragraph is instead of all other warranties, either expressed or implied. With respect to warranties, this paragraph states Buyer's exclusive remedy and seller's exclusive liability.

Conventional valve

		Standard	Conventional Valve																
			1/2"	1"	1.5"	2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
P-T	Material	API600/ISO10434; API603; API602/ISO15761	150	300	600	800	900	1500	2500										
			150	300	600	800	900	1500	2500										
P-T	Material	BS1873; API603; API602/ISO15761	150	300	600	800	900	1500	2500										
			150	300	600	800	900	1500	2500										
P-T	Material	BS1868; API603; API602/ISO15761	150	300	600	800	900	1500	2500										
			150	300	600	800	900	1500	2500										
P-T	Material	BS5351/ISO17292 API6D/ISO114313	150	300	600	800	900	1500	2500										
			150	300	600	800	900	1500	2500										
P-T	Material	API6D/ ISO14313	150	300	600														
			150	300	600														
P-T	Material	API609	150	300	600														
			150	300	600														

Other size contact NSV sales team

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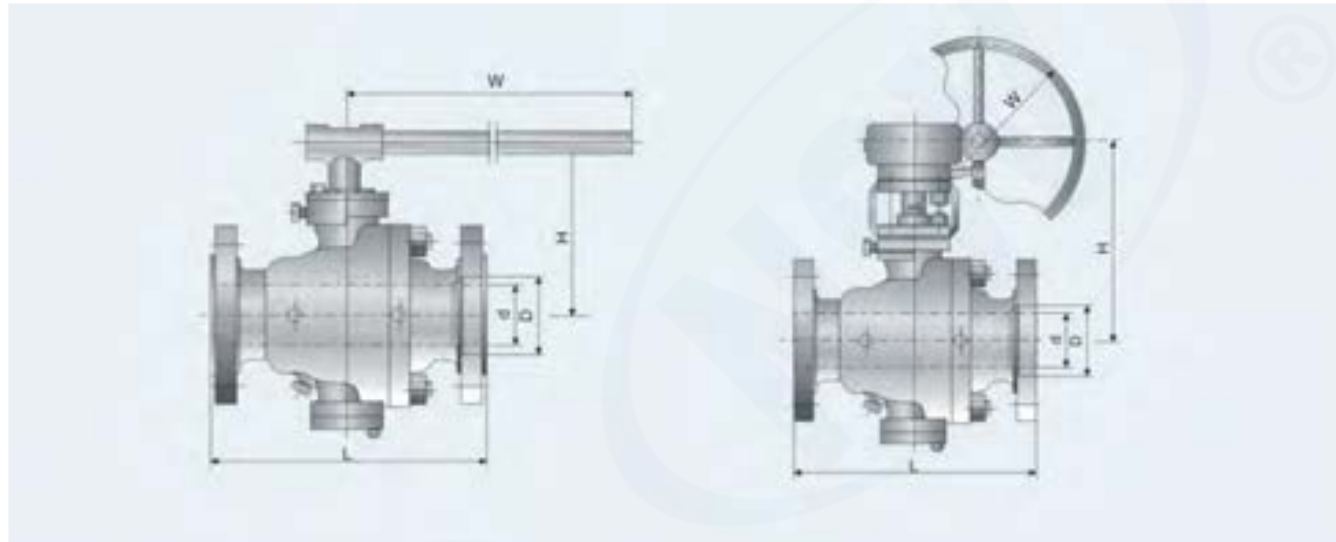
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Jacket Ball Valve

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DIN Ball Valve

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■ Full bore(Class 600)

Size(in)	d(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
2	51	292	176	400	27
3	76	356	247	750	50
4	102	432	335	1000	80
6	152	559	420	1500	220
8	203	660	430	*500	350
10	254	787	520	*500	600
12	305	838	665	*500	820
14	337	889	720	*500	1130
16	387	991	780	*500	1550
18	438	1092	950	*500	2100
20	489	1194	1010	*500	2800
24	591	1397	1120	*500	3626

■ Reduce bore(Class 600)

Size(in)	d(mm)	D(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
3 × 2 × 3	51	76	356	176	400	41
4 × 3 × 4	76	102	432	247	750	70
6 × 4 × 6	102	152	559	335	1000	122
8 × 6 × 8	152	203	660	420	1500	255
10 × 8 × 10	203	254	787	430	*500	440
12 × 10 × 12	254	305	838	520	*500	662
14 × 12 × 14	305	337	889	665	*500	1060
16 × 14 × 16	337	387	991	720	*500	1440
18 × 16 × 18	387	438	1092	780	*500	1860
20 × 18 × 20	438	489	1194	950	*500	2400
24 × 22 × 24	489	591	1397	1010	*500	3240

■ Full bore(Class 900)

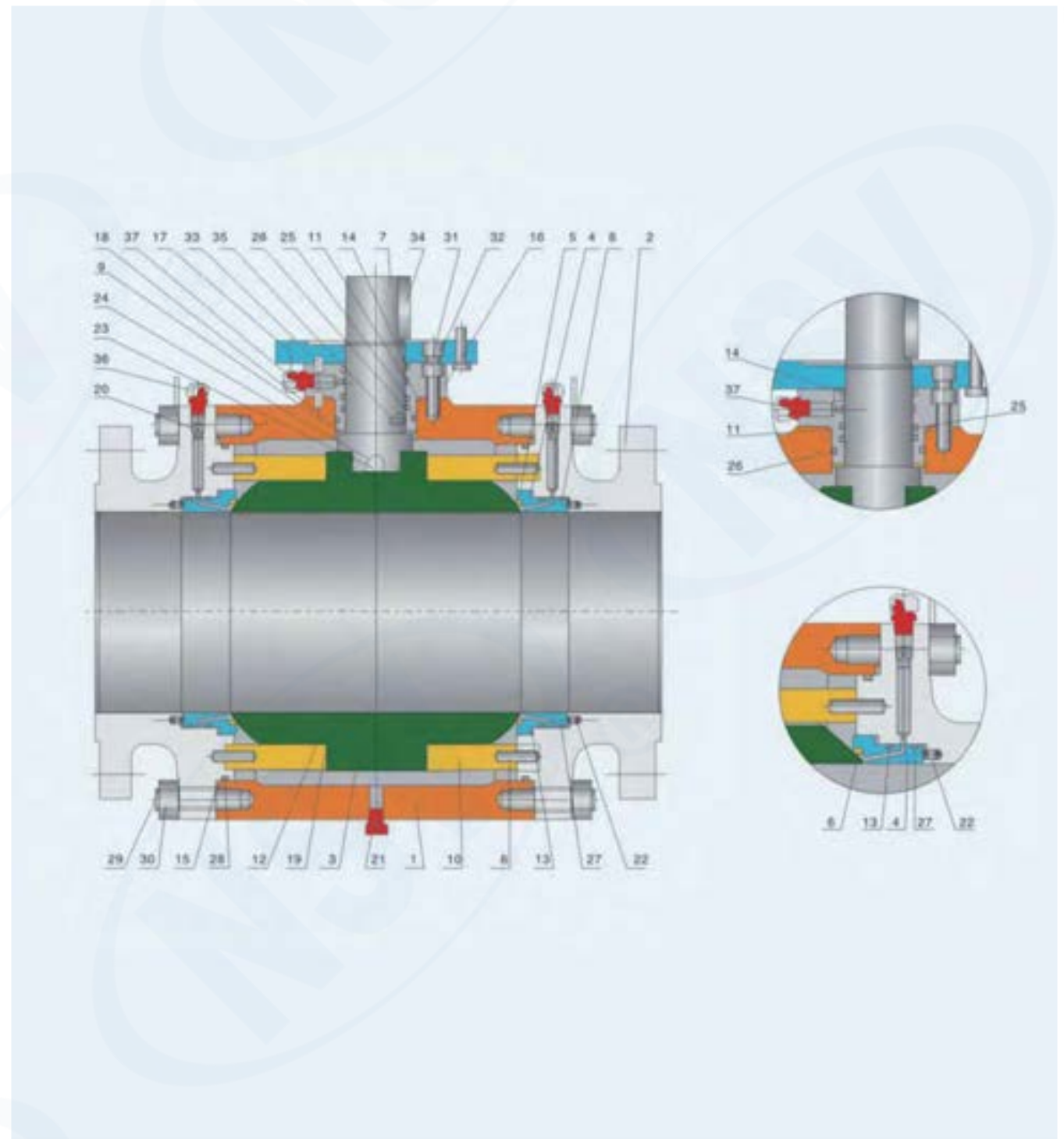
Size(in.)	d(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
2	51	368	192	460	52
3	76	381	279	1000	97
4	102	457	355	1500	138
6	152	610	385	*500	288
8	203	737	460	*500	448
10	254	838	600	*500	748
12	305	965	690	*500	1018
14	324	1029	785	*500	1398
16	375	1130	850	*500	1828
18	426	1219	915	*500	2328
20	473	1321	975	*610	2928
24	572	1549	1030	*610	4178

■ Reduce bore(Class 900)

Size(in)	d(mm)	D(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
3 × 2 × 3	51	76	381	192	460	83
4 × 3 × 4	76	102	457	279	1000	103
6 × 4 × 6	102	152	610	355	1500	201
8 × 6 × 8	152	203	737	385	*500	348
10 × 8 × 10	203	254	838	460	*500	598
12 × 10 × 12	254	305	965	600	*500	788
14 × 12 × 14	305	324	1029	690	*500	1100
16 × 14 × 16	324	375	1130	785	*500	1420
18 × 16 × 18	375	426	1219	850	*500	1928
20 × 18 × 20	426	473	1321	915	*500	2428
24 × 22 × 24	473	572	1549	975	610	3578

■ Features Three-piece body

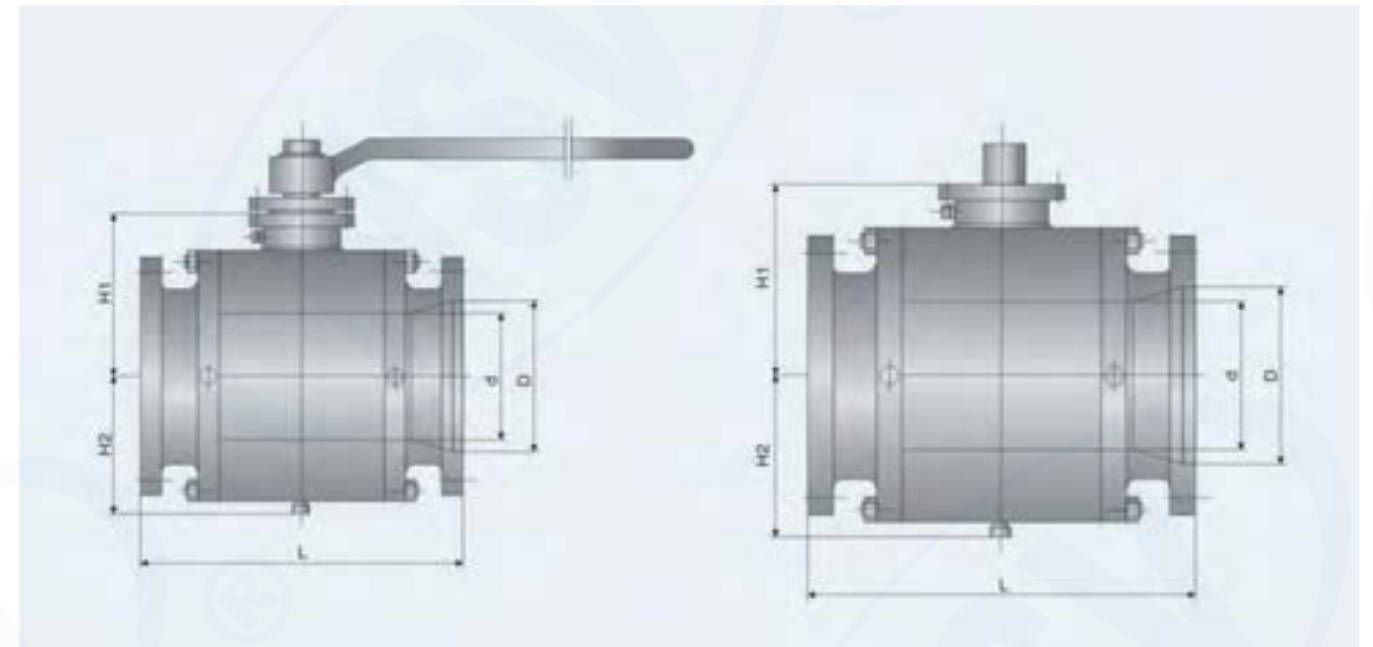
Valve is designed in accordance with the requirements of API 6D for pipeline service.
 Antistatic and anti blow-out stem design.
 Seat design gives perfect tightness and is available as either self-relieving type or double piston effect type.
 Design minimizes friction leading to low operating torque.
 Available as double block and bleed device, which allows for venting and draining of line fluid from the body cavity.
 Full and Reduced bore Available.
 Ball valves fire safe tested according to BS EN 12266-2, API 6FA and API 607.
 Electric, pneumatic and hydraulic actuators are available based on customer's requirement.



Material List

No	Parts	Standard	Stainless Steel	Sour Service	Low Temperature Service
1	Body	ASTM A105	ASTM A182 F316	ASTM A105	ASTM A350 LF2
2	Closure	ASTM A105	ASTM A182 F316	ASTM A105	ASTM A350 LF2
3	Ball	ASTM A105/ENP	ASTM A182 F316	ASTM A105/ENP	A350 LF2/ENP
4	Seat Assembly	Assembled	Assembly	Assembled	Assembled
5	Seat Insert	25% Glass-filled PTFE	25% Glass-filled PTFE	25% Glass-filled PTFE	25% Glass-filled PTFE
6	Seat Ring	ASTM A105/ENP	ASTM A182 F316	ASTM A105/ENP	A350 LF2/ENP
7	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
8	Trunnion Alignment Pin	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
9	Shim	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
10	Trunnion Support	ASTM A105/ENP	ASTM A182 F316	ASTM A105/ENP	A350 LF2/ENP
11	Gasket	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite
12	Gasket	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite
13	Gasket	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite
14	Spacer	PTFE	PTFE	PTFE	PTFE
15	Firesafe Gasket	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite	316 S.S.+Graphite
16	Gland Cap	ASTM A 105	ASTM A 182 F316	ASTM A 105	ASTM A 350 LF2
17	Top Flange	ASTM A 105	ASTM A 182 F316	ASTM A 105	ASTM A 350 LF2
18	Thrust Washer	316 S.S.+PTFE+MoS2	316 S.S.+PTFE+MoS2	316 S.S.+PTFE+MoS2	316 S.S.+PTFE+MoS2
19	Bearing	316 S.S.+PTFE+MoS2	316 S.S.+PTFE+MoS2	316 S.S.+PTFE+MoS2	316 S.S.+PTFE+MoS2
20	Vent Valve	Assembly	Assembly	Assembly	Assembly
21	Drain	S.S.	S.S.	S.S.	S.S.
22	Seat Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
23	Grounding Spring	S.S.	S.S.	S.S.	S.S.
24	Grounding Plunger	ASTM A 182 F316	ASTM A 182 F316	ASTM A 182 F316	ASTM A 182 F316
25	O-Ring	Viton	Viton	Viton	Viton
26	O-Ring	Viton	Viton	Viton	Viton
27	O-Ring	Viton	Viton	Viton	Viton
28	O-Ring	Viton	Viton	Viton	Viton
29	Body Stud	ASTM A193 B7	ASTM A193 B8	ASTM A193 B7M	ASTM A320 L7M
30	Body Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 2HM	ASTM A194 7M
31	Screw	C.S.	S.S.	C.S.	ASTM A320 L7M
32	Screw	C.S.	S.S.	C.S.	ASTM A320 L7M
33	Gland Pin	C.S.	S.S.	C.S.	Carbon Steel
34	Key	C.S.	S.S.	C.S.	ASTM A182 L304
35	Spring Pin	C.S.	S.S.	C.S.	C.S.
36	Seat Iniection	Assembly	Assembly	Assembly	Assembly
37	Stem Injection	Assembly	Assembly	Assembly	Assembly

The body material is also available A182 F304, F304L, F316L, F51, F53 etc. The trim/seat material can be customized upon request.



Full Port(Class 150/10K)

Size(in)	d(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
2	51	178	105	100	32
3	76	203	160	130	53
4	102	229	205	170	100
6	152	394	245	190	157
8	203	457	280	230	250
10	254	533	326	280	390
12	305	610	350	300	578
14	337	686	380	330	770
16	387	762	415	350	1100
18	438	864	440	400	1250
20	489	914	500	440	1800
22	540	991	520	470	2400
24	591	1067	585	530	3100
26	635	1143	630	570	3700
28	686	1244	645	650	4500
30	736	1295	700	700	5300
32	781	1371	740	750	6900
34	832	1473	770	780	8200
36	876	1524	820	800	9700
40	978	1753	900	900	13000
42	1022	1855	960	950	15000
48	1168	2134	1100	1100	23000

Reduced Port(Class 150/10K)

Size(in)	d(mm)	D(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
3 × 2 × 3	51	76	203	105	100	36
4 × 3 × 4	76	102	229	160	130	63
6 × 4 × 6	102	152	394	205	170	105
8 × 6 × 8	152	203	457	245	190	200
10 × 8 × 10	203	254	533	280	230	300
12 × 10 × 12	254	305	610	326	280	470
14 × 10 × 14	254	337	686	320	280	530
14 × 12 × 14	305	337	686	350	300	630
16 × 12 × 16	305	387	762	350	300	700
16 × 14 × 16	337	387	762	380	330	830
18 × 16 × 18	387	438	864	415	350	1100
20 × 16 × 20	387	489	914	415	350	1200
22 × 18 × 22	438	489	914	440	400	1300
24 × 20 × 24	489	591	1067	500	440	2100
30 × 24 × 30	635	736	1295	585	530	3400
36 × 30 × 36	781	876	1524	700	700	6400

Notes

1. Face-to-Face dimensions are according to API 6D
2. For 2" to 24" flanges are according to ASME B16.5
3. For over 24" flanges are according to ASME B16.47 series A.

■ Full Port(Class 300/20K)

Size(in)	d(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
2	51	216	105	100	31
3	76	282	160	130	58
4	102	305	205	170	110
6	152	403	245	190	180
8	203	502	280	230	280
10	254	568	326	280	410
12	305	648	350	300	760
14	337	762	380	330	1100
16	387	838	415	350	1600
18	438	914	440	400	1700
20	489	991	500	440	2300
22	540	1092	520	470	2900
24	591	1143	585	530	3500
26	635	1245	630	570	4900
28	686	1346	645	650	6000
30	736	1397	700	700	6800
32	781	1524	740	750	8000
34	832	1626	770	780	9100
36	876	1727	820	800	11000
40	978	1956	900	900	14000
42	1022	2083	960	950	17000
48	1168	2170	1100	1100	25000

■ Reduced Port(Class 300/20K)

Size(in)	d(mm)	D(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
3 × 2 × 3	51	76	283	105	100	34
4 × 3 × 4	76	102	305	160	130	70
6 × 4 × 6	102	152	403	205	170	120
8 × 6 × 8	152	203	502	245	190	220
10 × 8 × 10	203	254	568	280	230	320
12 × 10 × 12	254	305	648	326	280	600
14 × 10 × 14	254	337	762	320	280	660
14 × 12 × 14	305	337	762	350	300	850
16 × 12 × 16	305	387	838	350	300	1000
16 × 14 × 16	337	387	838	380	330	1200
18 × 16 × 18	387	438	914	415	350	1700
20 × 16 × 20	387	489	991	415	350	1700
22 × 18 × 22	438	489	991	440	400	1850
24 × 20 × 24	489	591	1143	500	440	2700
30 × 24 × 30	591	736	1397	585	530	4600
36 × 30 × 36	736	876	1727	700	700	8000

■ Notes

- 1.Face-to-Face dimensions are according to API 6D
- 2.For 2" to 24" flanges are according to ASME B16.5
- 3.For over 24" flanges are according to ASME B16.47 series A.

■ Full Port(Class 600)

Size(in)	d(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
2	51	292	105	100	35
3	76	356	160	130	66
4	102	432	205	170	118
6	152	559	245	190	270
8	203	660	280	230	500
10	254	787	326	280	780
12	305	838	350	300	1100
14	337	889	380	330	1100
16	387	991	415	350	1600
18	438	1092	440	400	2160
20	489	1194	500	440	2700
22	540	1296	520	470	3900
24	591	1397	585	530	5000
26	635	1448	630	570	5700
28	686	1549	645	650	7000
30	736	1651	700	700	9000
32	781	1778	740	750	9800
34	832	1930	770	780	12000
36	876	2083	820	800	14000
40	978	2337	900	900	19000
42	1022	2437	960	950	22000
48	1168	2540	1100	1100	26000

■ Reduced Port(Class 600)

Size(in)	d(mm)	D(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
3 × 2 × 3	51	76	356	105	100	42
4 × 3 × 4	76	102	432	160	130	90
6 × 4 × 6	102	152	559	205	170	160
8 × 6 × 8	152	203	660	245	190	300
10 × 8 × 10	203	254	787	280	230	560
12 × 10 × 12	254	305	838	326	280	820
14 × 10 × 14	254	337	889	320	280	920
14 × 12 × 14	305	337	889	350	300	1200
16 × 12 × 16	305	387	991	350	300	1400
16 × 14 × 16	337	387	991	380	330	1400
18 × 16 × 18	387	438	1092	415	350	1700
20 × 16 × 20	387	489	1194	415	350	2100
22 × 18 × 22	438	489	1194	440	400	2400
24 × 20 × 24	489	591	1397	500	440	3300
30 × 24 × 30	591	736	1651	585	530	5900
36 × 30 × 36	736	876	2083	700	700	11000

■ Notes

- 1.Face-to-Face dimensions are according to API 6D
- 2.For 2" to 24" flanges are according to ASME B16.5
- 3.For over 24" flanges are according to ASME B16.47 series A.

■ Full Port(Class 900)

Size(in)	d(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
2	51	368	105	100	50
3	76	381	160	130	80
4	102	457	205	170	150
6	152	610	245	190	360
8	203	737	280	230	620
10	254	838	326	280	1100
12	305	965	350	300	1600
14	324	1029	380	330	1450
16	375	1130	415	350	2200
18	425	1219	440	400	2800
20	473	1321	500	440	4250
22	524	1422	520	470	6500
24	572	1549	585	530	7000
26	669	1651	630	570	8000
28	667	1753	645	650	9500
30	714	1880	700	700	12500
32	762	2032	740	750	12000
34	808	2159	770	780	18000

■ Reduced Port(Class 900)

Size(in)	d(mm)	D(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
3 × 2 × 3	51	76	381	105	100	55
4 × 3 × 4	76	102	457	160	130	100
6 × 4 × 6	102	152	610	205	170	220
8 × 6 × 8	152	203	737	245	190	450
10 × 8 × 10	203	254	838	280	230	560
12 × 10 × 12	254	305	965	326	280	820
14 × 10 × 14	254	337	1029	320	280	920
14 × 12 × 14	305	337	1029	350	300	1200
16 × 12 × 16	305	387	1130	350	300	1400
16 × 14 × 16	324	387	1130	380	330	1400
18 × 16 × 18	375	438	1219	415	350	1700
20 × 16 × 20	375	489	1321	415	350	2100
22 × 18 × 22	425	489	1321	440	400	2400
24 × 20 × 24	473	591	1549	500	440	3300
30 × 24 × 30	572	736	1880	585	530	5900
36 × 30 × 36	714	876	2286	700	700	11000

Notes:

- 1.Face-to-Face dimensions are according to API 6D
- 2.For 2" to 24" flanges are according to ASME B16.5
- 3.For over 24" flanges are according to ASME B16.47 series A.

■ Full Port(Class 1500)

Size(in)	d(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
2	51	368	110	105	60
3	76	470	165	130	100
4	102	546	220	170	210
6	146	705	260	230	500
8	194	832	310	290	850
10	241	991	370	360	1600
12	289	1130	430	440	2300
14	317	1257	450	450	2950
16	362	1384	500	600	4200

■ Reduced Port(Class 1500)

Size(in)	d(mm)	D(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
3 × 2 × 3	51	76	470	110	105	70
4 × 3 × 4	76	102	546	165	130	130
6 × 4 × 6	102	146	705	220	170	300
8 × 6 × 8	146	194	832	260	230	580
10 × 8 × 10	194	241	991	310	290	1100
12 × 10 × 12	241	289	1130	370	360	1800
14 × 10 × 14	241	317	1257	370	360	2200
14 × 12 × 14	289	317	1257	430	440	2600
16 × 12 × 16	289	362	1384	430	440	2900
16 × 14 × 16	317	362	1384	450	450	3300
18 × 16 × 18	362	407	1537	500	600	500
20 × 16 × 20	362	457	1664	500	600	5600

■ Full Port(Class 2500)

Size(in)	d(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
2	44.5	451	120	130	100
3	63.5	578	180	200	200
4	89	673	230	250	390
6	133	914	260	250	790
8	181	1022	400	350	1400
10	226	1270	450	420	2200
12	267	1422	520	510	3400

■ Notes

- 1.Face-to-Face dimensions are according to API 6D
- 2.For 2" to 24" flanges are according to ASME B16.5

■ Reduced Port(Class 2500)

Size(in)	d(mm)	D(mm)	L(mm)	H1(mm)	H2(mm)	WT(kg)
3 × 2 × 3	44.5	63.5	578	120	130	170
4 × 3 × 4	63.5	89	673	180	200	280
6 × 4 × 6	89	133	914	260	250	520
8 × 6 × 8	133	181	1022	400	250	1100
10 × 8 × 10	181	226	1270	450	350	1700
12 × 10 × 12	226	267	1422	450	420	2600

General

Metal seated ball valves is particularly applicable in severe service conditions such as granule medium, pasty stock, coom, lime-ash, and of advantage such as reliable sealing capacity and low operation torque value.

Utilize advanced technique of ball and seat hardening

Many techniques has been applied in ball and seat hardening such as including supersonic spraying, nimonic alloy spraying-weld, surface peculiarly hardening, carbide spraying-weld and high strength high hardness ceramic materials etc, the hardness of ball and seat can generally reach HRC 62 above, even surpass HRC 70. Refractory of sealing material can generally reach 540 centigrade, and 980 centigrade at its highest. Materials bond-strength can reach 10000PSI or above, Sealing material jiss also of the capability of braze-proof and impact-proof.

High capability of seal

With peculiar lapping crafts for the ball, spinning the ball to the lapping appliance from different directions to make the ball surface reach sky-high circularity and cleanliness. the sealing capacity of valve can fully reach or surpass the requirement of standard

Moveable seat design

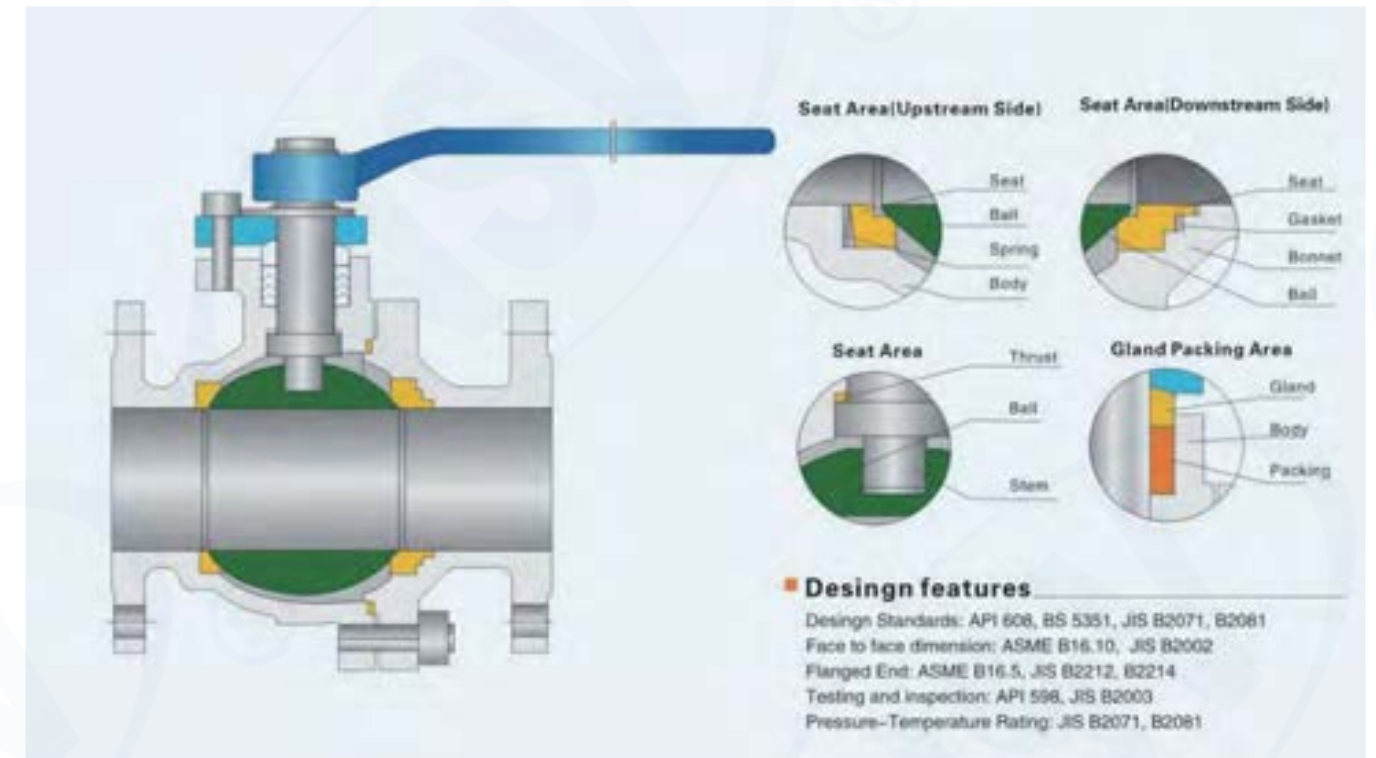
Achieves Zero leakage sealing in bi-directional flow and pressure relief for over-pressure protecting.

High temperature warming design

Cup spring supported S.S. ball Seats are of high hardness HV 1500 due to special surface treatment. cup spring made of Inconel alloy can self-compensate the thermal expansion caused by high temperature medium.

Fully fire safe design structure

Metal to Metal sealing structure in the sealing surface, and flexible graphite as packing. Stainless steel+flexible graphite as gasket, so when if fire burns up the valve can be sealed properly.

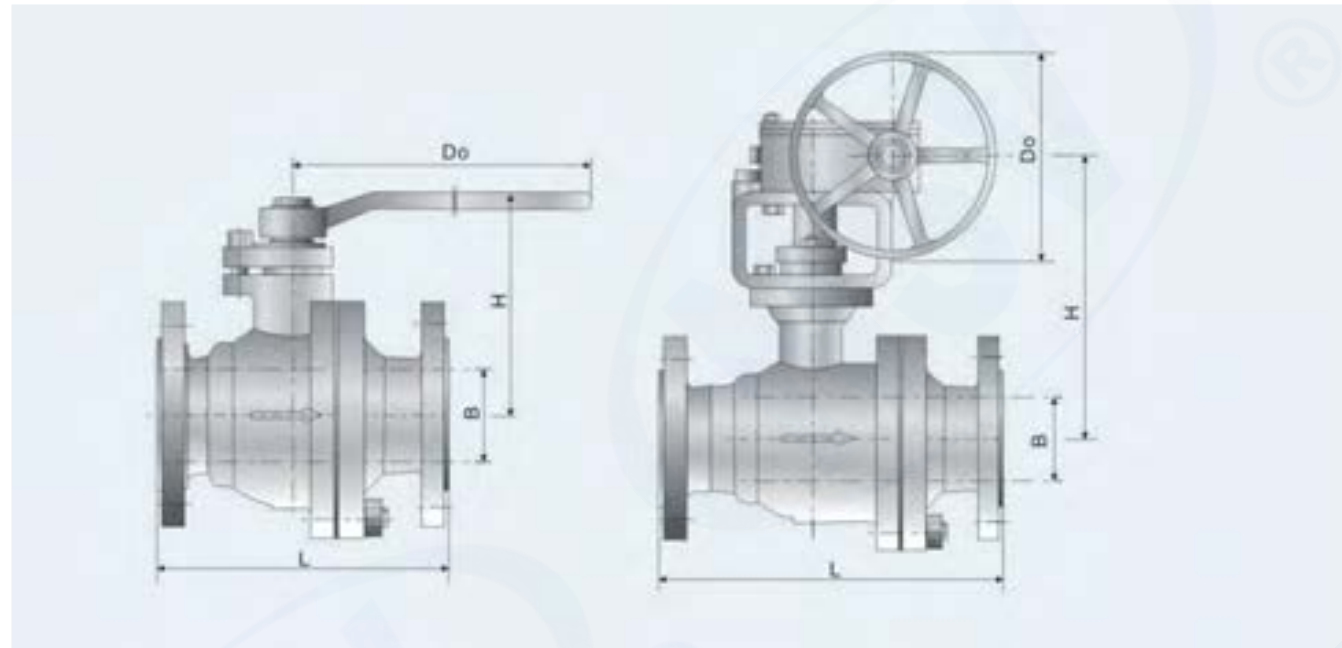


Material List

Item	Carbon Steel		Stainless Steel	
	-29°C~250°C	250°C~425°C	-29°C~250°C	250°C~550°C
Body	ASTM A216 Gr.WCB		ASTM A351 CF8M	
Ball	ASTM A 182 F304+TSC or STL		ASTM A 182 F316+TSC or STL	
Stem	ASTM A182 F6a		ASTM A182 F316	
Seat	ASTM A 182 F316+TSC or STL		ASTM A 182 F316+TSC or STL	
Gasket	PEEK	Graphite+304 S.S.	PEEK	Graphite+316 S.S.
Gland Packing	PEEK	Graphite+304 S.S.	PEEK	Graphite+316 S.S.
Stem Bearing	PEEK	Graphite+304 S.S.	PEEK	Graphite+316 S.S.
Spring	17-7PH	Inconel x-750	316 Stainless Steel	Inconel x-750
Bolt	ASTM A 193 B7		ASTM A 193 B8M	
Nut	ASTM A 194 2H		ASTM A 194 8M	
Seat Seal Gasket	Graphite+304 S.S.		Graphite+316 S.S.	

Applications of metal seated ball valve

Type	Size	Temperature Range	Auxiliary Seal	Ball/Seats Seal	Working Condition
Floating Ball Valve	Pressure Class: 150, 300, 600 NPS: 1/2" ~ 8"	-50°C~250°C	PEEK	Ball: nitriding or Nickel base/Co base alloy overlay Seat: Stellite	1. finishing mixture 2. solid containing fluids 3. high temperature and high pressure
		-50°C~380°C	Graphite		
		-35°C~550°C	Graphite	Ball: Nickel base/Co base alloy overlay Seat: Stellite	



■ Dimensions (Class 150/10K)

Size(in)	1/2	3/4	1	1-1/2	2	1-1/2	3	4	6	8
B(mm)	12.7	19	25.4	38	51	64	76	102	152	203
L(mm)	108	117	127	165	178	190	203	229	267	292
H(mm)	54	59	64	90	102	112	121	166	208	246
Do(mm)	140	140	160	160	260	260	260	320	400	300
WT(kg)	2.1	3	4.1	6.5	9	11.2	15.3	28.6	53	81

■ Dimensions (Class 300/20K)

Size(in)	1/2	3/4	1	1-1/2	2	1-1/2	3	4	6	8
B(mm)	12.7	19	25.4	38	51	64	76	102	152	203
L(mm)	140	152	165	190	216	241	282	305	403	419
H(mm)	54	59	64	90	102	112	121	166	208	246
Do(mm)	140	140	160	160	260	260	260	320	300	300
WT(kg)	2.8	3.6	4.9	10.4	10	16.1	23	39.5	82	124

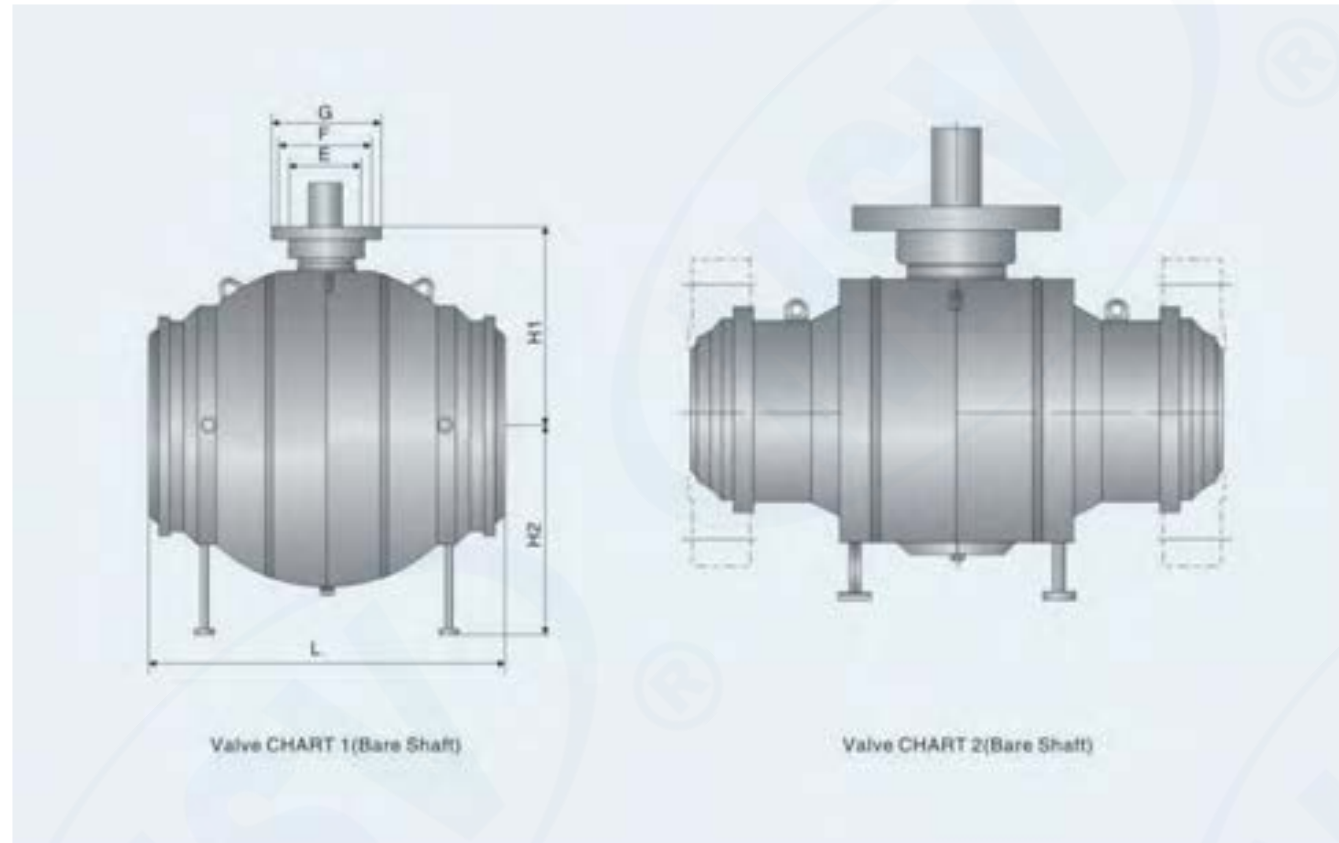
■ Dimensions (Class 600)

Size(in)	1/2	3/4	1	1-1/2
B(mm)	13	19	25	38
L(mm)	165	190	216	241
H(mm)	180	180	250	300
Do(mm)	65	70	85	105
WT(kg)	8.5	11.5	16.3	19.5



■ Material List

No	Name	Materials		
1	Body	ASTM A105	ASTM A350 LF2	ASTM A182 F316
2	Bonnet	ASTM A105	ASTM A350 LF2	ASTM A182 F316
3	Ball	ASTM A105+ENP	ASTM A350 LF2+ENP	ASTM A182 F316
4	Seat	ASTM A105+ENP	ASTM A350 LF2+ENP	ASTM A182 F316
5	Seal Ring	PTFE/MOLON/PEEK	PTFE/MOLON/PEEK	PTFE/MOLON/PEEK
6	Stem	ASTM A182 F6a	ASTM A350 LF2	ASTM A182 F316
7	Stuffing Box	ASTM A 182 F6a	ASTM A 276 410	ASTM A 182 F316
8	Packing Gland	ASTM A105	ASTM A350 LF2	ASTM A 182 F316
9	Up Support Plate	ASTM A105	ASTM A350 LF2	ASTM A 182 F316
10	Down Support Plate	ASTM A105	ASTM A350 LF2	ASTM A 182 F316
11	Atapter	ASTM A105	ASTM A350 LF2	ASTM A 182 F316
12	Spring	Inconel x-750	Inconel x-750	Inconel x-750
13	Key	45	45	45
14	Gasket	Stainless Steel+PTFE	Stainless Steel+PTFE	Stainless Steel+PTFE
15	Bushing	Carbon steel+PTFE	Carbon steel+PTFE	Carbon steel+PTFE
16	"O"ring	Fluorione Rubber	Fluorione Rubber	Fluorione Rubber
17	Pin	35	ASTM A276 410	ASTM A182 F316
18	Nut	ASTM A 193 B7M	ASTM A 320 L7M	ASTM A 193 B8
19	Relief Valve	Carbon steel components	Stainless steel components	Stainless steel components
20	Drain Valve	Carbon steel components	Stainless steel components	Stainless steel components
21	Fitting injection Valve	Carbon steel components	Stainless steel components	Stainless steel components



SIZE	DN	L(BW)	L(RF)	L(RTJ)	E	F	G	n-d1	H1	H2	WT(kg)
6	150	457	394	407	100	140	175	4-M16	235	200	180
8	200	521	457	470	130	165	210	4-M20	286	280	250
10	250	559	533	546	130	165	210	4-M20	325	320	400
12	300	635	610	622	130	165	210	4-M20	368	355	560
14	350	762	686	699	200	254	210	8-M16	405	400	830
16	400	838	762	775	200	254	300	8-M16	446	470	1050
18	450	914	864	877	200	254	300	8-M16	493	510	1450
20	500	991	914	927	230	298	350	8-M20	542	550	1750
22	550	1092	--	--	230	298	350	8-M20	580	600	2230
24	600	1143	1067	1080	230	298	350	8-M20	618	660	2850
26	650	1245	1143	--	230	298	350	8-M20	669	700	2980
28	700	1345	1245	--	230	356	415	8-M30	710	760	3500
30	750	1397	1295	--	260	356	415	8-M30	750	780	4800
32	800	1524	1372	--	260	356	415	8-M30	810	845	5500
34	850	1626	1473	--	--	--	--	--	--	--	--
36	900	1727	1524	--	300	406	475	8-M36	890	1000	8500
38	950	--	--	--	--	--	--	--	--	--	--
40	1000	1956	1753	--	300	406	475	8-M36	960	1200	11500
42	1050	2083	1790	--	300	406	475	8-M36	995	1280	--
48	1200	1995	2388	--	370	483	560	12-M36	1150	1350	--
56	1400	2489	2489	--	370	483	560	12-M36	1253	1430	--
60	1500	2667	2667	--	470	603	686	20-M36	1380	1550	--

CLASS 300

Size	DN	L(BW)	L(RF)	L(RTJ)	E	F	G	n-d1	H1	H2	WT(kg)
6	150	403	403	419	100	140	175	4-M16	235	200	200
8	200	521	502	518	130	165	210	4-M20	291	280	280
10	250	559	568	584	130	165	210	4-M20	328	320	410
12	300	635	648	664	200	254	300	8-M16	368	355	630
14	350	762	762	778	200	254	300	8-M16	410	400	900
16	400	838	838	854	200	254	300	8-M16	446	470	1155
18	450	914	914	930	230	298	350	8-M20	493	510	1580
20	500	991	991	1010	230	298	350	8-M20	542	555	1950
22	550	1092	1092	1114	230	298	350	8-M20	590	600	2530
24	600	1143	1143	1165	230	298	350	8-M20	641	660	2850
26	650	1245	1245	1270	260	356	415	8-M30	678	700	3360
28	700	1346	1346	1372	260	356	415	8-M30	720	760	3750
30	750	1397	1397	1422	260	356	415	8-M30	775	800	5500
32	800	1524	1524	1552	300	406	475	8-M36	815	850	5900
34	850	1626	1626	1654	--	--	--	--	--	--	--
36	900	1727	1727	1755	300	406	475	8-M36	895	1000	9000
38	950	--	--	--	--	--	--	--	--	--	--
40	1000	1956	1956	--	300	406	475	8-M36	970	1200	12000
42	1050	2083	2083	--	300	406	475	8-M36	1050	1300	--
48	1200	2170	2170	--	370	483	560	12-M36	1200	1450	--
56	1400	2743	2743	--	470	603	686	20-M36	1330	1600	--
60	1500	2820	2820	--	470	603	686	20-M36	1480	1700	--

■ CLASS 600

SIZE	DN	L(BW)	L(RF)	L(RTJ)	E	F	G	n-d1	H1	H2	T(kg)
6	150	559	559	562	130	165	210	4-M20	247	210	250
8	200	660	660	663	200	254	300	8-M16	293	280	340
10	250	787	787	790	200	254	300	8-M16	334	320	580
12	300	838	838	841	200	254	300	8-M16	382	365	850
14	350	889	889	892	200	254	300	8-M16	416	400	1150
16	400	991	991	994	200	254	300	8-M16	469	475	1360
18	450	1092	1092	1095	230	298	350	8-M20	508	530	2120
20	500	1194	1194	1200	260	356	415	8-M30	571	585	2650
22	550	1295	1295	1305	260	356	415	8-M30	620	600	3200
24	600	1397	1397	1407	260	356	415	8-M30	651	660	3750
26	650	1448	1448	1461	260	356	415	8-M30	704	720	3900
28	700	1549	1549	1562	300	406	475	8-M36	760	760	4200
30	750	1651	1651	1664	300	406	475	8-M36	790	820	6000
32	800	1778	1778	1794	300	406	475	8-M36	835	860	6800
34	850	1930	1930	1946	--	--	--	--	--	--	--
36	900	2083	2083	2099	370	483	560	12-M36	970	1020	10000
38	950	--	--	--	--	--	--	--	--	--	--
40	1000	1956	1956	--	370	483	560	12-M36	1150	1230	14000
42	1050	2083	2083	--	370	483	560	12-M36	1260	1320	--
48	1200	2170	2170	--	370	483	560	12-M36	1430	1470	--
56	1400	2743	2743	--	470	603	686	20-M36	1620	1640	--
60	1500	2820	2820	--	470	603	686	20-M36	1800	1830	--

■ CLASS 900

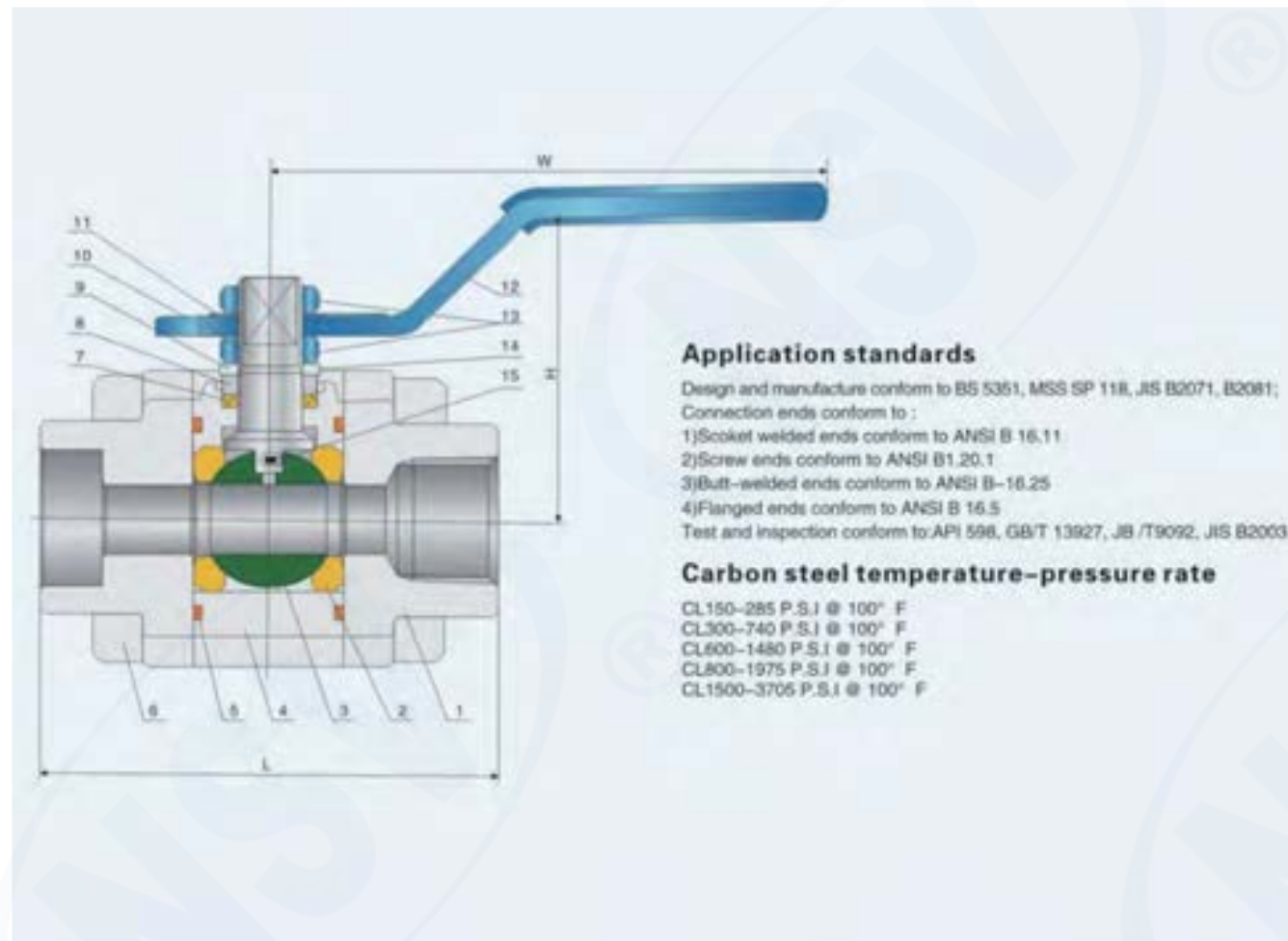
SIZE	DN	L(BW)	L(RF)	L(RTJ)	H1	H2	WT(kg)
6	150	610	610	613	350	270	350
8	200	737	737	740	420	360	550
10	250	838	838	841	490	380	1000
12	300	965	965	968	620	420	1450
14	350	1029	1029	1039	665	460	1700
16	400	1130	1130	1140	725	510	1950
18	450	1219	1219	1232	810	570	2600
20	500	1321	1321	1334	850	630	3900
22	550	--	--	--	880	720	5100
24	600	1549	1549	1568	920	800	6500
26	650	--	--	--	960	885	8000
28	700	1753	1753	1775	1050	960	9500
30	750	1880	1880	1902	1100	1030	12000
32	800	2032	2032	2054	1180	1120	13200
34	850	2159	2159	2188	1200	1250	15600
36	900	2286	2286	2315	1250	1300	17000
40	1000	2410	2410	2438	1500	1560	--
42	1050	2515	2515	2540	1630	1700	--
48	1200	2620	2620	2850	1850	1860	--

■ CLASS 1500

SIZE	DN	L(BW)	L(RF)	L(RTJ)	H1	H2	WT(kg)
6	150	705	705	711	380	280	450
8	200	832	832	842	475	380	760
10	250	991	991	1001	510	490	1450
12	300	1130	1130	1146	595	600	2230
14	350	1257	1257	1276	645	710	2800
16	400	1384	1384	1406	685	830	4120

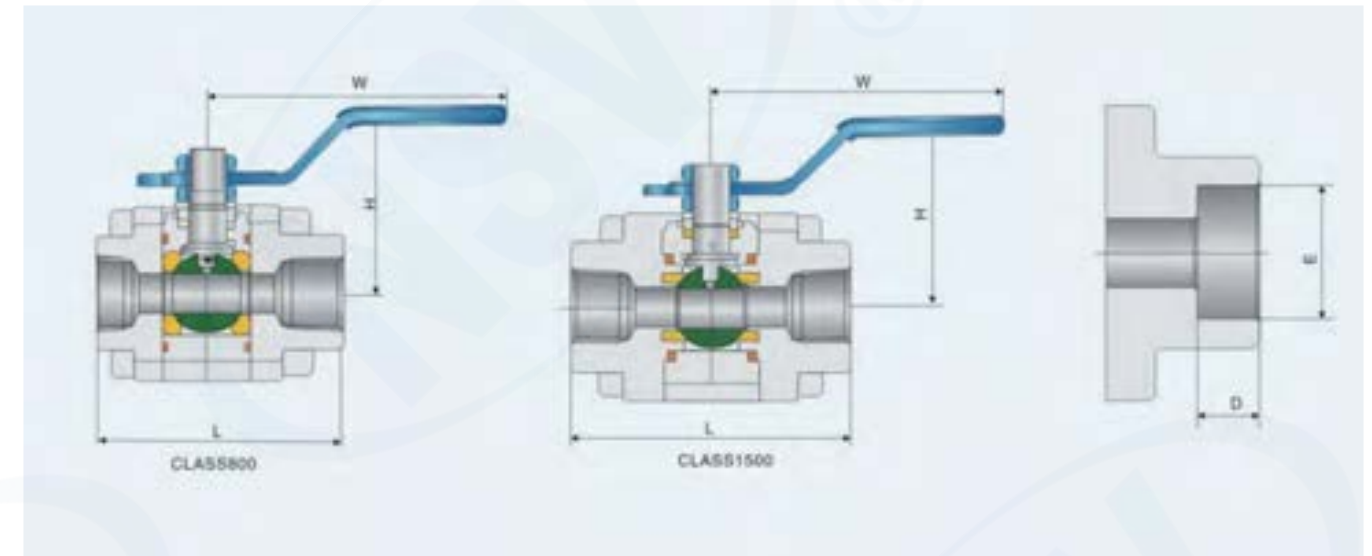
■ CLASS 2500

SIZE	DN	L(BW)	L(RF)	L(RTJ)	H1	H2	WT(kg)
6	150	914	914	927	385	300	770
8	200	1022	1022	1038	495	400	1357
10	250	1270	1270	1292	530	510	2100
12	300	1422	1422	1444	615	620	3210
14	350	1681	1681	1681	665	730	5520
16	400	1918	1918	1918	700	850	6520



Material List

No	Parts	Material				
1	Bonnet	A 105	Lf2	Lf2	F316	F316
2	Seat	RPTFE & PEEK	RPTFE & PEEK	RPTFE & PEEK	RPTFE & PEEK	RPTFE & PEEK
3	Ball	F6	F304	F304(L)	F316(L)	F51
4	Body	A105	LF2	F304(L)	F316(L)	F51
5	O-ring	VITON	VITON	VITON	VITON	VITON
6	Stud	PTFE	B8	B8	B8M	B8M
7	Gasket	PTFE	PTFE	PTFE	PTFE	PTFE
8	Packing Bushing	410	PTFE	PTFE	PTFE	PTFE
9	Gland	410	304	F304(L)	F316(L)	F51
10	Stem	F6	304	F304(L)	F316(L)	F51
11	Nameplate	Al	Al	Al	Al	Al
12	Lever	1020+PVC	1020+PVC	1020+PVC	1020+PVC	1020+PVC
13	Nut	2H	8M	8M	8M	8M
14	Elastic Washer	65Mn	65Mn	304	304	304
15	Anti-static Spring	304	304	304	316L	316L



Full Bore Class 800/1500

inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
End to End(L=mm)	CLASS 800	67	67	73	88	105	116	128
	CLASS 1500	73	73	88	105	116	128	146
Lever(W=mm)	CLASS 800	120	120	120	145	145	175	175
	CLASS 1500	120	120	145	145	175	175	260
Center of Top(H=mm)	CLASS 800	50	50	52	60	65	86	93
	CLASS 1500	52	52	60	60	86	93	110
Inside Bore(D=mm)	CLASS 800	11	11	14	20.5	25	31.6	38
	CLASS 1500	11	11	14	20.5	25	31.6	38
WT(kg)	CLASS 800	0.75	0.75	0.95	1.7	2.4	3.7	4.9
	CLASS 1500	--	1.2	2.2	3.4	4.7	6.7	10.5

Reduced Bore Class 800/1500

inch	1/2	3/4	1	1 1/4	1 1/2	2
End to End(L=mm)	CLASS 800	67	73	88	105	116
	CLASS 1500	73	88	105	116	128
Lever(W=mm)	CLASS 800	120	120	145	145	175
	CLASS 1500	120	145	145	175	260
Center of Top(H=mm)	CLASS 800	50	52	60	65	86
	CLASS 1500	52	60	60	86	93
Inside Bore(D=mm)	CLASS 800	11	14	20.5	25	31.6
	CLASS 1500	11	14	20.5	25	31.6
Weight(kg)	CLASS 800	0.75	0.95	1.7	2.4	3.7
	CLASS 1500	1.2	2.2	3.4	4.7	6.7

SOCKET WELD DIMENSIONS		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
ANSI B 16.11	E(mm)	14.1	17.6	21.9	27.4	34.2	42.7	48.8	61.1
	D(mm)	9.6	9.6	9.6	12.7	12.7	12.7	12.7	15.9