

WEIZIDOM



WEIZIDOM GROUP

集团总部：中国·郑州华南城中原电商大厦
分工厂：天津·安徽·山东·连云港·温州
驻外分公司：非洲·坦桑尼亚·赞比亚·肯尼亚

销售热线：+86-13849013722

www.wdsolution.com
www.wsdvalves.com

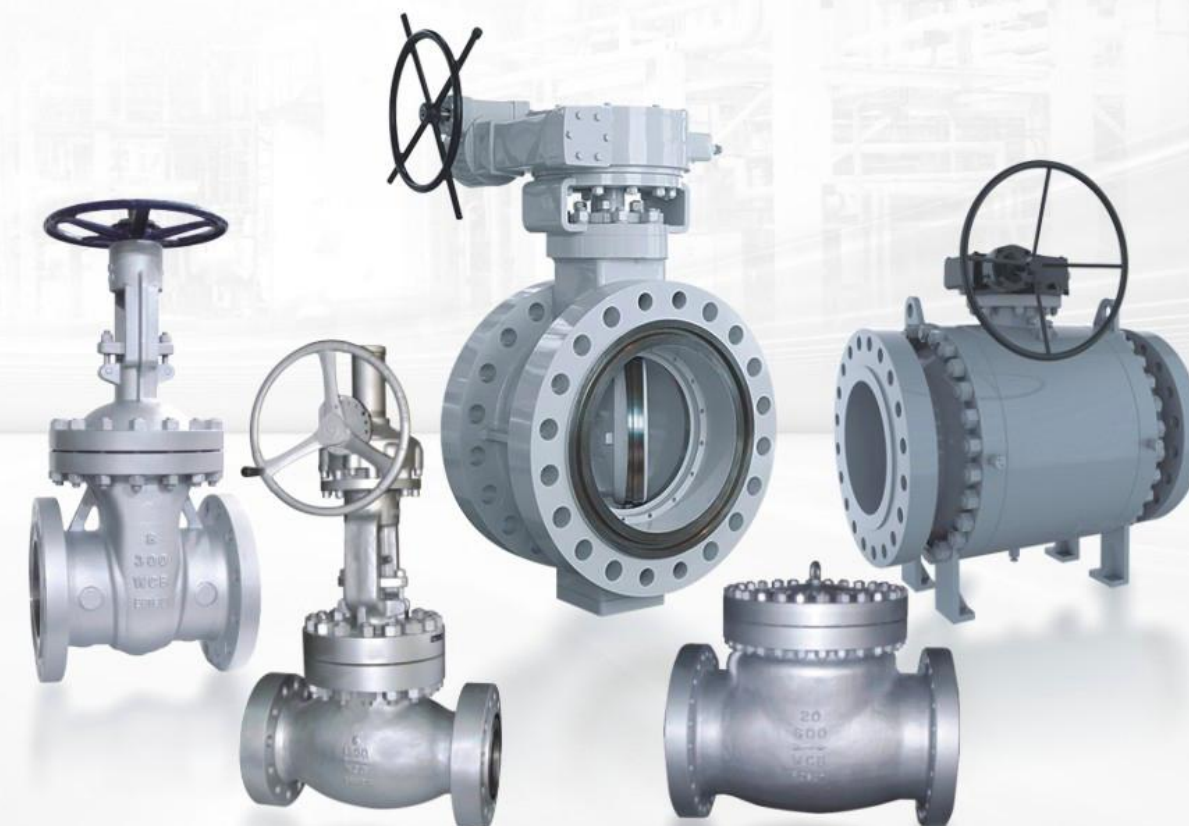
www.facebook.com/hawsd

Group headquarters: Central Plains E-Commerce Building, Zhengzhou South City, China
Branch Factory: Tianjin, Anhui, Shandong, Lianyungang, Wenzhou
Branch Company in Overseas: Tanzania, Zambia, Kenya in Africa

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API Valve

WEIZIDOM GROUP

WEIZIDOM GROUP
Enterprise Social Responsibility

WEIZIDOM are not only concerned about products, services and solutions.

WEIZIDOM promise to implement sustainable development and benefit society with energy-saving and environmental protection.

Our Purpose: People-Oriented, Hard Work, Never forget the original intention, Innovation and forge ahead.

Employee Satisfaction: People-oriented, build a platform for all employees to realize their dreams, everyone is the CEO.

Our Mission: To be a high-quality supplier of fluid control systems and plan maker; To contribute our wisdom and strength to the development of the cutting-edge technology of fluid control systems.

Partner Satisfaction: Mutual promotion, improve, mutual benefit and win-win.

Our Vision: Explore the internal innovation spirit and creativity, pursuit, innovation and continuous improvement. Use wisdom, foresight and hard work to make "WEIZIDOM" a world-renowned brand; Make the group company grow into a respectable "Four Satisfaction" enterprise.

Shareholder Satisfaction: Enable the company to develop and grow, and return profits.

Our Values: Create differentiated value-added services for customers, let everyone in the company has a sense of accomplishment.

Customer Satisfaction: Use high-quality products and refined services to add value to customers.



Company Introduction



WESDOM Group specializes in pipeline fluid systems: R&D, production and sales of valves, pipe fittings, water meters, flow meters, etc.

The products cover cast iron, cast steel, stainless steel, copper, plastics and other materials, which are widely used in hydropower stations, heat, buildings, water supply and drainage, petroleum, chemical industry, electric power, medical and other fields.

In recent years, WESDOM Group has actively embraced the era of Internet of Everything, committed to IOT terminal control and artificial intelligence design, big data mining and development, and promoted smart hardware to move towards big data center and wisdom with excellent market foresight and technological innovation. The smart cities, smart heating, smart water and other fields are in progress.

In the early stage, the Internet of Things smart valves and smart water meters were developed to promote and apply smart control systems such as municipal heating and municipal water supply.

In terms of quality control, we have strict control procedures. From the raw materials entering the factory to the final product leaving the factory, after 24 quality inspection passes, each pass must ensure that the product quality is 100% qualified before it can flow into the next process, thus ensuring that the qualified rate of the finished products. WESDOM products can well meet the Chinese standard like GB, JB, HB; American standard like API, ASME, AWWA; British and EU standards like BS, EN, ISO; German standard DIN; Japanese standard JIS; Russian standard GOST and other standards.



WEIZIDOM GROUP

Development History



2010

WESDOM was established

In December 2010, WESDOM was registered with a registered capital of 5 million yuan;

June 2013, WESDOM passed ISO and other international certifications;

2015

WESDOM established the first overseas branch

In June 2014, TIANJIN WESDOM VALVE MANUFACTURING CO.,LTD. was established in Tianjin, where the production of butterfly valves is concentrated;

2016

WESDOM products are exported to overseas regions and markets

In July 2015, the first overseas branch company WEISIDUN MATERIAL SOLUTION COMPANY was established in the beautiful African continent –Tanzania, and WESDOM began to expand into the international market;

In December 2015, WESDOM established a special foreign trade import and export company in Zhengzhou, the hinterland of the Central Plains HENAN WEISIDUN IMPORT AND EXPORT TRADE CO.,LTD., to make up for the domestic shortcomings of entering the international market;

In 2016, WESDOM brand products have been exported to Tanzania, Zambia, Egypt, Turkey, Pakistan, Thailand, Indonesia, Vietnam, the Philippines, Saudi Arabia, Mexico and other countries and regions;

In 2017, the company carried out production, procurement adjustments and layouts, expanded product series, initially formed a production and procurement system for water series products (control and connection systems), and established a procurement system for major production clusters across the south and north. ;

2018

Zambia branch was established, and the group company expanded its measurement products series

In January 2018, the second exclusive import and export company was established—HENAN WESDOM FLOW CONTROL CO.,LTD. In August of the same year, the second overseas branch company –WESDOM VALVES AND FITTINGS COMPANY LIMITED was established in Zambia, Africa;

In 2020, under the influence of the unfavorable factors of the domestic and foreign epidemic situation, the company has achieved the goal of breaking 100 million yuan in addition to the continuous growth of sales.

2019

WESDOM launched a series of plastic materials

In 2018, the series of measurement products (water meters, flow meters) were expanded, and the supply chain system was further enriched and improved;

In April 2021, the Kenya branch WESDOM VALVES AND FITTINGS(K) CO LIMITED was established and operated well, its products occupy the African market successfully.

2020

WESDOM sales exceeded 100 million yuan

In 2019, a series of plastic material products were launched; the company's valves and pipe fittings passed the CE certification; WESDOM overall sales performance exceeded 90 million in the same year;

To be continued...

2021

Kenya branch is established, WESDOM products occupy the African market

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WEIZIDOM GROUP

Qualification Certificate



Product Quality Control Process



WEIZIDOM GROUP

Application Field



Power Generation

- Water and electricity
- Flue gas desulfurization system
- Flue gas desulfurization system
- Cooling water system
- Steam System
- Waste incineration power generation
- Renewable energy



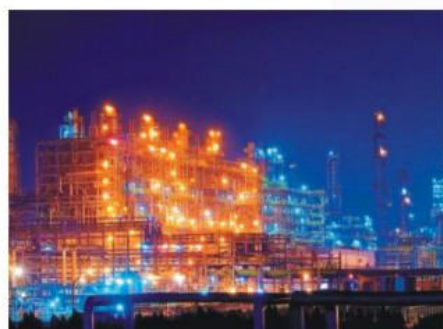
Steel

Water engineering valves and air valves are used to control the gases in the steel production



Mining

- Acid leaching solvent extraction
- Mud transmission
- Cooling System



Chemical Industry

- Chemical production
- Distribution system
- Surface treatment
- Biofuels



Boats and Ships

- Cargo loading
- Dredging system
- Cooling water system
- Inert gas
- Hull valve
- Ballast system
- Compressed gas



Building

- Water supply and drainage
- Heating ventilation and air conditioning

Contents

Gate Valve Series

Class 150 Bolted bonnet, outside screw & yoke, rising stem, flexible wedge	01
Class 300 Bolted bonnet, outside screw & yoke, rising stem, flexible wedge	02
Class 600 Bolted bonnet, outside screw & yoke, rising stem, flexible wedge	03
Class 900/1500/2500 Bolted bonnet, outside screw & yoke, rising stem, flexible wedge	04
Class 900/1500/2500 Pressure seal bonnet gate valve	05
Class 150/300/600 Forged steel flanged gate valve	06
Class 800 Forged steel NPT, socket weld gate valve	07
Class 900/1500/2500 Forged steel gate valve	08

Globe Valve Series

Class 150 Bolted bonnet, outside screw & yoke, rising stem, plug type disc	09
Class 300 Bolted bonnet, outside screw & yoke, rising stem, plug type disc	10
Class 600 Bolted bonnet, outside screw & yoke, rising stem, plug type disc	11
Class 900/1500/2500 Bolted bonnet, outside screw & yoke, rising stem, plug type disc	12
Class 900/1500/2500 Pressure seal, bonnet, piston type disc	13
Class 150/300/600 Forged steel flanged globe valve	15
Class 800 Forged steel NPT, socket weld globe valve	16
Class 900/1500/2500 Forged steel globe valve	17
DIN globe valve	18
DIN Bellows seal globe valve	20

Check Valve Series

Class 150 Bolted cover, swing type disc	22
Class 300 Bolted cover, swing type disc	23
Class 600 Bolted cover, swing type disc	24
Class 900/1500/2500 Bolted cover, swing type disc	25
Class 900/1500/2500 Pressure seal cover, swing type disc	26
Class 150/300/600 Forged steel swing check valve	27
Class 800 Forged steel swing check valve	28
Class 150/300/600 Forged steel flanged lifting check valve	29
Class 800 Forged steel lifting check valve	30
Class 150-300 Wafer type single-disc swing check valve	31
Wafer type dual plate check valve	32

Ball Valve Series

Class 150/300 Two-piece, split body, side entry design	35
Class 600-900 Two-piece, split body, side entry design	36
Trunnion mounting ball valve	37
Two-piece, split body, cast steel, side entry design	39
Class 150/300 Two-piece, split body, cast steel, side entry design	40
Class 600/900 Two-piece, split body, cast steel, side entry design	41
Three-piece, split body, forged steel, side entry design	42
Class 150 Three-piece, split body, forged steel, side entry design	44
Class 300/600 Three-piece, split body, forged steel, side entry design	45
Class 900/1500/2500 Three-piece, split body, forged steel, side entry design	46
3PC Forged steel compact body ball valve	47
Class 800/1500 3PC Forged steel compact body ball valve	48

Butterfly Valve Series

Triple eccentric, metal seat butterfly valve	49
Class 150 Triple eccentric, metal to metal seat, wafer or flanged ends	50
Class 300 Triple eccentric, metal to metal seat, wafer or flanged ends	51
Class 600 Triple eccentric, metal to metal seat, wafer or flanged ends	52
Class 900 Triple eccentric, metal to metal seat, wafer or flanged ends	53

Gate Valve Series



Class 150 Bolted bonnet, outside screw & yoke, rising stem, flexible wedge

Gate Valve Series

Features

Design and manufacture: API 600, API 603, JIS B2073, B2083
Face-to-Face dimension: 36" and smaller to ASME B16.10.
40" and larger to manufacturer's standard
Flanged End: 24" and smaller to ASME B16.5
26" and larger to ASME B16.47 series A & B
B.W. End: ASME B16.25
Shell Wall Thickness: API 600, ASME B16.34, API 603
26" and larger to manufacturer's standard
8" and smaller valves have a one-piece bonnet and yoke design
10" and larger valves have a split bonnet and yoke design.

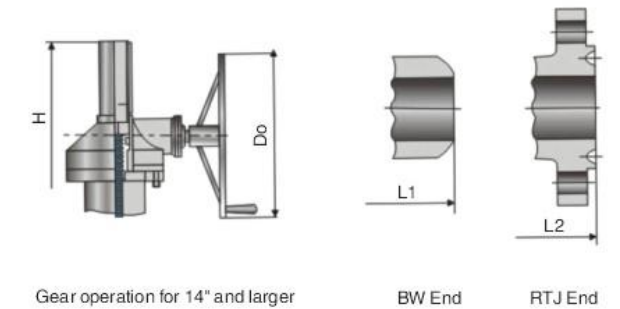
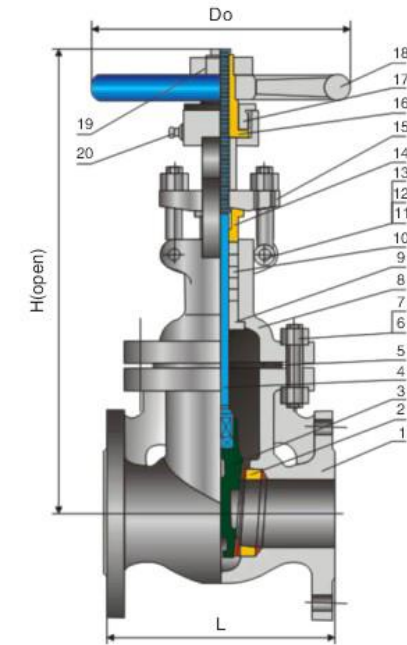
Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A 105+13Cr
3	Wedge	ASTM A216 Gr.WCB+13Cr
4	Stem	ASTM A182 F6a
5	Gasket	304S.S.Jacketed Graphite
6	Stud	ASTM A193 Gr.B7
7	Nut	ASTM A 194 Gr.2H
8	Bonnet	ASTM A216 Gr.WCB
9	Backseat	ASTM A276 410
10	Packing	Graphite
11	Pin	C.S.
12	Gland bolt	ASTM A 193 Gr.B7
13	Gland nut	ASTM A194 Gr.2H
14	Bushing	ASTM A276 410
15	Gland	ASTM A216 Gr.WCB
16	Stem nut	Aluminum Bronze
17	Retaining nut	C.S.
18	Handwheel	Malleable Iron
19	H.W. lock nut	C.S.
20	Lubricator	Assembly

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

Valve Size	in.	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	30	32	36	40	42	48
	mm	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	1050	1200
L(RF)	in.	6.5	7	7.5	8	9	10	10.5	11.5	13	14	15	16	17	18	20	24	24	26	28	30	31	34
	mm	165	178	190	203	229	254	267	292	330	356	381	406	432	457	508	610	610	660	711	762	787	864
L1 (BW)	in.	6.5	8.5	9.5	11.13	12	15	15.88	16.5	18	19.75	22.5	24	26	28	32	36	36	38	40	42	43	46
	mm	165	216	241	282	305	381	403	419	457	502	572	610	660	711	813	914	914	965	1016	1067	1092	1168
L2 (RTJ)	in.	7.0	7.5	8	8.5	9.5	10.5	11	12	13.5	14.5	15.5	16.5	17.5	18.5	20.5	24.5	24.5	26.5	28.5	-	-	-
	mm	178	191	203	216	242	267	280	305	343	369	394	419	445	470	521	623	622	673	724	-	-	-
H (open)	in.	15.7	16.13	18.56	20.94	24.13	27.94	31.75	39	46.69	55.31	63.56	71.31	78.19	87	106.25	119.31	130.56	137.25	150.56	183.86	193.75	217.5
	mm	392	409	472	532	612	710	806	990	1186	1405	1615	1811	1986	2210	2698	3030	3317	3487	3825	4670	4920	5525
Do	in.	7.86	7.86	7.86	9.86	9.86	11.81	11.81	13.75	17.69	19.69	18.13	18.13	18.13	24	24	24	24	24	30	30	30	30
	mm	200	200	200	250	250	300	300	350	450	500	460	460	460	610	610	610	610	610	760	760	760	760
WT (kg)	RF	18.5	20	30	36	53	71	85	136	220	323	387	553	660	810	1250	1931	2380	2490	3600	4815	5300	7110
	BW	15.5	17	26	29	46	66	77	116	202	294	350	506	575	720	1130	1765	2028	2280	3080	4840	5275	7050

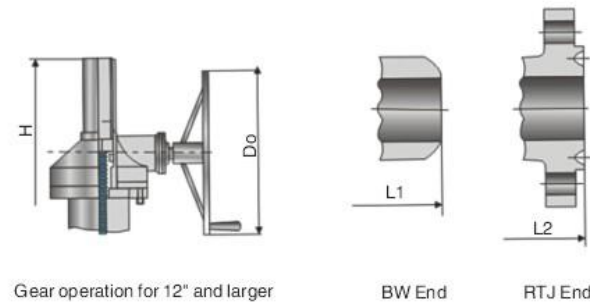
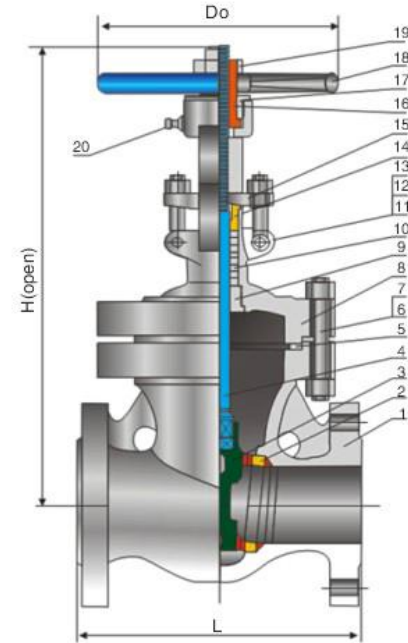


Features

Design and manufacture: API 600, API 603, JIS B2073, B2083.
Face-to-Face dimension: 36" and smaller to ASME B16.10.
40" and larger to manufacturer's standard
Flanged End: 24" and smaller to ASME B16.5
26" and larger to ASME B16.47 series A & B
B.W. End: ASME B16.25
Shell Wall Thickness: API 600, ASME B16.34, API 603
26" and larger to manufacturer's standard
6" and smaller valves have a one-piece bonnet and yoke design
10" and larger valves have a split bonnet and yoke design.

Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A 105+13Cr
3	Wedge	ASTM A216 Gr.WCB+13Cr
4	Stem	ASTM A182 F6a
5	Gasket	304S.S.Jacketed Graphite
6	Stud	ASTM A193 Gr.B7
7	Nut	ASTM A 194 Gr.2H
8	Bonnet	ASTM A216 Gr.WCB
9	Backseat	ASTM A276 410
10	Packing	Graphite
11	Pin	C.S.
12	Gland bolt	ASTM A 193 Gr.B7
13	Gland nut	ASTM A194 Gr.2H
14	Bushing	ASTM A276 410
15	Gland	ASTM A216 Gr.WCB
16	Stem nut	Aluminum Bronze
17	Retaining nut	C.S.
18	Handwheel	Malleable Iron
19	H.W. lock nut	C.S.
20	Lubricator	Assembly



Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

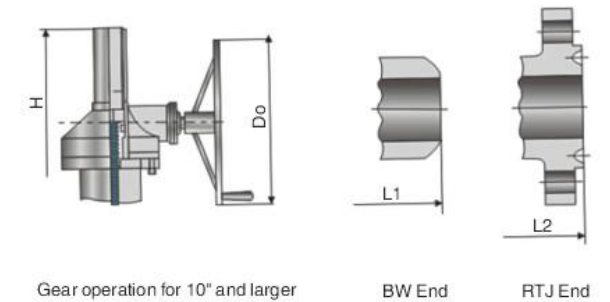
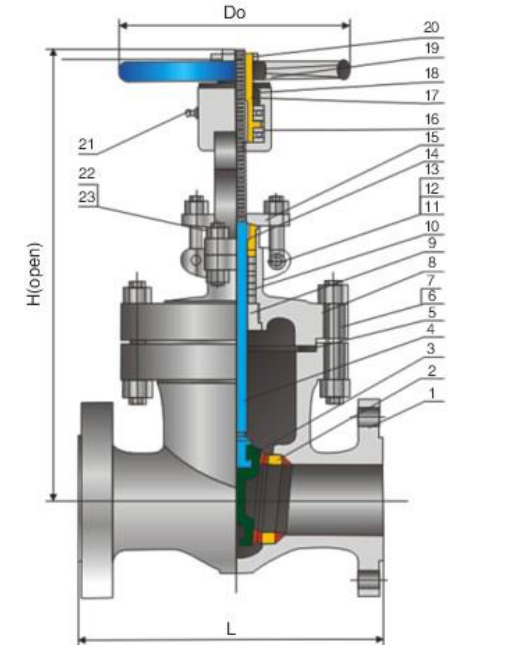
Valve Size	In. mm	1 1/2 40	2 50	2 1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	18 450	20 500	24 600	28 700	30 750	32 800	36 900	40 1000	42 1050	48 1200
L-L1	In. mm	7.5 190	8.5 216	9.5 241	11.12 282	12 305	15 381	15.88 403	16.5 419	18 457	19.75 502	30 762	33 838	36 914	39 991	45 1143	54 1346	55 1397	61.12 1524	68 1727	76 1930	78 1981	88 2235
L2 (RTJ)	In. mm	8.0 203	9.12 232	10.12 257	11.74 298	12.62 321	15.62 397	16.5 419	17.12 435	18.62 473	20.27 518	30.62 778	33.62 854	36.62 930	39.75 1010	45.88 1165	54 1371	56 1422	61.12 1581	69.12 1755	-	-	-
H (open)	In. mm	14.7 374	15.75 400	18.75 477	21.38 543	25.63 650	30.31 770	34.63 880	40.81 1037	50.19 1275	56.63 1438	65 1650	72.44 1840	79.94 2030	88.19 2240	114.19 2900	122 3100	139.38 3540	152 3860	169.75 4312	188.63 4791	198.13 5032	217.38 5522
Do	In. mm	7.88 200	7.88 200	9.88 250	9.88 250	11.81 300	11.81 300	13.75 350	17.69 450	19.69 500	18.13 460	18.13 460	18.13 460	24 610	24 610	24 610	24 610	30 760	30 760	30 760	24 610	24 610	24 610
WT (kg)	RF BW	26 22	30 26	39 34	55 47	83 68	92 77	137 118	240 195	333 271	536 432	699 595	1010 848	1205 1025	1720 1460	2800 2294	3150 2870	3786 3220	4210 3675	6850 4990	8460 6160	9500 6800	12400 9000

Features

Design and manufacture: API 600, API 603, JIS B2073, B2083.
Face-to-Face dimension: 36" and smaller to ASME B16.10.
40" and larger to manufacturer's standard
Flanged End: 24" and smaller to ASME B16.5
26" and larger to ASME B16.47 series A & B
B.W. End: ASME B16.25
Shell Wall Thickness: API 600, ASME B16.34, API 603
26" and larger to manufacturer's standard
6" and smaller valves have a one-piece bonnet and yoke design
8" and larger valves have a split bonnet and yoke design.

Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A 105+13Cr
3	Wedge	ASTM A216 Gr.WCB+13Cr
4	Stem	ASTM A182 F6a
5	Gasket	304S.S.Jacketed Graphite
6	Stud	ASTM A193 Gr.B7
7	Nut	ASTM A 194 Gr.2H
8	Bonnet	ASTM A216 Gr.WCB
9	Backseat	ASTM A276 410
10	Packing	Graphite
11	Pin	C.S.
12	Eyebolt	ASTM A 193 Gr.B7
13	Hex. nut	ASTM A194 Gr.2H
14	Gland	ASTM A276 410
15	Gland flange	ASTM A216 Gr.WCB
16	Bearing	Assembly
17	Stem nut	Aluminum Bronze
18	Retaining nut	C.S.
19	Handwheel	Malleable Iron
20	H.W. lock nut	C.S.
21	Lubricator	Assembly
22	Yoke bolt	ASTM A 193 Gr.B7
23	Yoke nut	ASTM A 194 Gr.2H



Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

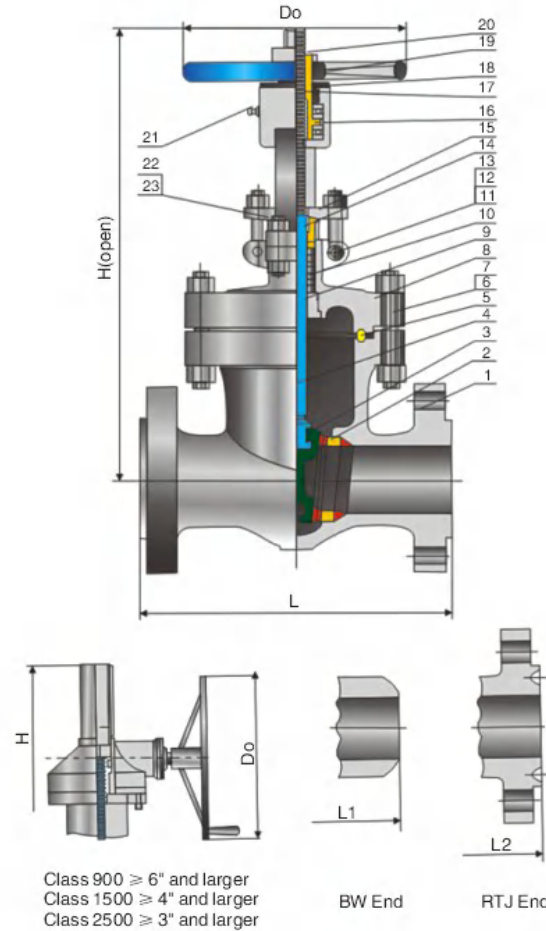
Valve Size	In. mm	2 50	2 1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	18 450	20 500	24 600	26 650	28 700	30 750	32 800	36 900
L-L1 (RF-BW)	In. mm	11.5 292	13 330	14 356	17 432	20 508	22 559	26 660	31 787	33 838	35 889	39 991	43 1092	47 1194	55 1397	57 1448	61 1549	65 1651	70 1778	82 2083
L2 (RTJ)	In. mm	11.62 295	13.12 333	14.12 359	17.12 435	20.12 511	22.12 562	26.12 663	31.12 790	33.12 841	35.12 892	39.12 994	43.12 1095	47.25 1200	55.38 1407	-	-	-	-	-
H (open)	In. mm	18.63 474	21.75 553	23.38 593	28.06 713	30.3 770	38.19 970	44.19 1122	52.38 1330	59.81 1519	68.13 1730	72.75 1835	90.13 2290	98.81 2510	119 3022	127.25 3232	140.25 3562	152.75 3880	163 4140	179.5 4560
Do	In. mm	9.88 250	9.88 250	11.81 300	13.75 350	15.7 400	19.69 500	22.06 560	18.13 460	18.13 460	24 610	24 610	24 610	30 760	30 760	30 760	30 760	24 610	24 610	24 610
WT (kg)	RF BW	41 35	58 50	88 68	131 104	205 192	253 208	413 328	623 496	784 637	1288 1120	1820 1448	2150 1828	2540 2201	4080 3360	5220 4295	6050 4980	6945 5710	7965 5223	10000 8220

Features

Design and manufacture: API 600, API 603, JIS B2073, B2083.
Face-to-Face dimension: 36" and smaller to ASME B16.10,
40" and larger to manufacturer's standard
Flanged End: 24" and smaller to ASME B16.5
26" and larger to ASME B16.47 series A
B.W. End: ASME B16.25
Shell Wall Thickness: API 600, ASME B16.34, API 603
26" and larger to manufacturer's standard
6" and smaller valves have a one-piece bonnet and yoke design
8" and larger valves have a split bonnet and yoke design.

Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A 105+STL
3	Wedge	ASTM A216 Gr.WCB+13Cr
4	Stem	ASTM A182 F6a
5	Gasket	Soft Iron
6	Stud	ASTM A 193 Gr.B7
7	Nut	ASTM A194 Gr.2H
8	Bonnet	ASTM A216 Gr WCB
9	Backseat	ASTM A276 410
10	Packing	Graphite
11	Pin	C.S.
12	Eyebolt	ASTM A 193 Gr.B7
13	Hex. nut	ASTM A194 Gr.2H
14	Gland	ASTM A276 410
15	Gland flange	ASTM A216 Gr.WCB
16	Bearing	Assembly
17	Stem nut	Aluminum Bronze
18	Retaining nut	C.S.
19	Handwheel	Malleable Iron
20	H.W. lock nut	C.S.
21	Lubricator	Assembly
22	Yoke bolt	ASTM A 193 Gr.B7
23	Yoke nut	ASTM A 194 Gr.2H



Class 900 ≥ 6" and larger
Class 1500 ≥ 4" and larger
Class 2500 ≥ 3" and larger

BW End

RTJ End

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

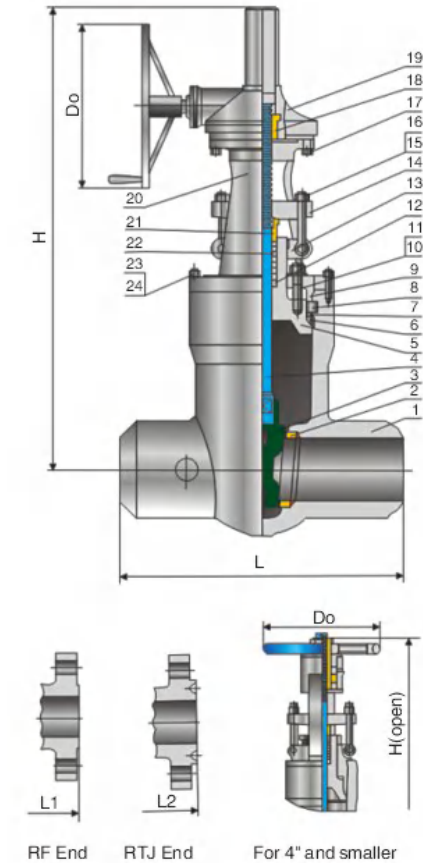
Class 900	Valve Size	in. mm	2 50	2½ 65	3 80	4 100	6 150	8 200	10 250	12 300
	L-L1 (RF-BW)	in. mm	14.5 368	16.5 419	15 381	18 457	24 610	29 737	33 838	38 965
	L2 (RTJ)	in. mm	14.62 371	16.62 422	15.12 384	18.12 460	24.12 613	29.12 740	33.12 841	38.12 968
	H (open)	in. mm	21.56 547	27.56 700	28.15 715	28.69 729	41 1041	49.63 1260	62.63 1590	70.69 1795
	D0	in. mm	11.81 300	14 355	15.75 400	17.69 450	22.06 560	24 610	24 610	24 610
	WT (kg)	RF BW	90 82	110 93	123 108	148 122	420 359	650 566	1160 980	1700 1450
Class 1500	L-L1 (RF-BW)	in. mm	14.5 368	16.5 419	18.5 470	21.5 546	27.75 705	32.75 832	39 991	44.5 1130
	L2 (RTJ)	in. mm	14.62 371	16.62 422	18.62 473	21.62 549	28 711	33.13 842	39.38 1001	45.12 1146
	H (open)	in. mm	22.63 574	27.56 700	31.75 806	34.94 887	42.5 1079	53.94 1370	59.81 1520	65 1651
	D0	in. mm	13.75 350	15.75 400	17.75 450	22.06 560	24 610	24 610	30 760	30 760
	WT (kg)	RF BW	117 93	175 144	240 185	337 385	680 584	1228 978	2278 1990	3260 2850
Class 2500	L-L1 (RF-BW)	in. mm	17.75 451	20 508	22.75 578	26.5 673	36 914	40.25 1022	50 1270	—
	L2 (RTJ)	in. mm	17.87 454	20.25 514	23 584	26.88 683	36.5 927	40.87 1038	50.88 1292	—
	H (open)	in. mm	27.56 700	29.5 750	34.63 887	42.5 1079	53.94 1370	60.25 1530	80.5 2045	—
	Do	in. mm	13.75 350	17.75 450	22.06 560	28.38 720	18.13 460	24 610	30 760	—
	WT (kg)	RF BW	132 99	206 155	256 192	498 390	1550 1230	2395 1980	4460 3700	—

Features

Design and manufacture: API 600 and ASME B16.34.
Face-to-Face dimension: ASME B16.10.
Flanged dimension: ASME B16.5.
B.W. End: ASME B16.25
Shell Wall Thickness: API 600, ASME B16.34
Inspection & Test: API 598

Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A 105+STL
3	Wedge	ASTM A216 Gr.WCB+13Cr
4	Stem	ASTM A182 F6a
5	Bonnet	ASTM A216 Gr.WCB
6	Sealing ring	ASTM A182 F304
7	Spacer ring	ASTM A182 F6a
8	Segment ring	ASTM A182 F6a
9	Supporting plate	ASTM A105
10	Stud	ASTM A193 Gr.B7
11	Nut	ASTM A 194 Gr.2H
12	Packing seat	ASTM A276 410
13	Lifting jack	ASTM A216 Gr.WCB
14	Gland flange	ASTM A216 Gr.WCB
15	Eyebolt	ASTM A193 Gr.B7
16	Hex. nut	ASTM A 194 Gr.2H
17	Bolt	C.S.
18	Stem nut	Aluminum Bronze
19	Gear box	Assembly
20	Yoke	ASTM A 216 Gr.WCB
21	Gland	ASTM A276 410
22	Packing	Graphite
23	Bolt	ASTM A 193 Gr B7
24	Nut	ASTM A 194 Gr 2H



RF End RTJ End For 4" and smaller

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

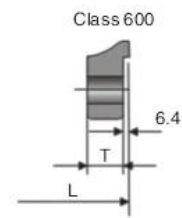
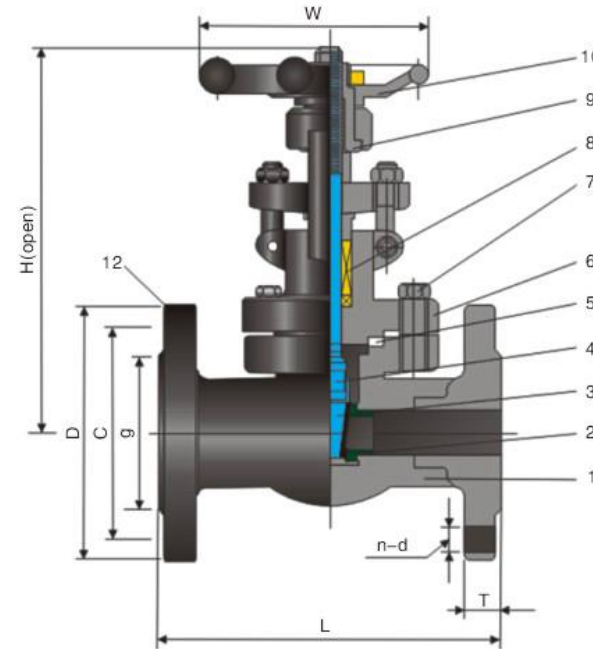
Class	Valve Size	In. mm	2	2 1/2	3	4	6	8	10	12	14	16
			50	65	80	100	150	200	250	300	350	400
Class 900	BW(L)	In. mm	8.5 216	10 254	12 305	13.98 356	20 508	26 660	31 787	36 914	39 991	43 1092
	RF(L1)	In. mm	14.5 368	16.5 419	15 381	18 457	24 610	29 737	33 838	38 965	40.5 1029	44.5 1130
	RTJ(L2)	In. mm	14.62 371	16.62 422	15.12 384	18.12 460	24.12 613	29.12 740	33.12 841	38.12 968	40.88 1039	44.88 1140
	Open(H)	In. mm	21.81 554	25.08 637	26.77 690	31.34 798	42.68 1084	54.02 1372	58.82 1494	61.02 1550	77.17 1960	87 2210
	Do	In. mm	11.81 300	13.78 350	13.78 350	15.75 400	22.05 560	18.11 480	24 610	24 610	24 610	30 760
	WT(kg)	RF BW	48 37	82 62	90 80	152 118	339 364	620 522	948 758	1293 1088	1718 1448	2378 2016
Class 1500	BW(L)	In. mm	8.5 216	10 254	12 305	16 406	22 559	28 711	34 884	39 991	42 1067	47 1194
	RF(L1)	In. mm	14.5 368	16.5 419	18.5 470	21.5 546	27.75 705	32.75 832	39 991	44.5 1130	49.5 1257	54.5 1384
	RTJ(L2)	In. mm	14.62 371	16.62 422	18.62 473	21.62 549	28 711	33.13 842	39.38 1001	45.12 1146	50.25 1276	55.38 1407
	Open(H)	In. mm	21.81 554	25.08 637	30.2 767	34.45 875	43.07 1094	54 1372	65.16 1655	72.20 1834	84.65 2150	88.98 2280
	Do	In. mm	11.81 300	17.72 450	17.72 450	22.05 560	12 305	18.11 480	24 610	24 610	30 760	30 760
	WT(kg)	RF BW	58 44	89 69	126 83	180 128	392 290	793 585	1368 972	2118 1613	2798 2008	3668 2613
Class 2500	BW(L)	In. mm	11 279	13 330	14.5 368	18 457	24 610	30 762	36 914	41 1041	-	-
	RF(L1)	In. mm	17.75 451	20 508	22.75 578	26.5 673	36 914	40.25 1022	50 1270	56 1422	-	-
	RTJ(L2)	In. mm	17.87 454	20.25 514	23 584	26.88 683	36.5 927	40.87 1038	50.88 1292	56.88 1445	-	-
	Open(H)	In. mm	24 610	25.75 654	29.65 753	33.46 850	49.37 1254	54.09 1374	66.34 1685	74 1873	-	-
	Do	In. mm	19.69 500	19.69 500	23.62 600	23.62 600	18.11 460	18.11 460	24 610	24 610	-	-
	WT(kg)	RF BW	119 86	173 133	193 142	227 156	718 498	1293 890	2248 1548	3091 2330	-	-

Technical Specification

- 1、Design and manufacture: API 602, BS 5352.
- 2、Construction feature: B.B OS&Y or WB OS&Y
- 3、Face to face dimensions: ANSI B 16.10.
- 4、Flanged connection: ANSI B 16.5.
- 5、Test and Inspection: API 598.
- 6、Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

Main Parts and Materials

No	Parts	Material
1	Body	A105
2	Seat	13Cr
3	Wedge	13Cr
4	Stem	A182-F6a
5	Gasket	304S.S. Jacketed Graphite
6	Bonnet	A105
7	Bolt	A193-B7
8	Packing	Graphite
9	Stem nut	13Cr
10	Handwheel	Malleable Iron
11	Flange	A105



Main Dimensions and Weights

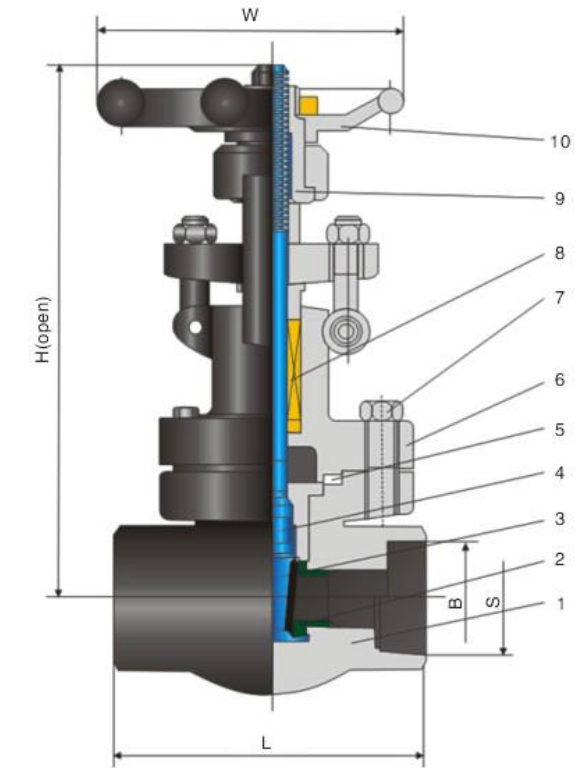
DN		Class	L	D	C	g	T	n-d	H(Open)		W		WT(kg)	
Inch	mm								Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore
1/2"	15	150	108	90	60.3		11.5	4-16					4.5	5
		300	140	95	66.5	35	14.5	4-16	166	169	100	100	4.8	5.2
		600	165	95	66.5		14.5	4-16					5.9	5.9
3/4"	20	150	117	100	70		13	4-16					5.2	6.1
		300	152	115	82.5	43	16	4-19	169	193	100	125	6.2	6.3
		600	190	115	82.5		16	4-19					7.4	7.5
1"	25	150	127	110	79.5		14.5	4-16					8.2	8.4
		300	165	125	89	51	18	4-19	193	230	125	160	9.3	8.6
		600	216	125	89		18	4-19					10.4	10.2
1 1/4"	32	150	140	115	89		16	4-16					11.5	14.3
		300	178	135	98.5	63	19.5	4-19	230	246	160	160	14	14.5
		600	229	135	98.5		21	4-19					16.2	16.7
1 1/2"	40	150	165	125	98.5		18	4-16					12.5	15.4
		300	190	155	114.5	73	21	4-22.5	246	283	160	180	15.5	15.6
		600	241	155	114.5		22.5	4-22.5					17.5	17.4
2"	50	150	178	150	120.5		19.5	4-19					20.3	22.7
		300	216	165	127	92	22.5	8-19	283	330	180	200	23.4	22.8
		600	292	165	127		26	8-19					28.3	28.7

Technical Specification

- 1、Design and manufacture: API 602, BS 5352.
- 2、Construction feature: B.B OS&Y or WB OS&Y
- 3、FNPT connection: ANSI B1.20.1
Socket weld connection: ANSI B16.11
- 4、Test and Inspection: API 598.
- 5、Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

Main parts and materials

No	Parts	Material
1	Body	A105
2	Seat	13Cr
3	Wedge	13Cr
4	Stem	A182-F6a
5	Gasket	304S.S. Jacketed Graphite
6	Bonnet	A105
7	Bolt	A193-B7
8	Packing	Graphite
9	Stem nut	13Cr
10	Handwheel	Malleable Iron



Main Dimensions and Weights

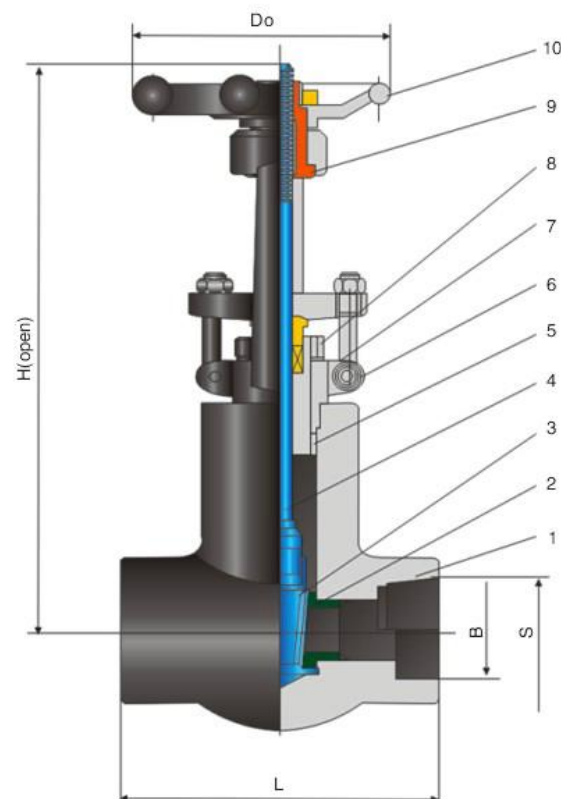
DN		L	B(SW)		S(Screwed)			H(Open)	W	WT(kg)
Inch	mm		ANSI	JIS	ANSI NPT600	ISO, BS RC560	JIS PT550			
1/2"	15	92	21.8	22.2		1/2"		169	100	2.2
3/4"	20	111	27.1	27.7		3/4"		193	125	4.3
1"	25	120	33.8	34.5		1"		230	160	5.9
1 1/4"	32	120	42.6	43.2		1 1/4"		246	160	6.9
1 1/2"	40	140	48.7	49.1		1 1/2"		283	180	11.1
2"	50	178	61.1	61.1		2"		330	200	15.2

Technical Specification

1. Design and manufacture: API 602, BS 5352.
2. Construction feature: PSB OS&Y or WB OS&Y
3. FNPT connection: ANSI B1.20.1
Socket weld connection: ANSI B16.11
4. Test and inspection: API 598.
5. Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

Main Parts and Materials

No	Parts	Material
1	Body	A105
2	Seat	13Cr
3	Wedge	13Cr
4	Stem	A182-F6a
5	Sealed ring	304
6	Yoke	A105
7	Bonnet	A105
8	Packing	Graphite
9	Stem nut	13Cr
10	Handwheel	Malleable Iron



Main Dimensions and Weights

DN		L		B(SW)		S(Screwed)			H(Open)	W	WT(kg)
Inch	mm	Class 900 Class 1500	Class 2500	ANSI	JIS	ANSI NPT600	ISO, BS RC560	JIS PT550			
1/2"	15	140	186	21.8	22.2		1/2"		321	125	12.3
3/4"	20	140	186	27.1	27.7		3/4"		321	125	11.6
1"	25	140	186	33.8	34.5		1"		321	160	10.8
1 1/4"	32	178	232	42.6	43.2		1 1/4"		380	160	26
1 1/2"	40	178	232	48.7	49.1		1 1/2"		414	180	28.4
2"	50	216	279	61.1	61.1		2"		502	200	60

Globe Valve Series

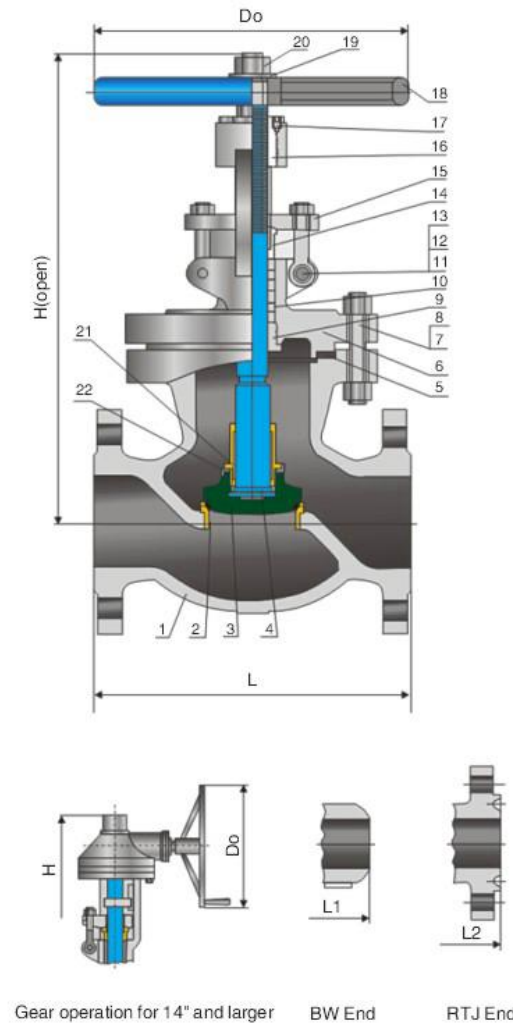


Features

Design and manufacture: BS 1873, ASME B16.34.
Face-to-Face dimension: ASME B16.10, JIS B2002.
Flanged End: ASME B16.5, JIS B2212, B2214.
B.W. End: ASME B16.25
Shell Wall Thickness: BS 1873, ASME B16.34
Inspection & Test: API 598

Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+13Cr
3	Disc	ASTM A105+13Cr
4	Stem	ASTM A182 F6a
5	Gasket	304S.S.Jacketed Graphite
6	Bonnet	ASTM A216 Gr.WCB
7	Stud	ASTM A193 Gr.B7
8	Nut	ASTM A194 Gr.2H
9	Backseat	ASTM A276 410
10	Packing	Graphite
11	Gland bolt	ASTM A193 Gr.B7
12	Gland nut	ASTM A194 Gr.2H
13	Pin	C.S
14	Gland	ASTM A276 410
15	Gland flange	ASTM A216 Gr.WCB
16	Stem nut	Aluminum Bronze
17	Screw	C.S.
18	Handwheel	Malleable Iron
19	Washer	C.S.
20	Nut	C.S.
21	Disc cover	ASTM A276 410
22	Washer	S.S.



Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

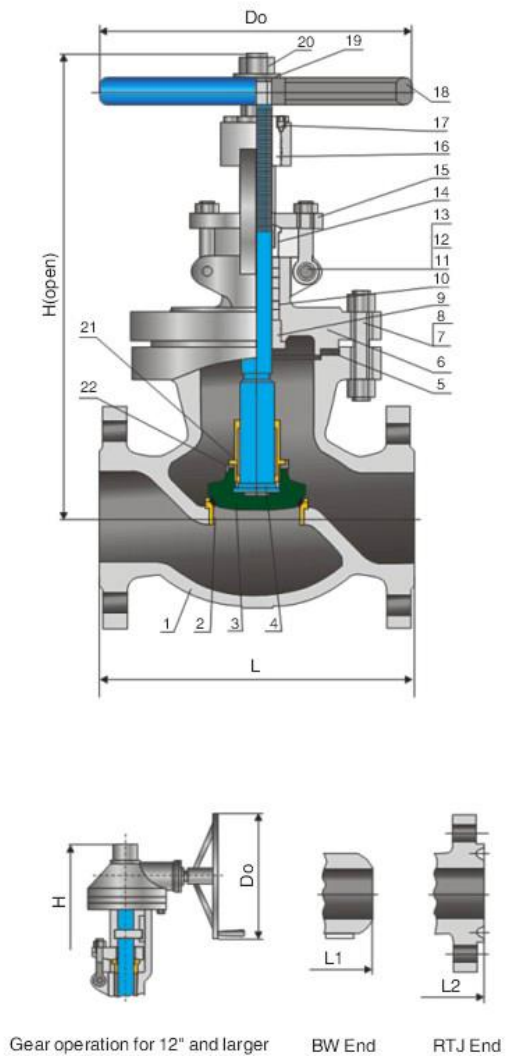
Valve Size	in. mm	1 1/2 40	2 50	2 1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400
L-L1 (RF-BW)	in. mm	6.5 165	8 203	8.5 216	9.5 241	11.5 292	14 356	16 406	19.5 495	24.5 622	27.5 698	31 787	36 914
L2 (RTJ)	in. mm	7.0 178	8.5 216	9 229	10 254	12 305	14.5 369	16.5 419	20 508	25 635	28 711	31.5 800	36.5 927
H (open)	in. mm	14.25 326	14.69 373	15.38 390	16.56 421	20.25 515	21.19 538	22.31 567	24.63 626	28 712	39 990	51 1295	63.75 1619
Do	in. mm	7.88 200	7.88 200	9.88 250	9.88 250	11.81 300	11.81 300	13.75 350	15.75 400	17.75 450	20 500	24 610	24 610
WT (kg)	RF BW	19 16	22 19	29 25	42 34	64 49	77 65	105 82	154 131	288 249	507 430	690 600	950 850

Features

Design and manufacture: BS 1873, ASME B16.34.
Face-to-Face dimension: ASME B16.10, JIS B2002.
Flanged End: ASME B16.5, JIS B2212, B2214.
B.W. End: ASME B16.25
Shell Wall Thickness: BS 1873, ASME B16.34
Inspection & Test: API 598

Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+13Cr
3	Disc	ASTM A105+13Cr
4	Stem	ASTM A182 F6a
5	Gasket	304S.S.Jacketed Graphite
6	Bonnet	ASTM A216 Gr.WCB
7	Stud	ASTM A193 Gr.B7
8	Nut	ASTM A194 Gr.2H
9	Backseat	ASTM A276 410
10	Packing	Graphite
11	Gland bolt	ASTM A193 Gr.B7
12	Gland nut	ASTM A194 Gr.2H
13	Pin	C.S
14	Gland	ASTM A276 410
15	Gland flange	ASTM A216 Gr.WCB
16	Stem nut	Aluminum Bronze
17	Screw	C.S.
18	Handwheel	Malleable Iron
19	Washer	C.S.
20	Nut	C.S.
21	Disc cover	ASTM A276 410
22	Washer	S.S.



Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

Valve Size	in. mm	1 1/2 40	2 50	2 1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400
L-L1 (RF-BW)	in. mm	9 229	10.5 267	11.5 292	12.5 318	14 356	15.75 400	17.5 444	22 559	24.5 622	28 711	33 838	34 864
L2 (RTJ)	in. mm	9.5 242	11.12 283	12.12 308	13.12 334	14.62 372	16.37 416	18.12 460	22.62 575	25.12 638	28.62 727	33.62 854	34.62 880
H (open)	in. mm	14.17 360	15.69 398	17.13 436	18.19 462	22.06 560	24.38 620	27.31 694	38.63 982	44.5 1130	41.31 1049	61.25 1556	67 1700
Do	in. mm	7.88 200	7.88 200	9.88 250	9.88 250	13.75 350	15.75 400	17.75 450	22.06 560	34 860	24 610	24 610	24 610
WT (kg)	RF BW	26 21	31 26	43 38	57 44	86 68	130 110	168 138	280 228	385 329	724 618	1500 1350	2200 2000

Technical Specification

Design and manufacture: BS 1873, ASME B16.34.
Face-to-Face dimension: ASME B16.10.
Flanged End: ASME B16.5.
B.W.End: ASME B16.25
Shell Wall Thickness: BS 1873, ASME B16.34
Inspection & Test: API 598

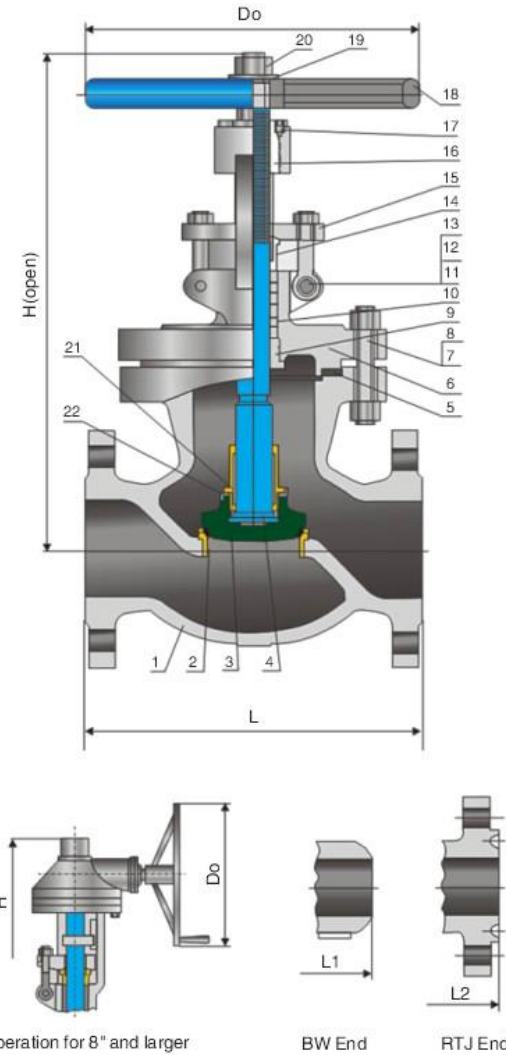
Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+13Cr
3	Disc	ASTM A105+13Cr
4	Stem	ASTM A182 F6a
5	Gasket	304S.S.Jacketed Graphite
6	Bonnet	ASTM A216 Gr.WCB
7	Stud	ASTM A193 Gr.B7
8	Nut	ASTM A194 Gr.2H
9	Backseat	ASTM A276 410
10	Packing	Graphite
11	Gland bolt	ASTM A193 Gr.B7
12	Gland nut	ASTM A194 Gr.2H
13	Pin	C.S
14	Gland	ASTM A276 410
15	Gland flange	ASTM A216 Gr.WCB
16	Stem nut	Aluminum Bronze
17	Screw	C.S.
18	Handwheel	Malleable Iron
19	Washer	C.S.
20	Nut	C.S.
21	Disc cover	ASTM A276 410
22	Washer	S.S.

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

Valve Size	in. mm	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250	12 300	14 350	16 400
L-L1 (RF-BW)	in. mm	11.5 292	13 330	14 356	17 432	22 559	26 660	31 787	33 838	35 889	39 991
L2 (RTJ)	in. mm	11.62 295	13.12 333	14.12 359	17.12 435	22.12 562	26.12 663	31.12 790	33.12 841	35.12 892	39.12 994
H (open)	in. mm	16.75 425	19.75 502	20.5 521	24.38 620	34.88 886	36.69 932	41 1040	50.38 1280	70.88 1800	76 1930
Do	in. mm	9.88 250	11.81 300	13.75 350	17.75 450	28.38 720	18.13 460	24 610	30 760	30 760	30 760
WT (kg)	RF BW	39 33	58 48	73 61	120 95	327 261	482 385	700 588	900 795	2700 2510	3600 3350



Technical Specification

Design and manufacture: BS 1873, ASME B16.34.
Face-to-Face dimension: ASME B16.10.
Flanged End: ASME B16.5.
B.W.End: ASME B16.25
Shell Wall Thickness: BS 1873, ASME B16.34
Inspection & Test: API 598

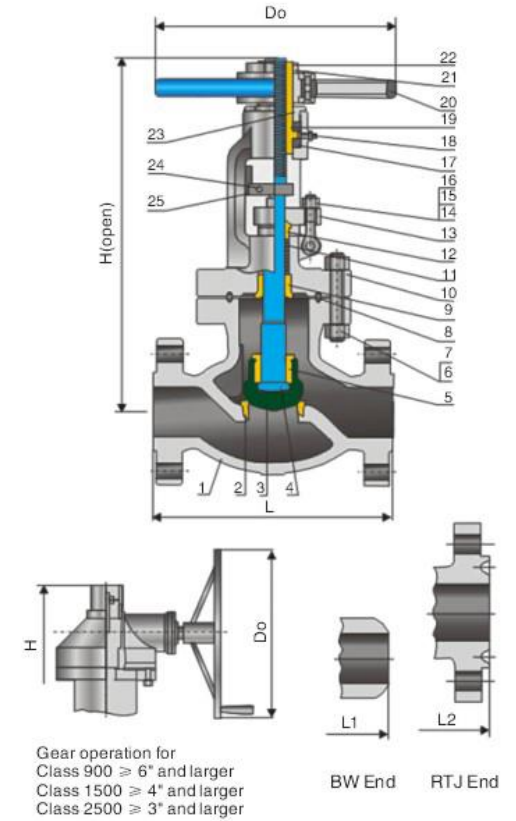
Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+STL
3	Disc	ASTM A105+13Cr
4	Stem	ASTM A182 F6a
5	Disc cover	ASTM A276 410
6	Stud	ASTM A193 Gr B7
7	Nut	ASTM A194 Gr.2H
8	Gasket	Soft Iron
9	Backseat	ASTM A276 410
10	Bonnet	ASTM A216 Gr.WCB
11	Packing	Graphite
12	Gland	ASTM A276 410
13	Gland flange	ASTM A216 Gr.WCB
14	Gland bolt	ASTM A193 Gr B7
15	Gland nut	ASTM A194 Gr.2H
16	Pin	C.S.
17	Bearing	Assembly
18	Lubricator	Assembly
19	Stem nut	Aluminum Bronze
20	Hand wheel	Malleable Iron
21	H.W.lock nut	C.S.
22	Screw	C.S.
23	Retaining nut	C.S.
24	Bolt	C.S.
25	Guide block	C.S.

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

ValveSize	in. mm	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250
L-L1 (RF-BW)	in. mm	14.5 368	16.5 419	18.5 470	21.5 546	27.75 705	32.75 832	-
L2 (RTJ)	in. mm	14.62 371	16.62 422	18.62 473	21.62 549	28 711	33.13 842	-
H (open)	in. mm	9.44 240	10.25 260	10.25 260	12.63 320	15 382	20.88 530	27.17 690
Do	in. mm	13.75 350	15.75 400	17.75 450	22.06 560	24 610	24 610	24 610
WT (kg)	RF BW	100 75	118 94	131 105	218 185	452 340	710 630	2050 1870
L-L1 (RF-BW)	in. mm	14.5 368	16.5 419	18.5 470	21.5 546	27.75 705	32.75 832	-
L2 (RTJ)	in. mm	14.62 371	16.62 422	18.62 473	21.62 549	28 711	33.13 842	-
H (open)	in. mm	23.31 592	26 660	27.25 692	35.69 907	40 1015	4506 1145	-
Do	in. mm	13.75 350	15.75 400	17.75 450	22.06 560	24 610	24 610	-
WT (kg)	RF BW	112 84	141 115	228 183	336 277	822 715	990 830	-
L-L1 (RF-BW)	in. mm	17.75 451	20 508	22.75 578	26.5 673	36 914	-	-
L2 (RTJ)	in. mm	17.87 454	20.25 514	23 584	26.88 683	36.5 927	-	-
H (open)	in. mm	27.25 692	29.5 750	31.5 800	47.25 1200	75 1905	-	-
Do	in. mm	15.75 400	19.69 500	24 610	30 760	30 750	-	-
WT (kg)	RF BW	182 153	290 230	340 272	820 670	2300 2000	-	-



Technical Specification

Design and manufacture: BS 1873, ASME B16.34.
Face-to-Face dimension: ASME B16.10
Flanged End: ASME B16.5
B.W.End: ASME B16.25
Shell Wall Thickness: BS 1873, ASME B16.34
Inspection & Test: API 598

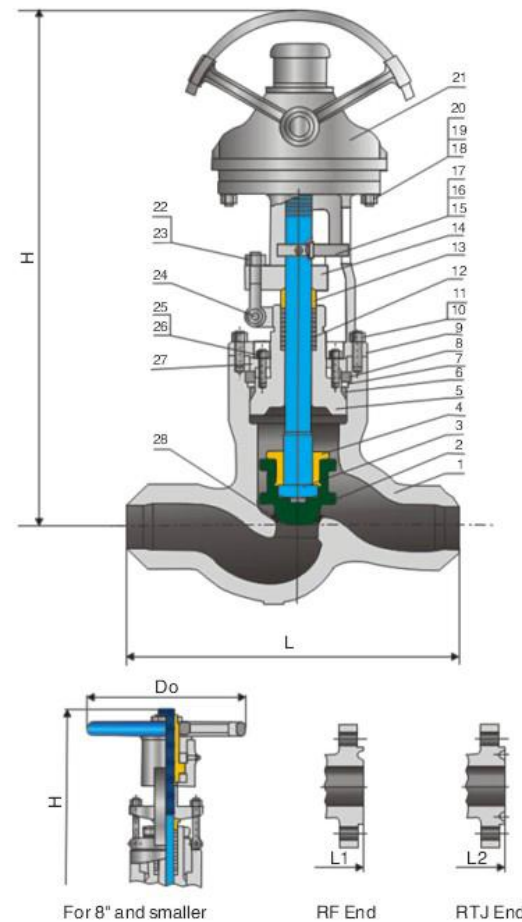
Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Disc	ASTM A105+13Cr
3	Stem	ASTM A182 F6a
4	Disc nut	ASTM A276 410
5	Bonnet	ASTM A216 Gr.WCB
6	Sealing ring	ASTM A182 F304
7	Spacer ring	ASTM A182 F6a
8	Sealing ring	ASTM A182 F6a
9	Yoke	ASTM A216 Gr.WCB
10	Bolt	ASTM A193 Gr.B7
11	Nut	ASTM A194 Gr.2H
12	Packing	Graphite
13	Gland	ASTM A276 410
14	Gland flange	ASTM A216 Gr.WCB
15	Pin	C.S.
16	Bolt	C.S.
17	Stem guide collar	C.S.
18	Bolt	C.S.
19	Nut	C.S.
20	Washer	C.S.
21	Gear box	Assembly
22	Gland bolt	ASTM A193 Gr.B7
23	Gland nut	ASTM A194 Gr.2H
24	Pin	ASTM A276 410
25	Stud	ASTM A193 Gr.B7
26	Nut	ASTM A194 Gr.2H
27	Supporting plate	ASTM A105
28	Seat surface	STL No.6

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

Class 900	Valve Size	in. mm	2 50	2 1/2 65	3 80	4 100	6 150	8 200
	(RF-BW)(L-L1)	in. mm	14.5 368	16.5 419	15 381	18 457	24 610	29 737
	RTJ (L2)	in. mm	14.62 371	16.62 422	15.12 384	18.12 460	24.12 613	29.12 740
	Open (H)	in. mm	21.65 550	23.82 605	26.70 678	31.42 798	36.61 930	49.61 1260
	Do	in. mm	13.78 350	13.78 350	15.75 400	17.72 450	18.03 458	24 610
Class 1500	Valve Size	in. mm	14.5 368	16.5 419	18.5 470	21.5 546	27.75 705	32.75 832
	(RF-BW)(L-L1)	in. mm	14.62 371	16.62 422	18.62 473	21.62 549	28 711	33.13 842
	RTJ (L2)	in. mm	21.65 550	23.82 605	34.10 866	37.64 956	49.61 1260	49.72 1263
	Do	in. mm	15.75 400	15.75 400	17.72 450	22.05 560	24 610	24 610
	WT (kg)	RF-BW	83 75	108 99	132 120	228 207	658 593	1588 1438
Class 2500	Valve Size	in. mm	17.75 451	20 508	22.75 578	26.50 673	36 914	40.25 1022
	(RF-BW)(L-L1)	in. mm	17.87 454	20.25 514	23 584	26.88 683	36.50 927	40.87 1038
	RTJ (L2)	in. mm	22.05 560	28.35 720	29.72 755	48.43 1230	70.51 1791	82.13 2086
	Do	in. mm	15.75 400	17.72 450	22.05 560	12.2 310	24 610	30 760
	WT(kg)	RF-BW	138 98	166 116	245 178	618 436	1498 1146	3198 2592



Features

Design and manufacture:
BS 1873 and ASME B16.34
Stem indicator
Disc hard-surfaced
Integral hard-surfaced seats

Guide ribs
Pressure seal gasket
B.W.End to ASME B 16.25
Low pressure drops

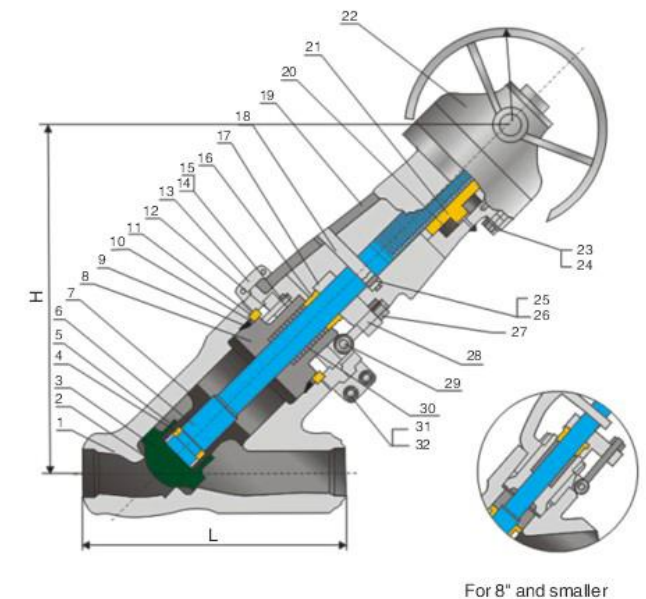
Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat surface	Stellite
3	Disc	ASTM A105+13Cr
4	Split ring	ASTM A182 F6a
5	Bolt	S.S.
6	Stem	ASTM A182 F6a
7	Disc guide	ASTM A276 410
8	Bonnet	ASTM A216 Gr.WCB
9	Sealing ring	ASTM A182 F304
10	Spacer ring	ASTM A182 F6a
11	Sealing ring	ASTM A182 F6a
12	Supporting plate	ASTM A 105
13	Yoke lock ring	ASTM A216 Gr.WCB
14	Bolt	ASTM A193 Gr.B7
15	Nut	ASTM A194 Gr.2H
16	Gland	ASTM A276 410
17	Gland flange	ASTM A216 Gr.WCB
18	Stem guide collar	C.S.
19	Yoke	ASTM A216 Gr.WCB
20	Bushing	Assembly
21	Stem nut	Aluminum Bronze
22	Gear box	Assembly
23	Bolt	C.S.
24	Washer	C.S.
25	Pin	C.S.
26	Bolt	C.S.
27	Stud	ASTM A193 Gr.B7
28	Nut	ASTM A194 Gr.2H
29	Pin	C.S.
30	Packing	Graphite
31	Lock ring bolt	ASTM A193 Gr.B7
32	Lock ring nut	ASTM A194 Gr.2H

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Dimensions and Weights

Class 900	Valve Size	in. mm	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250	12 300	14 350	16 400
	BW(L)	in. mm	13.3 338	15.4 391	17 432	18.5 470	20 508	26 660	31 787	38 965	44.5 1130	
	Open	in. mm	15 380	16.5 420	18.11 460	23.23 590	32.28 820	41.34 1050	50 1270	58.27 1480	61.02 1550	70.08 1780
	W	in. mm	12.2 310	12.2 310	18.11 460	18.11 460	18.11 460	24 610	24 610	24 610	24 610	24 610
	WT(kg)	kg	78	84	92	131	258	553	992	1603	1825	2579
Class 1500	BW (L)	in. mm	13.3 338	15.4 391	17 432	18.5 470	27.75 705	30 762	36.25 921	43 1092	-	-
	Open	in. mm	15 380	16.5 420	15.16 385	15.16 385	18.5 470	26.06 662	34.76 883	58.28 1480	-	-
	W	in. mm	12.2 310	12.2 310	18.11 460	18.11 460	18.11 460	24 610	24 610	24 610	-	-
	WT(kg)	kg	83	95	115	148	362	759	1320	2062	-	-
Class 2500	BW (L)	in. mm	13.3 338	15.4 391	17 432	18.5 470	27.75 705	30 762	36.25 921	-	-	-
	Open	in. mm	15 380	16.5 420	15.16 385	16.54 420	26.89 683	28.35 720	35.12 892	-	-	-
	W	in. mm	12.2 310	18.11 460	18.11 460	18.11 460	18.11 460	24 610	24 610	-	-	-
	WT(kg)	kg	93	106	122	163	461	790	1330	-	-	-

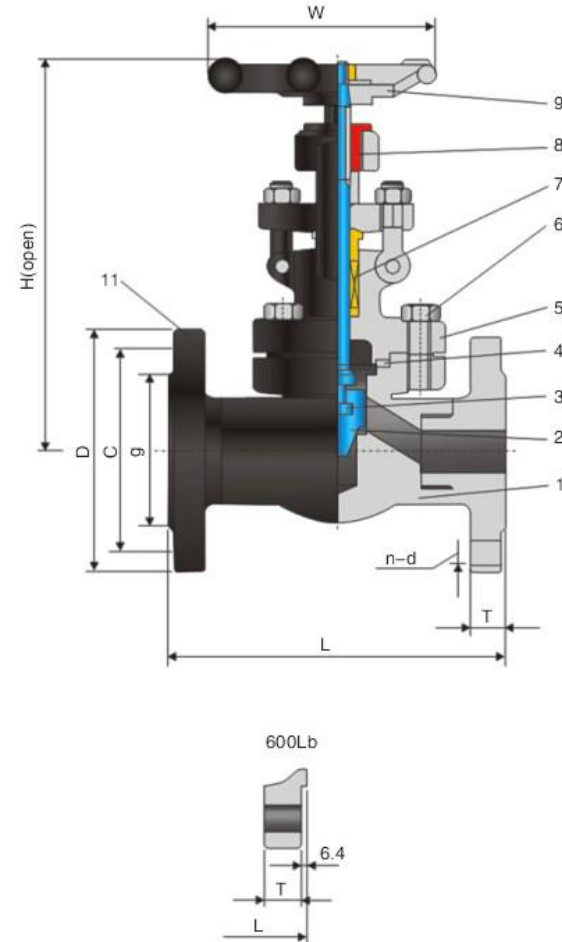


Technical Specification

- 1、Design and manufacture: API 602, BS 5352.
- 2、Construction feature: B.B OS&Y or WB OS&Y
- 3、Face to face dimensions: ANSI B16.10.
- 4、Flanged connection: ANSI B 16.5.
- 5、Test and inspection: API 598.
- 6、Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

Main Parts and Materials

No	Parts	Material
1	Body	A105
2	Disc	13Cr
3	Stem	A182-F6a
4	Gasket	304S.S. Jacketed Graphite
5	Bonnet	A105
6	Bolt	A193-B7
7	Packing	Graphite
8	Stem nut	13Cr
9	Handwheel	Malleable Iron
10	Flange	A105



Main Dimensions and Weights

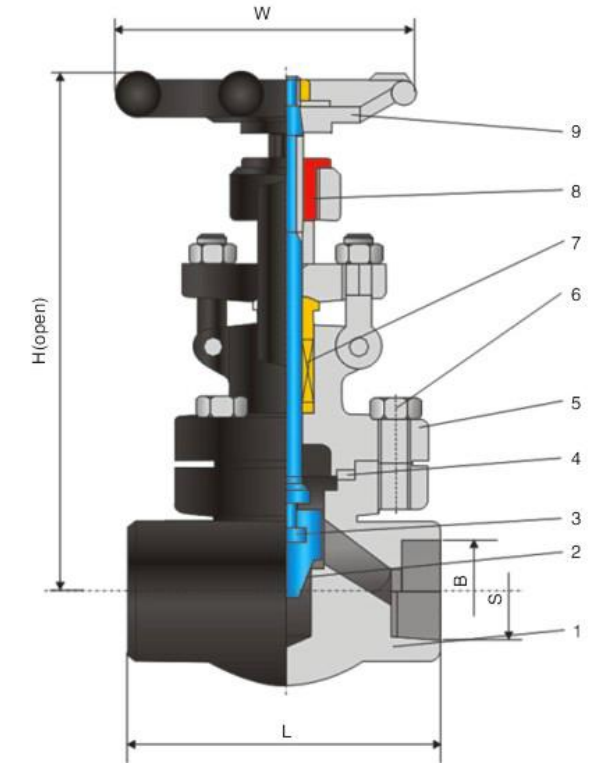
DN		Class	L	D	C	g	T	n-d	H(Open)		W		WT(kg)	
Inch	mm								Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore
1/2"	15	150	108	90	60.5	35	11.5	4-16	158	163	100	100	4.5	6.9
		300	152	95	66.5		14.5	4-16					4.8	7.7
		600	165	95	66.5		14.5	4-16					5.6	7.8
3/4"	20	150	117	100	70	43	13	4-16	163	193	100	125	6.9	9.8
		300	178	115	82.5		16	4-19					7.7	11.3
		600	190	115	82.5		16	4-19					7.8	12.5
1"	25	150	127	110	79.5	51	14.5	4-16	193	250	125	160	9.8	13.5
		300	203	125	89		18	4-19					11	16.8
		600	216	125	89		18	4-19					12.5	17.5
1 1/4"	32	150	140	115	89	63	16	4-16	250	250	160	160	13.5	19.5
		300	216	135	98.5		19.5	4-19					16.8	21.2
		600	229	135	98.5		21	4-19					17	23.5
1 1/2"	40	150	165	125	98.5	73	18	4-16	250	291	160	180	19.5	28.5
		300	229	155	114.5		21	4-22.5					21.2	32.6
		600	241	155	114.5		22.5	4-22.5					23.5	38.5
2"	50	150	203	150	120.5	92	19.5	4-19	291	312	180	200	28	30.3
		300	267	165	127		22.5	8-19					32.6	35
		600	292	165	127		26	8-19					38.8	42.2

Technical Specification

- 1、Design and manufacturing per API 602, BS 5352.
- 2、Construction feature: B.B OS&Y or W.B OS&Y
- 3、FNPT connection: ANSI B1.20.1
Socket weld connection: ANS B 16.11
- 4、Test and inspection: API 598.
- 5、Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

Main Parts and Materials

No	Parts	Material
1	Body	A105
2	Disc	13Cr
3	Stem	A182-F6a
4	Gasket	304S.S. Jacketed Graphite
5	Bonnet	A105
6	Bolt	A193-B7
7	Packing	Graphite
8	Stem nut	13Cr
9	Handwheel	Malleable Iron



Main Dimensions and Weights

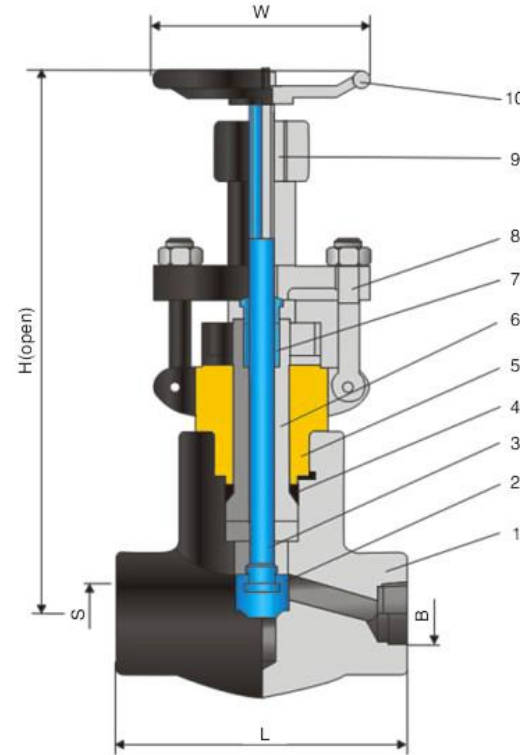
DN				L	B(SW)				S(Screwed)				H (Open)	W	WT(kg)	
Inch		mm			ANSI		JIS		ANSI60°		ISO、BS、JIS50°				Reduced Bore	Full Bore
Reduced Bore	Full Bore	Reduced Bore	Full Bore		Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore				
1/2"	—	15	—	80	21.8	—	22.2	—	1/2"	—	1/2"	—	158	100	1.9	—
3/4"	1/2"	20	15	92	27.1	21.8	27.7	22.2	3/4"	1/2"	3/4"	1/2"	192	100	2.1	2.3
1"	3/4"	25	20	111	33.8	27.1	34.5	27.7	1"	3/4"	1"	3/4"	252	125	3.3	3.6
1 1/4"	1"	32	25	120	42.6	33.8	43.2	34.5	1 1/4"	1"	1 1/4"	1"	252	160	7.5	7.8
1 1/2"	1 1/4"	40	32	152	48.7	42.6	49.1	43.2	1 1/2"	1 1/4"	1 1/2"	1 1/4"	289	160	7.5	8.2
2"	1 1/2"	50	40	172	61.1	48.7	61.1	49.1	2"	1 1/2"	2"	1 1/2"	330	180	11.4	12
—	2"	—	50	200	—	61.1	—	61.1	—	2"	—	2"	370	240	—	15

Technical Specification

- 1、Design and manufacture: API 602, BS 5352.
- 2、Construction feature: PSB OS&Y or WB OS&Y
- 3、FNPT connection: ANSI B1.20.1
Socket weld connection: ANSI B 16.11
- 4、Test and inspection: API 598.
- 5、Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

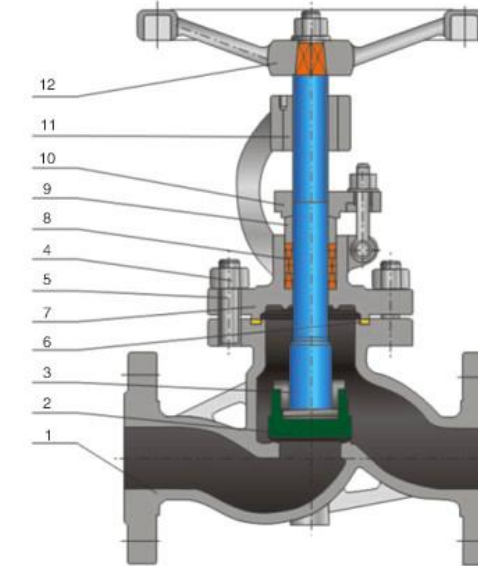
Main Parts and Materials

No	Parts	Material
1	Body	A105
2	Disc	13Cr
3	Stem	A182-F6a
4	Sealed ring	304
5	Yoke	A105
6	Bonnet	A105
7	Packing	Graphite
8	Bolt	A193-B7
9	Stem nut	13Cr
10	Handwheel	Malleable Iron



Main Dimensions and Weights

DN		L		B(SW)		S(Screwed)			H		W		WT(kg)	
inch	mm	Class900 Class1500	Class2500	ANSI	JIS	ANSI APT60°	ISO、BS RC60°	JIS PT50°	(Open)				Class900 Class1500	Class2500
1/2"	15	140	186	21.8	22.2		1/2"		333	125	10.1	10.8		
3/4"	20	140	186	27.1	27.7		3/4"		333	125	10.8	11.6		
1"	25	140	186	33.8	34.5		1"		333	160	11.2	12.3		
1 1/4"	32	178	232	42.6	43.2		1 1/4"		408	160	21.0	28.0		
1 1/2"	40	178	232	48.7	49.1		1 1/2"		408	180	19.6	26.4		
2"	50	216	279	61.1	61.1		2"		524	200	40.4	43.8		



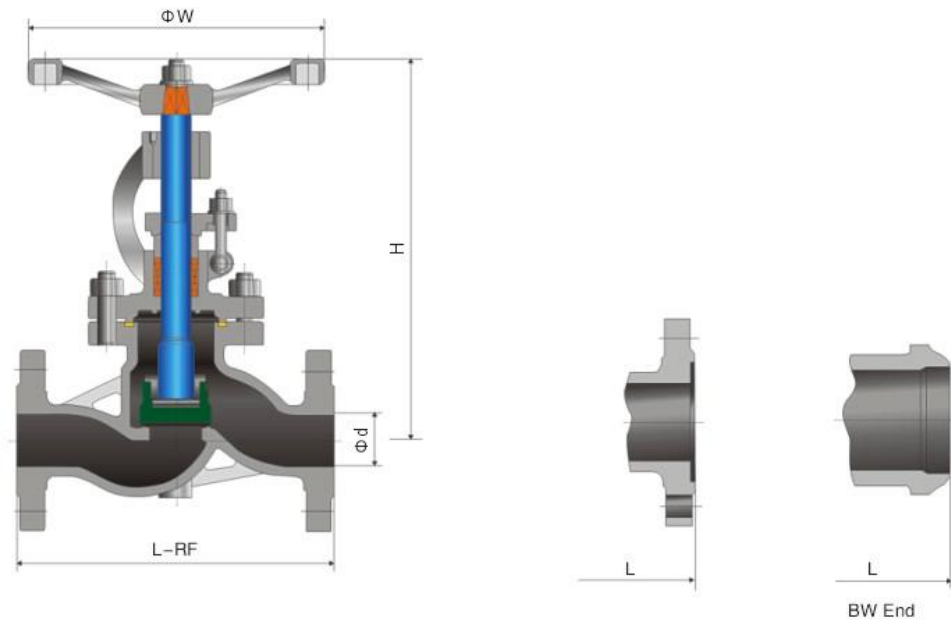
Standards

Design and Manufacture: BS 1873, BS EN 558-1
Face to Face Dimensions: DIN3202, EN 1092-1
Flange Ends Dimensions: DIN2543,
DIN2544, DIN2545, DIN2546,
DIN2547, DIN2548
Test & Inspect: DIN 3230

Parts and Material list

Part Name	Material				
	Trim 1	Trim 8	Trim 5		
1 Body	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+STL	DIN 17245 GS-C25+STL	DIN 17445 1.4308	DIN 17445 1.4408
2 Disc	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+STL	DIN 17445 1.4308	DIN 17445 1.4408
7 Bonnet	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+CR13	DIN 17445 1.4308	DIN 17445 1.4408
9 Gland	ASTM A182 F6a			ASTM A182 F304	ASTM A182 F316
10 Gland Flange	DIN 17245 GS-C25			DIN 17445 1.4308	DIN 17445 1.4408
3 Stem	ASTM A182 F6a			ASTM A182 F304	ASTM A182 F304
4 Nut	A194 2H			A194 8	A194 8
5 Bolt	A193 B7			A193 B8	A193 B8
6 Gasket	SS Spiral Wound W/graphite, or SS Spiral Wound W/PTFE, or Reinforced PTFE				
8 Packing	Braided Graphite or reformed Graphite Ring or PTFE				
11 Stem Nut	Copper alloy or A439 D2				
12 Hand Wheel	Ductile iron or Carbon steel				

Noted: The chart above only lists out some common composition of steel globe valve. We may provide other different parts material composition according to the customer's request or the actual valve working condition

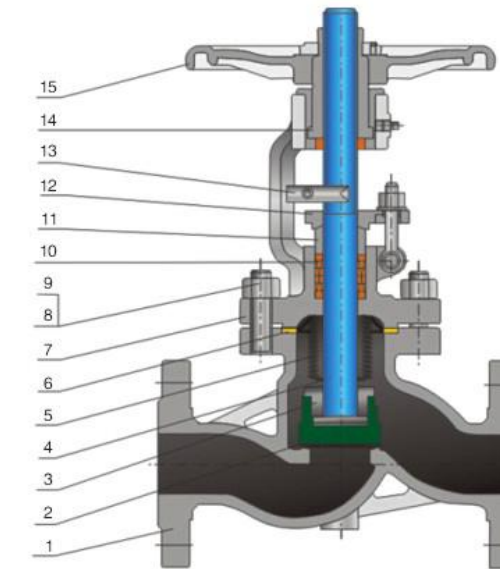


Dimensions

PN16(DIN 3202-F1)																			
DN	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500
L-RF	mm	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	1200	1250
L-BW	mm	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	1200	1250
H	mm	190	210	235	235	285	310	340	370	420	480	510	610	770	890	-	-	-	-
W	mm	120	140	160	180	200	200	250	280	300	360	400	400	450	500	-	-	-	-
PN25(DIN 3202-F1)																			
DN	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	-	-
L-RF	mm	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	-	-
L-BW	mm	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	-	-
H	mm	190	210	235	235	285	310	340	370	420	480	535	660	790	940	1010	1125	-	-
W	mm	120	140	160	180	200	200	250	280	300	360	400	400	450	500	-	-	-	-
PN40(DIN 3202-F1)																			
DN	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	-	-
L-RF	mm	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	-	-
L-BW	mm	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100	-	-
H	mm	190	210	235	235	285	310	340	370	420	480	560	725	815	945	1015	1150	-	-
W	mm	120	140	160	180	200	200	250	280	300	360	500	500	-	-	-	-	-	-
PN63(DIN 3202-F2)																			
DN	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	-	-	-	-
L-RF	mm	210	230	230	260	260	300	340	380	430	500	550	650	775	900	-	-	-	-
L-BW	mm	210	230	230	260	260	300	340	380	430	500	550	650	775	900	-	-	-	-
W	mm	210	248	275	355	395	450	494	531	588	650	715	813	-	-	-	-	-	-
PN100(DIN 3202-F2)																			
DN	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	-	-	-	-
L-RF	mm	210	230	230	260	260	300	340	380	430	500	550	650	775	900	-	-	-	-
L-BW	mm	210	230	230	260	260	300	340	380	430	500	550	650	775	900	-	-	-	-
W	mm	210	248	275	355	395	450	494	531	588	650	715	813	-	-	-	-	-	-

Noted: We may provide other different actuators according to the customer's request, such as pneumatic, electric, hydraulic actuators, the details of them according to the actual valve working condition.

Noted: The face to face dimension of BW-end-valve is the same as that of flanged-end-valve.



Standards

Design and Manufacture: DIN 3356, BS 1873
Face to Face Dimensions: DIN 3202, EN 558-1
Flange Ends Dimensions: DIN 2543-2545, EN 1092-1
Test & Inspect: DIN 3230, BS EN 12569

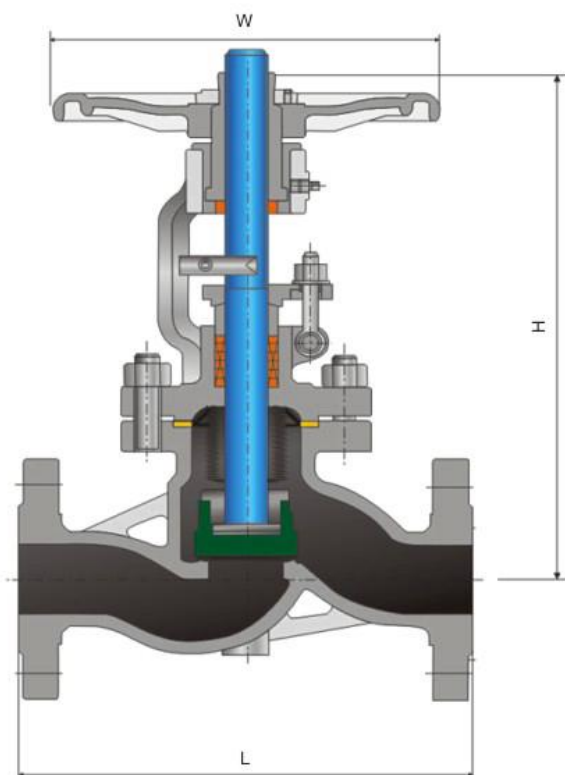
Structure Feature

1. Double seal, more reliable performance,
2. Stem lift position indication, more intuitive,
3. Small flow resistance, low pressure drop.

Parts and Material list

Part Name	Material					
1 Body	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+STL	DIN 17245 GS-C25+STL	DIN 17445 1.4308	DIN 17445 1.4408	
2 Disc	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+CR13	DIN 17245 GS-C25+STL	DIN 17445 1.4308	DIN 17445 1.4408	
7 Bonnet	DIN 17245 GS-C25	DIN 17245 GS-C25	DIN 17245 GS-C25	DIN 17445 1.4308	DIN 17445 1.4408	
3 Disc Cover	ASTM A182 F6a			ASTM A182 F304	ASTM A182 F316	
4 Stem	ASTM A182 F6a			ASTM A182 F304	ASTM A182 F316	
5 Bellows Seal	SS304			SS304	SS316	
8 Bolt	ASTM A193 B7			ASTM A194 8	ASTM A194 8	
9 Nut	ASTM A194 2H			ASTM A193 B8	ASTM A193 B8	
11 Gland	ASTM A182 F6a			ASTM A182 F304	ASTM A182 F316	
12 Gland Flange	DIN 17245 GS-C25			DIN 17445 1.4308	DIN 17445 1.4408	
13 Guide Block	DIN 17245 GS-C25			DIN 17445 1.4308	DIN 17445 1.4408	
6 Gasket	Flexible Graphite+SS, TFE, or Reinforced PTFE					
10 Packing	Braided Graphite or reformed Graphite Ring or PTFE					
14 Stem Nut	Copper Alloy or A439 D2					
15 Hand wheel	Ductile Iron or Carbon steel					

Noted: Connection flange of series valve may be manufactured by customer's requirement.



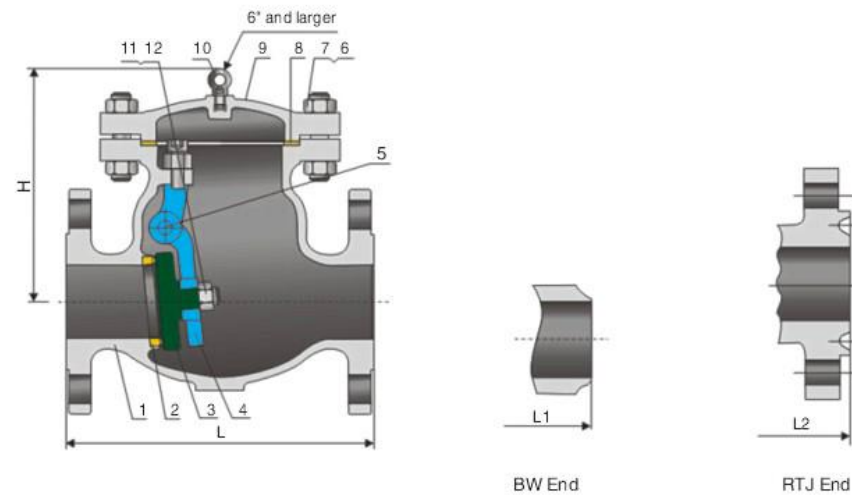
Dimensions

PN16(DIN 3202-F1)															
DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
L	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
H	195	200	220	225	235	250	260	265	370	400	515	550	600	630	680
W	120	120	140	160	160	180	200	220	250	300	350	400	450	500	500
PN25(DIN 3202-F1)															
DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
L	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
H	195	200	220	225	235	250	260	265	370	400	515	550	600	630	680
W	120	140	140	160	160	180	200	220	250	300	350	400	450	500	500
PN40(DIN 3202-F1)															
DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
L-RF	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
H	195	200	220	225	235	250	260	265	370	400	515	550	600	630	680
W	120	140	140	160	160	180	200	220	250	300	350	400	450	500	500

Check Valve Series



Class 150 Bolted cover, swing type disc



Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+13Cr
3	Disc	ASTM A216 Gr.WCB+13Cr
4	Hinge	ASTM A216 WCB
5	Hinge pin	ASTM A276 410
6	Cover bolt	ASTM A193 Gr.B7
7	Cover nut	ASTM A194 Gr.2H
8	Gasket	304S.S. Jacketed Graphite
9	Cover	ASTM A216 Gr.WCB
10	Eye bolt	C.S.
11	Nut	304S.S.
12	Washer	ASTM A276 410

Features

Design and manufacture: BS 1868, API 6D, ASME B16.34
Face-to-Face dimension: ASME B16.10, JIS B2002
Flanged dimension: 24" and smaller valves: ASME B16.5, 26" and larger valves: ASME B 16.47 series A and B
B. W. End: ASME B 16.25
Shell Wall Thickness: BS1868, ASME B16.34
26" and larger to manufacturer s standard
Inspection & Test: API 598, API 6D

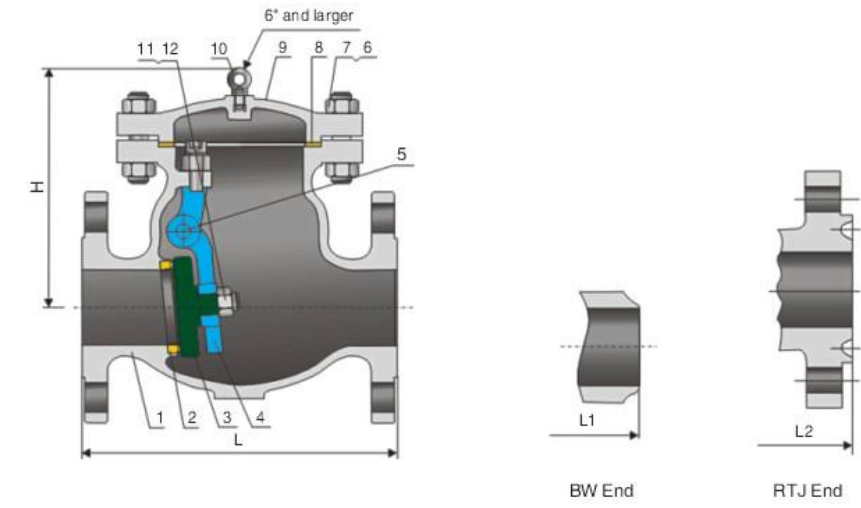
Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Dimensions & Weights Class 150

Valve Size	in. mm	1 1/2 40	2 50	2 1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	18 450	20 500	24 600	30 750	36 900
L-L1 (RF-BW)	in. mm	6.5 165	8 203	8.5 216	9.5 241	11.5 292	13 330	14 356	19.5 495	24.5 622	27.5 698	31 787	34 864	38.5 978	38.5 978	51 1295	60 1524	77 1956
L2 (RTJ)	in. mm	7.0 178	8.5 216	9 229	10 254	12 305	13.5 343	14.5 369	20 508	25 635	28 711	31.5 800	34.5 877	39 991	39 991	51.5 1308	60.5 1537	77.5 1969
H (open)	in. mm	6.69 170	6.88 175	7 178	7.5 191	8.63 219	9.25 235	12.75 324	15.13 384	17.63 448	21.25 540	22 559	24.63 626	25.63 651	26.63 676	34.63 880	45.25 1149	53.13 1349
WT (kg)	RF BW	18 12	20 14	24 17	35 26	55 37	84 52	96 80	160 133	245 213	345 294	510 440	660 568	850 750	1050 920	1450 1270	2350 2250	3350 3150

Class 300 Bolted cover, swing type disc

Check Valve Series



Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+13Cr
3	Disc	ASTM A216 Gr.WCB+13Cr
4	Hinge	ASTM A216 WCB
5	Hinge pin	ASTM A276 410
6	Cover bolt	ASTM A193 Gr.B7
7	Cover nut	ASTM A194 Gr.2H
8	Gasket	304S.S. Jacketed Graphite
9	Cover	ASTM A216 Gr.WCB
10	Eye bolt	C.S.
11	Nut	304S.S.
12	Washer	ASTM A276 410

Features

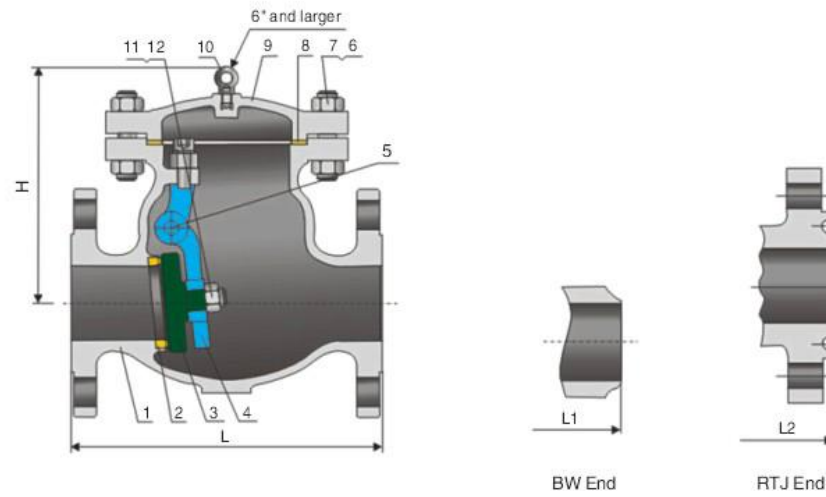
Design and manufacture: BS1868, API 6D, ASME B16.34
Face-to-Face dimension: ASME B16.10, JIS B2002
Flanged dimension: 24" and smaller valves: ASME B16.5, 26" and larger valves: ASME B 16.47 series A and B
B. W. End: ASME B 16.25
Shell Wall Thickness: BS1868, ASME B16.34
26" and larger to manufacturer s standard
Inspection & Test: API 598, API 6D

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Dimensions & Weights Class300

Valve Size	in. mm	1 1/2 40	2 50	2 1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	18 450	20 500	24 600	30 750	36 900
L-L1 (RF-BW)	in. mm	9.5 241	10.5 267	11.5 292	12.5 318	14 356	15.75 400	17.5 444	21 533	24.5 622	28 711	33 838	34 864	38.5 978	40 1016	53 1346	62.75 1594	82 2083
L2 (RTJ)	in. mm	10 254	11.12 283	12.12 308	13.15 334	14.62 372	16.37 416	18.12 460	21.62 549	25.12 638	28.62 727	33.62 854	34.62 880	39.12 994	40.75 1035	53.88 1368	63.75 1619	83.11 2111
H (open)	in. mm	7.4 188	7.75 197	8 203	8.75 222	10.88 276	11.63 295	13.25 337	16.25 413	18.25 464	22.13 562	23.5 597	25.38 645	29.88 759	33.63 854	37 940	50 1270	60.63 1540
WT (kg)	RF BW	31 28	35 32	37 35	60 50	82 65	110 70	155 128	268 230	380 270	495 460	710 555	950 800	1200 970	1350 1070	2200 1780	3400 2950	5000 4300

Class 600 Bolted cover, swing type disc



Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+13Cr
3	Disc	ASTM A216 Gr.WCB+13Cr
4	Hinge	ASTM A216 WCB
5	Hinge pin	ASTM A276 410
6	Cover bolt	ASTM A193 Gr.B7
7	Cover nut	ASTM A194 Gr.2H
8	Gasket	304S.S. Jacketed Graphite
9	Cover	ASTM A216 Gr.WCB
10	Eye bolt	C.S.
11	Nut	304S.S.
12	Washer	ASTM A276 410

Features

Design and manufacture: BS1868, API 6D, ASME B16.34
Face-to-Face dimension: ASME B16.10
Flanged dimension: 24\" and smaller valves: ASME B16.5
26\" and larger valves: ASME B 16.47 series A and B
B. W. End: ASME B 16.25
Shell Wall Thickness: BS1868, ASME B16.34
26\" and larger to manufacturer s standard
Inspection & Test: API 598, API 6D

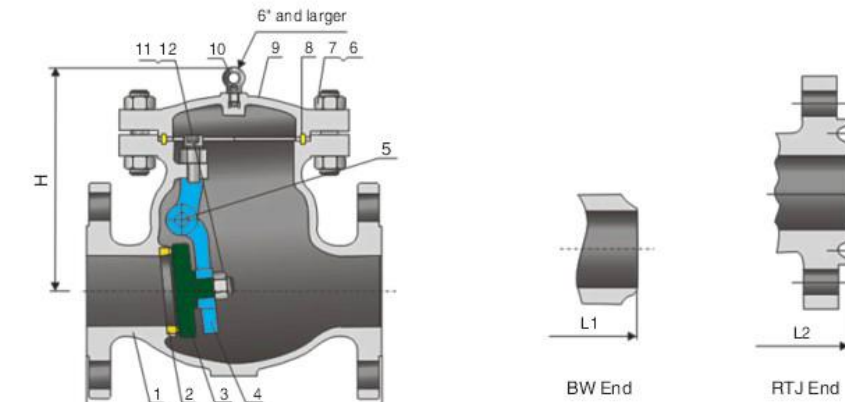
Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M,4A, 5A etc for body material.And trim can be customized upon request.

Dimensions & Weights

Valve Size	in. mm	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250	12 300	14 350	16 400	18 450	20 500	24 600	26 650	28 700	30 750
L-L1 (RF-BW)	in. mm	11.5 292	13 330	14 356	17 432	22 559	26 660	31 787	33 838	35 889	39 991	43 1092	47 1194	55 1397	57 1448	63 1600	65 1651
L2 (RTJ)	in. mm	11.62 295	13.12 333	14.12 359	17.12 435	22.12 562	26.12 663	31.12 790	33.12 841	35.12 892	39.12 994	43.12 1095	47.25 1200	55.38 1407	57.5 1461	63.5 1613	65.5 1664
H (open)	in. mm	8.25 210	8.63 219	10.5 267	11.75 299	15 381	18.75 476	21.63 549	22.63 575	26.38 670	30.13 765	35.25 895	38.38 975	43.75 1111	48 1219	53.13 1349	56.25 1429
WT (kg)	RF BW	40 31	55 45	72 60	120 85	270 225	420 365	620 500	810 715	1100 880	1450 1140	1800 1450	2100 1650	3000 2300	3500 3000	4100 3500	5000 4300

Class 900/1500/2500 Bolted cover, swing type disc

Check Valve Series



Main Parts and Materials

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat ring	ASTM A105+13Cr
3	Disc	ASTM A216 Gr.WCB+13Cr
4	Hinge	ASTM A216 WCB
5	Hinge pin	ASTM A276 410
6	Cover bolt	ASTM A193 Gr.B7
7	Cover nut	ASTM A194 Gr.2H
8	Gasket	304S.S. Jacketed Graphite
9	Cover	ASTM A216 Gr.WCB
10	Eye bolt	C.S.
11	Nut	304S.S.
12	Washer	ASTM A276 410

Features

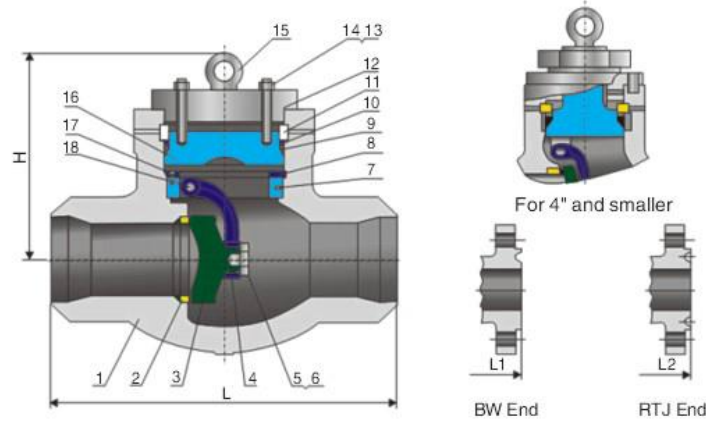
Design and manufacture: BS1868, API 6D, ASME B16.34
Face-to-Face dimension: ASME B 16.10
Flanged dimension: ASME B16.5
B.W. End: ASME B16.25
Shell Wall Thickness: BS1868, ASME B16.34
Inspection & Test: API 598, API 6D

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M,4A, 5A etc for body material. And trim can be customized upon request.

Dimensions & Weights

Valve Size	in. mm	2 50	2 1/2 65	3 80	4 100	6 150	8 200	10 250	12 300
L-L1 (RF-BW)	in. mm	14.5 368	16.5 419	15 381	18 457	24 610	29 737	33 838	38 965
L2 (RTJ)	in. mm	14.62 371	16.62 422	15.12 384	18.12 460	24.12 613	29.12 740	33.12 841	38.12 968
H (open)	in. mm	12.63 321	13.75 349	12.63 321	16 406	18.88 479	22.25 565	26.13 664	30.5 775
WT (kg)	RF BW	70 50	160 71	90 68	150 113	305 230	516 387	810 632	1120 901
L-L1 (RF-BW)	in. mm	14.5 368	16.5 419	18.5 470	21.5 546	27.75 705	32.75 832	39 991	44.5 1130
L2 (RTJ)	in. mm	14.62 371	16.62 422	18.62 473	21.62 549	28 711	33.15 842	39.4 1001	45.12 1146
H (open)	in. mm	12.63 321	13.75 349	14.38 365	16.5 419	20.13 511	26.75 680	29.75 756	33.75 857
WT (kg)	RF BW	70 50	110 87	170 135	300 245	695 560	1190 965	1850 1480	2750 2180
L-L1 (RF-BW)	in. mm	17.75 451	20 508	22.75 578	26.5 673	36 914	40.25 1022	50 1270	56 1422
L2 (RTJ)	in. mm	17.87 454	20.25 514	23 584	26.88 683	36.5 927	40.87 1038	50.88 1292	56.88 1444
H (open)	in. mm	16.38 416	16.5 419	17.38 441	18.88 479	20.13 511	28 711	33.5 851	39.38 1000
WT (kg)	RF BW	150 120	240 195	350 280	650 540	1450 1200	2550 2200	3950 3150	5700 4550

Class 900/1500/2500 Pressure seal cover, swing type disc



Features

Design and manufacture: BS1868, API 6D, ASME B16.34
Face-to-Face dimension: ASME B16.10
Flanged dimension: ASME B16.5
Shell Wall Thickness: BS1868, ASME B16.34
Inspection & Test: API 598, API 6D

Note: Available LCB, LCC, WC6, C5, WC9, C12, CF8, CF8M, 4A, 5A etc for body material. And trim can be customized upon request.

Main Parts and Materials

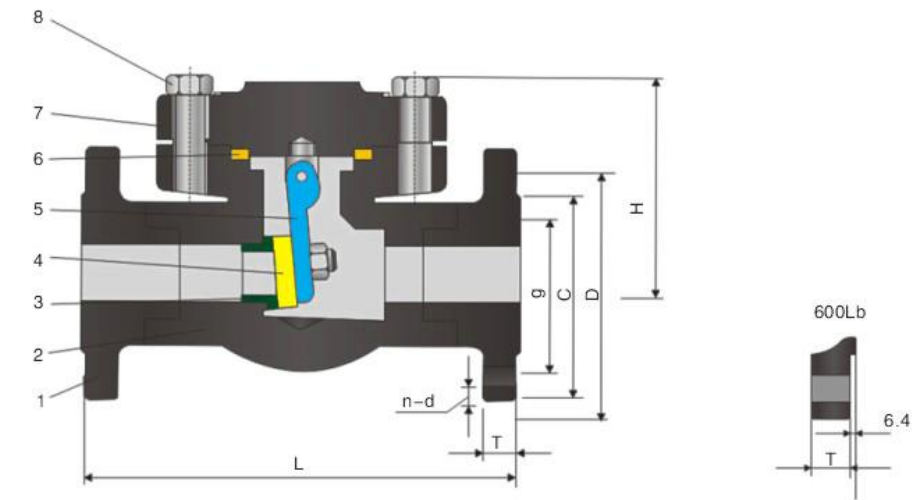
No	Parts	Material	No	Parts	Material
1	Body	ASTM A216 Gr.WCB	10	Gasket	ASTM A182 F6a
2	Seat ring	ASTM A105+Stellite	11	Segment ring	ASTM A182 F6a
3	Disc	ASTM A216 Gr.WCB+13Cr	12	Cover	ASTM A216 Gr.WCB
4	Hinge	ASTM A216 Gr.WCB	13	Stud	ASTM A193 Gr.B7
5	Screw pin	ASTM A276 410	14	Nut	ASTM A194 Gr.2H
6	Screw	ASTM A276 410	15	Eyebolt	C.S.
7	Locking pin	ASTM A276 410	16	Bonnet	ASTM A216 Gr.WCB
8	Locking ring	ASTM A105	17	Bolt	S.S.
9	Seal ring	ASTM A182 F304	18	Pin	ASTM A276 410

Main Dimensions & Weights

Class	Valve Size	In. mm	Valve Size											
			2	2 1/2	3	4	6	8	10	12	14	16	18	20
Class 900	L (BW)	in. mm	8.5	10	12	14	20	26	30	36	39	43	47	51
	L1 (RF)	in. mm	14.5	16.5	18	21	27.5	32.75	39	44.5	49.5	54.5	59.5	64.5
	L2 (RTJ)	in. mm	14.62	16.62	18.62	21.62	28	33.13	39.38	45.12	50.25	55.38	60.5	65.6
	H (open)	in. mm	7.4	8.27	8.27	8.5	14.5	20.12	24.17	27.76	28.98	29.76	30.5	31.2
	WT (kg)	RF BW	48	63	80	122	254	511	938	1448	1723	1832	1941	2050
			33	44	56	76	177	383	703	1128	1353	1463	1573	1683
Class 1500	L (BW)	in. mm	8.5	10	12	16	22	28	34	39	42	47	51	56
	L1 (RF)	in. mm	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5	54.5	59.5	64.5
	L2 (RTJ)	in. mm	14.62	16.62	18.62	21.62	28	33.13	39.38	45.12	50.25	55.38	60.5	65.6
	H (open)	in. mm	10.43	10.43	10.63	14.57	18.7	22.44	24.8	30.31	31.3	32.44	33.5	34.6
	WT (kg)	RF BW	58	73	91	128	332	588	1023	1528	1852	2058	2264	2470
			40	51	65	84	228	458	713	1148	1388	1542	1696	1850
Class 2500	L (BW)	in. mm	11	13	14.5	18	24	30	36	41	45	50	55	60
	L1 (RF)	in. mm	17.75	20	22.75	26.5	36	40.25	50	56	62	68	74	80
	L2 (RTJ)	in. mm	17.87	20.25	23	26.88	36.5	40.87	50.88	56.88	62.88	68.88	74.88	80.88
	H (open)	in. mm	11.02	12	12.2	14.57	19.1	21.44	27.95	31.5	33.5	35.5	37.5	39.5
	WT (kg)	RF BW	86	113	133	213	548	988	1598	2298	2798	3298	3798	4298
			52	68	84	158	383	638	1198	1723	2248	2773	3298	3823

Class 150/300/600 Forged steel swing check valve

Check Valve Series



Main Parts and Materials

No	Parts	Material
1	Flange	A105
2	Body	A105
3	Seat	13Cr
4	Disc	13Cr
5	Rocker	13Cr
6	Gasket	SS304+Graphite
7	Bonnet	A105
8	Bolt	A193-B7

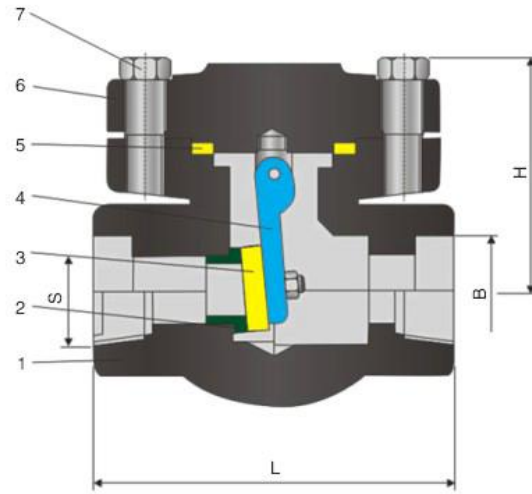
Technical Specification

- Design and manufacture: API 602, BS 5352
- Construction feature: Bolted cover or welded cover. Also available pressure seal cover for high pressure application.
- Face to face dimensions: ANSI B 16.10
- Flanged connection: ANSI B16.5.
- Test and inspection: API 598.
- Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

Main Dimensions & Weights

DN	Inch	mm	Class	L	D	C	g	T	n-d	H(Open)		WT(Kg)	
										Reduced Bore	Full Bore	Reduced Bore	Full Bore
1/2"	15		150	108	90	60.5		11.5	4-16			4.5	6.9
			300	140	95	66.5	35	14.5	4-16	61	61	4.8	7.7
			600	165	95	66.5		14.5	4-16			5.6	7.8
3/4"	20		150	117	100	70		13	4-16			6.9	9.8
			300	152	115	82.5	43	16	4-19	61	78	7.7	11.3
			600	190	115	82.5		16	4-19			7.8	12.5
1"	25		150	127	110	79.5		14.5	4-16			9.8	13.5
			300	216	125	89	51	18	4-19	78	84	11	16.8
			600	216	125	89		18	4-19			12.5	17.5
1 1/4"	32		150	140	119	89		16	4-16			13.5	19.5
			300	229	135	98.5	63	19.5	4-19	84	101	16.8	21.2
			600	229	135	98.5		21	4-19			17	23.5
1 1/2"	40		150	165	125	98.5		18	4-16			19.5	28.5
			300	241	155	114.5	73	21	4-22.5	101	120	21.2	32.6
			600	241	155	114.5		22.5	4-22.5			23.5	38.5
2"	50		150	203	150	120.5		19.5	4-19			28	30.3
			300	267	165	127	92	22.5	8-19	120	133	32.6	35
			600	292	165	127		26	8-19			38.8	42.2

Class 800 Forged steel swing check valve



Main Parts and Materials

No	Parts	Material
1	Body	A105
2	Seat	13Cr
3	Disc	13Cr
4	Rocker	13Cr
5	Gasket	SS304+Graphite
6	Bonnet	A105
7	Bolt	A193-B7

Technical Specification

- Design and manufacture: API 602, BS 5352
- Construction feature: Bolted cover or welded cover. Also available pressure seal cover for high pressure application.
- FNPT connection: ANSI B1.20.1
Socket weld connection: ANSI B 16.11
- Test and inspection: API 598.
- Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

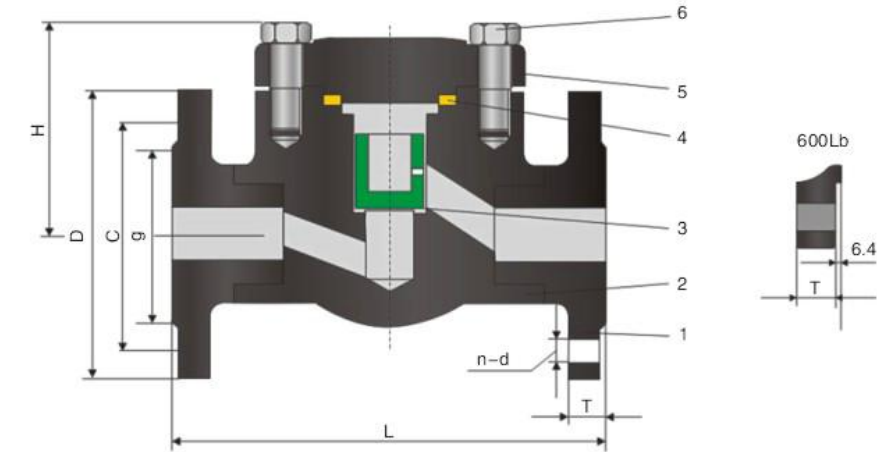
NOTE: For pressure class 900, 1500, 2500, please contact us for dimension and weight.

Main Dimensions & Weights

DN				L	B(SW)				S(Screwed)				H(open)	WT(kg)
Inch		mm			ANSI		JIS		ANSI		ISO、BS、JIS			
									NPT 600		RC or PT 550			
Reduced Bore	Full Bore	Reduced Bore	Full Bore		Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore		
1/2"	—	15	—	80	21.8	—	22.2	—	1/2"	—	1/2"	—	61	1.0
3/4"	1/2"	20	15	92	27.1	21.8	27.7	22.2	3/4"	1/2"	3/4"	1/2"	61	1.1
1"	3/4"	25	20	111	33.8	27.1	34.5	27.7	1"	3/4"	1"	3/4"	78	1.9
1 1/4"	1"	32	25	120	42.6	33.8	43.2	34.5	1 1/4"	1"	1 1/4"	1"	94	3.4
1 1/2"	1 1/4"	40	32	120	48.7	42.6	49.1	43.2	1 1/2"	1 1/4"	1 1/2"	1 1/4"	101	4.5
2"	1 1/2"	50	40	140	61.1	48.7	61.1	49.1	2"	1 1/2"	2"	1 1/2"	120	7.3
—	2"	—	50	170	—	61.1	—	61.1	—	2"	—	2"	133	10

Class 150/300/600 Forged steel flanged lifting check valve

Check Valve Series



Main Parts and Materials

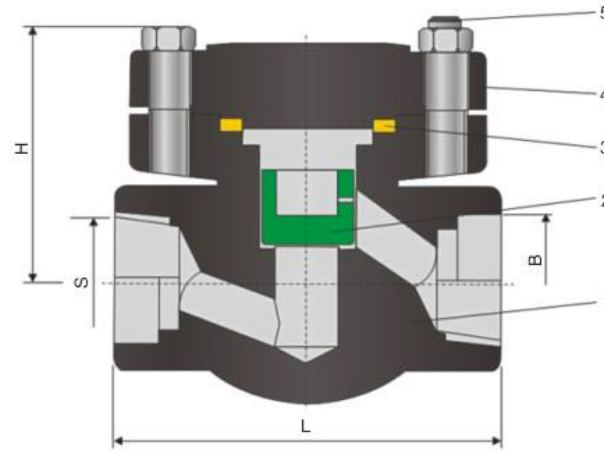
No	Parts	Material
1	Flange	A105
2	Body	A105
3	Disc	13Cr
4	Gasket	SS304+Graphite
5	Bonnet	A105
7	Bolt	A193-B7

Technical Specification

- Design and manufacture: API 602, BS 5352
- Construction feature: Bolted cover or welded cover. Also available pressure seal cover for high pressure application.
- Face to face dimensions: ANSI B 16.10
- Flanged connection: ANSI B16.5
- Test and inspection: API 598
- Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

Main Dimensions & Weights

DN		Class	L	D	C	g	T	n-d	H(Open)		WT(Kg)	
Inch	mm								Reduced Bore	Full Bore	Reduced Bore	Full Bore
1/2"	15	150	108	90	60.5		11.5	4-16			2.56	3.37
		300	152	95	66.5	35	14.5	4-16	61	61	2.73	3.65
		600	165	95	66.5		14.5	4-16			3.00	4.00
3/4"	20	150	117	100	70		13	4-16			3.37	4.37
		300	178	115	82.5	43	16	4-19	61	78	3.65	4.74
		600	190	115	82.5		16	4-19			4.00	5.83
1"	25	150	127	110	79.5		14.5	4-16			4.67	8.17
		300	203	125	89	51	18	4-19	78	84	4.74	8.77
		600	216	125	89		18	4-19			5.83	9.47
1 1/4"	32	150	140	115	89		16	4-16			8.17	8.94
		300	216	135	98.5	63	19.5	4-19	84	101	8.77	9.60
		600	229	133	98.5		21	4-19			9.47	10.1
1 1/2"	40	150	165	125	98.5		18	4-16			8.94	12.04
		300	229	155	114.5	73	21	4-22.5	103	120	9.60	13.70
		600	241	155	114.5		22.5	4-22.5			10.10	15.61
2"	50	150	207	150	120.5		19.5	4-19			12.64	14.3
		300	267	165	127	92	22.5	8-19	118	133	13.70	17.8
		600	292	165	127		26	8-19			15.61	24.6



Main Parts and Materials

No	Parts	Material
1	Body	A105
2	Disc	13Cr
3	Gasket	SS304+Graphite
4	Bonnet	A105
6	Bolt	A193-B7

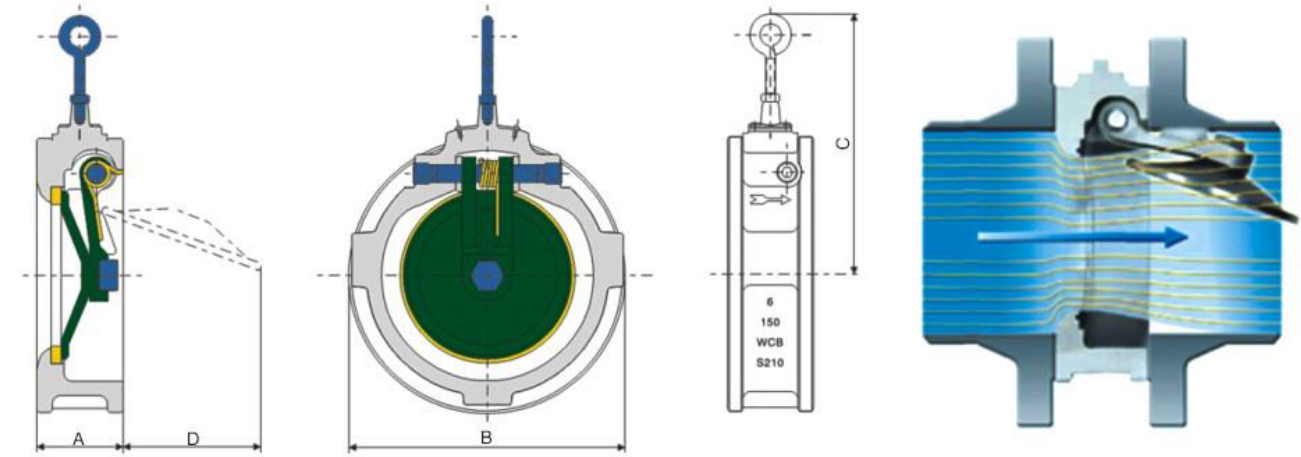
Technical Specification

- Design and manufacture: API 602, BS 5352
- Construction feature: Bolted cover or welded cover. Also available pressure seal cover for high pressure application.
- FNPT connection: ANSI B1.20.1
Socket weld connection: ANSI B 16.11
- Test and inspection: API 598
- Available LF2, F5, F9, F11, F22, F304(L), F316(L), aluminium bronze, Inconel, monel etc for body material. And trim can be customized upon request.

NOTE: For pressure class 900, 1500, 2500, please contact us for dimension and weight.

Main Dimensions & Weights

DN				L	B(SW)				S(Screwed)				H(open)	WT(kg)
Inch		mm			ANSI		JIS		ANSI		ISO、BS、JIS			
									NPT 600		RC or PT 550			
Reduced Bore	Full Bore	Reduced Bore	Full Bore		Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore	Reduced Bore	Full Bore		
1/2"	—	15	—	80	21.8	—	22.2	—	1/2"	—	1/2"	—	61	1.2
3/4"	1/2"	20	15	92	27.1	21.8	27.7	22.2	3/4"	1/2"	3/4"	1/2"	61	1.4
1"	3/4"	25	20	111	33.8	27.1	34.5	27.7	1"	3/4"	1"	3/4"	78	2.3
1 1/4"	1"	32	25	120	42.6	33.8	43.2	34.5	1 1/4"	1"	1 1/4"	1"	94	3.9
1 1/2"	1 1/4"	40	32	152	48.7	42.6	49.1	43.2	1 1/2"	1 1/4"	1 1/2"	1 1/4"	103	5.6
2"	1 1/2"	50	40	172	61.1	48.7	61.1	49.1	2"	1 1/2"	2"	1 1/2"	118	8.9
—	2"	—	50	200	—	61.1	—	61.1	—	2"	—	2"	132	12.5



Main Parts and Materials

Parts	Material
Body	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Disc	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seat	Cr13, 304, 316, Stellite or Integral on body
Spring	304, 316, 17-7PH, Inconel
Bolt	A193 B7 / B7M, ASTM A320 L7 L7M, ASTM A193 B8 / B8M

Technical Specification

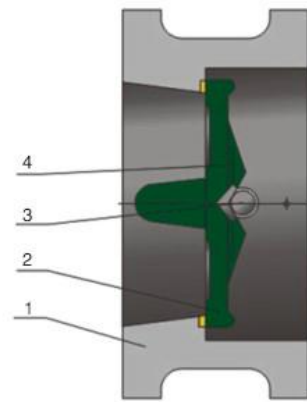
- Design and manufacture: API 594, API 6D, ASME B16.34
- Construction feature: single disc, swing type
- End connection per ANSI B16.5 or ANSI B16.47
- Test and inspection per API 598
- Available Class 600~900, please contact for more information.

Dimensions & Weights Class 150

NPS	A(mm)		B(mm)	C(mm)	D(mm)	Weight(kg)	
	Short Type	Long Type				Short	Long
2	44	60	104	108	31	2.2	3
3	51	73	137	127	41	4.2	6.5
4	57	73	175	146	70	6.8	9.7
5	63	82	197	165	92	9	11.4
6	70	98	222	185	114	11.2	17
8	73	127	280	210	146	17	32.5
10	79	146	340	245	191	25	44
12	86	181	410	273	223	42	77
14	108	184	448	330	184	58	100
16	108	191	511	368	210	65	114
18	108	203	546	387	267	86	160
20	140	219	603	476	280	116	180
24	152	222	716	521	381	193	279

Dimensions & Weights Class 300

NPS	A(mm)		B(mm)	C(mm)	D(mm)	Weight(kg)	
	Short Type	Long Type				Short	Long
2	45	60	111	108	30	2	4.2
3	51	73	149	127	43	4	7.7
4	57	73	181	146	62	6	11.2
5	63	82	216	165	82	9.5	14
6	70	98	251	184	108	13	21.5
8	73	127	308	210	136	21	38
10	79	146	362	244	178	31	54
12	86	181	422	273	206	47	99
14	222	222	486	330	184	143	143
16	232	232	540	368	210	176	176
18	264	264	597	387	267	220	220
20	292	292	654	476	280	286	286
24	317.5	318	774	520	381	462	462



Dual plate check valve

Standards

1. Design and manufacture: API 594、API 6D;
2. Face to Face: API 594、API 6D; DIN 3202;
3. Pressure-temperature ratings: ASME B 16. 34;
4. Inspection and test: API 598、API 6D;
5. End flange dimension: ASME B16.5、ASME B16.47、API605、MSS SP-44、ISO7005-1、DIN2543-2548、

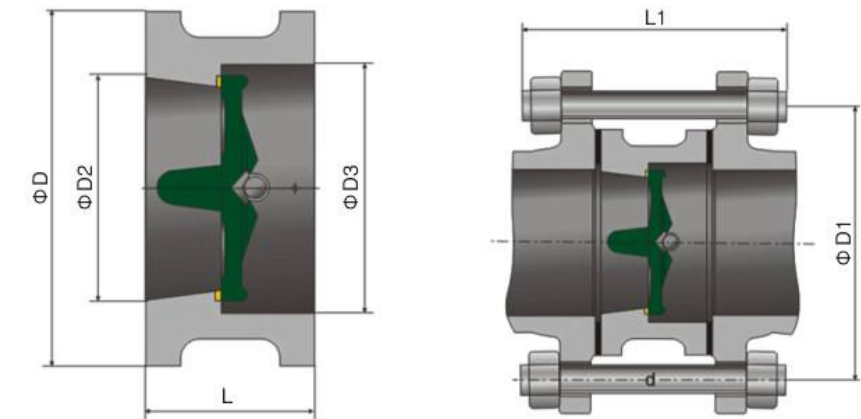
Structure Features

1. It is short in face to face dimensions,being 1/4-1/8 times that of traditional flanged type check valve
2. It is impact in volume size and light in weight of about 1/4-1/20 times that of traditional flange type check valve.
3. The disc closes quickly with less water hammer pressure.
4. It is convenient in installation,being available for use on level or ve-ical pipelines.
5. Flow passage is fluent with less flow resistance.
6. It acts sensitively with good sealing effect.
7. Disc travel is short with less impact force caused by valve closing.
8. It is impact in integral structure with nice outline view.
9. It is longer for service life with high reliability.

Materials for Main Parts

Part Name		Material							
1	Body	A216WCB	A352LCB	A217WC6	A217WC9	A217C5	A217C12	A351CF8	A351CF8M
2	Disc	A351CF8	A351CF8	A217WC6	A217WC9	A217C5	A217C12	A351CF8	A351CF8M
4	Stem	A182F6a	A182F304	A182F304	A182F304	A182F304	A182F304	A182F304	A182F316
3	Spring	Stainless steel/Inconel							

Noted: The chart above only lists out some common composition of wafer type steel swing check valve pans We may provide other different parts material composition according to the customer's request or the actual valve working condition



Main Dimensions & Weights

Class	Size		Dimensions(mm)				Weight (kg)	Pipeline flanges					
	NPS	DN	L	D	D2	D3		D1	Number of bolts	d		L1	
										In	mm	RF	RTJ
150	2	50	60	103	51	56	2	120.5	4	5/8	M16	140	155
	2 1/2	65	67	122	65	73	3	139.5	4	5/8	M16	150	165
	3	80	73	135	80	88	4	152.5	4	5/8	M16	160	175
	4	100	73	173	102	108	6	190.5	4	5/8	M16	170	185
	5	125	86	195	127	132	8	216.0	8	3/4	M20	190	205
	6	150	98	220	152	160	13	241.5	8	3/4	M20	205	220
	8	200	127	277	203	210	25	298.5	8	3/4	M20	240	255
	10	250	146	337	254	266	39	362.0	12	7/8	M24	270	285
	12	300	181	407	305	310	54	432.0	12	7/8	M24	310	325
	14	350	184	448	350	355	80	476.0	12	1	M27	325	340
	16	400	191	512	400	405	117	540.0	16	1	M27	340	355
	18	450	203	547	450	455	138	578.0	16	1 1/8	M30	365	380
	20	500	219	604	500	505	163	635.0	20	1 1/8	M30	385	400
	24	600	222	715	600	605	331	749.5	20	1 1/4	M33	405	420
	28	700	305	773	700	700	380	795.5	40	3/4	M20	455	-
	30	750	305	824	746	750	425	846.0	44	3/4	M20	455	-
	32	800	305	878	796	800	560	900.0	48	3/4	M20	460	-
	36	900	368	983	898	910	640	1009.5	44	7/8	M24	540	-
300	42	1050	432	1142	1050	1055	960	1171.5	48	1	M27	625	-
	48	1200	524	1302	1200	1205	1400	1335.0	44	1 1/8	M30	740	-
	2	50	60	110	51	58	3	127.0	8	5/8	M16	155	175
	2 1/2	65	67	128	65	73	4	149.0	8	3/4	M20	175	195
	3	80	73	147	80	88	6	168.5	8	3/4	M20	190	210
	4	100	73	179	102	108	8	200.0	8	3/4	M20	195	215
	5	125	86	214	127	132	15	235.0	8	3/4	M20	215	235
	6	150	98	249	152	160	18	270.0	12	3/4	M20	230	250
	8	200	127	305	203	210	31	330.0	12	7/8	M24	280	300
	10	250	146	359	254	266	51	387.5	16	1	M27	315	335
	12	300	181	420	305	310	77	451.0	16	1 1/8	M30	365	385
	14	350	222	483	350	355	117	514.5	20	1 1/8	M30	410	430
	16	400	232	537	400	405	190	571.5	20	1 1/4	M33	435	455
	18	450	264	594	450	455	200	628.5	24	1 1/4	M33	475	495
	20	500	292	652	500	505	265	686.0	24	1 1/4	M33	510	535
	24	600	318	772	600	608	410	813.0	24	1 1/2	M39	560	585
	30	750	368	882	735	740	660	921.0	36	13/8	M36	650	-
	36	900	483	1044	873	880	1020	1089.0	32	15/8	M42	800	-
	42	1050	568	1196	1035	1045	1540	1244.5	36	13/4	M45	920	-
	48	1200	629	1365	1179	1190	2260	1416.0	40	17/8	M48	1010	-

Main Dimensions and Weights

Class	Size		Dimensions(mm)				Weight (kg)	Pipeline flanges					
	NPS	DN	L	D	D2	D3		D1	Number of bolts	d		L1	
										In	Mm	RF	RTJ
600	2	50	60	110	51	58	4	127.0	8	5/8	M16	175	180
	2½	65	67	128	65	73	5	149.0	8	3/4	M20	195	200
	3	80	73	147	80	88	8	168.5	8	3/4	M20	210	215
	4	100	79	191	102	108	11	216.0	8	7/8	M24	235	240
	5	125	105	239	127	136	20	267.0	8	1	M27	280	285
	6	150	136	264	152	162	26	292.0	12	1	M27	320	325
	8	200	165	318	200	212	55	349.0	12	11/8	M30	370	375
	10	250	213	398	250	266	95	432.0	16	11/4	M33	440	445
	12	300	229	455	305	312	140	489.0	20	11/4	M33	460	465
	14	350	273	490	337	355	223	527.0	20	13/8	M36	520	525
	16	400	305	562	387	400	360	603.0	20	11/2	M39	575	580
	18	450	362	610	438	450	395	654.0	20	15/8	M42	650	655
900	20	500	368	680	489	500	18	724.0	24	15/8	M42	670	680
	24	600	438	786	591	600	836	838.0	24	17/8	M48	780	790
	2	50	70	140	51	58	8	165.0	8	7/8	M24	225	230
	2½	65	83	162	65	73	11	190.5	8	1	M27	250	255
	3	80	83	165	80	90	14	190.5	8	7/8	M24	240	245
	4	100	102	204	102	108	20	235.0	8	11/8	M30	285	290
	5	125	110	245	127	136	30	279.5	8	11/4	M33	310	315
	6	150	159	286	150	162	42	317.5	12	11/8	M30	365	370
	8	200	206	356	200	212	84	393.5	12	13/8	M36	440	445
	10	250	241	432	250	266	145	470.0	16	13/8	M36	490	495
	12	300	292	495	305	312	220	533.5	20	13/8	M36	560	565
	14	350	356	518	337	355	350	559.0	20	11/2	M39	645	655
1500	16	400	384	572	387	400	470	616.0	20	15/8	M42	685	695
	18	450	451	635	438	450	605	686.0	20	17/8	M48	790	805
	20	500	451	695	487	496	820	749.5	20	2	M52	810	825
	24	600	495	835	591	600	1050	901.5	20	21/2	M64	945	965
	2	50	70	140	51	58	8	165.0	8	7/8	M24	225	230
	2½	65	83	162	65	73	11	190.5	8	1	M27	250	255
	3	80	83	172	80	90	19	203.0	8	11/8	M30	270	275
	4	100	102	207	102	108	26	241.5	8	11/4	M33	310	315
	5	125	110	252	127	136	51	292.0	8	11/2	M39	370	375
	6	150	159	280	150	162	68	317.5	12	13/8	M36	430	440
	8	200	206	350	200	212	130	393.5	12	15/8	M42	510	520
	10	250	248	433	254	266	210	482.5	12	17/8	M48	600	610
2500	12	300	305	518	305	312	384	571.5	16	2	M52	695	715
	14	350	356	576	337	355	550	635.0	16	21/4	M56	775	800
	16	400	384	639	387	400	635	705.0	16	11/2	M64	850	880
	2	50	70	143	42	48	10	171.5	8	1	M27	255	260
	2½	65	83	166	52	58	18	197.0	8	11/8	M30	290	305
	3	80	86	194	62	68	26	228.5	8	11/4	M33	320	330
	4	100	105	232	88	94	40	273.0	8	11/2	M39	370	380
	5	125	110	277	100	106	59	324.0	8	13/4	M45	420	435
	6	150	159	315	150	162	90	368.5	8	2	M52	515	530
	8	200	206	385	180	186	150	438.0	12	2	M52	600	620
	10	250	254	474	225	232	240	539.5	12	21/2	M64	750	775
	12	300	305	547	266	272	440	619.0	12	23/4	M70	855	885

Ball Valve Series



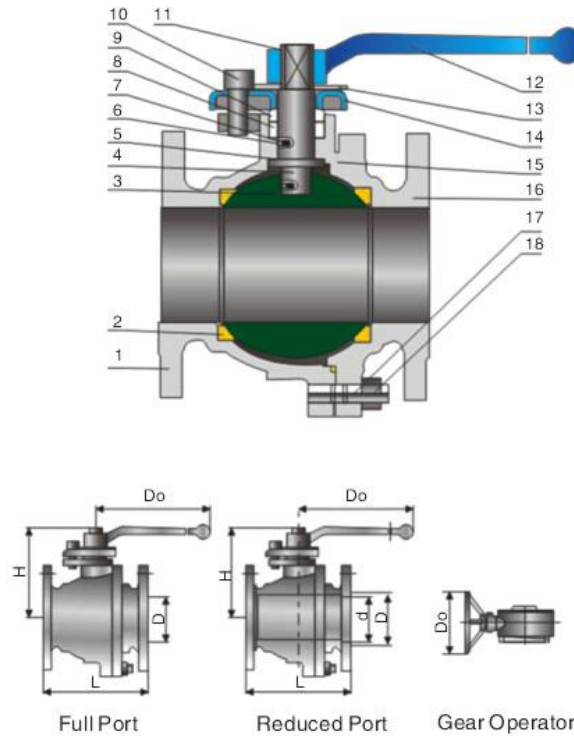
Standards

Face-to-Face dimension: ASME B 16.10 JIS B2002
Design and manufacture: API 608, BS 5351, API 6D
Flanged End: ASME B16.5, JIS B2212, B2214
Shell Wall Thickness: BS 5351
Valve Test: API 598, JIS B2003
Pressure-Temperature Rating: JIS B2071, B2081

The body material is also available LCB, A351 CF8, CF8M, CF3, CF3M, duplex stainless steel etc. The trim/seat material can be customized upon request.

Material List

No	Parts	Material
1	Body	ASTM A216 Gr.WCB
2	Seat	PTFE
3	Ball	304 S.S.
4	Stem	ASTM A182 F6a
5	Gasket	PTFE
6	Spring	304 S.S.
7	Steel Ball	304 S.S.
8	Packing	PTFE
9	Packing Bushing	ASTM A276 410
10	Nut	ASTM A193 Gr.B7
11	Retaining Ring	304 S.S.
12	Lever	ASTM A216 Gr.WCB
13	Gauge Block	AISI 1010 Zinc-coated
14	Packing Gland	ASTM A216 Gr.WCB
15	Body Gasket	PTFE
16	Bonnet	ASTM A216 Gr.WCB
17	Stud	ASTM A193 Gr.B7
18	Nut	ASTM A194 Gr. 2H



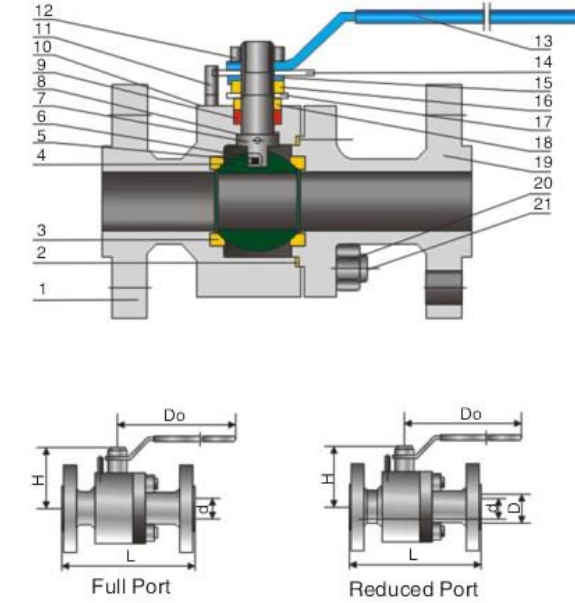
Dimensions & Weights

		Class 150/10K									
Full bore	NPS(in)	1/2	3/4	1	1 1/2	2	3	4	6	8	
	D(mm)	13	19	25	38	51	64	76	102	203	
	L(mm)	108	117	127	165	178	203	229	394	457	
	H(mm)	61	66	76	95	142	156	181	270	345	
	Do(mm)	130	130	160	230	400	400	700	300*	300*	
	WT(kg)	2.4	3.3	4.8	8.2	15.6	19.8	32.0	94.0	162.0	
Reduced bore	NPS(in)	3/4*1/2	1*3/4	1-1/2*1	2*1-1/2	3*2	4*3	6*4	8*6	10*8	
	L(mm)	117	127	165	178	203	229	267	292	330	
	D(mm)	19	25	38	63	76	102	152	203	254	
	H(mm)	82	85	100	120	153	162	191	290	340	
	Do(mm)	130	130	160	230	400	400	460	300*	300*	
	d(mm)	13	19	25	51	63	76	105	152	203	
	WT(kg)	2.6	4.5	6.0	14.6	19.0	32.5	58.0	117.0	160.0	

		Class 300/20K									
Full bore	NPS(in)	1/2	3/4	1	1 1/2	2	3	4	6	8	
	D(mm)	13	19	25	38	51	64	76	102	203	
	L(mm)	140	152	165	190	216	282	305	403	419	
	H(mm)	62	68	80	100	148	162	188	283	360	
	Do(mm)	150	150	180	250	400	400	700	300*	400*	
	WT(kg)	3.0	3.5	6.2	11.0	25.0	40.0	57.5	128.0	252.0	
Reduced bore	NPS(in)	3/4*1/2	1*3/4	1-1/2*1	2*1-1/2	3*2	4*3	6*4	8*6	-	
	L(mm)	152	165	190	216	282	305	403	419	-	
	D(mm)	19	25	38	63	76	102	152	203	-	
	H(mm)	82	85	100	120	153	162	191	290	-	
	Do(mm)	130	130	160	230	400	400	460	300*	-	
	d(mm)	13	19	25	50	63	76	102	152	-	
	WT(kg)	3.5	5.5	10.0	23.5	29.0	55.0	80.0	162.0	-	

Material List

No	Parts	Material
1	Body	ASTM A105
2	Gasket	PTFE
3	Seat	R-PTFE
4	Ball	304 S.S.
5	Steel Ball	304 S.S.
6	Anti-static Spring	304 S.S.
7	Stem	ASTM A182 F6a
8	Gasket	PTFE
9	Packing	PTFE
10	Nameplate	SS304
11	Position Pin	ASTM 1045
12	Nut	ASTM A194 Gr. 2H
13	Lever	ASTM A216 Gr.WCB
14	Gauge Block	AISI 1010 Zinc-coated
15	Bushing Gasket	ASTM 1045
16	Nut	ASTM A194 Gr. 2H
17	Gland	304 S.S.
18	Gland Bushing	ASTM A276 410
19	Bonnet	ASTM 1045
20	Nut	ASTM A194 Gr. 2H
21	Stud	ASTM A193 Gr.B7



The body material is also available LF2, A182 F304, F316, F304L, F316L, F51 etc. The trim/seat material can be customized upon request.

Dimensions & Weights

		Class 600						
Full bore	NPS(in)	1/2	3/4	1	1 1/2	2	3	
	L(mm)	165	190	216	241	292	356	
	D(mm)	13	19	25	38	51	76	
	H(mm)	98	103	122	135	151	177	
	Do(mm)	140	140	170	260	300	450	
	WT(kg)	3.0	4.8	6.5	12.0	15.0	28.0	
Reduced bore	NPS(in)	3/4*1/2	1*3/4	1-1/2*1	2*1-1/2	3*2	-	
	L(mm)	190	216	241	292	356	-	
	D(mm)	19	25	38	51	76	-	
	H(mm)	98	103	122	135	151	-	
	Do(mm)	140	140	170	260	300	-	
	WT(kg)	2.8	3.2	5.5	7.1	12.8	-	

		Class 900						
Full bore	NPS(in)	1/2	3/4	1	1 1/2	2	3	
	L(mm)	216	229	254	305	368	381	
	D(mm)	13	19	25	38	51	76	
	H(mm)	115	122	125	157	178	208	
	Do(mm)	160	230	230	400	400	500	
	(kg)	4.2	9.6	13.8	21.8	39.0	58.0	
Reduced bore	NPS(in)	3/4*1/2	1*3/4	1-1/2*1	2*1-1/2	3*2	-	
	L(mm)	229	254	305	368	381	-	
	D(mm)	19	25	38	51	76	-	
	H(mm)	115	122	125	157	178	-	
	Do(mm)	160	230	230	400	400	-	
	d(mm)	13	19	25	38	51	-	
	WT(kg)	5.6	6.8	12.0	16.5	24.0	-	

General

Trunnion mounted ball valves are designed in accordance with API 6D for classes ASME Class 150,300,600,900,1500, and 2500. Two-piece split body cast steel and Three-piece forged steel side entry design bolted connections between body and closure, trunnion bolted connection, body thickness comply with ANSI B16.34. Seat ring is floating type, springloaded to assure the contact with ball in order to provide an effective tight seal even at low differential pressure between cavity and downstream closure. Standard design is soft seated. Different soft seat materials are available based on the customer working condition. Available in Full and Reduced Bore. Electrical, pneumatic and hydraulic actuators are available based on customer requirement. Valves have been designed for use with various combinations of materials such as: Carbon Steel, Low Carbon steel, special alloy, stainless steel, Monel, Inconel.

Stem Design/Anti Blowout

The stem is made separately from the ball, anti blow-up design with suitable PTFE and graphite rings. See Fig 1

Anti-Static Device

All flow control-floating flange ball valves include dual grounding systems from stem to ball and stem to body. Valve testing to BS 5351 and BS 5146 was performed for all sizes, and witnessed by a third party inspection company. See fig.1

Emergency sealant injection

Trunnion type ball valves are fitted with emergency seals to restore sealing in case of soft seal damage. See fig.1 and fig.2

Double Block and Bleed

Ball valves can be equipped with drain valve which allows the block and bleed feature when the pressure is simultaneously applied to both sides of the ball, the medium can be relieved through the drain valve. Standard design of trunnion mounted ball valves assure that each seat ring performs the "single piston action"

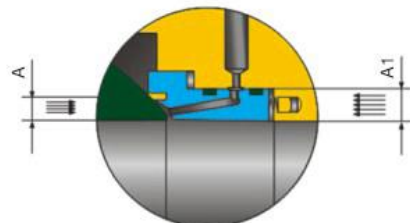


Fig. 3

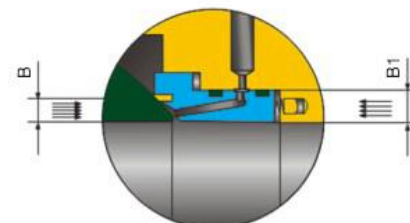


Fig. 4

Top Flange

Top flange surface are machined and drilled, ready for mounting actuator.

Fire Safe

All fire-safe valves conform to API 607 and API 6FA standards.

Body Joint Construction

Three pieces body and entry design, graphite ring or o-ring viton (or request) seal ensure absolute seal integrity. The bolted body designs include a tight tolerance overlapping metal fit between the body and the adapter to minimize any possibility of movement due to pipeline stress. High temperature spiral wound stainless steel/graphite filled gasket is used for absolute seal. Body and adapters are dimensioned for metal contact to ensure correct gasket crush.

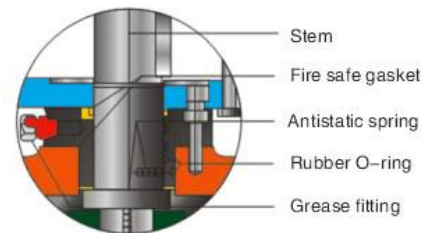


Fig. 1

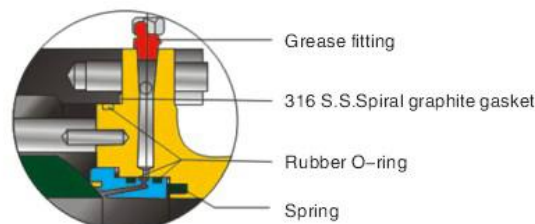
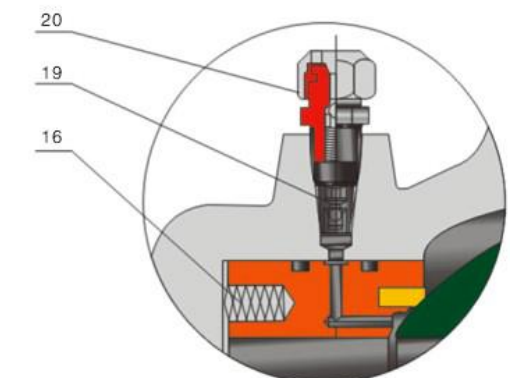
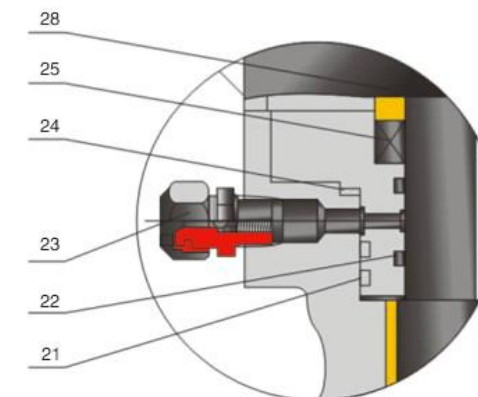
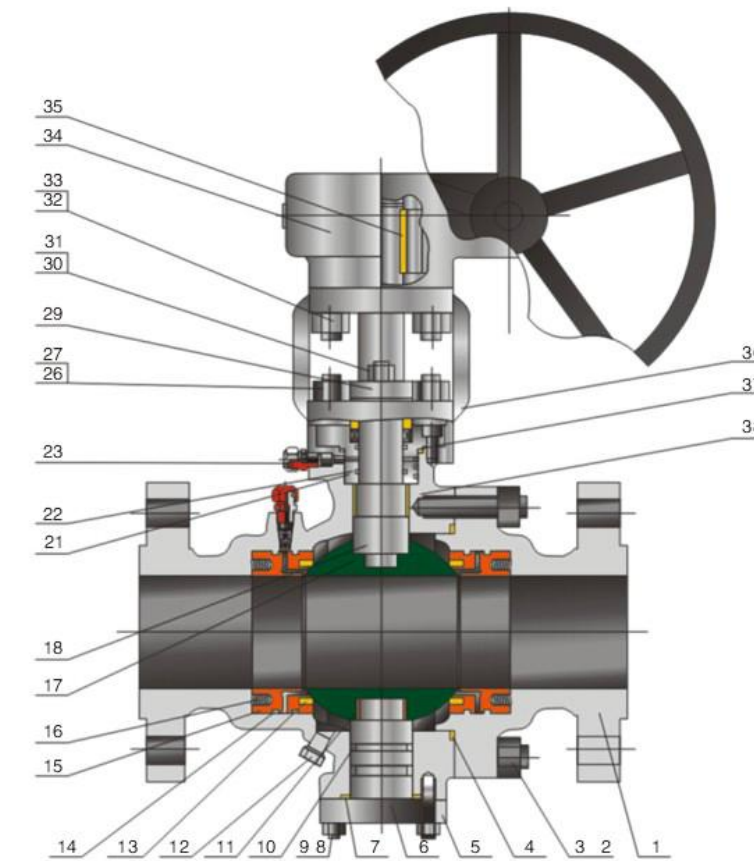


Fig. 2

Fig.3 shows pressure $A < A1$, the contact between ball and seat ring assured. Fig.4 shows pressure $B > B1$, the self relieving action allows that valve seat will move slightly away from the ball surface, so any over pressure acting in the body cavity is discharged on the line to restore the balance between the body cavity and line

Features Two-piece Body

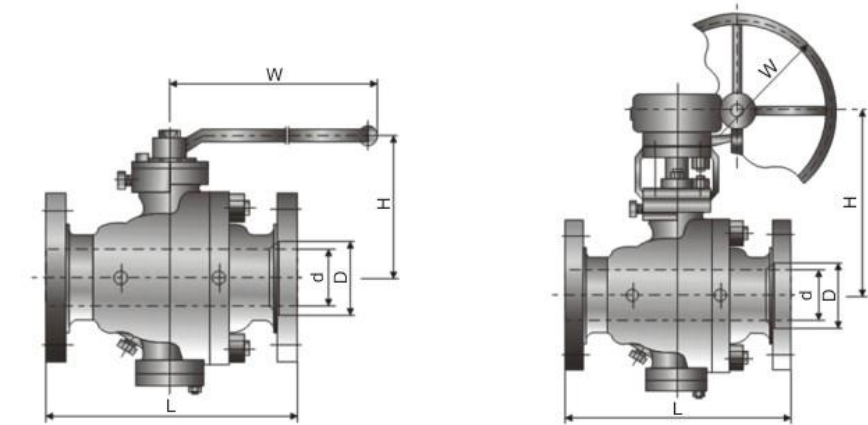
Valve is designed in accordance with the requirements of API 6D for pipeline service. Antistatic and anti blow-out stem design. Seat design gives perfect tightness and is available as either self-relieving type or double piston effect type. Design minimizes friction leading to low operating torque. Available 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 Specifications

No	Parts	Standard	Stainless Steel	Sour Service	Low Temperature Service
1	Body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
2	Body stud	ASTM A193 B7	ASTM A193 B8	ASTM A193 B7M	ASTM A320 L7M
3	Body Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 2HM	ASTM A194 7M
4	Body Gasket	316ss+Graphite	316ss+Graphite	316ss+Graphite	316ss+Graphite
5	Low Cover	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
6	Trunnion Support	ASTM A216 WCB/ENP	ASTM A216 WCB/ENP	ASTM A216 WCB/ENP	ASTM A216 WCB/ENP
7	Thrust Washer	316+PTFE+MoS2	316+PTFE+MoS2	316+PTFE+MoS2	316+PTFE+MoS2
8	Stud	ASTM A193 B7	ASTM A193 B8	ASTM A193 B7M	ASTM A320 L7M
9	Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 2HM	ASTM A194 2M
10	O-Ring	NBR	NBR	NBR	NBR
11	Bearing	316+PTFE+MoS2	316+PTFE+MoS2	316+PTFE+MoS2	316+PTFE+MoS2
12	Drain Plug	Assembly	Assembly	Assembly	Assembly
13	Seat Insert	25% Glass-filled PTFE	25% Glass-filled PTFE	25% Glass-filled PTFE	25% Glass-filled PTFE
14	O-Ring	NBR	NBR	NBR	NBR
15	Seat	ASTM A105/ENP	ASTM A182 F316	ASTM A105/ENP	ASTM A350 LF2/ENP
16	Seat Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
17	Ball	ASTM A 105/ENP	ASTM A182 F316	ASTM A105/ENP	ASTM A350 LF2/ENP
18	Stem	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
19	Seat Injection	Assembly	Assembly	Assembly	Assembly
20	Sealant Fitting	Assembly	Assembly	Assembly	Assembly
21	O-Ring	NBR	NBR	NBR	NBR
22	O-Ring	NBR	NBR	NBR	NBR
23	Sealant Fitting	Assembly	Assembly	Assembly	Assembly
24	Gasket	316ss+Graphite	316ss+Graphite	316ss+Graphite	316ss+Graphite
25	Packing	Graphite	Graphite	Graphite	Graphite
26	Stud	ASTM A193 B7	ASTM A193 B8	ASTM A193 B7M	ASTM A320 L7M
27	Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 2HM	ASTM A194 7M
28	Gland	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
29	Gland Flange	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
30	Stud	ASTM A193 B7	ASTM A193 B8	ASTM A193 B7M	ASTM A320 L7M
31	Nut	ASTM A 194 2H	ASTM A 194 8	ASTM A 194 2HM	ASTM A 194 7M
32	Stud	ASTM A193 B7	ASTM A193 B8	ASTM A193 B7M	ASTM A320 L7M
33	Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 2HM	ASTM A194 7M
34	Worm	Assembly	Assembly	Assembly	Assembly
35	Key	Carbon Steel	S.S.	Carbon Steel	ASTM A182 F304
36	Yoke	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
37	Bolt	Carbon Steel	S.S.	Carbon Steel	Carbon Steel
38	Bearing	316+PTFE+MoS2	316+PTFE+MoS2	316+PTFE+MoS2	316+PTFE+MoS2

The body material is also available A351 CF8, CF3,CF3M, duplex stainless steel etc. The trim/seat material can be customized upon request.



Full Bore (Class 150)

Size(in)	d(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
2	51	178	165	230	17
3	76	203	193	400	33
4	102	229	231	460	50
6	152	394	390	1000	93
8	203	457	495	*500	166
10	254	533	505	*500	273
12	305	610	560	*500	475
14	337	686	600	*500	570
16	387	762	750	*500	778
18	438	864	845	*500	935
20	489	914	910	*500	1190
22	540	1016	1000	*500	1346
24	591	1067	1065	*500	1579

Reduce Bore (Class 150)

Size(in)	d(mm)	D(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
3×2×3	51	76	203	165	230	30
4×3×4	76	102	229	193	400	47
6×4×6	102	152	394	231	400	90
8×6×8	152	203	457	390	460	161
10×8×10	203	254	533	495	1000	268
12×10×12	254	305	610	505	*500	467
14×12×14	305	337	686	560	*500	560
16×14×16	337	387	762	600	*500	766
18×16×18	387	438	864	750	*500	902
20×18×20	438	489	914	845	*500	1130
22×20×22	489	540	1016	910	*500	1300
24×22×24	540	591	1067	1000	*500	1520

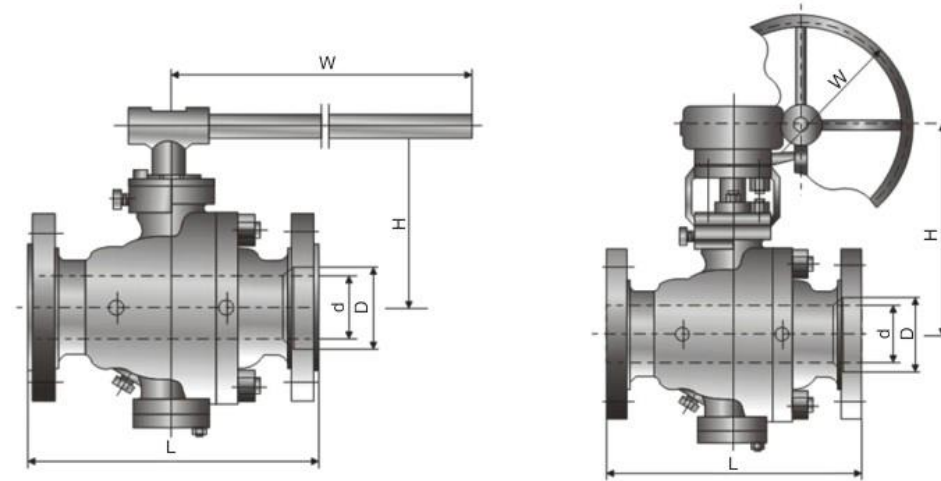
Full Bore (Class 300)

Size(in)	d(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
2	51	216	165	230	18
3	76	283	193	400	40
4	102	305	231	750	63
6	152	403	390	1000	150
8	203	502	495	1500	240
10	254	568	505	*500	305
12	305	648	560	*500	507
14	337	762	600	*500	602
16	387	838	750	*500	1000
18	438	914	845	*500	1160
20	489	991	910	*500	1320
22	540	1092	1000	*500	1540
24	591	1143	1065	*500	1874

Reduce Bore (Class 300)

Size(in)	d(mm)	D(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
3×2×3	51	76	283	165	230	38
4×3×4	76	102	305	193	400	60
6×4×6	102	152	403	231	750	147
8×6×8	152	203	502	390	1000	234
10×8×10	203	254	568	495	1500	295
12×10×12	254	305	648	505	*500	488
14×12×14	305	337	762	560	*500	570
16×14×16	337	387	838	600	*500	910
18×16×18	387	438	914	750	*500	1020
20×18×20	438	489	991	845	*500	1280
22×20×22	489	540	1092	910	*500	1360
24×22×24	540	591	1143	1000	*500	1670

Class 600/900 Two-piece, split body, cast steel, side entry design



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)

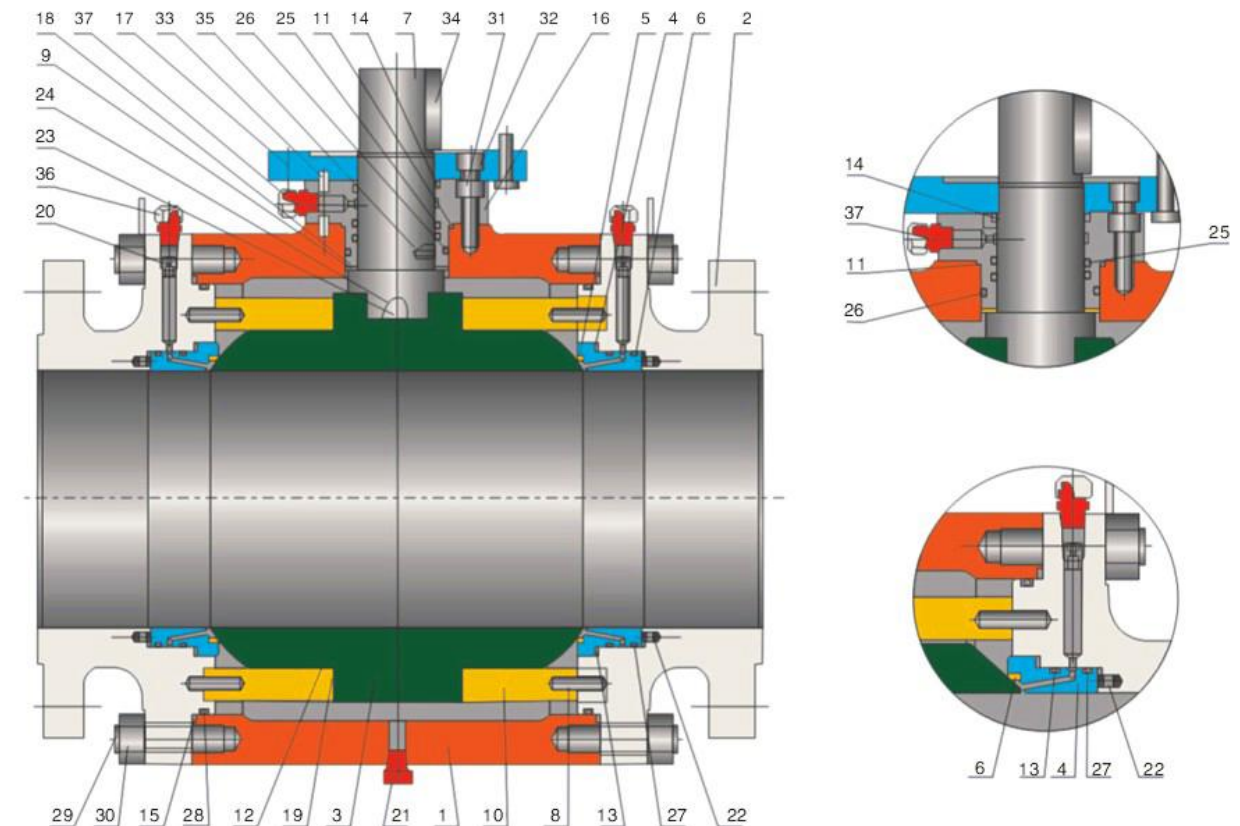
Size(in)	d(mm)	D(mm)	L(mm)	H(mm)	W(mm)	WT(kg)
3×2×3	51	76	381	192	460	83
4×3×4	76	102	457	279	1000	103
6×4×6	102	152	610	355	1500	201
8×6×8	152	203	737	385	*500	348
10×8×10	203	254	838	460	*500	598
12×10×12	254	305	965	600	*500	788
14×12×14	305	324	1029	690	*500	1100
16×14×16	324	375	1130	785	*500	1420
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

Three-piece, split body, forged steel, side entry design

Ball Valve Series

Features Three-piece Body

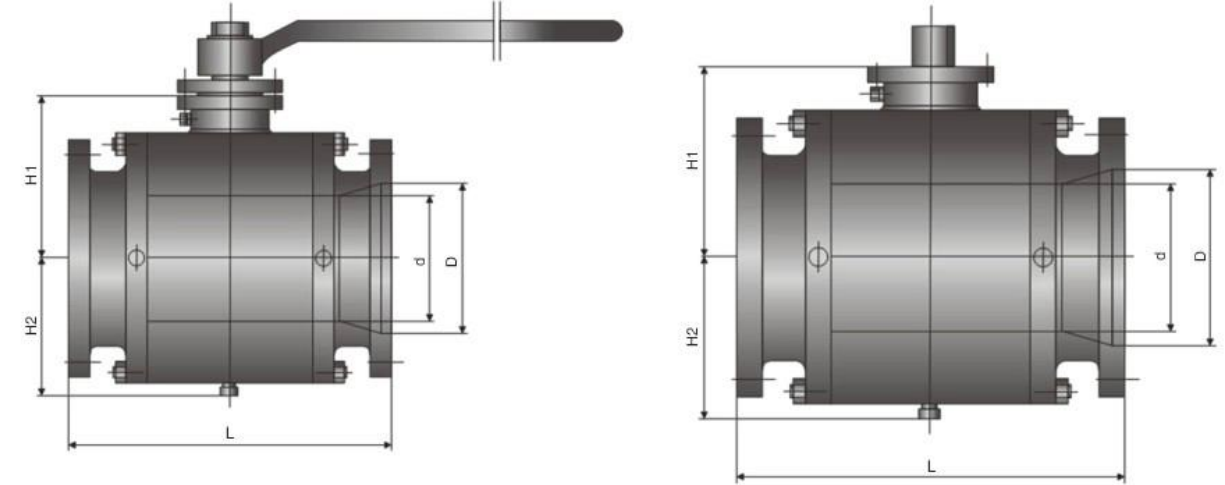
Valve is designed in accordance with the requirements of API 6D for pipeline service.
 Antistatic and anti blow-out stem design.
 Seat design gives perfect tightness and is available as either self-relieving type or double piston effect type.
 Design minimizes friction leading to low operating torque.
 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 Injection	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)

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)

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.

Class 300/600 Three-piece, split body, forged steel, side entry design

Full Port (Class 300)

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)

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.

Class 900/1500/2500 Three-piece, split body, forged steel, side entry design

Ball Valve Series

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

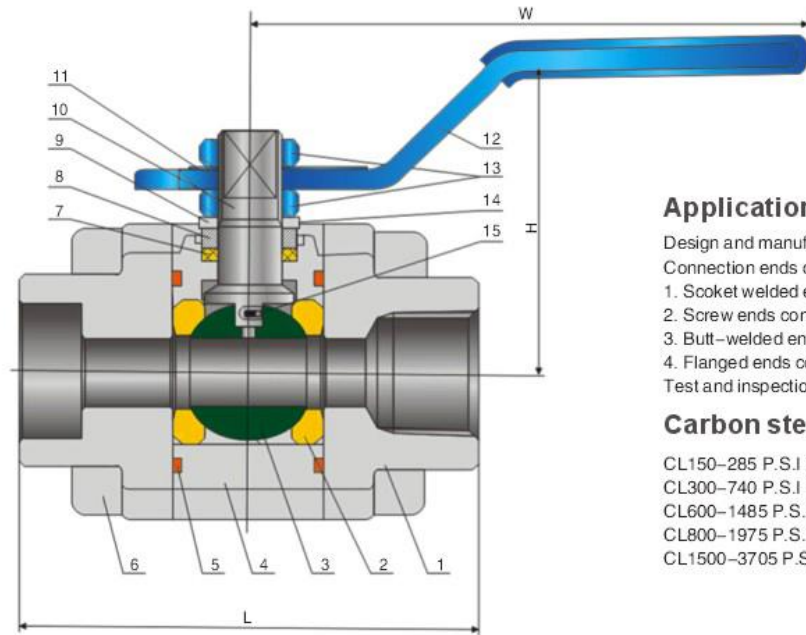
Reduced Port (Class 2500)

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

Notes

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

3PC Forged steel compact body ball valve



Application standards

Design and manufacture conform to BS 5351, MSS SP 118, JIS B2071, B2081;

Connection ends conform to:

1. Socket welded ends conform to ANSI B 16.11
2. Screw ends conform to ANSI B1.20.1
3. Butt-welded ends conform to ANSI B-16.25
4. Flanged ends conform to ANSI B16.5

Test and inspection conform to: API 598, GB/T 13927, JB/T 9092, JIS B2003

Carbon steel temperature-pressure rate

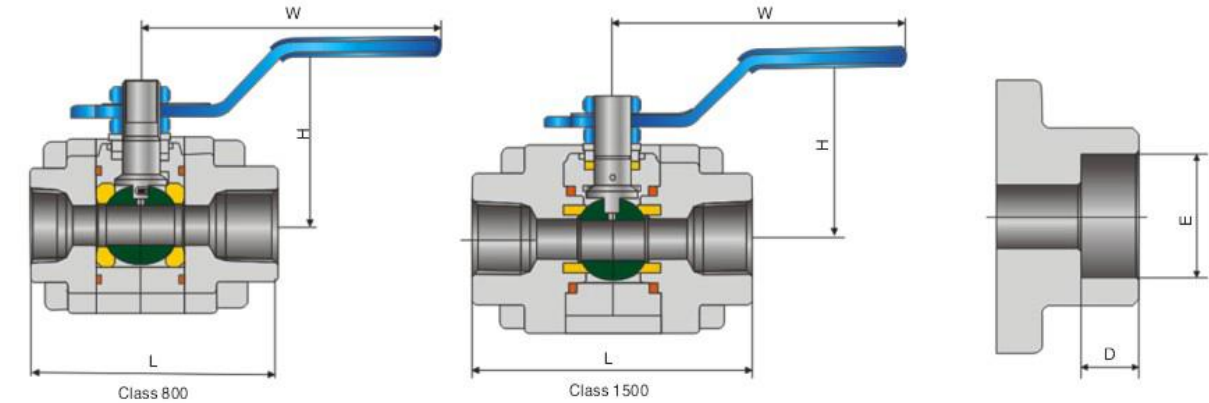
CL150-285 P.S.I @ 100° F
CL300-740 P.S.I @ 100° F
CL600-1485 P.S.I @ 100° F
CL800-1975 P.S.I @ 100° F
CL1500-3705 P.S.I @ 100° F

Material List

No	Parts	Material				
1	Bonnet	A105	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

Class 800/1500 3PC Forged steel compact body ball valve

Ball Valve Series



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	146
	Class 1500	73	73	88	105	116	128	146	-
Lever(W=mm)	Class 800	120	120	120	145	145	175	175	260
	Class 1500	120	120	145	145	175	175	260	-
Center of Top(H=mm)	Class 800	50	50	52	60	65	86	93	110
	Class 1500	52	52	60	60	86	93	110	-
Inside Bore(D=mm)	Class 800	11	11	14	20.5	25	31.6	38	49
	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	8.7
	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	128
	Class 1500	73	88	105	116	128	146
Lever(W=mm)	Class 800	120	120	145	145	175	175
	Class 1500	120	145	145	175	175	260
Center of Top(H=mm)	Class 800	50	52	60	65	86	93
	Class 1500	52	60	60	86	93	110
Inside Bore(D=mm)	Class 800	11	14	20.5	25	31.6	38
	Class 1500	11	14	20.5	25	31.6	38
Weight(kg)	Class 800	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

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

Butterfly Valve Series



Triple eccentric, metal seat butterfly valve

Butterfly Valve Series

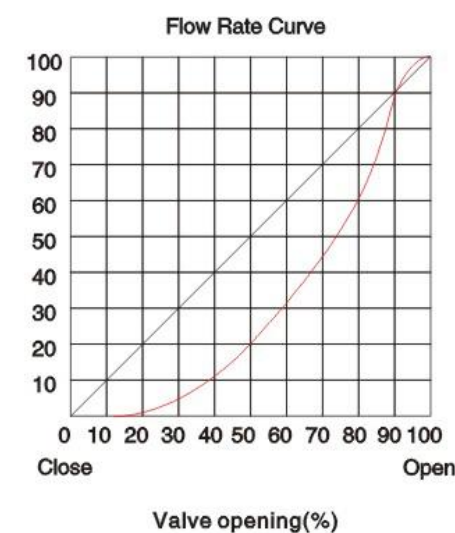
Features

Triple eccentric design reduces the friction between plate and seat, and increases the valve service life. Plate and seat oblique cone design turns the compression seal into torque seal, achieves bi-directional seals. Metals and non-metallic compound seal ring combines the rigidity of the metal, the wear-resistance and flexibility of the soft seat, ensures reliable seal and greater performance. Low opening torque value

Technical Specification

- Working Pressure: CLASS 150~CLASS 900
- Working Temperature:
 - 304 Seat: -73~+450°C
 - 316 Seat: -73~+450°C
 - Special seat: -268~+650°C
- Design and manufacture standard: API 609
- Flanged End: ASME B16.5 & ASME B16.47
- Face-to-Face dimension: API 609 & MSS SP-68
- Test and inspection: API 598
- Note: For other ends, please state in the order

Flow Features



Flow Rate

Cv value is calculated on the standard condition while the pressure on both sides falls below 0.007MPa

DN(mm)	2	2 1/2	3	4	5	6
Cv	102	102	242	423	423	1160
DN(mm)	8	10	12	14	16	18
Cv	2016	3066	4568	6325	8152	11023
DN(mm)	20	24	28	32	36	40
Cv	13780	20486	31586	35612	47860	71460

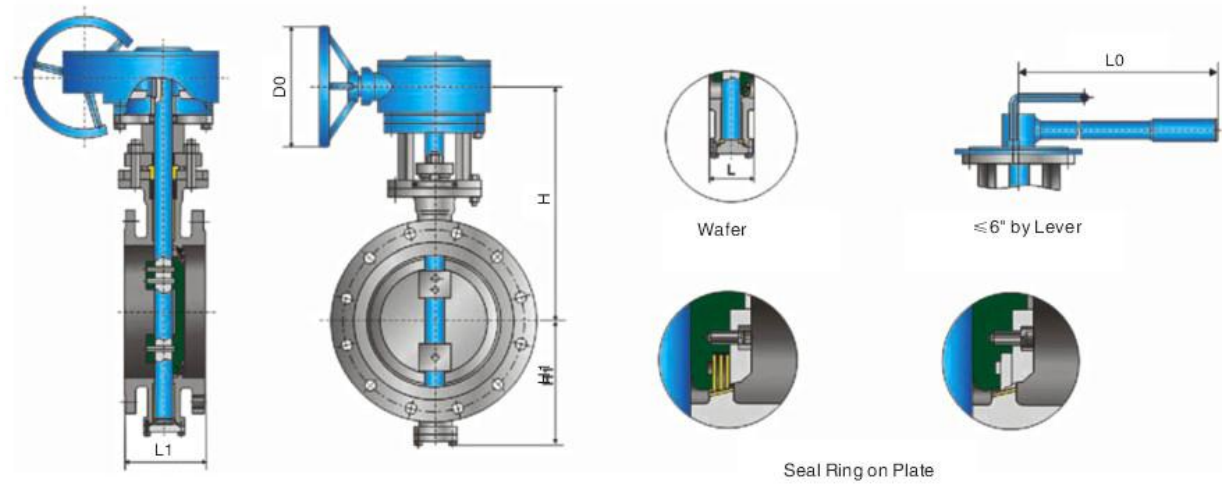
Opening Torque Value

NPS(mm)	Max. Differential Pressure ΔP (MPa)	
	2.0	5.0
2	168	252
2 1/2	239	360
3	276	410
4	372	550
5	592	960
6	672	1000
8	938	1400
10	1450	2160
12	3000	4500
14	3600	5400
16	4870	7200
18	7440	11160
20	14630	12800
24	20760	27680
28	31764	-
32	38724	-
36	47860	-
40	75600	-

Triple Eccentric Design Features

On the basis of double eccentric design, the centreline of the plate seal surface and seat centreline forms angle (γ° , and enables slight wedge effect when the plate contacts the flexible metal seat, and slight move and radial deformation of the seat ring along with the plate, average compression around the seat ring thus achieves complete sealing. This unique triple eccentric design fully applies Cam effect in the valve, greatly reduces the friction at the contact area, possibility of leakage and also the opening torque value, increases longer service life, achieves easy and convenient operation.

Class 150 Triple eccentric, metal to metal seat, wafer or flanged ends



Main Parts and Materials

Parts	Material
Body	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Ring	304 / 316 / S31803 + Graphite / PTFE Laminated
Disc	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Surface	Cr13, 304, 316, Stellite or Integral on body
Stem	F6a, F304, 17-4PH, F51
Bushing	SF-1, 304 / 316 + PTFE, 304 / 316 + Nitrided
Thrust Washer	304 + Graphite or PTFE
Packing	Graphite or PTFE

Note:
≤6" operating by the Lever
Face-to-Face dimension: API 609 & MSS SP-68
Flanged End: ASME B16.5 & ASME B16.47
For other ends, please state in the order.

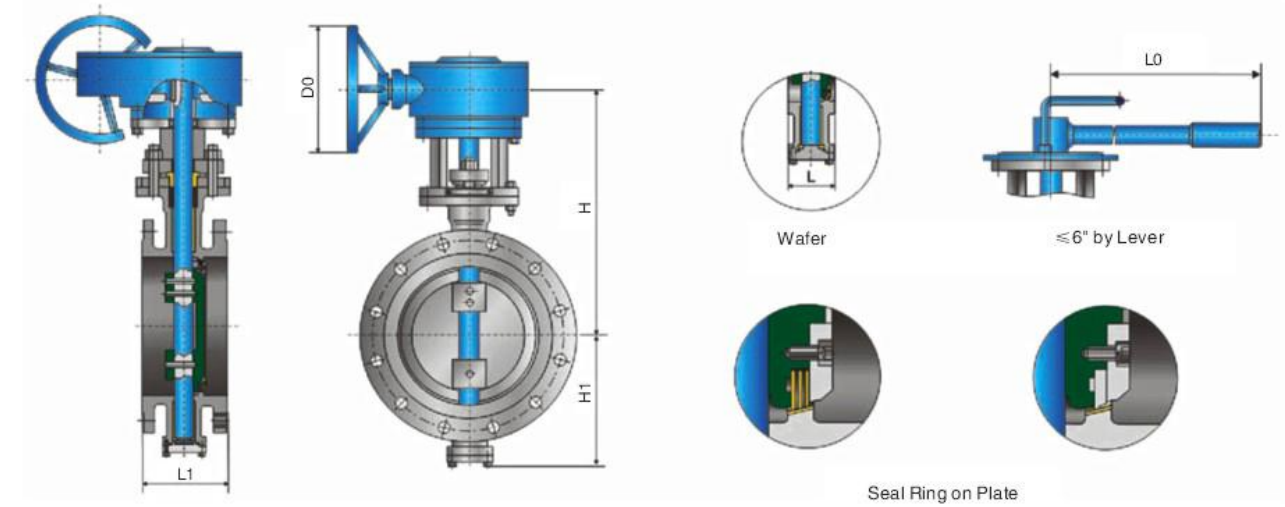
Note: for other body and internal parts material, we can produce according to customer's specification or request

Dimensions & Weights

NPS(in)	L(mm)	L1(mm)	H1(mm)	H(mm)	D0(mm)	L0(mm)	WT(Kg)		
							Wafer	Lug	Flange(Short Pattern)
2	43	108	110	135	-	150	10	11	20
3	48	114	125	155	-	180	11	13	29
4	54	127	147	162	-	200	13	16	33
6	57	140	166	240	-	300	26	28	74
8	64	152	215	375	180	-	36	43	86
10	71	165	238	396	180	-	53	64	142
12	81	178	283	446	180	-	74	86	167
14	92	190	302	472	315	-	110	127	218
16	102	216	338	555	350	-	138	159	275
18	114	222	381	605	400	-	180	211	315
20	127	229	408	638	480	-	196	225	395
24	154	267	495	738	480	-	400	462	580
28	165	292	561	976	480	-	560	655	657
30	190	318	590	1016	610	-	685	812	717
32	190	318	650	1160	610	-	726	868	880
36	203	330	700	1205	480	-	920	1056	1042
40	216	410	750	1294	480	-	1283	1470	1760
42	229	410	780	1350	480	-	1488	1723	1820
48	254	470	892	1523	480	-	1645	1895	2660

Class 300 Triple eccentric, metal to metal seat, wafer or flanged ends

Butterfly Valve Series



Main Parts and Materials

Parts	Material
Body	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Ring	304 / 316 / S31803 + Graphite / PTFE Laminated
Disc	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Surface	Cr13, 304, 316, Stellite or Integral on body
Stem	F6a, F304, 17-4PH, F51
Bushing	SF-1, 304 / 316 + PTFE, 304 / 316 + Nitrided
Thrust Washer	304 + Graphite or PTFE
Packing	Graphite or PTFE

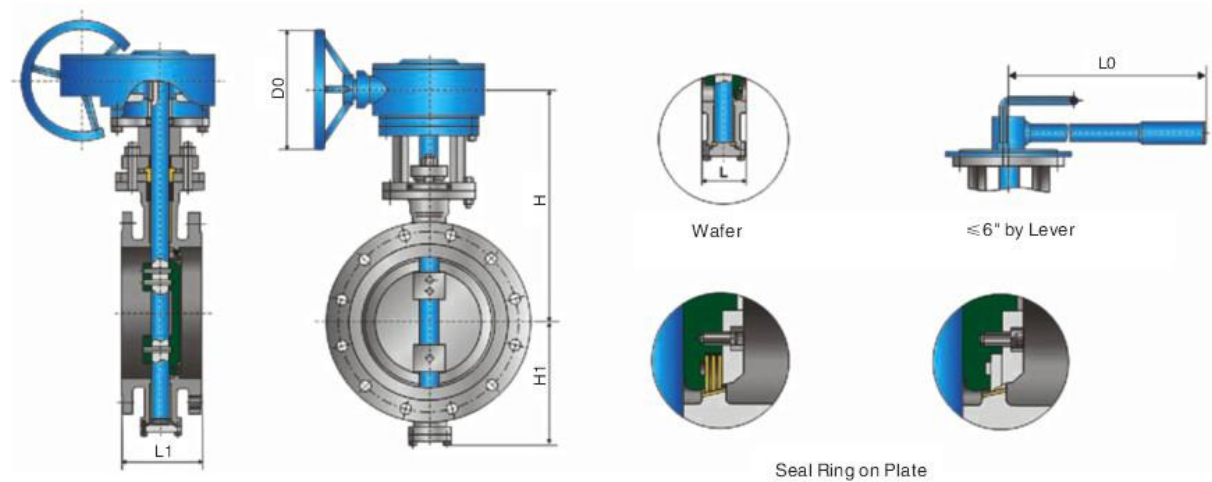
Note:
≤6" operating by the Lever
Face-to-Face dimension: API 609 & MSS SP-68
Flanged End: ASME B16.5 & ASME B16.47
For other ends, please state in the order.

Note: for other body and internal parts material, we can produce according to customer's specification or request

Dimensions & Weights

NPS(in)	L(mm)	L1(mm)	H1(mm)	H(mm)	D0(mm)	L0(mm)	WT(Kg)		
							Wafer	Lug	Flange(Short Pattern)
3	48	180	125	155	-	180	13	15	29
4	54	190	147	162	-	200	18	21	35
6	59	210	166	240	-	300	29	33	81
8	73	230	215	375	180	-	38	42	94
10	83	250	238	396	180	-	58	63	156
12	92	270	283	446	180	-	91	86	183
14	117	290	302	472	315	-	121	131	239
16	133	310	338	555	350	-	153	165	302
18	149	330	381	605	400	-	197	211	346
20	159	350	408	638	480	-	215	238	434
24	181	390	495	738	480	-	443	465	638

Class 600 Triple eccentric, metal to metal seat, wafer or flanged ends



Main Parts and Materials

Parts	Material
Body	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Ring	304 / 316 / S31803 + Graphite / PTFE Laminated
Disc	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Surface	Cr13, 304, 316, Stellite or Integral on body
Stem	F6a, F304, 17-4PH, F51
Bushing	SF-1, 304 / 316 + PTFE, 304 / 316 + Nitrided
Thrust Washer	304 + Graphite or PTFE
Packing	Graphite or PTFE

Note:
≤6" operating by the Lever
Face-to-Face dimension: API 609 & MSS SP-68
Flanged End: ASME B16.5 & ASME B16.47
For other ends, please state in the order.

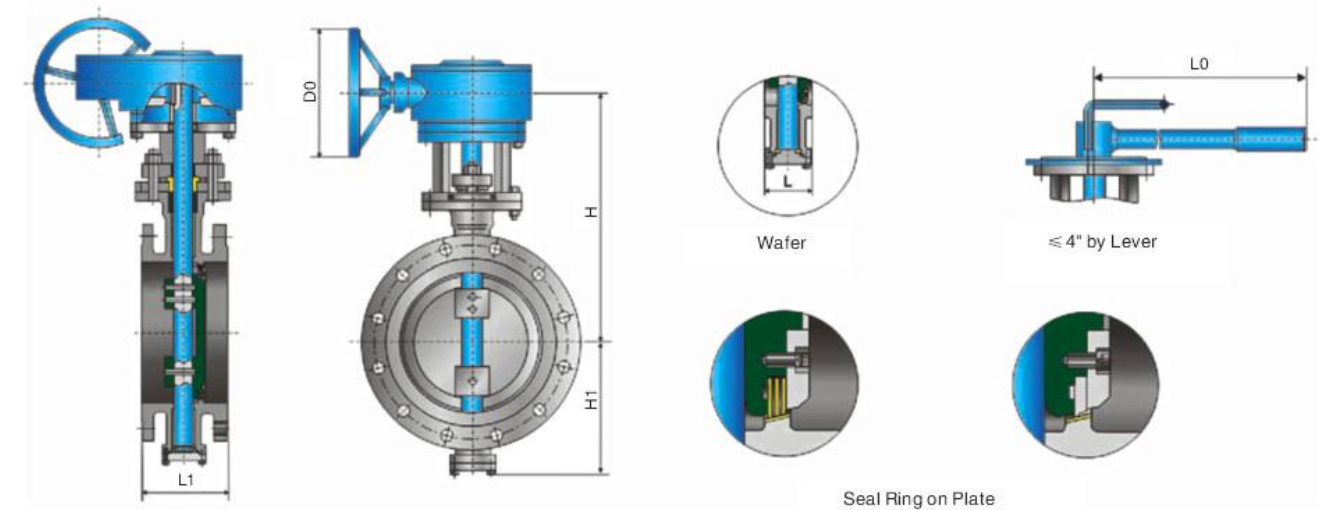
Note: for other body and internal parts material, we can produce according to customer's specification or request

Dimensions & Weights

NPS(In)	L(mm)	L1(mm)	H1(mm)	H(mm)	D0(mm)	L0(mm)	WT(Kg)		
							Wafer	Lug	Flange(Short Pattern)
3	180	54	170	414	-	250	25	28	56
4	190	64	185	447	-	300	39	42	86
5	200	78	205	480	-	300	65	72	110
6	210	78	216	495	315	-	93	98	143
8	230	102	265	536	406	-	135	165	235
10	250	117	315	641	406	-	242	284	366
12	270	140	362	727	508	-	267	394	487
14	290	155	390	757	508	-	448	508	655
16	310	178	440	825	610	-	505	599	855
18	330	200	460	840	762	-	642	856	992
20	350	216	526	978	812	-	800	1114	1390
24	390	232	623	1070	812	-	1305	1704	1910

Class 900 Triple eccentric, metal to metal seat, wafer or flanged ends

Butterfly Valve Series



Main Parts and Materials

Parts	Material
Body	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Ring	304 / 316 / S31803 + Graphite / PTFE Laminated
Disc	WCB, LCB, LCC, CF8, CF8M, CF3, CF3M
Seal Surface	Cr13, 304, 316, Stellite or Integral on body
Stem	F6a, F304, 17-4PH, F51
Bushing	SF-1, 304 / 316 + PTFE, 304 / 316 + Nitrided
Thrust Washer	304 + Graphite or PTFE
Packing	Graphite or PTFE

Note:
≤4" operating by the Lever
Face-to-Face dimension: API 609 & MSS SP-68
Flanged End: ASME B16.5 & ASME B16.47
For other ends, please state in the order.

Note: for other body and internal parts material, we can produce according to customer's specification or request

Dimensions & Weights

NPS(In)	L(mm)	L1(mm)	H1(mm)	H(mm)	D0(mm)	L0(mm)	WT(Kg)		
							Wafer	Lug	Flange(Short Pattern)
4	229	92	197	459	-	300	-	-	-
5	267	102	220	495	508	-	-	-	-
6	267	102	236	515	508	-	-	125	180
8	292	140	290	561	610	-	-	260	295
10	330	155	343	669	711	-	-	327	460
12	356	178	394	759	762	-	-	490	630
14	381	290	428	795	812	-	-	670	810
16	406	310	482	867	812	-	-	888	1025
18	432	330	505	885	812	-	-	1053	1290
20	457	350	576	1028	914	-	-	1441	1795
24	508	350	678	1125	914	-	-	2238	2995