



Jiangsu Sinoval Machinery Co., Ltd.



JIANGSU SINOVAL MACHINERY CO., LTD.

Add: No. 158 Tongyu North Road, Funing County, Yancheng City, Jiangsu

Tel: +86-515-87214888

Fax: +86-515-87227098

Phone: +86-18361638888

Website: www.snwejx.com

E-mail: fnjslxty@163.com



Cast steel valve series



JIANGSU SINOVAL

**CAST STEEL
VALVE SERIES**

COMPANY PROFILE

Jiangsu Sinoval Machinery Co., Ltd. , always adheres to an idea of "Surviving on Quality, Developing on Technology", and now has developed into a new high-tech enterprise integrated with research & production, development, manufacturing, detection and sales of industrial valves. With a registered capital of 98800000 YUAN, the company now has near 200 staffs, possesses the fixed assets of 57250000 YUAN and covers an area of 61200m². Therein, there are near 30 engineering technicians and many after-sales service personnel. Valve CAD special software is adopted for design, and design software including three-dimensional drawing and finite element analysis, etc. are equipped. It also has a complete quality assurance system and detection means, as well as instruments like spectrum analyzer, etc. Within more than 400 sets of existing production equipment, machining equipment includes many sets of numerically-controlled lathe, digital-display boring machine and vertical lathe with a swing diameter of 4m. In terms of thermal equipment, it owns fusing soldering welder, automatic powder plasma spray-welding machine, ion nitriding furnace, high-frequency hardening furnace, etc. as well as advanced detection equipment such as universal material testing machine, automatic microcomputer demagnetizing instrument and leak detector, etc., which provides guarantee for production of high-quality products.

In the same industry, it initiatively passes TS certification of Manufacture License of Special Equipment. It is also member of Sinopec Goods and Materials Resources Market, and the membership of China National Petroleum Corporation First-Class Supply Network and China General Machinery Industry Association Valve Branch. The company has persisted in depending on technological innovation and constantly absorbed advanced experience

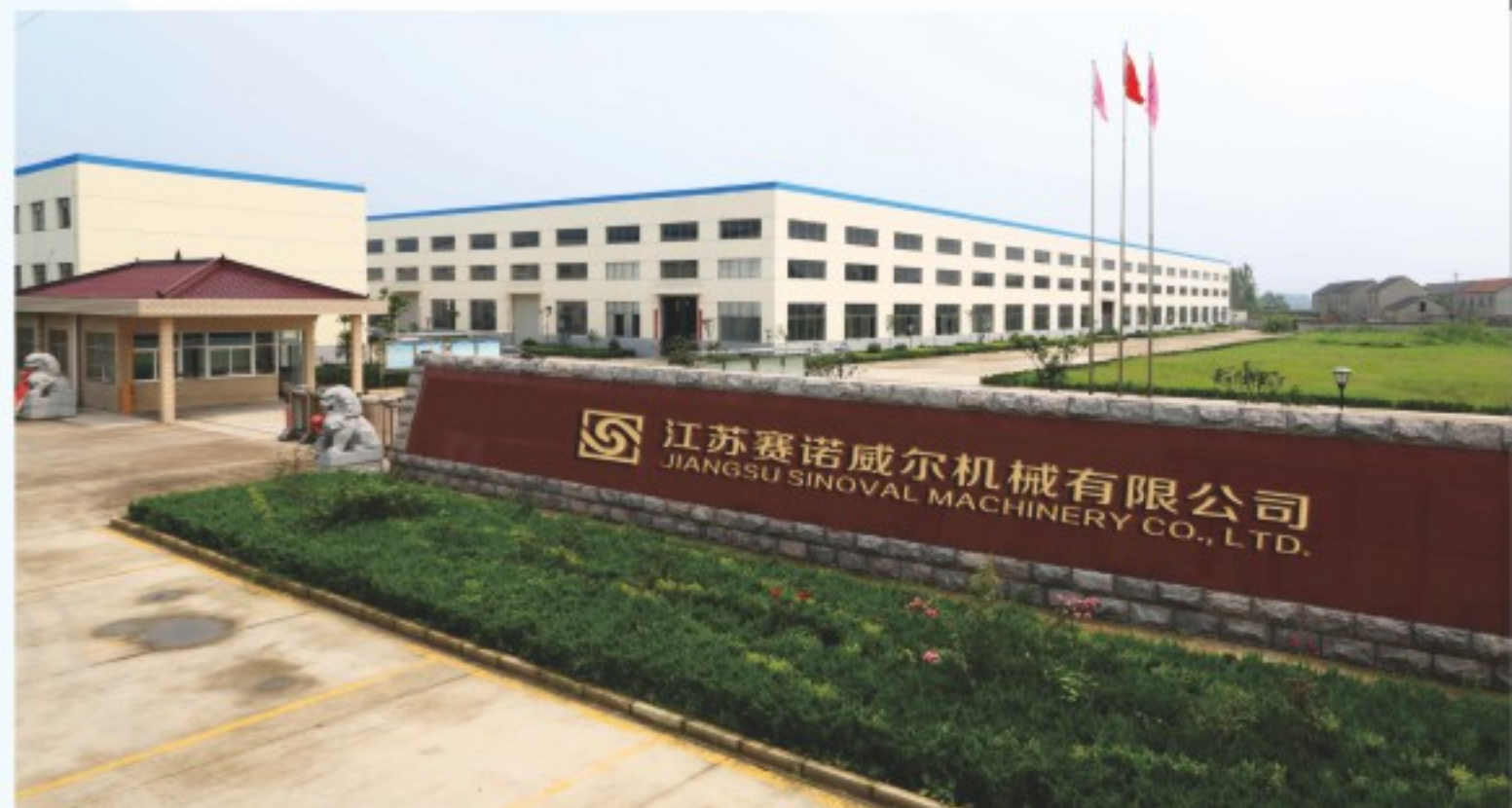
at home and abroad, introduced advanced manufacturing technique and complete detection equipment, and established a high-quality modern team.

Company's leading products include above 1500 models like power station valve, gate valve, ball valve, stop valve, butterfly valve, non-return flap valve, fixed ball valve and various needle valves, valve units and instrumentation tube fittings, etc., with more than 6800 specifications, widely used in power station, nuclear power, petroleum, chemical industry, metallurgy, building, pharmacy, paper manufacturing, coal mine and other industries. Its products have a good sale in America, Canada, Germany, the Middle East and other countries and districts, well praised and trusted by users.

The company could respectively provide drive modes including manual drive, motor drive, pneumatic drive and manual-pneumatic-hydraulic linkage, etc. according to user's demand. Also, various materials including carbon steel, stainless steel, heat resistant steel and superior alloy steel, etc. could be respectively selected and used. It also undertakes manufacturing business of various special valves. As for standards adopted, in addition to national standards and industrial standards, international advanced standards including American API, ASME, Japanese JIS, British BS, German DIN, etc. are also adopted.

Our company will stick to an idea of "market demand-oriented", constantly make innovations and is dedicated to provide users with quality trustworthy products and perfect after-sale service. Jiangsu Sinoval Machinery Co., Ltd. shares technology of new century with you and takes you to feel a close world-top manufacturing technology. Welcoming new and old customers to arrive and visit our company and give guidance!

JIANGSU SINOVAL MACHINERY CO., LTD.



WOKSHOP DISPLAY

Quality embodies our dignity, a kind of elite quality refused to mediocrity. Meticulous, dental laboratories, standardized management system and systematized quality guarantee system, let Sainuo Weier product quality, in every corner of the world in the clear Sainuo Weier with collaborators fruitful efforts, are prompting "Sinoval" has become the world's most impeccable quality.



ENGINEERING PERFORMANCE

Products are widely used in petrochemical, refining, gas, paper making, pharmacy, urban construction and other industries with long distance pipeline and other projects. Products are sold well all over the country, and has been praised by domestic customers.



CAST STEEL GATE VALVE SERIES 01

Gate Valve Product Structure	02-03
GB Wedged Gate Valve	04-08
Electric Wedge Gate Valve	09-12
High Temperature And High Pressure Electric Welding Gate Valve	13-14
ANSI Pressure Class Power Station Valve	15-17
API Cast Steel Gate Valve	18-21
Gas Flat Gate Valve	22-23
Preservation Jacket Gate Valve	24-25
Low Temperature Gate Valve	26-28

CAST STEEL GLOBE VALVE SERIES 29

Globe Valve Products Structure	30-31
GB Globe Valve	32-35
High Temperature High Pressure Electric Globe Valve	36-38
ANSI Pressure Class Y Type Globe Valve (Large Diameter)	39-40
Straight Flow, Butt Welded, Pressure Sealed Globe Valve (BW)	41
Socket Welded, Straight Flow, Pressure Sealed Globe Valve (SW)	42
Resistance To Erosion Globe Valve	43
API Cast Steel Globe Valve	44-46
Low Temperature Globe Valve	47-48
Insulation Globe Valve	49-50
Oxygen Special Globe Valve	51-52
Corrugated Pipe Stop Valve	53
Angle Globe Valve	54

CAST STEEL CHECK VALVE SERIES 55

Check Valve Products Structure	56-57
GB Swing Check Valve	58-60
GB Lift Check Valve	61-63
Power Station Lift, Swing Check Valve	64-65

ANSI Pressure Class Swing Check Valve for Power Station	66
Extraction Check Valve	67
Straight-flow Check Valve	68
API Swing Check Valve	69-70
Wafer Type Piston-lift Check Valve	71-72
Wafer Type Double Disc Swing Check Valve	73-74
Vertical Check Valve	75

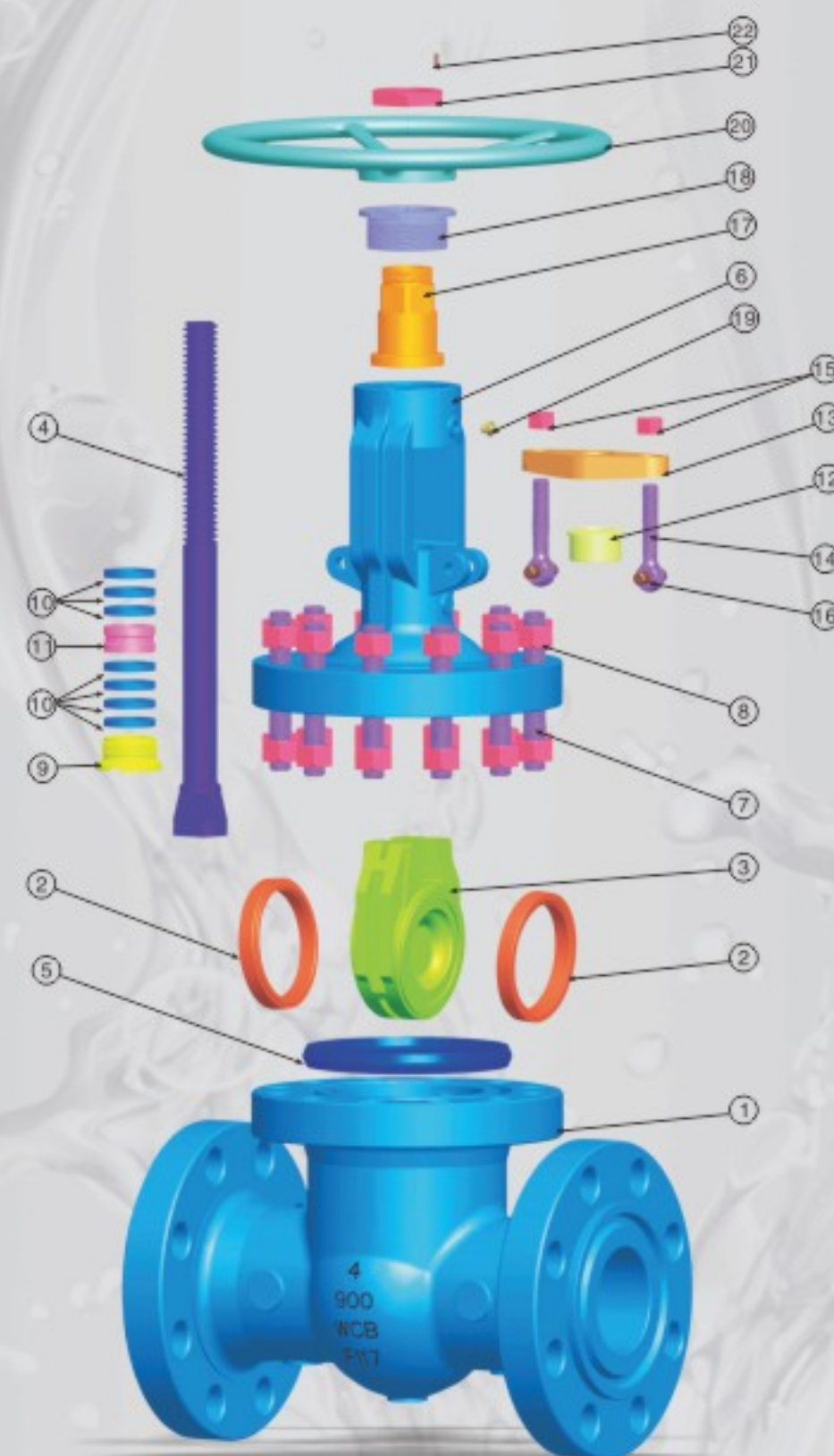
CAST STEEL BALL VALVE SERIES 76

Ball Valve Product Structure	77-78
Ball Valve Description	79-81
Floating Ball Valve	82-83
Metal Sealed Floating Ball Valve	84-85
Metal Sealed Trunnion Ball Valve	86-87
API Cast Steel Floating Ball Valve	88
API Cast Steel Trunnion Ball Valve	89-91
GB Hard and Soft Sealing Floating Ball Valve	92-93
GB Cast Steel Floating Ball Valve	94-96
GB Cast Steel Trunnion Ball Valve	97-100
Hard Seal Trunnion Ball Valve	101-102
GB Cast Steel Fixed Ball Valve	103
Up-loaded Fixed Ball Valve	104-106
Slurry Half Ball Valve	107-108
Track Ball Valve	109-116

CAST STEEL BUTTERFLY VALVE SERIES 117

Butterfly Valve Product Structure	118-119
Triple Eccentric Multi-layer Metal Hard Seal Butterfly Valve	120
Wafer Multi-layer Metal Hard Seal Butterfly Valve	121-123
Flange Multi-layer Metal Hard Seal Butterfly Valve	124-126
API Butterfly Valve	127-130

CAST STEEL GATE VALVE SERIES





◆ Products Structure Features

Series of cast steel gate valve are used to cut or connect the pipe media under nominal pressure between PN1.6-42.0MPa (CL150-CL2500), working temperatures between -46~600℃. in oil industry, chemical industry, fossil-fired power plants.

The main structure features include:

1. Sensible products structure, reliable sealing, Excellent performance and good looking.
2. Co hard alloy welded sealing surface, which is wearing resistant, erosion proof, abrasion proof and long-lived.
3. The valve stem is treated by quenching and tempering, surface nitriding, it's anti-friction and corrosion resistance is good.
4. There is backseat structure in the valve, so the valve seal is reliable.
5. Material of spare parts, size of the flange and butt weld end can be chosen and matched according to actual working condition and user's requirements, so that meet various projects requirements.

◆ Main Part

N.o	Part Name	N.o	Part Name
01	Body	12	Gland
02	Seat	13	Gland Flange
03	Gate	14	Eyebolt
04	Stem	15	Eyebolt Nut
05	Bonnet Gasket	16	Pin
06	Bonnet	17	Stem Nut
07	Bolts	18	Bearing Gland
08	Nuts	19	Nipple
09	Backseat	20	Hand Wheel
10	Packing	21	Hand Wheel Nut
11	Packing Lantern Ring	22	Pin



◆ Use

Wedge gate valve is widely used in petroleum, chemical industry, power plants, oil, steam, etc, on the pipeline as connected or truncated the medium inside the pipe opening and closing device.

◆ Characteristics

1. Compact structure, reasonable design, good rigidity, valve channel flow, flow resistance coefficient is small;
2. The sealing surface of stainless steel and carbide, long service life;
3. Using the flexible graphite packing, sealing is reliable, operation is smooth and easy;
4. Drive mode for manual, pneumatic, electric, gear transmission, hydraulic;
5. The structure form is elastic wedge type single gate, rigid wedge type single gate or double gate.

◆ Standards Adopted

Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	GB/T12234	GB/T12221	JB/T 79 GB/T9113 HG/T20592	GB/T 13927 JB/T9092	GB/T 12224

◆ Performance Specification

1. Test pressure

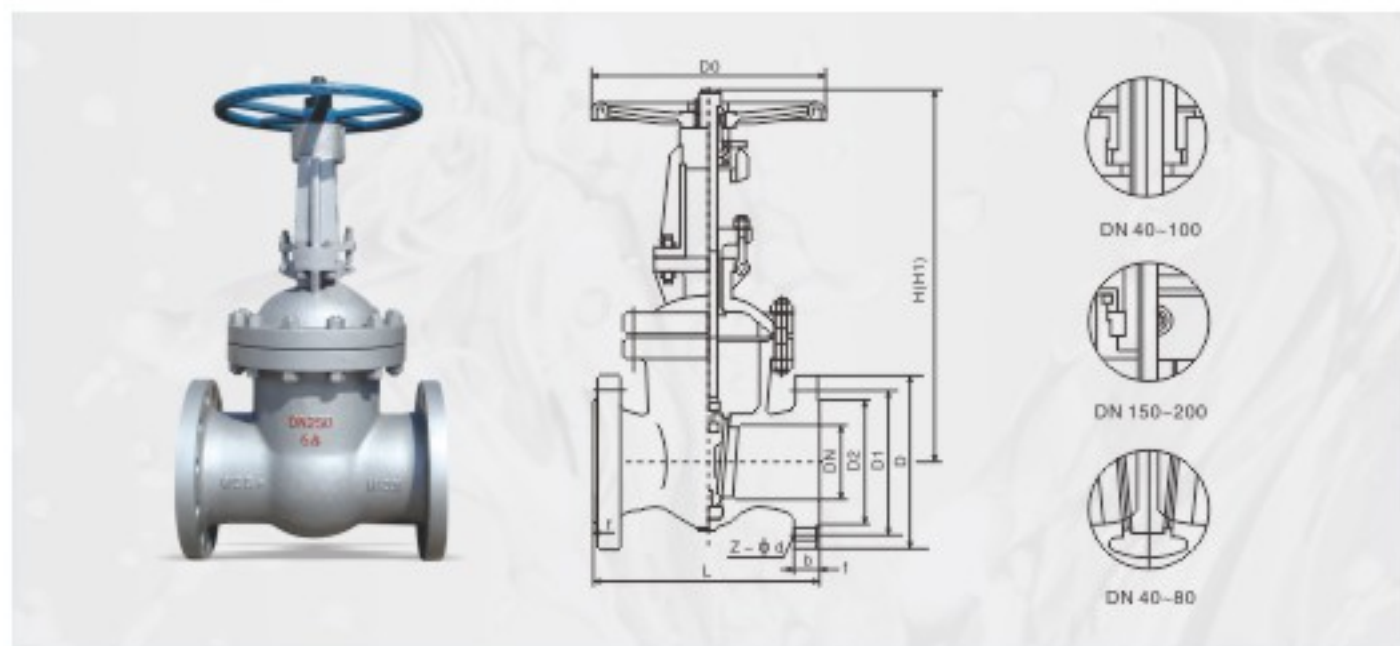
PN(MPa)	Shell	(Mpa) Test pressure		Back seat
		Seal (Liquid)	Seal (Gas)	
1.6	2.4	1.8	0.6	1.8
2.5	3.8	2.8	0.6	2.8
4.0	6.0	4.4	0.6	4.4
6.4	9.6	7.1	0.6	7.1
10.0	15.0	11.0	0.6	11.0
16.0	24.0	18.0	0.6	18.0

2. Applicable Media & Applicable Temperature

Shell material	Applicable media	Applicable temperature
Carbon steel (C type)	Water, steam, oil	≤425
Cr.Ni, steel (P type)	Nitric acid	≤200
Cr.Ni.Mo, steel (R type)	Acetic acid	≤200
Cr.Mo steel (I type)	Water, steam, oil	≤550

◆ Main Part Materials

Body, bonnet	Disc, seat	Stem	Stem nut	Packing	Handwheel
Carbon steel	High-grade carbon steel+carbide alloy or stainless steel	Cr. stainless steel	Copper alloy	Flexible graphite	Malleable Iron
Cr.Ni, steel	Stainless steel or+carbide alloy	Cr.Ni, stainless steel	Copper alloy	PTFE	Malleable Iron
Cr.Ni.Mo, steel	Stainless steel or+carbide alloy	Cr.Ni, stainless steel	Copper alloy	PTFE	Malleable Iron
Cr.Mo steel	Alloy steel+carbide alloy	Cr.Mo steel	Copper alloy	Flexible graphite	Malleable Iron



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D1	D2	b-f	Z-φd	H
Z40H Z41Y-10C	Z40 Z41Y-10P/R/PL/RL	Z40 Z41W-10P/R/PL/RL	Z40 Z41Y-10I (KZ41Y)				
15	130	95	65	45	12-2	4-φ14	185
20	150	105	75	55	14-2	4-φ14	200
25	160	115	85	65	14-2	4-φ14	225
32	180	135	100	78	16-2	4-φ18	275
40	200	145	110	85	16-3	4-φ18	290
50	180	160	125	100	16-3	4-φ18	345
65	195	180	145	120	18-3	4-φ18	360
80	210	196	160	135	18-3	4-φ18	380
100	230	215	180	155	20-3	8-φ18	430
125	255	245	210	185	22-3	8-φ18	520
150	280	280	240	210	22-3	8-φ23	600
200	330	335	295	265	22-3	8-φ23	765
250	380	390	350	320	24-3	12-φ23	930
300	420	440	400	368	26-3	12-φ23	1080
350	450	500	460	428	26-4	16-φ23	1200
400	480	565	515	482	26-4	16-φ35	1400
450	510	615	656	532	26-4	20-φ25	1500
500	540	670	620	585	28-4	20-φ25	1630
600	600	780	725	685	28-5	20-φ30	1830
700	660	896	840	800	30-5	24-φ30	1930



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D1	D2	b-f	Z-φd	H
Z40H Z41Y-16C	Z40 Z41Y-16P/R/PL/RL	Z40 Z41W-16P/R/PL/RL	Z40 Z41Y-16I (KZ41Y)				
15	130	95	65	45	14-2	4-φ14	185
20	150	105	75	55	14-2	4-φ14	200
25	160	115	85	65	14-2	4-φ14	225
32	180	135	100	78	16-2	4-φ18	275
40	200	145	110	85	16-3	4-φ18	295
50	250	160	125	100	16-3	4-φ18	350
65	265	180	145	120	18-3	4-φ18	370
80	280	195	160	135	20-3	8-φ18	390
100	300	215	180	155	20-3	8-φ18	435
125	325	245	210	185	22-3	8-φ18	520
150	350	280	240	210	24-3	8-φ23	610
200	400	335	295	265	26-3	12-φ23	785
250	450	405	355	320	20-3	12-φ25	960
300	500	460	410	375	30-4	12-φ25	1080
350	550	520	470	435	34-4	16-φ25	1200
400	600	580	525	485	36-4	16-φ30	1400
450	650	640	585	545	40-4	20-φ30	1500
500	700	705	650	608	44-4	20-φ34	1630
600	800	840	770	718	48-5	20-φ41	1830
700	900	910	840	788	50-5	24-φ41	1930
800	1000	1020	950	898	52-5	24-φ41	2030
900	1100	1120	1050	998	54-5	28-φ41	2130
1000	1200	1255	1170	1110	56-5	28-φ48	2230



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b-f	z-φd	H
Z40H Z41Y-25C	Z40 Z41Y-25P/R/PL/RL	Z40 Z41W-25P/R/PL/RL	Z40 Z41Y-25I (KZ41Y)				
15	130	95	65	45	16-2	4-φ14	185
20	150	105	75	55	16-2	4-φ14	200
25	160	115	85	65	16-2	4-φ14	225
32	180	135	100	78	18-2	4-φ18	275
40	200	145	110	85	18-3	4-φ18	295
50	250	160	125	100	20-3	4-φ18	350
65	265	180	145	120	22-3	8-φ18	370
80	280	195	160	135	22-3	8-φ18	390
100	300	230	190	160	24-3	8-φ23	435
125	325	270	220	188	28-3	8-φ25	520
150	350	300	250	218	30-3	8-φ25	610
200	400	360	310	278	34-3	12-φ25	785
250	450	425	370	332	36-3	12-φ30	930
300	500	485	430	390	40-4	16-φ30	1080
350	550	550	490	448	44-4	16-φ34	1250
400	600	610	550	505	48-4	16-φ34	1430
450	650	660	600	555	50-4	20-φ34	1520
500	700	730	660	610	52-4	20-φ41	1650
600	800	840	770	718	56-5	20-φ41	1850
700	900	955	875	815	60-5	24-φ48	1950
800	1000	1070	990	930	64-5	24-φ48	2050
900	1100	1180	1090	1025	66-5	28-φ54	2150
1000	1200	1305	1210	1140	68-5	28-φ58	2250

◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b-f	z-φd	H
Z40H Z41Y-40C	Z40 Z41Y-40P/R/PL/RL	Z40 Z41W-40P/R/PL/RL	Z40 Z41Y-40I (KZ41Y)				
15	130	95	65	45	16-2	4-φ14	185
20	150	105	75	55	16-2	4-φ14	200
25	160	115	85	65	16-2	4-φ14	225
32	180	135	100	78	18-2	4-φ18	275
40	200	145	110	85	18-3	4-φ18	295
50	250	160	125	100	20-3	4-φ18	350
65	280	180	145	120	22-3	8-φ18	370
80	310	195	160	135	22-3	8-φ18	390
100	350	230	190	160	24-3	8-φ23	435
125	400	270	220	188	28-3	8-φ25	520
150	450	300	250	218	30-3	8-φ25	610
200	550	375	320	282	38-3	12-φ30	970
250	650	445	385	345	42-3	12-φ34	930
300	750	510	450	408	46-4	16-φ34	1080
350	850	570	510	465	52-4	16-φ34	1250
400	950	655	585	535	58-4	16-φ41	1460
450	1050	680	610	560	60-4	20-φ41	1520
500	1150	755	670	612	62-4	20-φ48	1650
600	1350	890	795	730	62-5	20-φ54	1850



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b-f	z-φd	H
Z40H Z41Y-64C	Z40 Z41Y-64P/R/PL/RL	Z40 Z41W-64P/R/PL/RL	Z40 Z41Y-64I (KZ41Y)				
15	170	105	75	55	18-2	4-φ14	185
20	190	125	90	68	20-2	4-φ18	200
25	210	135	100	78	22-2	4-φ18	225
32	230	150	110	82	24-2	4-φ23	380
40	240	165	125	96	24-3	4-φ23	300
50	250	175	135	105	26-3	4-φ23	360
65	280	200	160	130	28-3	8-φ23	385
80	310	210	170	140	30-3	8-φ23	400
100	350	250	200	168	32-3	8-φ25	450
125	400	296	240	202	36-3	8-φ30	540
150	450	340	280	240	38-3	8-φ34	630
200	550	405	345	300	44-3	12-φ34	820
250	650	470	400	352	48-3	12-φ41	960
300	750	530	460	412	54-4	16-φ41	1130
350	850	595	525	475	60-4	16-φ41	1300
400	950	670	585	525	66-4	16-φ48	1450
450	1050	715	630	570	70-4	20-φ48	1550
500	1150	800	705	640	70-4	20-φ54	1680
600	1350	930	820	750	76-5	20-φ58	1900

◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b-f	z-φd	H
Z40H Z41Y-100C	Z40 Z41Y-100P/R/PL/RL	Z40 Z41W-100P/R/PL/RL	Z40 Z41Y-100I (KZ41Y)				
15	170	105	75	55	20-2	4-φ14	185
20	190	125	90	68	22-2	4-φ18	200
25	210	135	100	78	24-2	4-φ18	225
32	230	150	110	82	24-2	4-φ23	280
40	240	165	125	95	26-3	4-φ23	300
50	250	196	145	112	28-3	4-φ25	360
65	280	220	170	138	32-3	8-φ25	385
80	310	230	180	148	34-3	8-φ25	400
100	350	265	210	172	38-3	8-φ30	450
125	400	310	250	210	42-3	8-φ34	450
150	450	350	290	250	46-3	12-φ34	630
200	550	430	360	312	54-3	12-φ41	820
250	650	500	430	382	60-3	12-φ41	960
300	750	585	500	442	70-4	16-φ48	1130
350	850	655	560	498	46-4	16-φ54	1300
400	950	715	620	558	80-4	16-φ54	1450
450	1050	770	675	615	84-4	16-φ58	1550
500	1150	870	760	690	90-5	20-φ58	1880



◆ Use

Electric wedge gate valve is a kind of linear motion of the valve, it has to do with Z type rotary actuators are more suitable, had an "on/off" switch and intelligent. This valve is simple is one of the most common opening and closing valve that uses disc and work to get through and shut off fluid medium in the pipeline. Widely used in electric power, metallurgy, petroleum, chemical industry, paper making, sewage treatment and other industries.

◆ Characteristics

1. Low fluid resistance, little scouring and erosion on sealing surface;
2. Good sealing performance, the medium flow direction is not restricted, not disturbed, and the pressure drop is small;
3. The shape is simple, the manufacturing technology is good, and the scope of application is wide.

◆ Standards Adopted

Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	GB/T12234	GB/T12221	JB/T 79 GB/T9113 HG/T20592	GB/T 13927 JB/T9092	GB/T 12224

◆ Performance Specification

1. Test pressure

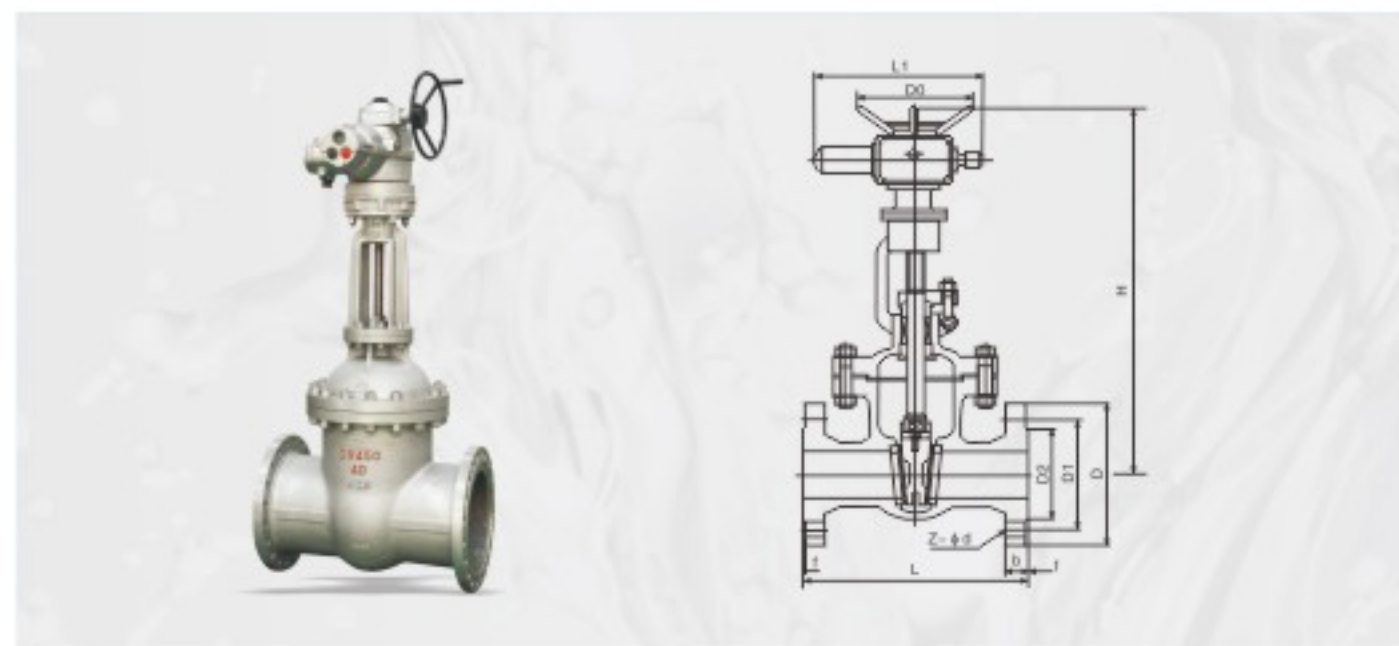
PN(MPa)	Shell	Test pressure (Mpa)		Back seat
		Seal (Liquid)	Seal (Gas)	
1.6	2.4	1.8	0.6	1.8
2.5	3.8	2.8	0.6	2.8
4.0	6.0	4.4	0.6	4.4
6.4	9.6	7.1	0.6	7.1
10.0	15.0	11.0	0.6	11.0
16.0	24.0	18.0	0.6	18.0

2. Applicable media & Applicable temperature

Shell material	Applicable media	Applicable temperature (°C)
Carburizing steel (C type)	Water, steam, oil	≤425
Cr.Ni, steel (P type)	Nitric acid	≤200
Cr.Ni.Mo, steel (R type)	Acetic acid	≤200
Cr.Mo steel (I type)	Water, steam, oil	≤550

◆ Main Part Materials

Body, bonnet	Disc, seat	Stem	Stem nut	Packing	Handwheel
Carbon steel	High-grade carbon steel+carbide alloy or stainless steel	Cr. stainless steel	Copper alloy	Flexible graphite	Malleable Iron
Cr.Ni, steel	Stainless steel or+carbide alloy	Cr.Ni, stainless steel	Copper alloy	PTFE	Malleable Iron
Cr.Ni.Mo, steel	Stainless steel or+carbide alloy	Cr.Ni, stainless steel	Copper alloy	PTFE	Malleable Iron
Cr.Mo steel	Alloy steel+carbide alloy	Cr.Mo steel	Copper alloy	Flexible graphite	Malleable Iron



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	f	Z-φd	H	Electric device	WT (Kg)
Z940H Z941Y -16C		Z940 Z941 Y-16P/R/PL/RL				Z940 Z941 W-16P/R/PL/RL			Z940 Z941 Y-16I	
40	200	145	110	85	16	3	4-18	595	DZW15	53
50	250	160	125	100	16	3	4-18	653	DZW20	59
65	265	180	145	120	18	3	4-18	665	DZW20	62
80	280	195	160	135	18	3	8-18	725	DZW20	74
100	300	215	180	155	20	3	8-18	787	DZW20	92
150	350	280	240	210	24	3	8-23	955	DZW30	161
200	400	335	295	265	26	3	12-23	1105	DZW30	219
250	450	405	355	320	30	3	12-25	1343	DZW45	376
300	500	460	410	375	30	3	12-25	1516	DZW60	484
350	550	520	470	435	34	4	16-25	1678	DZW60	695
400	600	580	525	485	36	4	16-30	1849	DZW90	977
450	650	640	585	545	40	4	20-30	1937	DZW90	1033
500	700	705	650	608	44	4	20-34	2234	DZW120	1087
600	800	840	770	718	48	5	20-41	2432	DZW180	1357
700	900	910	840	788	50	5	24-41	2489	DZW250	1481
800	1000	1020	950	898	52	5	24-41	2643	DZW350	1845

Note: DN700, DN800 type is Z942.



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	f	Z-φd	H	Electric device	WT(Kg)
Z940H Z941Y-25C		Z940 Z941 Y-25P/R/PL/RL			Z940 Z941 W-25P/R/PL/RL			Z940 Z941 Y-25I		
40	200	145	110	85	18	3	4-18	595	DZW15	60
50	250	160	125	100	20	3	4-18	653	DZW20	64
65	265	180	145	120	22	3	4-18	665	DZW20	65
80	280	195	160	135	22	3	8-18	725	DZW20	79
100	300	230	190	160	24	3	8-23	787	DZW20	98
125	325	270	220	188	28	3	8-25	902	DZW30	154
150	350	300	250	218	30	3	8-25	955	DZW30	168
200	400	360	310	278	34	3	12-25	1105	DZW45	219
250	450	425	370	332	36	3	12-30	1343	DZW45	390
300	500	485	430	390	40	4	16-30	1516	DZW60	505
350	550	550	490	448	44	4	16-34	1678	DZW60	736
400	600	610	550	505	48	4	16-34	1849	DZW90	1027
450	650	660	600	555	50	4	16-34	1937	DZW90	1139
500	700	730	660	610	52	4	20-34	2234	DZW120	1228
600	800	840	770	718	56	5	20-41	2432	DZW180	1502
700	900	955	875	815	60	5	20-41	2489	DZW250	1617
800	1000	1070	990	930	64	5	24-48	2643	DZW350	1923

Notice: DN700, DN800 type is Z942.

◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	D ₃	b	Z-φd	f	f ₂	H	Electric device	WT (Kg)
Z940H Z941Y-40C		Z940 Z941 Y-40P/R/PL/RL			Z940 Z941 W-40P/R/PL/RL			Z940 Z941 Y-40I				
40	200	145	110	85	76	18	4-18	3	4	617	DZW15	62
50	250	160	125	100	88	20	4-18	3	4	665	DZW20	66
65	280	180	145	120	110	22	8-18	3	4	680	DZW20	68
80	310	195	160	135	121	22	8-18	3	4	752	DZW20	80
100	350	230	190	160	150	24	8-23	3	4.5	846	DZW30	108
150	450	300	250	218	204	30	8-25	3	4.5	1087	DZW45	258
200	550	375	320	282	260	38	12-30	3	4.5	1243	DZW45	366
250	650	445	385	345	313	42	12-34	3	4.5	1429	DZW60	472
300	750	510	450	408	364	46	16-34	4	4.5	1608	DZW90	673
350	850	570	510	465	422	52	16-34	4	5	1738	DZW90	804
400	950	655	585	535	474	58	16-41	4	5	1897	DZW120	1081
450	1050	680	610	560	524	60	20-41	4	5	2104	DZW120	1259
500	1150	755	670	612	576	62	20-48	4	5	2401	DZW180	1348



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	D ₃	b	Z-φd	f	f ₂	H	Electric device	WT (Kg)
Z940H Z941Y-64C		Z940H Z941Y-64P/R/PL/RL			Z940 Z941 W-64P/R/PL/RL			Z940 Z941 Y-64I				
50	250	175	135	105	88	26	4-23	3	4	667	DZW20	68
65	280	200	160	130	110	28	8-23	3	4	685	DZW20	72
80	310	210	170	140	121	30	8-23	3	4	748	DZW30	88
100	350	250	200	168	150	32	8-25	3	4.5	845	DZW30	117
150	450	340	280	240	204	38	8-34	3	4.5	1009	DZW45	314
200	550	405	345	300	260	44	12-34	3	4.5	1253	DZW60	432
250	650	470	400	345	313	48	12-41	3	4.5	1449	DZW60	595
300	750	530	460	412	361	54	16-41	4	4.5	1867	DZW90	721
350	850	595	525	475	422	60	16-41	4	5	1931	DZW120	863
400	950	670	585	525	474	66	16-48	4	5	2017	DZW180	1129
500	1150	800	705	640	576	70	20-54	4	5	2459	DZW250	1493
Z940H Z941Y-100C		Z940 Z941 Y-100P/R/PL/RL			Z940 Z941 W-100P/R/PL/RL			Z940 Z941 Y-100I				
50	250	195	145	112	88	28	4-25	3	4	781	DZW20	78
65	280	220	170	138	110	32	8-25	3	4	830	DZW20	96
80	310	230	180	148	121	34	8-25	3	4	865	DZW30	126
100	350	265	210	172	150	38	8-30	3	4.5	1179	DZW30	134
150	450	350	290	250	204	46	12-34	3	4.5	1201	DZW60	352
200	550	430	360	312	260	54	12-41	3	4.5	1611	DZW90	484
250	650	500	430	382	313	60	12-41	3	4.5	1903	DZW90	608
300	750	585	500	442	364	70	16-48	4	4.5	2054	DZW120	757
350	850	655	560	498	422	76	16-54	4	5	2132	DZW180	994
400	950	715	620	558	474	80	16-54	4	5	2321	DZW250	1269
Z940H Z941Y-160C		Z940 Z941 Y-160P/R/PL/RL			Z940 Z941 W-160P/R/PL/RL			Z940 Z941 Y-160I				
50	300	215	165	132	88	36	8-25	3	4	905	DZW20	101
65	340	245	190	152	110	44	8-30	3	4	968	DZW20	137
80	390	260	205	168	121	46	8-30	3	4	978	DZW30	167
100	450	300	240	200	150	48	8-34	3	4.5	1043	DZW30	211
125	525	355	285	238	176	60	8-41	3	4.5	1248	DZW60	424
150	600	390	318	270	204	66	12-41	3	4.5	1394	DZW90	588
200	750	480	400	345	260	78	12-48	3	4.5	1621	DZW120	839



◆ Use

Electric welded gate valve is widely used in petroleum, chemical industry, metallurgy, power plant, etc, mainly used in the high temperature heat conduction oil or high temperature steam. Power supply voltage: 380V, 660V, 415V, 220V, 110V, electric actuators are: Ordinary type, integrated type, intelligent type, explosion-proof type.

◆ Characteristics

1. High temperature and high pressure power station valve adopts advanced port straight through such as structure, greatly reduce the flow resistance coefficient and energy loss, improve the service life of the valve, and performance;
2. Using pressure self-tightening seal structure, good sealing performance. For welding structures on both ends;
3. Obturator's part structure according to user requirements designed to single, double plate, the different forms such as parallel double plate;
4. Electric gate valve opening and closing control by electric actuator, electric actuator, respectively, with special motor, reducer, torque control, site operation, manual, electric switch Institutions, in addition to on-site operation, it can also be remotely controlled.

◆ Standards Adopted

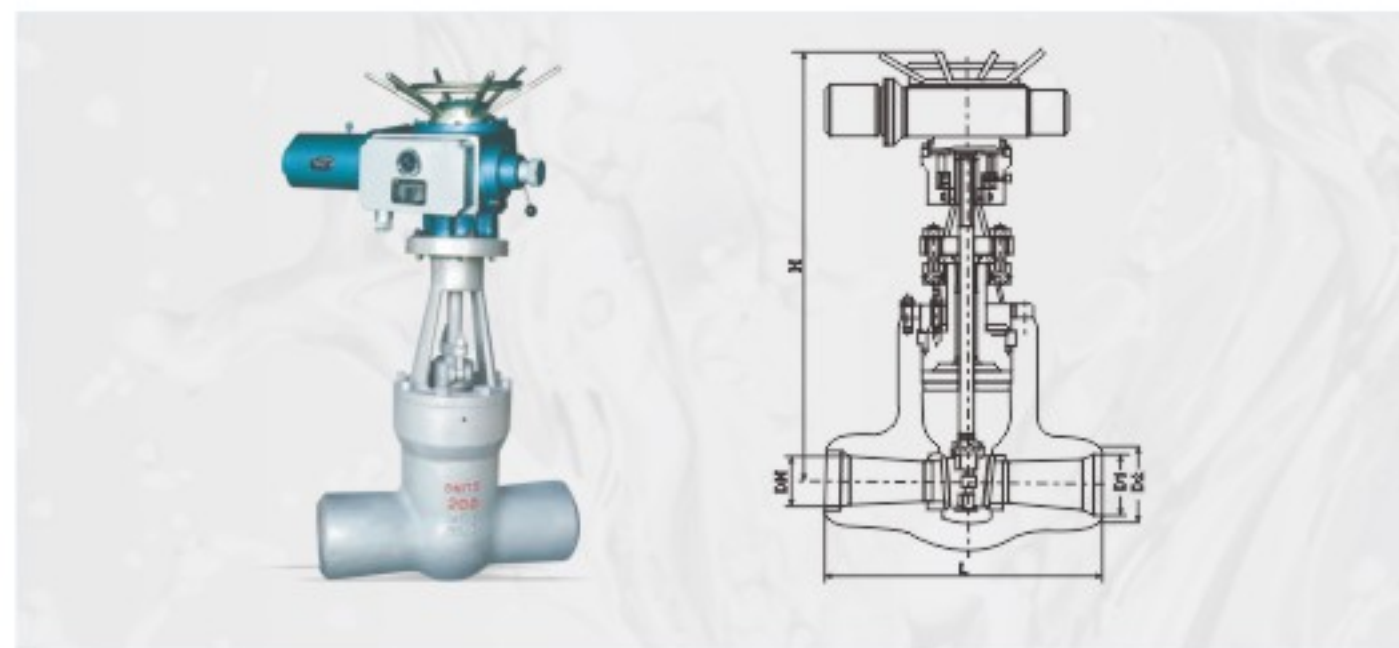
Product specification	Design spec	Face to face	Welding groove	Test & check	Pressure-temp
	NB/T 47044	GB/T12221 GB/T 15188.1	NB/T 47044	NB/T 47044	NB/T 47044

◆ Performance Specification

Product model	PN(MPa) Nominal pressure	Test pressure (Mpa)		Working pressure (Mpa)	Working temperature (°C)	Applicable medium
		Shell test	Seal test			
Z96 $\frac{1}{2}$ Y-250	25	37.5	27.5	—	≤425	Water, steam
Z96 $\frac{1}{2}$ Y-320	32	48.0	36.0	—	≤425	
Z96 $\frac{1}{2}$ Y-P54100	—	30.0	12.5	P5410	≤540	Steam
Z96 $\frac{1}{2}$ Y-P54170	—	48.0	21.3	P5417	≤540	

◆ Main Part Materials

Part name	Material designation		
Body	WCB	WC6	WC9
Disc	WCB	WC6	WC9
Bonnet	A105	12Cr1MoVA	
Stem	1Cr17Ni2	25Cr2MoVA	
Seat	A105	12Cr1MoVA	
Sealing ring	S soft steel(flexible graphite)	S soft steel	F soft steel
Packing	Flexible graphite		
Bracket	WCBor WC6		
Stem nut	45(ZCuZn25a16Fe3Mn3), ZQA19-4		
Four piece ring	1Cr13		



◆ Main Boundary Connection Dimension

Model	DN(mm)	L	D ₁	D ₂	WT (kg)
Z962H-200 Z960Y-200 Z962Y-P54100V Z960Y-P54100V	50	280	50	78	42
	65	350	68	93	53
	80	480	83	110	130
	100	525	108	145	180
	125	600	129	172	190
	150	650	164	200	420
	175	750	186	223	526
	200	800	200	262	550
	225	850	233	282	595
	250	950	275	325	1210
Z962H-250 Z960Y-250 Z962Y-P54140V Z960Y-P54140V	300	1200	312	380	2100
	150	700	150	200	420
	175	750	176	223	530
	200	800	200	262	560
	225	850	220	282	600
Z960Y-320 Z960Y-P54170V	250	950	265	325	1220
	300	1194	305	380	2120
	150	700	150	200	615
	175	750	170	225	680
	200	800	200	262	695
Z960Y-320 Z960Y-P54170V	225	850	207	283	700
	250	950	250	325	1460
	300	1245	265	377	2650



◆ Use

ANSI Pressure class power station valve suitable for class1500~4500 Lb, working temperature -29~570 ℃ under various working conditions such as petroleum, chemical industry, power plant piping cut off or connect medium.

◆ Characteristics

1. The high temperature and high pressure power station valve adopts advanced port straight through such as structure, greatly reduce the flow resistance coefficient and energy loss, improve the service life of the valve, and performance;
2. Valve lumen uses pressure self-tightening seal structure, good sealing performance. For welding structures on both ends of the tube;
3. The disc and seat sealing surface using department too vertical cobalt-based hard alloy surfacing and become, wear-resisting, high temperature resistance, good corrosion resistance, abrasion resistance;
4. The high temperature and high pressure power station valve stem by conditioning and surface nitriding treatment, has good corrosion resistance and abrasion resistance;
5. The structure of the open-close part can design according to user requirements into a single, double plate, the different forms such as parallel double plate;
6. Electric gate valve opening and closing control by electric actuator, electric actuator, respectively, with special motor, reducer, torque control, site operation, manual, electric switch machine Structure. In addition to on-site operation, remote operation can be performed.

◆ Standards Adopted

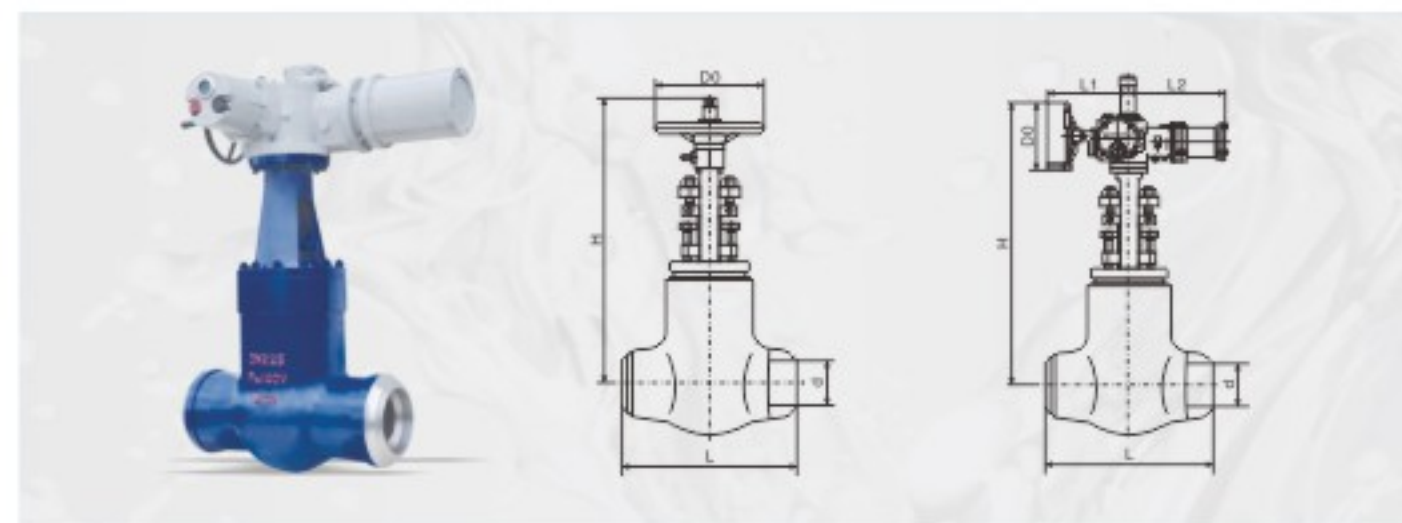
Product specification	Design spec	Face to face	Welding groove	Test & check	Pressure-temp
	NB/T 47044	JB/T 2766 GB/T 15188.1 E101	NB/T 47044 GB/T12224	NB/T 47044 E101	NB/T 47044

◆ Performance Specification

Shell material	Applicable temperature(℃)	Applicable medium
ASTM A216 WCB	≤425	Steam, water
ASTM A217 WC1	≤450	Steam, water
ASTM A217 WC6	≤550	Steam, water
ASTM A217 WC9	≤590	Steam, water

◆ Main Part Materials

Part name	Material designation			
Body	WCB	WC1	WC6	WC9
Disc	WCB	WC1	WC6	WC9
Bonnet	A105 WCB	15Cr1Mo1VA WC1	12Cr1Mo1VA WC6	12Cr1Mo1VA WC9
Seat	A105	15Cr1Mo1VA	12Cr1Mo1VA	20Cr1Mo1VA
Stem	1Cr17Ni2	1Cr17Ni2	SUH600 20Cr1Mo1V1A	SUH600 20Cr1Mo1V1A
Packing	Flexible graphite			
Bracket	WCB	WCB WC1	WCB WC6	WCB WC9
Sealing ring	S soft steel(Flexible graphite)		S soft steel	F soft steel
Stem nut	45(ZCuZn25A16Fe3Mn3)			



◆ Main Boundary Connection Dimension

NPS (in)	d	L	H	Do	L1	L2	Electric device	WT (Kg)
Z960Y-1500Lb								
2 1/2	54	254	520	200	140	243	SMC-04	93
3	64	305	523	508	140	243	SMC-04	110
4	84	406	599	508	198	281	SMC-03	168
			599	305	400	555	SMC-00	208
5	103	483	678	508	198	565	SMC-03	189
			678	305	400	654	SMC-00	232
6	126	559	793	305	410	565	SMC-0	358
			793	305	420	654	SMC-1	444
8	160	711	813	305	410	668	SMC-0	517
			813	305	420	654	SMC-1	561
10	199	864	998	457	440	654	SMC-2	852
			998	305	420	688	SMC-1	823
12	247	991	1141	305	420		SMC-1	1122
			1156	457	440		SMC-2	1150
14	280	1067	1249	610	690		SMC-3	1760
16	318	1194	1351	610	690		SMC-3	2429
18	360	1346	1535	610	690		SMC-3	2454
			1540	610	715		SMC-4	2524
20	406	1473	1726	610	690		SMC-3	3334
			1731	610	715		SMC-4	3380
22	450	1600	1921	610	690		SMC-3	4409
			1926	610	715		SMC-4	4648
Z960Y-2000Lb								
2 1/2	50	330	540	200	140	243	SMC-04	202
3	60	368	558	508	198	332	SMC-03	149
4	80	457	654	305	400	555	SMC-00	245
5	96	533	780	305	400	555	SMC-0	323
			780	305	410	565	SMC-0	280
6	118	610	830	305	410	565	SMC-0	419
8	148	762	960	305	410	565	SMC-0	626
			960	305	420	654	SMC-1	715
10	180	914	1020	305	420	654	SMC-1	1020
			1024	457	440	688	SMC-2	1050
12	222	1041	1150	457	440	688	SMC-2	1320
			1166	610	690		SMC-3	1358
14	254	1118	1230	457	440	688	SMC-2	1810
			1240	610	690		SMC-3	1840
16	294	1245	1330	610	690		SMC-3	2270
			1350	610	715		SMC-4	2300



◆ Main Boundary Connection Dimension

NPS(in)	d	L	H	Do	L1	L2	Electric device	WT(Kg)
Z960Y-2500Lb								
2 1/2	46	330	533 533	508 200	198 140	332 243	SMC-03 SMC-04	143 116
3	54	368	549 549	508 200	198 140	332 243	SMC-03 SMC-04	160 134
4	70	457	653 644	508 305	198 140	332 565	SMC-03 SMC-0	251 294
5	86	533	760 774	305 305	400 400	555 565	SMC-00 SMC-0	324 341
6	104	610	850 861	305 305	400 410	555 565	SMC-00 SMC-0	479 564
8	130	762	847 860	305 305	410 420	565 654	SMC-0 SMC-1	725 750
10	162	814	1031 1050	305 610	420 690	654	SMC-1 SMC-3	1152 1220
12	210	1041	1125 1149	457 610	440 690	688	SMC-2 SMC-3	1520 1558
14	234	1118	1221	610	690	-	SMC-3	1869
16	264	1245	1390 1395	610 610	690 715	-	SMC-3 SMC-4	2826 3084
Z960Y-3500Lb								
3	44	440	620 620	508 305	198 400	332 555	SMC-03 SMC-00	269 305
4	56	540	721 730	305 305	400 410	555 565	SMC-00 SMC-0	398 437
5	74	616	796 796	305 305	410 420	565 654	SMC-0 SMC-1	507 592
6	88	692	857 857	305 305	410 420	565 654	SMC-0 SMC-1	605 691
8	116	846	1041 1051	305 457	420 440	654 688	SMC-1 SMC-2	1088 1179
10	142	1000	1197 1207	457 610	440 690	688	SMC-2 SMC-2	1700 2031
12	174	1124	1338	610	690	-	SMC-3	2708
14	196	1229	1455 1440	610 610	715 690	-	SMC-4 SMC-3	3180 3131
18	252	1499	1915	610	715	-	SMC-4	4560



◆ Use

American Standard cast steel gate is widely used in petroleum, chemical industry, power plants, oil, steam, etc, on the pipeline as connected or truncated the medium inside the pipe opening and closing device.

◆ Characteristics

1. The product design and manufacture conform to the requirements of the advanced foreign standards, reliable sealing, good performance;
2. Compact and reasonable structure design, beautiful shape;
3. Adopting the wedge gate structure, large diameter set the rolling bearing, easy opening and closing;
4. The valve body materials, variety complete, packing and gasket reasonable selection according to actual working condition or the user requirements, can be applied to all kinds of pressure, temperature and medium conditions.

◆ Standards Adopted

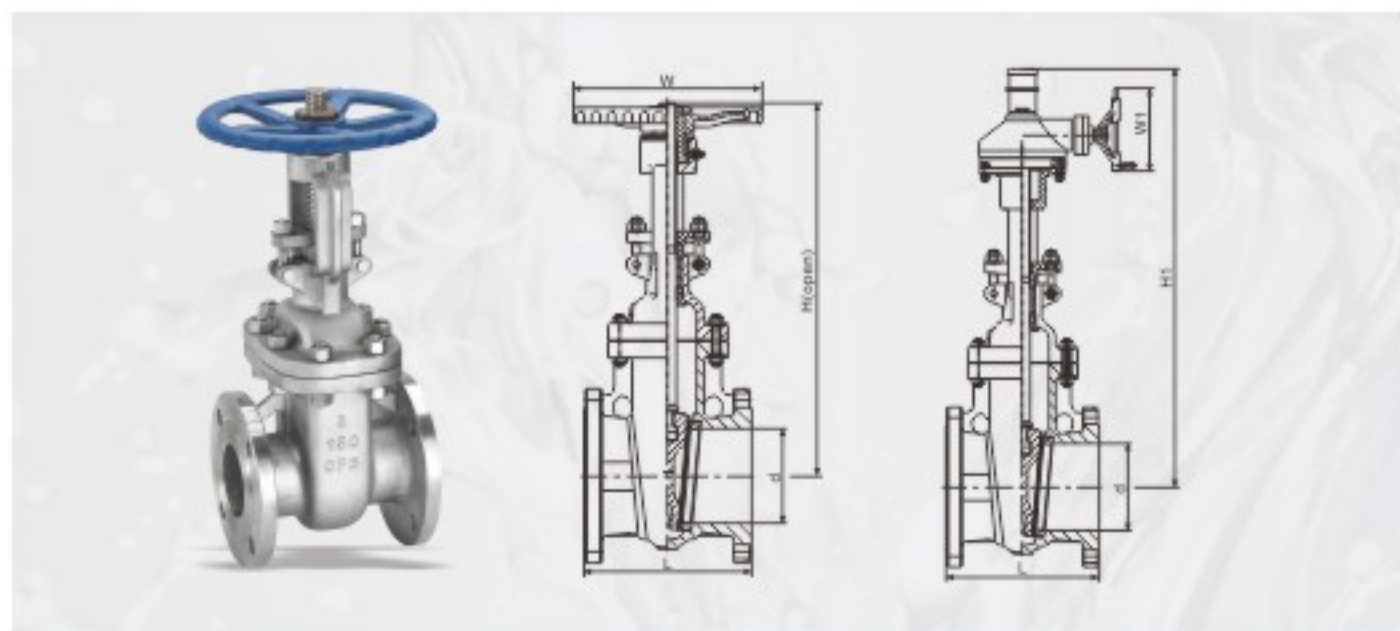
Design and manufacture	Face to face	Flange dimension	Butt welding dimension	Pressure temperature rating	Inspection and test
API 6D, 600	ANSI B16.10	ANSI B16.5	ANSI B16.25	ANSI B16.34	API 598, API 6D

◆ Performance Specification

ANSI Pressure Class (Lb)	Shell Test		Water seal test		Air seal test	
	MPa	Lbf/in ²	MPa	Lbf/in ²	MPa	Lbf/in ²
150	3.1	450	2.2	315	0.5~0.7	60~100
300	7.8	1125	5.6	815		
600	15.3	2225	11.2	1630		
900	23.1	3350	16.8	2440		
1500	38.4	5575	28.1	4080		
2500	64.0	9367	46.8	6873		

◆ Main Part Materials

Body, bonnet, disc	Stam	Sealing face	Sealing shim	Packing	Working temperature	Application medium
WCB	2Cr13	13Cr STL Body material PTFE Nylon	Reinforced flexible graphite 13Cr Flexible graphite SFB-2 08 Soft steel F304 F316 F304L F316L	Flesible graphite enhanced flexible graphite SFB/260 SFP/260 PTFE	≤ 425	Water, steam, oil
WC1	38CrMoAl 25Cr2Mov				≤ 450	
WC6					≤ 540	
WC9					≤ 570	
C5 C12					≤ 540	
CF8	F304				≤ 600	Nitric acid, acetic acid, urea
CF3	F304L					
CF8M	F316					
CF3M	F316L					



◆ Main Boundary Connection Dimension

(Class 150)

Class	NPS (in)	DN (mm)	L			d	H	H ₁	W	W ₁	WT (kg)	
			RF	RTJ	BW						Hand wheel	Gear box
Class 150	1/2	15	108	119	108	13	195	—	120	—	4	—
	3/4	20	117	130	117	19	210	—	120	—	5	—
	1	25	127	140	127	25	240	—	140	—	7	—
	1 1/4	32	140	153	140	32	300	—	180	—	10	—
	1 1/2	40	165	178	165	38	395	—	200	—	14	—
	2	50	178	191	216	51	400	—	200	—	19	—
	2 1/2	65	190	203	241	64	435	—	200	—	25	—
	3	80	203	216	282	76	515	—	250	—	33	—
	4	100	229	242	305	102	595	—	280	—	49	—
	5	125	254	267	381	127	725	—	280	—	62	—
	6	150	267	280	403	152	780	820	300	310	77	104
	8	200	292	305	419	203	975	1020	350	310	123	150
	10	250	330	343	457	254	1150	1200	400	310	188	215
	12	300	356	369	502	305	1380	1430	450	310	288	315
	14	350	381	394	572	337	1545	1580	500	310	385	435
	16	400	406	419	610	387	1733	1780	500	460	500	552
	18	450	432	445	660	438	1915	1990	500	460	601	653
	20	500	457	470	711	489	2122	2220	600	460	764	816
	24	600	508	521	813	591	2520	2600	600	460	1007	1185
	26	650	559	—	864	633	—	2800	—	600	—	1550
	28	700	610	—	914	684	—	3050	—	600	—	1880
	30	750	610	—	914	735	—	3130	—	600	—	2300
	32	800	711	—	965	779	—	3280	—	600	—	2550
	34	850	762	—	1016	830	—	3500	—	600	—	2950
	36	900	711	—	1016	874	—	3720	—	600	—	3390



◆ Main Boundary Connection Dimension

(Class 300 & Class 600)

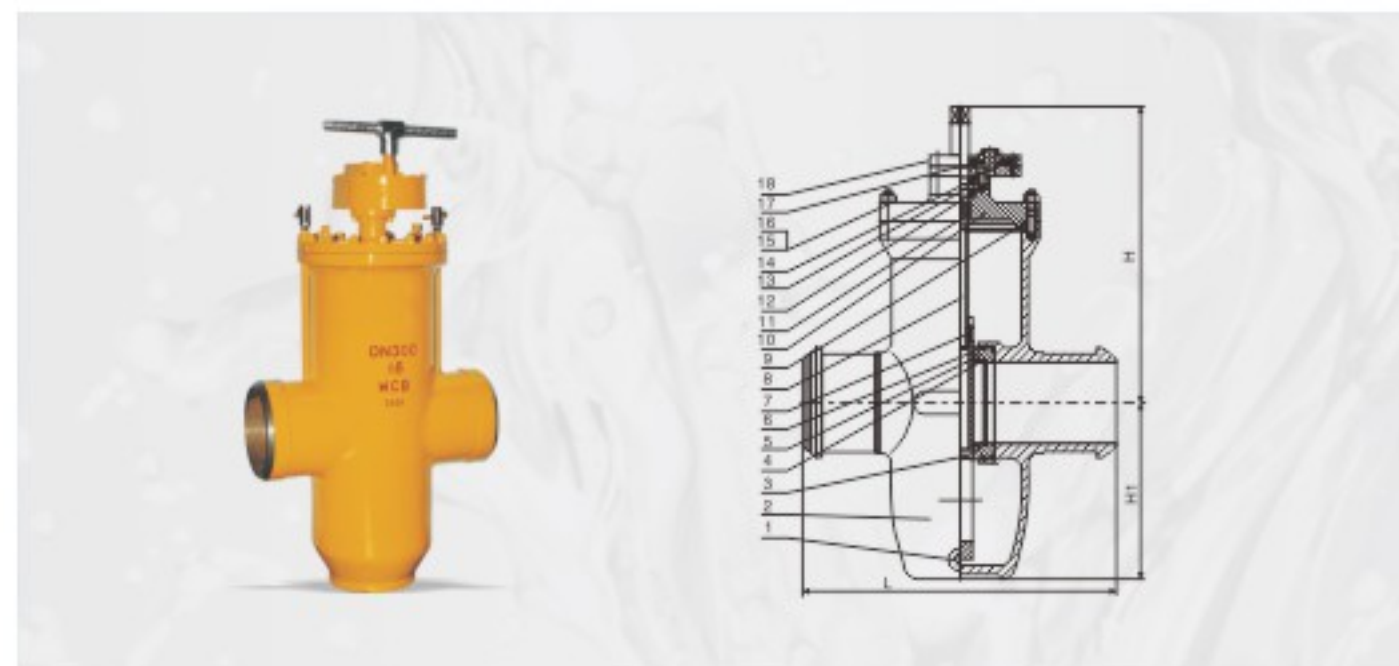
Class	NPS (in)	DN (mm)	L			d	H	H ₁	W	W ₁	WT (kg)	
			RF	RTJ	BW						Hand wheel	Gear box
Class 300	1/2	15	140	151	140	13	198	—	120	—	6	—
	3/4	20	152	165	152	19	215	—	140	—	7	—
	1	25	165	178	165	25	245	—	160	—	10	—
	1 1/4	32	178	191	178	32	306	—	180	—	15	—
	1 1/2	40	190	203	190	38	400	—	200	—	21	—
	2	50	216	232	216	51	420	—	200	—	25	—
	2 1/2	65	241	257	241	64	446	—	200	—	30	—
	3	80	282	298	282	76	537	—	250	—	48	—
	4	100	305	321	305	102	619	650	280	310	73	100
	5	125	381	397	381	127	722	750	300	310	99	126
	6	150	403	419	403	152	806	835	350	310	130	186
	8	200	419	435	419	203	1000	1030	400	310	208	235
	10	250	457	473	457	254	1240	1280	450	310	334	386
	12	300	502	518	502	305	1425	1460	500	310	450	502
	14	350	762	778	762	337	1585	1620	600	460	704	756
	16	400	838	854	838	387	1790	1830	500	460	923	965
	18	450	914	930	914	438	1960	2000	650	460	1131	1224
	20	500	991	1010	991	479	2158	2220	750	460	1345	1400
	24	600	1143	1165	1143	589	2576	2620	900	600	2122	2385
	26	650	1245	1270	1245	635	—	2850	—	600	—	3000
	28	700	1346	1371	1346	686	—	3080	—	600	—	3300
	30	750	1397	1422	1397	737	—	3180	—	600	—	3550
	32	800	1524	1552	1524	779	—	3300	—	600	—	4400
	34	850	1626	1654	1626	830	—	3550	—	600	—	5200
	36	900	1727	1755	1727	874	—	3760	—	600	—	6050
Class 600	2	50	292	295	292	51	444	—	200	—	32	—
	2 1/2	65	330	333	330	64	500	—	250	—	52	—
	3	80	356	359	356	76	558	585	280	310	60	87
	4	100	432	435	432	102	665	695	300	310	107	134
	5	125	508	511	508	127	760	790	350	310	175	227
	6	150	559	562	559	152	868	900	450	310	216	268
	8	200	660	663	660	200	1073	1110	500	310	399	451
	10	250	787	790	787	248	1263	1300	650	460	605	657
	12	300	838	841	838	298	1600	1650	700	460	851	893
	14	350	889	892	889	327	1705	1750	900	460	1177	1232
	16	400	991	994	991	375	1835	1900	900	460	1513	1568
	18	450	1092	1095	1092	419	—	2020	—	600	—	1980
	20	500	1194	1200	1194	464	—	2172	—	600	—	2460
	24	600	1397	1407	1397	559	—	2650	—	600	—	3650



◆ Main Boundary Connection Dimension

(Class 900 & Class1500 & Class2500)

Class	NPS (in)	DN (mm)	L			d	H	H ₁	W	W ₁	WT (kg)	
			RF	RTJ	BW						Hand wheel	Gear box
Class900	2	50	368	371	368	47	500	—	280	—	70	—
	2 1/2	65	419	422	419	57	550	—	280	—	110	—
	3	80	381	384	381	73	610	660	300	310	140	167
	4	100	457	460	457	98	702	750	350	310	200	227
	5	125	559	562	559	121	850	900	400	310	258	285
	6	150	610	613	610	146	980	1060	500	460	358	410
	8	200	737	740	737	190	1100	1140	650	460	550	600
	10	250	838	841	838	234	1320	1370	700	460	1000	1100
	12	300	965	968	965	282	1500	1560	900	460	1215	1310
	14	350	1029	1039	1029	311	1900	1950	900	600	1600	1700
	16	400	1130	1140	1130	354	2050	2100	900	600	2150	2330
Class 1500	2	50	368	371	368	47	510	—	280	—	70	—
	2 1/2	65	419	422	419	57	560	—	300	—	110	—
	3	80	470	473	470	70	620	670	350	310	175	202
	4	100	546	549	546	92	728	770	400	310	270	300
	5	125	673	676	673	111	870	920	450	310	378	405
	6	150	705	711	705	136	1000	1070	500	460	520	575
	8	200	832	842	832	174	1130	1180	750	460	820	915
	10	250	991	1001	991	222	1360	1410	900	600	1560	1750
	12	300	1130	1146	1130	263	—	1620	—	600	—	2120
	14	350	1257	1276	1257	289	—	2020	—	600	—	2600
Class 2500	16	400	1384	1406	1384	330	—	2180	—	600	—	3450
	2	50	451	454	451	35	530	580	280	310	100	130
	2 1/2	65	508	514	508	47	580	630	300	310	150	180
	3	80	578	584	578	57	650	700	350	310	245	275
	4	100	673	683	673	73	750	800	400	310	390	420
	5	125	794	807	794	92	900	960	500	460	550	580
	6	150	914	927	914	111	1040	1100	600	460	780	835
	8	200	1022	1038	1022	146	1150	1200	750	460	1260	1355
	10	250	1270	1292	1270	184	1400	1460	900	600	2380	2565
	12	300	1422	1444	1422	219	—	1660	—	600	—	3250



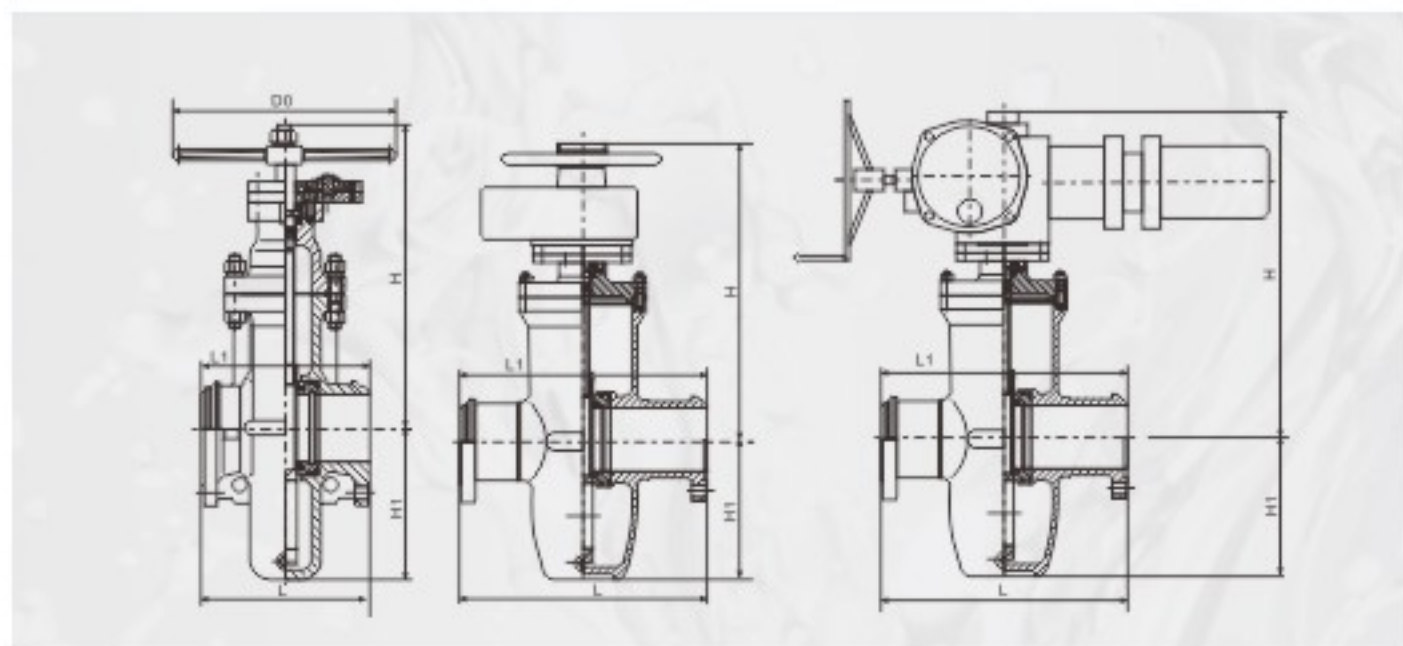
◆ Perform Standard

Design basis	Design criteria	Face to face		Connecting flange	Butt welding end	Test and inspection
		Flange	Welding			
GB	JB/T5298	GB/T 12221 JB/T5298	GB/T 15188.1	GB/T9113 JB/T 79	GB/T 12224	JB/T 9092
API	API 6D ASME B16.34	API 6D ASME B16.10		ASME B16.5 MSS SP44	ASME B16.25	API6D API598

Note: The valve connecting flange size can be designed and manufactured according to user requirements

◆ Main Part Material

No.	Part name	Material	No.	Part name	Material
		GB			GB
1	Drain plug	25	10	Bonnet	WCB
2	Body	WCB	11	O-ring	NBR
3	Disc	16Mn+ENP	12	Bearing	Component
4	Sealing ring	PTFE	13	Split ring	45
5	Seat	16Mn	14	Socket head cap screw	45
6	O-ring	NBR	15	Double-headed stud	35CrMo
7	Stem nut	ZQAL9-4	16	Nut	NBR-18
8	Stem	1Cr13	17	Key	45
9	O-ring	NBR	18	Switch indicator	Component



◆ Main Boundary Connection Dimension

(PN0.4/0.6/1.0/1.6/2.0/2.5 MPa; Class150)

DN (mm)	NPS (in)	Flange	Butt welding	Manual			Tooth movement			Tooth movement device	Electric			Electric actuator
		L	L ₁	H	H ₁	D ₀	H	H ₁	D ₀		H	H ₁	D ₀	
(K)Z4(5、9B)4(6)7F														
25	1	165	—	85	228	180	—	—	—	—	—	—	—	—
32	1 1/4	165	—	103	231	180	—	—	—	—	—	—	—	—
40	1 1/2	178	—	115	240	250	—	—	—	—	—	—	—	—
50	2	178	216	130	255	250	—	—	—	—	—	—	—	—
65	2 1/2	190	241	160	355	300	—	—	—	—	—	—	—	—
80	3	203	283	180	360	300	—	—	—	—	—	—	—	—
100	4	229	305	214	400	300	—	—	—	—	—	—	—	—
125	5	254	381	257	460	350	—	—	—	—	—	—	—	—
150	6	267	403	300	500	350	—	—	—	—	—	—	—	—
200	8	292	419	388	570	350	—	—	—	—	—	—	—	—
250	10	330	457	475	680	400	475	700	350	⁰ (Type)	475	710	500	SMC-03
300	12	356	502	547	750	450	547	870	350	⁰ (Type)	547	880	305	SMC-00
350	14	381	572	625	875	450	625	995	450	¹ (Type)	625	1045	305	SMC-00
400	16	406	610	712	1000	500	712	1120	45	¹ (Type)	712	1130	305	SMC-00
450	18	432	660	785	1130	500	785	1280	450	¹ (Type)	785	1360	305	SMC-0
500	20	457	711	880	1200	600	880	1350	450	¹ (Type)	880	1430	305	SMC-0
600	24	508	813	1045	1420	800	1045	1570	500	² (Type)	1045	1650	305	SMC-1
700	28	610	914	1190	1650	800	1190	1800	500	² (Type)	1190	1910	305	SMC-1
800	32	660	914	1360	1880	1000	1360	2040	500	² (Type)	1360	2140	305	SMC-1
900	36	771	1016	1510	2100	1000	1510	2280	600	³ (Type)	1510	2390	458	SMC-2
1000	40	811	—	1715	2300	1200	1715	2480	600	³ (Type)	1715	2590	458	SMC-2



◆ Use

Preservation jacket gate valve is mainly used in oil, chemical, metallurgical, pharmaceutical and other kinds of systems, in order to transport under normal temperature solidification of high viscosity medium. This series of jacketed welding of valve in the valve between the two flanges, the side of the valve, connection Settings are at the bottom of the jacket. Due to the increased the jacket, this kind of valve connecting flange size than the same specifications ordinary valve connecting flange freshman year to two specifications, but the length of the structure with the same specifications of the valve, can freely through the jacket steam or other heat insulation medium, to ensure that the viscous medium can be smoothly through the valve.

◆ Characteristics

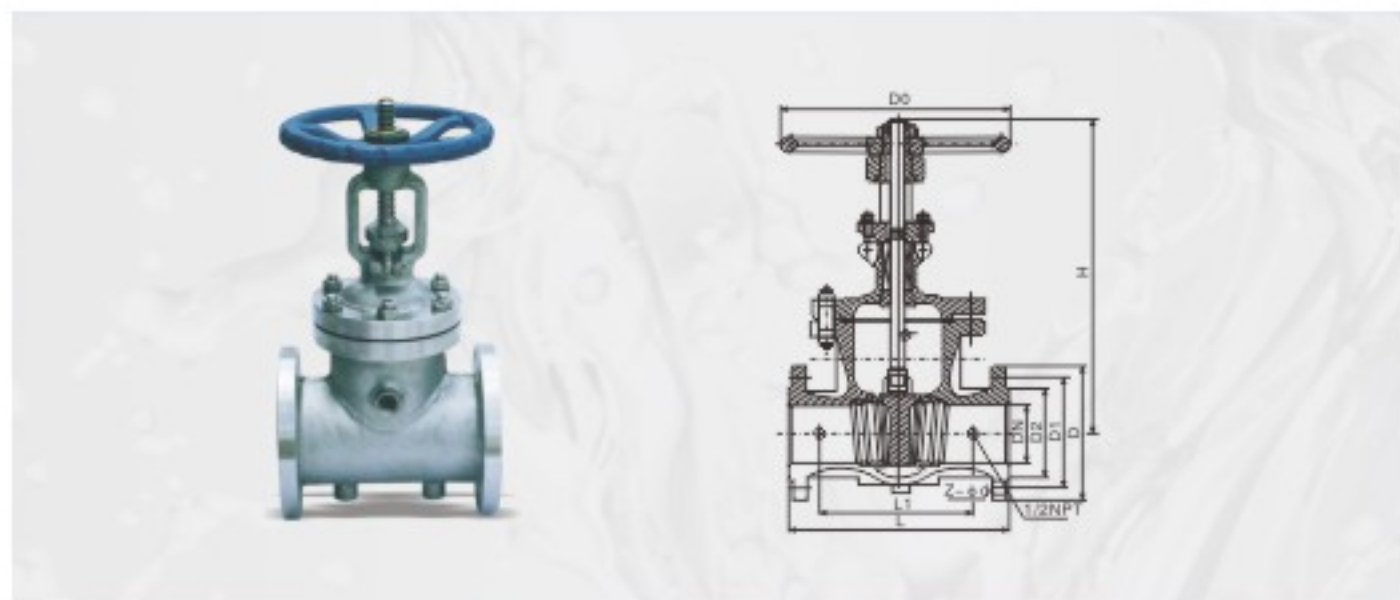
1. More energy when opening and closing, is compared with the cut-off valve, because whether on or off, disc direction are vertical to the phase with medium flow;
2. The opening and closing time is long, disc opening and closing of the trip is bigger, is through the screw;
3. The medium flows on both sides to any direction, easy to install, gate on both sides of channel is symmetric;
4. The structure of the length (the distance between the two connection end face shell) is smaller;
5. Compact structure, small flow resistance, smooth channel, the sealing surface of stainless steel and carbide, long service life, using PTFE packing, reliable seal, flexible operation of the light.

◆ Enforce Standards

Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	GB/T12234	GB/T12221	GB/T9113 JB/T79 GB/T20592	JB/T9092 GB/T13927	GB/T12224

◆ Main Part Materials

Part name	ZG1Cr18Ni9Ti (Series)	ZG00Cr18Ni10 (Series)	ZG1Cr18Ni12Mo2Ti (Series)	ZG00Cr17Ni14Mo2 (Series)	WCB (Series)
Body, bonnet	ZG1Cr18Ni9Ti	ZG00Cr18Ni10	ZG1Cr18Ni12Mo2Ti	ZG00Cr17Ni14Mo2	WCB
Disc	ZG1Cr18Ni9Ti	ZG00Cr18Ni10	ZG1Cr18Ni12Mo2Ti	ZG00Cr17Ni14Mo2	1Cr13
Stem	1Cr18Ni9Ti	00Cr18Ni10	1Cr18Ni12Mo2Ti	00Cr17Ni14Mo2	1Cr13
Packing	PTFE (Weaving)	PTFE (Weaving)	PTFE (Weaving)	PTFE (Weaving)	Graphite
Gasket	304L+PTFE	304L+PTFE	316L+PTFE	316L+PTFE	(Graphite)+304
Gland	ZG1Cr18Ni10	ZG00Cr18Ni10	ZG1Cr18Ni12Mo2Ti	ZG00Cr17Ni14Mo2	WCB
Packing gland ring	1Cr18Ni9Ti	00Cr18Ni10	1Cr18Ni12Mo2Ti	00Cr17Ni14Mo2	1Cr13
Bolt	1Cr17Ni2	1Cr17Ni2	1Cr17Ni2	1Cr17Ni2	35CrMoA
Nut	1Cr18Ni9Ti	1Cr18Ni9Ti	1Cr18Ni9Ti	1Cr18Ni9Ti	45



◆ Main Boundary Connection Dimension

(PN1.6/2.5MPa)

DN(mm)	L	L ₁	D	D ₁	D ₂	b	Z-φd	H	D ₀	WT(kg)
BZ41H-16C BZ41W-16P/R/PL/RL										
40	200	70	160	125	100	18	4-φ18	310	200	49
50	250	80	180	145	120	18	4-φ18	358	240	54
65	270	90	195	160	135	20	8-φ18	373	240	81
80	280	100	215	180	155	20	8-φ18	435	280	100
100	300	100	245	210	185	22	8-φ18	500	300	120
125	325	110	280	240	210	24	8-φ23	614	320	210
150	350	120	335	295	265	26	12-φ23	674	360	260
200	400	130	405	355	320	30	12-φ25	818	400	300
250	450	140	460	410	375	30	12-φ25	969	450	400
300	500	160	520	470	435	34	16-φ25	1145	560	490
BZ41H-25 BZ41W-25P/R/PL/RL										
40	200	70	160	125	100	20	4-φ18	358	240	52
50	250	80	180	145	120	22	8-φ18	373	240	56
65	270	90	195	160	135	22	8-φ18	435	280	86
80	280	100	230	190	160	24	8-φ18	500	300	105
100	300	100	270	220	188	28	8-φ15	614	320	170
125	325	110	300	250	218	30	8-φ25	674	360	245
150	350	120	360	310	278	34	12-φ25	818	400	270
200	400	130	425	370	332	36	12-φ30	969	450	380
250	450	140	485	430	390	40	12-φ30	1145	560	535
300	500	160	550	490	448	44	16-φ34	1145	640	546

◆ Use

Low temperature gate valve is suitable for methane, liquefied natural gas at low temperature, ethylene, carbon dioxide, ammonia, liquid oxygen, liquid nitrogen, liquid hydrogen and other medium at low temperature.

◆ Characteristics

1. To prevent abnormal midplane booster, set up a pressure relief hole on the inlet side of the gate;
2. According to the working temperature of the valve cover at the top of the length, ensure stem packing reliable seal;
3. According to the working temperature reasonable choice packing, gaskets and other parts of the materials;
4. Strictly control the material chemical composition and mechanical properties such as low temperature impact toughness index;
5. Use a variety of piping flange standards and sealing surface type, suitable for all kinds of engineering needs.

◆ Enforce Standards

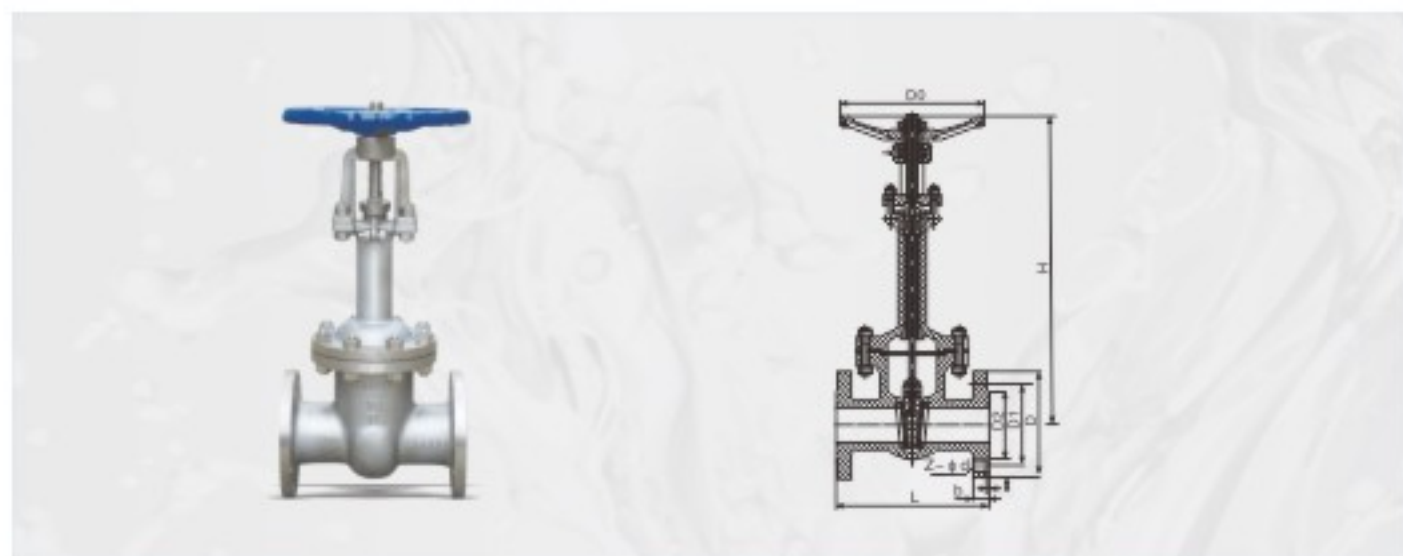
Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	JB/T7749	GB/T12221	JB/T79.1 HG/T20592 GB/T9113	JB/T9092 GB/T13927	GB/T12224

◆ Performance Specification

PN(MPa) Nominal pressure	(Mpa) Strength test	(Mpa) Water seal test	(Mpa) Back sealing test	(Mpa) Gas seal test
1.6	2.4	1.8	1.8	0.4-0.7
2.5	3.8	2.8	2.8	
4.0	6.0	4.4	4.4	
6.4	9.6	7.0	7.0	
10.0	15.0	11.0	11.0	

◆ Main Part Materials

Part name	Material
Body, disc, bonnet, stems	LC3, LCB, LCC, 1Cr18Ni9Ti
Packing	Leaching tetrafluoroethylene asbestos rope
Handwheel	QT450-10
Stem nut	ZCuA110Fe3
Stem	1Cr18Ni9Ti
Gasket	Low temperature asbestos



◆ Main Boundary Connection Dimension

(PN1.6/2.5MPa)

DN(mm)	L	D	D ₁	D ₂	b	Z-φd	H	D ₀	WT(kg)
DZ40Y-16P/R/PL/RL									
20	150	105	75	55	14	4-φ14	320	140	6
25	160	115	85	65	14	4-φ14	350	160	7
32	180	135	100	78	16	4-φ18	385	180	9
40	200	145	110	85	16	4-φ18	420	200	15
50	250	160	125	100	16	4-φ18	540	240	30
65	265	180	145	120	18	4-φ18	610	240	34
80	280	195	160	135	20	8-φ18	690	280	45
100	300	215	180	155	20	8-φ18	780	300	64
125	325	245	210	185	22	8-φ18	930	320	110
150	350	280	240	210	24	8-φ23	980	360	135
200	400	335	295	265	26	12-φ23	1180	400	195
250	450	405	355	320	30	12-φ25	1390	450	275
300	500	460	410	375	30	12-φ25	1620	560	380
350	550	520	470	435	34	16-φ25	1810	640	594
400	600	580	525	485	36	16-φ30	1970	640	725
DZ640Y-16P/R/PL/RL									
20	150	105	75	55	16	4-φ14	320	140	6
25	160	115	85	65	16	4-φ14	350	160	8
32	180	135	100	78	18	4-φ18	385	180	10
40	200	145	110	85	18	4-φ18	420	200	16
50	250	160	125	100	20	4-φ18	540	240	30
65	265	180	145	120	22	4-φ18	610	240	35
80	280	195	160	135	22	8-φ18	690	280	47
100	300	230	190	160	24	8-φ23	780	300	65
125	325	270	220	188	28	8-φ25	930	320	110
150	350	300	250	218	30	8-φ25	980	360	135
200	400	360	310	278	34	12-φ25	1180	400	215
250	450	425	370	332	36	12-φ30	1390	450	295
300	500	485	430	390	40	16-φ30	1620	560	400
350	550	550	490	448	44	16-φ34	1810	640	630
400	600	610	550	505	48	16-φ34	1990	640	910
DZ940Y-16P/R/PL/RL									
20	150	105	75	55	16	4-φ14	320	140	6
25	160	115	85	65	16	4-φ14	350	160	8
32	180	135	100	78	18	4-φ18	385	180	10
40	200	145	110	85	18	4-φ18	420	200	16
50	250	160	125	100	20	4-φ18	540	240	30
65	265	180	145	120	22	4-φ18	610	240	35
80	280	195	160	135	22	8-φ18	690	280	47
100	300	230	190	160	24	8-φ23	780	300	65
125	325	270	220	188	28	8-φ25	930	320	110
150	350	300	250	218	30	8-φ25	980	360	135
200	400	360	310	278	34	12-φ25	1180	400	215
250	450	425	370	332	36	12-φ30	1390	450	295
300	500	485	430	390	40	16-φ30	1620	560	400
350	550	550	490	448	44	16-φ34	1810	640	630
400	600	610	550	505	48	16-φ34	1990	640	910

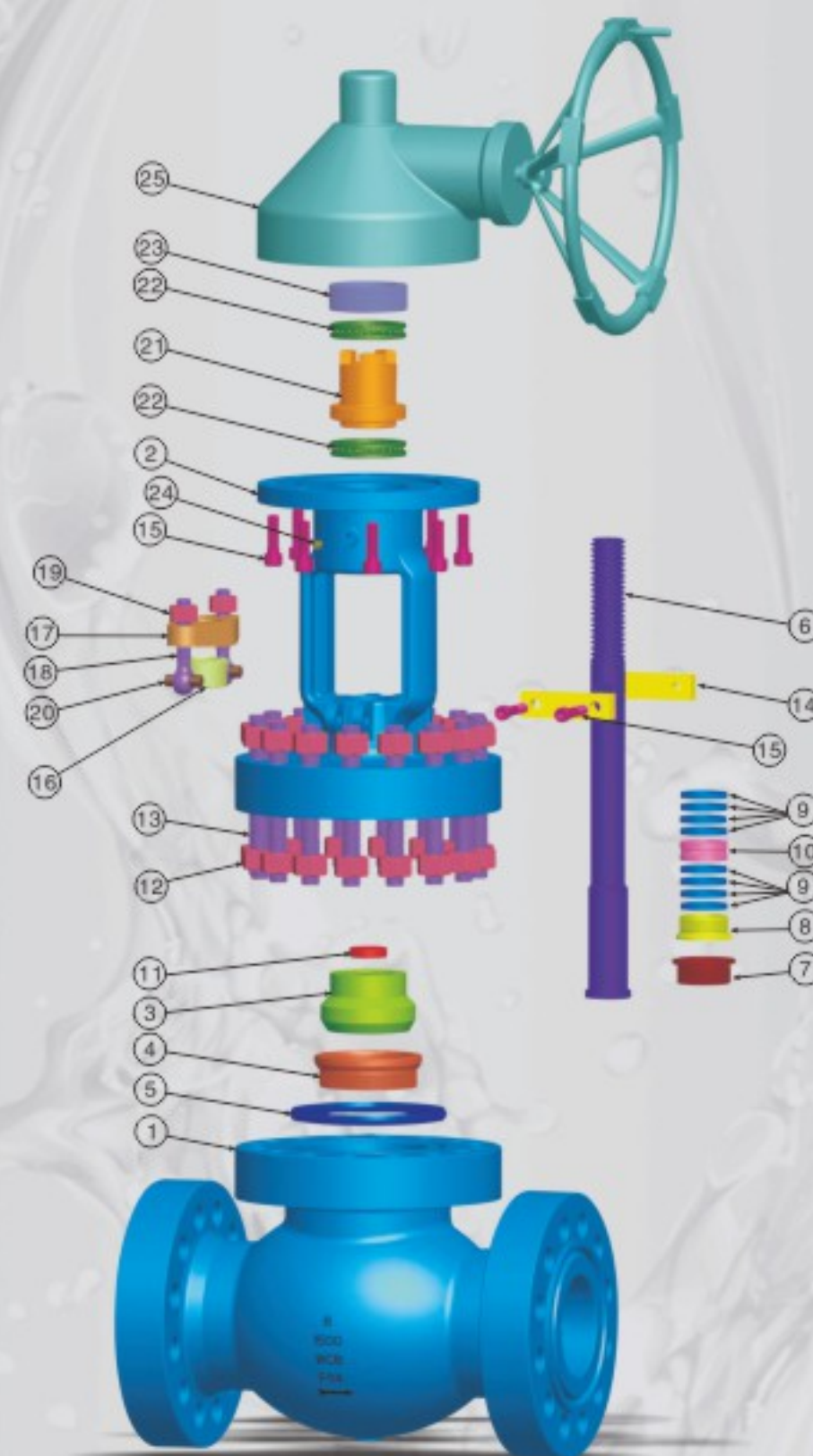


◆ Main Boundary Connection Dimension

(PN4.0/6.4/10.0MPa)

DN(mm)	L	D	D ₁	D ₂	D ₆	b	Z-φd	H	D ₀	WT(kg)
DZ40Y-40P/R/PL/RL										
20	150	105	75	55	51	16	4-φ14	330	140	7
25	160	115	85	65	58	16	4-φ14	360	160	9
32	180	135	100	78	66	18	4-φ18	440	180	11
40	200	145	110	85	76	18	4-φ18	455	200	19
50	250	160	125	100	88	20	4-φ18	575	280	28
65	280	180	145	120	110	22	8-φ18	635	280	35
80	310	195	160	135	121	22	8-φ18	715	320	50
100	350	230	190	160	150	24	8-φ23	815	360	74
125	400	270	220	188	176	28	8-φ25	965	400	115
150	450	300	250	218	204	30	8-φ25	1025	400	135
200	550	375	320	282	260	38	12-φ30	1225	450	215
250	650	445	385	345	313	42	12-φ34	1440	560	184
300	750	510	450	408	364	46	16-φ34	1665	640	405
350	850	570	510	465	422	52	16-φ34	1880	640	600
400	950	655	585	535	474	58	16-φ41	2050	720	750
DZ40Y-64P/R/PL/RL										
20	190	125	90	68	51	20	4-φ18	330	100	8
25	210	135	100	78	58	22	4-φ18	360	180	13
32	230	150	110	82	66	24	4-φ23	410	180	24
40	240	165	125	95	76	24	4-φ23	480	200	32
50	250	175	135	105	88	26	4-φ23	585	200	39
65	280	200	160	160	110	28	8-φ23	690	250	45
80	310	210	170	140	121	30	8-φ23	745	300	60
100	350	250	200	168	150	32	8-φ25	885	300	90
125	400	295	240	202	176	36	8-φ30	985	350	140
150	450	340	280	240	204	38	8-φ34	1050	350	205
200	550	405	345	300	260	44	12-φ34	1240	400	330
250	650	470	400	352	313	48	12-φ41	1460	560	468
300	750	530	460	412	364	54	16-φ41	1690	640	600
DZ40Y-100P/R/PL/RL										
25	210	135	100	78	58	24	4-φ18	365	200	18
32	230	150	110	82	66	24	4-φ23	420	240	27
50	250	195	145	112	88	28	4-φ25	630	360	45
65	280	220	170	138	100	32	8-φ25	700	400	60
80	310	230	180	148	121	34	8-φ25	760	400	76
100	350	265	210	172	150	38	8-φ23	900	400	128

CAST STEEL GLOBE VALVE SERIES





◆ Products Structure Features

Series of globe valves are used to cut or connect the pipe media under pressures between PN1.6~42.0MPa(CL150~CL2500). Working temperatures between -46~550℃, in oil industry, chemical industry, pharmaceuticals, fertilizer, and power industry. Main structural features:

1. Rational structure, reliable sealing, excellent performance, pretty appearance.
2. Co-radix alloy welded sealing surface, anti-wearing, erosion-proof abrasion-proof and longer use life.
3. The surface and the adjusting media of the valve shaft are nitrogenized so that it is erosion and abrasion resistant.
4. There is backward sealing structure in the valve, so the sealing is reliable.
5. The material of the fillings and the flange sizes can be chose and matched according to the applications and the requirements of the users. That can satisfies all kinds of working requirements.

◆ Main Part

No.	Part Name	No.	Part Name
01	Body	14	Positioning Block
02	Bonnet	15	Socket Cap Screw
03	Disc	16	Gland
04	Seat	17	Gland Flange
05	Bonnet Gasket	18	Eyelet Bolt
06	Stem	19	Eyelet Nut
07	Disc Nut	20	Pin
08	Backseat	21	Stem Nut
09	Packing	22	Sleeve Bearing
10	Lantern Ring	23	Bearing Nut
11	Disc Thrust Plate	24	Nipple
12	Bonnet Nut	25	Gear Actuator
13	Bonnet Bolt	-	-



◆ Use

GB Globe valve are used to cut or connect the pipe media under pressures between PN1.6~16.0MPa, working temperatures between -46~550℃, in oil industry, chemical industry, pharmaceuticals, fertilizer, and power industry.

◆ Characteristics

1. Rational structure, reliable sealing, excellent performance, pretty appearance;
2. Co-radix alloy welded sealing surface, anti-wearing, erosion-proof abrasion-proof and longer use life;
3. The surface and the adjusting media of the valve shaft are nitrogenized so that it is erosion and abrasion resistant;
4. There is backward sealing structure in the valve, so the sealing is reliable;
5. The material of the fillings and the flange sizes can be chose and matched according to the applications and the requirements of the users. That can satisfies all kinds of working requirements.

◆ Standards Adopted

Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	GB/T 12235	GB/T 12221	JB/T 79.1, GB/T9113 HG/T20592	JB/T 9092 GB/T13927	GB/T12224

◆ Performance Specification

1. Test Pressure

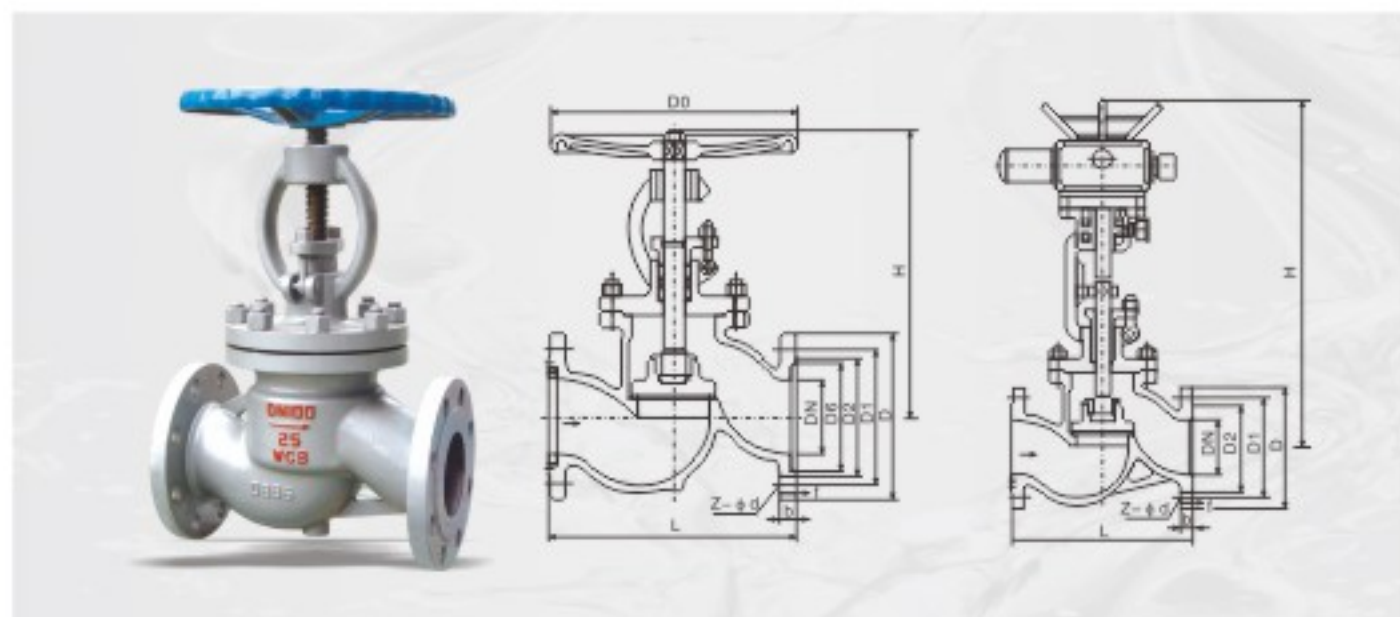
PN(MPa) Nominal Pressure	1.6	2.5	4.0	6.4	10.0	16.0
Shell strength test	2.4	3.8	6.0	9.6	15	24
Back seat test	1.8	2.8	4.4	7.0	11	18
Seat test	1.8	2.8	4.4	7.0	11	18

2. Applicable Medium & Applicable Temperature

Product type	Applicable medium	Applicable temperature (℃)
J41H-C (Type) J941H-C (Type)	Water, oil, steam	≤425
J41W-P (Type) J941W-P (Type)	Nitric acid	≤200
J41W-R (Type)	Acetic acid	≤200
J41Y-I (Type) J941Y-I (Type)	Water, oil, steam	≤550

◆ Main Part Materials

Product type	Part name							
	Body, bonnet	Stem	Disc	Sealing face	Yoke nut	Packing	Fastener	Hand wheel
J41H-C (Type) J941H-C (Type)	25.WCB	Cr, Stainless steel	2Cr13 25	H: Stainless steel Y: Co-based carbide alloy steel	Copper alloy	Flexible graphite	High-grade carbon steel	Malleable iron
J41W-P (Type) J941W-P (Type)	Cr, Ni, steel	Cr, Ni, steel	Cr, Ni, Ti steel	Cr, Ni, steel	Copper alloy	Flexible graphite	Stainless steel	Malleable iron
J41W-R (Type)	Cr, Ni, Mo, steel	Cr, Ni, Mo, steel	Cr, Ni, Mo, steel	Cr, Ni, Mo, steel	Copper alloy	Flexible graphite	Stainless steel	Malleable iron
J41Y-I (Type) J941Y-I (Type)	Cr, Mo, steel	Cr, Mo, steel	Alloy steel	Co-based carbide alloy steel	Copper alloy	Flexible graphite	Alloy steel	Malleable iron



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	f	Z-φd	H	D ₀	WT (kg)
J41Y-16C			J41W-16P/R/PL/RL			J41Y-16I				
10	130	90	60	40	14	2	4-14	198	120	4.7
15	130	95	65	45	14	2	4-14	218	120	5.2
20	150	105	75	55	14	2	4-14	258	140	7.1
25	160	115	85	65	14	2	4-14	275	160	7.4
32	180	135	100	78	15	2	4-18	280	180	8.5
40	200	145	110	85	16	2	4-18	330	200	12.5
50	230	160	125	100	16	3	4-18	350	240	20
65	290	180	145	120	18	3	4-18	400	280	25
80	310	195	160	135	20	3	8-18	355	280	35
100	350	215	180	155	20	3	8-18	415	320	50
125	400	245	210	185	22	3	8-18	460	360	75
150	480	280	240	210	24	3	8-23	510	400	100
200	600	335	295	205	26	3	12-23	710	400	210
250	650	405	355	320	30	3	12-23	789	450	446
300	750	460	410	375	30	3	12-23	925	500	648



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	f	Z-φd	H(Hand)	H (Electricity)	D ₀	Electric device	WT (kg)	
												Manual	Electric
	J41Y-25C		J41W-25P/R/PL/RL			J41Y-25I		J941Y-25C		J941W-25P/R/PL/RL		J941Y-25I	
10	130	90	60	40	16	2	4-14	198	-	120	-	4.9	-
15	130	95	65	45	16	2	4-14	218	-	120	-	5.4	-
20	150	105	75	55	16	2	4-14	258	-	140	-	7	-
25	160	115	85	65	16	2	4-14	275	-	160	-	7.4	-
32	180	135	100	78	18	2	4-18	280	-	180	-	8.5	-
40	200	145	110	85	18	3	4-18	330	-	200	-	12.5	-
50	230	160	125	100	20	3	4-18	350	645	240	DZW101	16	50
65	290	180	145	120	22	3	8-18	400	690	280	DZW101	25	62
80	310	195	160	135	22	3	8-18	355	715	280	DZW151	30	67
100	350	230	190	160	24	3	8-23	415	770	320	DZW20	34.5	73
125	400	270	220	188	28	3	8-25	460	780	360	DZW30	89	127
150	480	300	250	218	30	3	8-25	510	875	400	DZW45	98	215
200	600	360	310	278	34	3	12-25	710	967	400	DZW60	180	322
250	650	425	370	332	36	3	12-30	789	-	450	-	446	-
300	750	485	430	390	40	4	12-30	925	-	500	-	654	-

◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	f	f ₂	Z-φd	H(Hand)	H (Electricity)	D ₀	Electric device	WT (kg)	
													Manual	Electric
	J41Y ^H _B -40C		J41W-40P/R/PL/RL			J41Y-40I		J941Y ^H _V -40C		J941W-40P/R/PL/RL			J941Y-40I	
10	130	90	60	40	16	2	4	4-14	198	-	120	-	4.9	-
15	130	95	65	45	16	2	4	4-14	238	-	120	-	5.4	-
20	150	105	75	55	16	2	4	4-14	275	-	140	-	7	-
25	160	115	85	65	16	2	4	4-14	285	-	160	-	8.8	-
32	180	135	100	78	18	2	4	4-18	302	-	180	-	11.8	-
40	200	145	110	85	18	3	4	4-18	355	-	200	-	16.5	-
50	230	160	125	100	20	3	4	4-18	370	645	240	DZW101	24	61
65	290	180	145	120	22	3	4	8-18	408	690	280	DZW101	33	75
80	310	195	160	135	22	3	4	8-18	436	715	320	DZW201	44	84
100	350	230	190	160	24	3	4.5	8-23	480	770	360	DZW301	60	101
125	400	270	220	188	28	3	4.5	8-25	558	782	400	DZW45	89	207
150	480	300	250	218	30	3	4.5	8-25	611	875	400	DZW60	98	226
200	600	375	320	282	38	3	4.5	12-30	720	1160	400	DZW901	190	339



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	f	f ₂	Z-φd	H(Hand)	H (Electricity)	D ₀	Electric device	WT (kg)	
													Manual	Electric
J41 ^H _Y -64C J41W-64P/R/PL/RL J41Y-64I J941 ^H _Y -64C J941W-64P/R/PL/RL J941Y-64I														
10	170	100	70	50	18	2	4	4-14	198	-	120	-	5.7	-
15	170	105	75	55	18	2	4	4-14	195	-	140	-	10	-
20	190	125	90	68	20	2	4	4-18	228	-	160	-	13	-
25	210	135	100	78	22	2	4	4-18	275	-	180	-	14.5	-
32	230	150	110	82	24	2	4	4-23	325	-	200	-	19	-
40	260	165	125	95	24	3	4	4-23	360	-	240	-	25	-
50	300	175	135	105	26	3	4	8-23	410	710	280	DZW10	35	64
65	340	200	160	130	28	3	4	8-23	450	750	320	DZW15	48	77
80	380	210	170	140	30	3	4	8-18	485	785	360	DZW30	56	88
100	430	250	200	168	32	3	4	8-25	537	837	400	DZW45	125	171
125	500	295	240	202	36	3	4	8-30	631	-	400	-	131	-
150	550	340	280	240	38	3	4	8-34	646	-	450	-	157	-
200	650	405	345	300	44	3	4	12-34	813	-	500	-	283	-
J41 ^H _Y -100C J41W-100P/R/PL/RL J41Y-100I J941 ^H _Y -100C J941W-100P/R/PL/RL J941Y-100I														
10	170	100	70	50	20	2	4	4-14	198	-	120	-	6	-
15	170	105	75	55	20	2	4	4-14	202	-	140	-	11	-
20	190	125	90	68	22	2	4	4-18	228	-	160	-	13.2	-
25	210	135	100	78	24	2	4	4-18	250	-	180	-	14	-
32	230	150	110	82	24	2	4	4-23	326	-	220	-	15	-
40	260	165	125	95	26	3	4	4-23	359	-	240	-	29	-
50	300	195	145	112	28	3	4	4-25	414	710	280	DZW10	49	82
65	340	220	170	138	32	3	4	8-25	434	750	320	DZW15	65	104
80	380	230	180	148	34	3	4	8-25	547	785	400	DZW30	95	138
100	430	265	210	172	38	3	4.5	8-30	621	837	450	DZW45	115	243
125	500	310	250	210	42	3	4.5	8-34	732	-	450	-	149	-
150	550	350	290	250	46	3	4.5	12-34	840	-	500	-	310	-
200	650	430	360	312	54	3	4.5	12-41	925	-	550	-	590	-
J41 ^H _Y -160C J41W-160P/R/PL/RL J41Y-160I J941 ^H _Y -160C J941W-160P/R/PL/RL J941Y-160I														
15	170	110	75	52	24	2	4	4-18	148	-	140	-	12.2	-
20	190	130	90	65	26	2	4	4-23	156	-	160	-	15	-
25	210	140	100	72	28	2	4	4-23	125	-	180	-	17	-
32	230	165	115	85	30	2	4	4-25	200	-	200	-	21.4	-
40	260	175	125	92	32	3	4	4-27	231	-	240	-	32	-
50	300	215	165	132	36	3	4	8-25	262	-	250	-	52	-
65	340	245	190	152	44	3	4	8-30	303	-	320	-	69	-
80	380	260	205	168	46	3	4	8-30	341	-	400	-	98	-
100	430	300	240	200	48	3	4.5	8-34	485	-	450	-	119	-



◆ Use

High temperature and high pressure globe valve is suitable for thermal power plants, petrochemical industry, metallurgical industry and the high temperature and high pressure water, steam, oil, superheated steam pipe, such as applied to cut off or connect medium.

◆ Characteristics

1. Valve lumen self-tightening seal structure is adopted, and the better sealing performance;
2. The disc and seat sealing surface using department too vertical cobalt-based hard alloy spray welding and become, wear-resisting, high temperature resistant, corrosion resistance, abrasion resistance, can be good.;
3. The stem is made of the overall structure of forging, after quenched and tempered and surface nitriding treatment, good corrosion resistance and abrasion resistance;
4. The cover depth of the stuffing box is reasonable, packing and corrosion inhibitor, reliable sealing.

◆ Standards Adopted

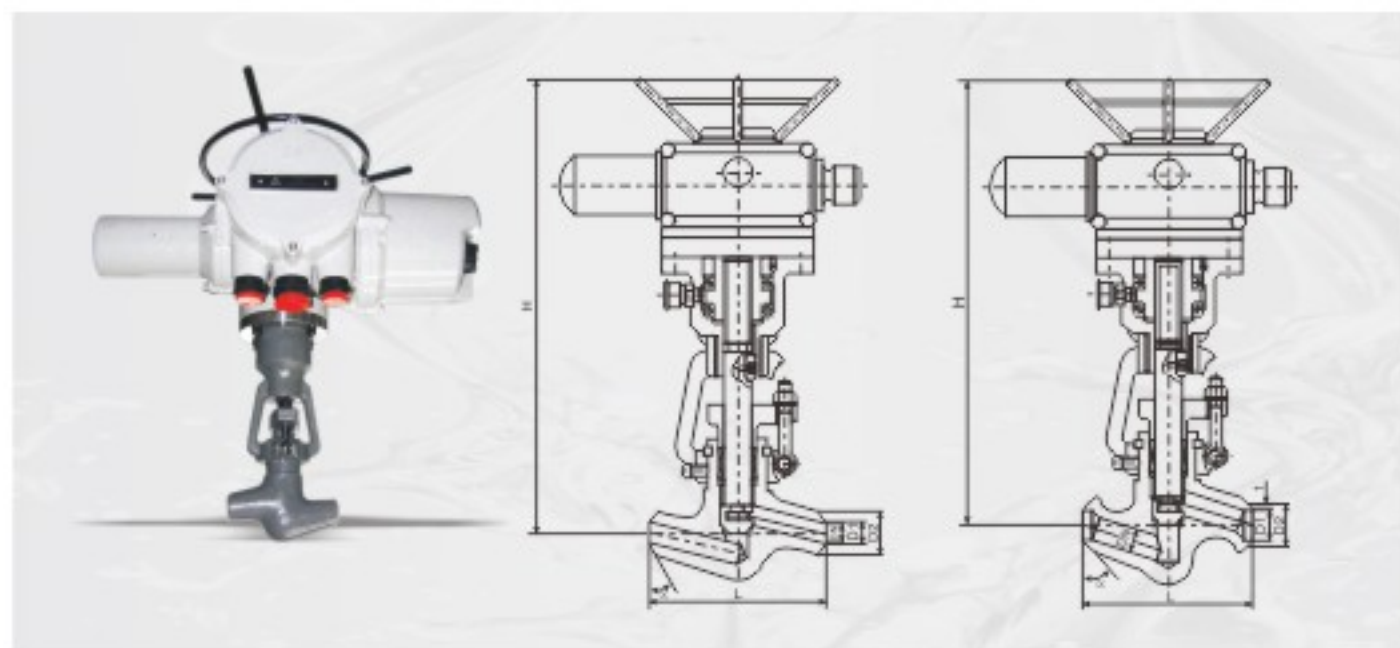
Product Specification	Design Spec	Face to Face	Welding groove	Test & Check	Pressure-Temp
	NB/T 47044	JB/T2766	GB/T12224 NB/T 47044	NB/T 47044	NB/T 47044

◆ Performance Specification

Product type	PN(MPa) Nominal pressure	(MPa)Test pressure		(Mpa) Working pressure			Working temperature (℃)	Applicable medium
		Shell	Seal	P ₁₁	P ₁₂	P ₁₃		
J61 ^H _Y -100	10	15	11	/	/	/	≤450	Water、steam、Oil
J61 ^H _Y -200	20	30	22	/	/	/		
J61 ^H _Y -250	25	38	28	/	/	/		
J61 ^H _Y -320	32	48	36	/	/	/		
J61Y-P54/100V	/	30	22	10	/	/	≤540	Steam
J61Y-P54/140V	/	38	28	14	/	/		
J61Y-P54/170V	/	48	36	17	/	/		
J61Y-P55/100V	/	38	28	/	10	/	≤555	
J61Y-P55/140V	/	48	36	/	14	/		
J61Y-P55/170V	/	53	39	/	17	/		
J61Y-P57/100V	/	48	36	/	/	10	≤570	
J61Y-P57/140V	/	55	40	/	/	14		
J61Y-P57/170V	/	60	44	/	/	17		

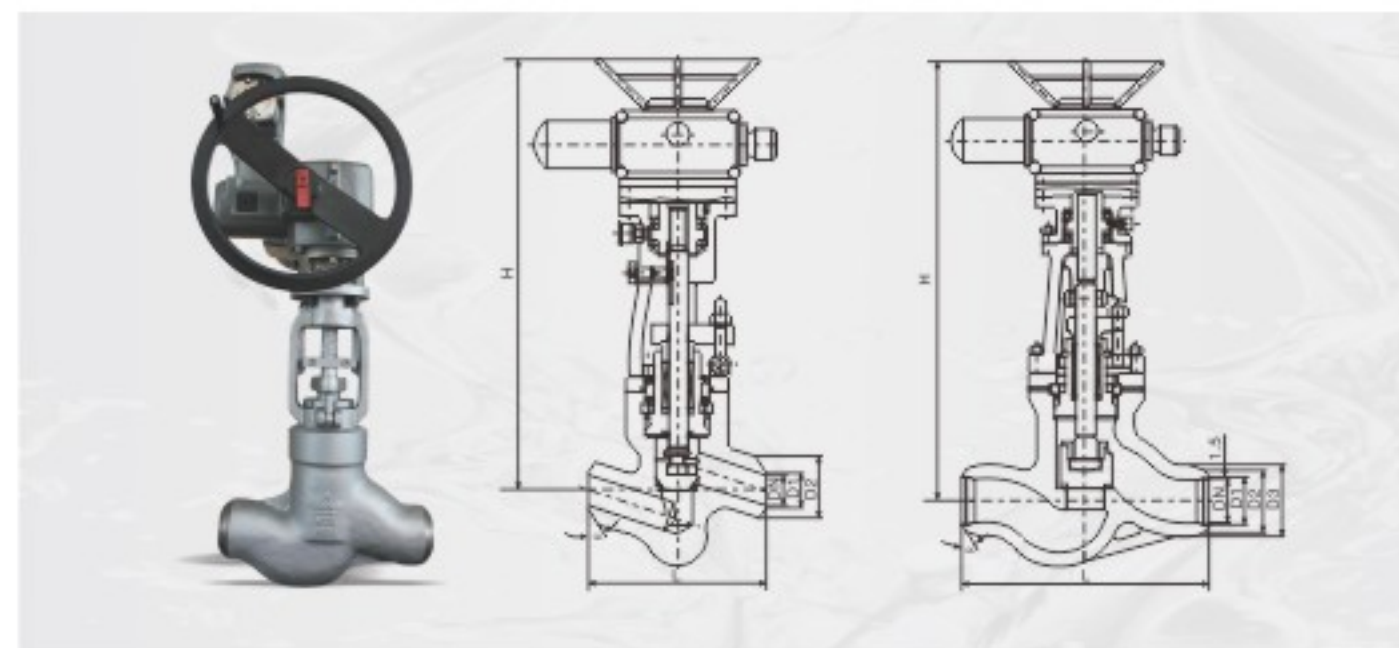
◆ Main Part Materials

Part name	J61H/J961H (Type)	J61Y/J961Y (Type)	J61Y-P54/J961Y-P54 (Type)	J61Y-P55/J961Y-P55 (Type)	J61Y-P57/J961Y-P57 (Type)
Body	A105, WCB	A105, WCB	12Cr1MoV, WC6	12Cr1MoV, WC6	12Cr1MoV, WC9
onnet	A105, WCB	A105, WCB	12Cr1MoV, WC6	12Cr1MoV, WC6	12Cr1MoV, WC9
Stem	Cr.Stainless steel Cr.Mo, Aluminum steel nitride 25Cr2MoVA, 38Cr1MoAlA, 20Cr1Mo1V1A, SUH600				
Disc	A105 12Cr1MoV, F11, F22				
Sealing surface	Cr.Stainless steel Cemented carbide				
Packing	Flexible graphite				
Stem nut	Al bronze				
Handwheel	Malleable iron				
Fastener	Cr.Mo, steel High-grade carbon steel				



◆ Performance Specification

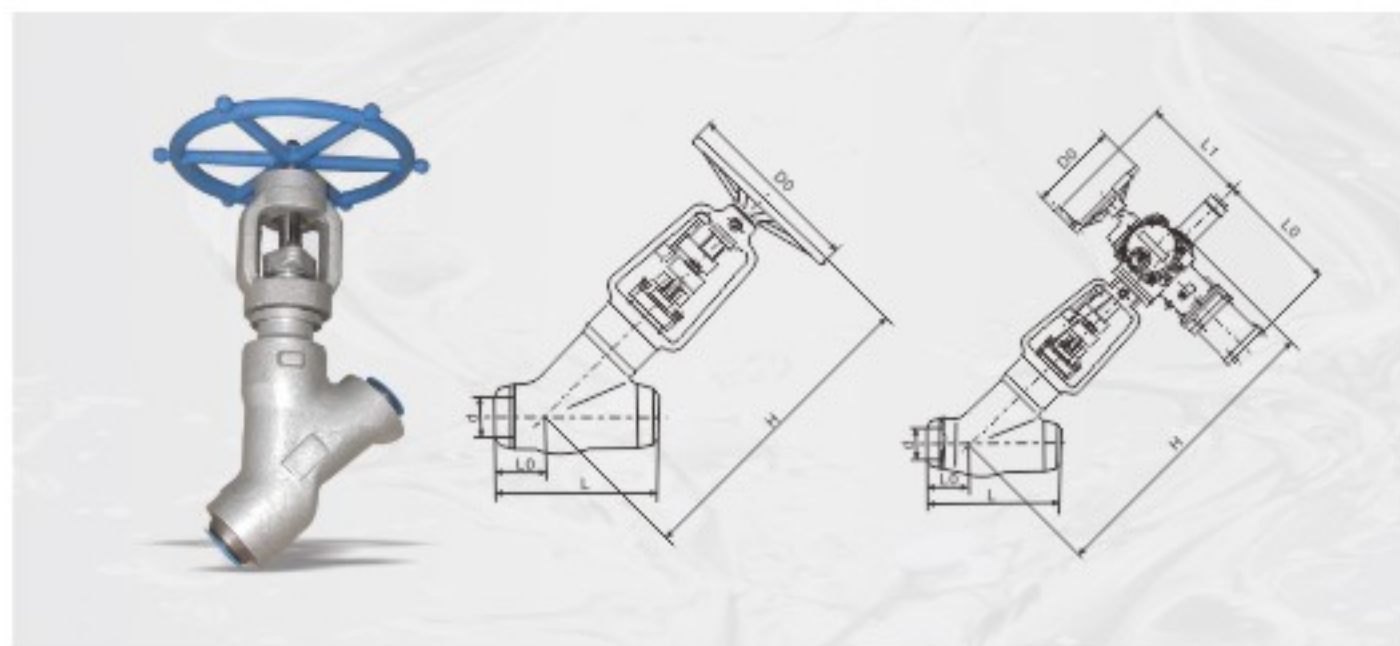
Product type	PN(MPa) Nominal pressure	(MPa)Test pressure		(Mpa) Wording pressure			Working temperature (°C)	Applicable medium
		Shell strength	Sealing	P54	P55	P57		
J961H/Y-100	10	15	11	/	/	/	≤425	Water, steam, Oil
J961H/Y-200	20	30	22	/	/	/		
J961H/Y-250	25	38	28	/	/	/		
J961H/Y-320	32	48	36	/	/	/		
J961Y-P54/100V	/	30	22	10	/	/	≤540	Steam
J961Y-P54/140V	/	38	28	14	/	/		
J961Y-P54/170V	/	48	36	17	/	/		
J961Y-P55/100V	/	38	28	/	10	/	≤550	
J961Y-P55/140V	/	48	36	/	14	/		
J961Y-P55/170V	/	53	39	/	17	/		
J961Y-P57/100V	/	48	36	/	/	10	≤570	
J961Y-P57/140V	/	55	40	/	/	14		
J961Y-P57/170V	/	60	44	/	/	17		



◆ Main Boundary Connection Dimension

DN(mm)	L	D1	D2	D3	α °	H
	J961H/Y-100、200、250、320 J961Y-P54/100V、P54/140V、P54/170V					
15	150	17	36	/	37.5°	518
20	135 170	22	42	/	37.5°	518
25	135 170	26	42	/	37.5°	518
32	170 180	31	44	/	37.5°	560
40	230	38	60	/	37.5°	545
50(1)	250	50	82	/	32°	728
50(2)	320 350	50	82	/	32°	748
65	370 260	69	100	110	32°	829
80	400 430 470	84	108	130	32°	898
100	455 560	107	144	165	32°	913
J961Y-P55/100V、P55/140V、P55/170V、 J961Y-P57/100V、P57/140V、P57/170V						
15	150	17	40	/	37.5°	518
20	135 170	22	46	/	37.5°	518
25	135 170	26	46	/	37.5°	518
32	170 180	31	49	/	37.5°	560
40	230	38	60	/	37.5°	545
50(1)	250	50	90	/	32°	728
50(2)	320 350	50	90	/	32°	748
65	370 260	69	104	115	32°	829
80	400 430 470	84	110	140	32°	898
100	455 560	107	148	170	32°	913

Note: There are two kinds of seal structure in DN50 valve.



◆ Main Boundary Connection Dimension

NPS(in)	d	L	L0	H	D0	WT (Kg)
J65Y-1500Lb						
2 1/2	56	330	130	670	360	45
3	64	368	140	750	460	70
4	84	457	170	830	510	110
5	100	533	185	910	560	129
6	126	610	190	1100	610	180

◆ Main Boundary Connection Dimension

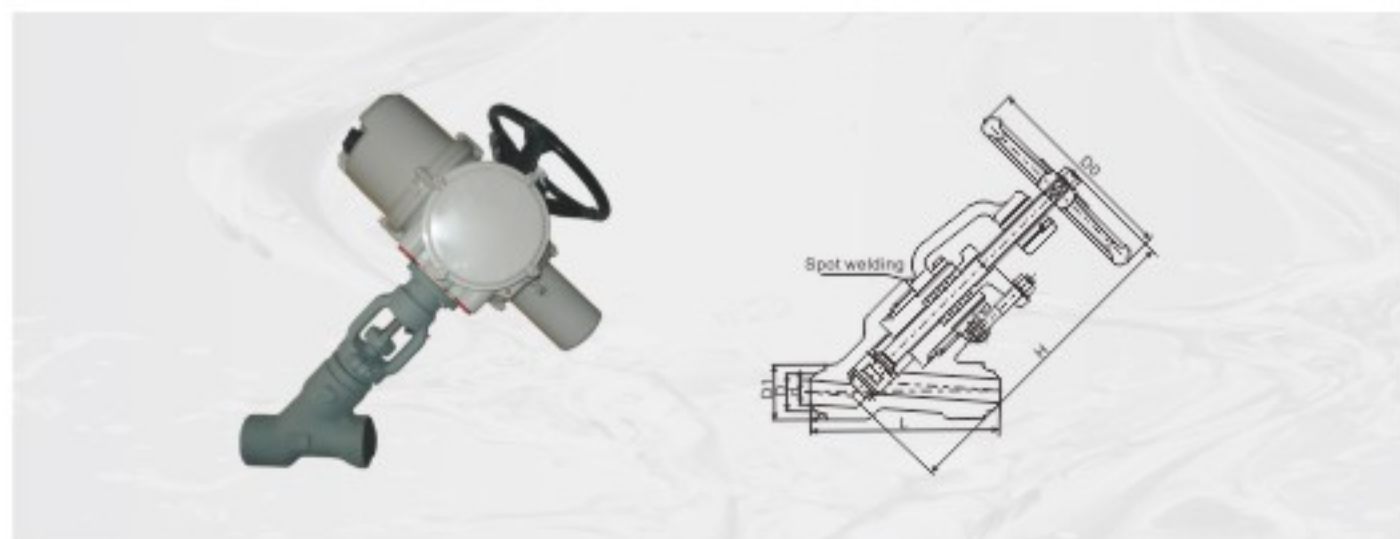
NPS(in)	d	L	L0	H	D0	WT (Kg)
J65Y-2500Lb						
2	38	310	120	550	300	42
2 1/2	46	340	130	670	360	72
3	54	390	147	750	460	81
4	70	480	170	830	720	130



◆ Main Boundary Connection Dimension

NPS(in)	d	L	L0	H	D0	L1	L2	Electric actuator	WT(Kg)
J965Y-1500Lb									
3	64	368	140	990	305	410	565	SMC-0	200
4	84	457	170	990	305	420	654	SMC-1	310
5	100	533	185	1115	305	420	654	SMC-1	514
6	126	610	190	1763	457	440	688	SMC-2	534
8	158	762	262	2026	457	440	688	SMC-2	950
J965Y-2000Lb									
4	80	457	170	990	305	420	654	SMC-1	327
5	96	533	185	1115	305	420	654	SMC-1	408
6	118	610	190	1423	457	440	688	SMC-2	470
8	148	762	262	1615	457	440	688	SMC-2	1050
10	180	914	300	2240	610	715	-	SMC-4	1582
12	222	1041	360	2490	610	715	-	SMC-4	2340
J965Y-2500Lb									
2	38	310	120	810	305	400	555	SMC-00	130
2 1/2	46	340	130	895	305	400	555	SMC-00	160
3	54	390	140	985	305	410	565	SMC-0	217
4	70	480	170	990	305	420	654	SMC-1	337
5	86	580	185	1115	305	420	654	SMC-1	432
6	104	630	200	1280	457	440	688	SMC-2	652
8	130	770	260	1615	457	440	688	SMC-2	1122
10	162	930	300	1930	610	690	-	SMC-3	1652
12	210	1060	360	2240	610	715	-	SMC-4	3862
14	234	1160	395	2420	610	715	-	SMC-4	3662
J965Y-3500Lb									
3	48	470	150	1005	305	410	565	SMC-0	272
4	60	550	115	1133	305	410	565	SMC-0	387
5	74	660	200	1280	305	420	654	SMC-1	582
6	88	790	230	1320	305	420	654	SMC-1	847

Note: * The motorized actuators can be Yangzhou, Changzhou products.



◆ Characteristics

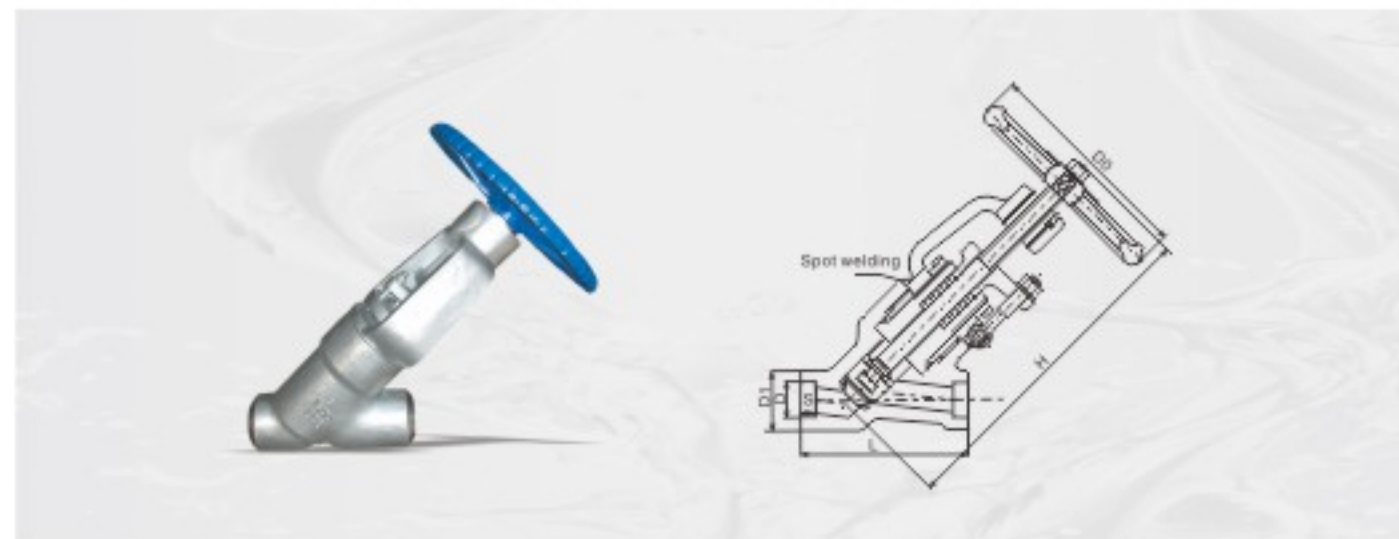
1. The valve bonnet for whole forging, high intensity, aesthetically pleasing, reliable material;
2. Pressure seal structure, the higher the pressure, the better sealing. The special stainless steel sealing ring, disassembly and assembly is convenient, reliable sealing;
3. The stem surface is super dense and wear-resistant, wear resistant and corrosion resistant, and the friction between start and stop is small, so as to ensure that the product has no leakage.

◆ Main Boundary Connection Dimension

DN(mm)	D	D1	d	α°	H	L	D0
J65Y(H)-1500Lb							
15	24	56	15	37.5°	315	190	200
20	32	56	19	37.5°	315	190	200
25	38	56	24	37.5°	315	190	200
32	48	82	30	37.5°	435	220	240
40	52	82	34	37.5°	435	220	280
50	66	90	42	37.5°	480	220	320

◆ Main Boundary Connection Dimension

DN(mm)	D	D1	d	α°	H	L	D0
J65Y(H)-2500Lb							
15	24	56	15	37.5°	315	190	200
20	32	56	19	37.5°	315	190	200
25	38	56	20	37.5°	315	190	200
32	48	82	29	37.5°	435	220	240
40	52	82	30	37.5°	435	220	280
50	66	90	39	37.5°	480	220	320



◆ Characteristics

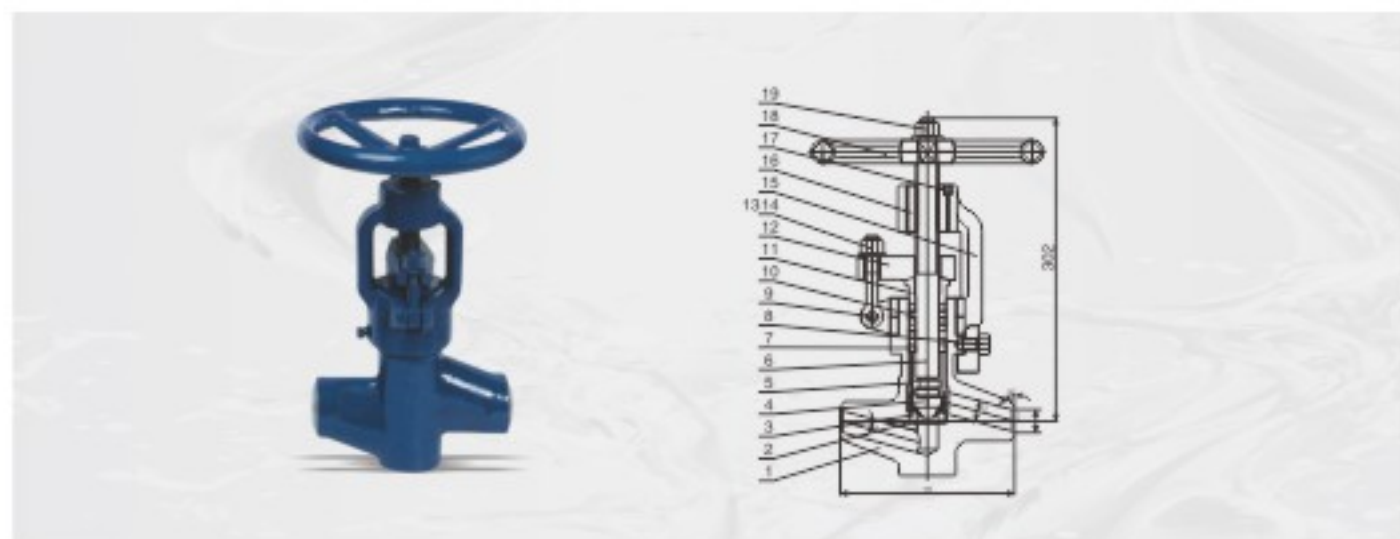
1. The valve bonnet for whole forging, high intensity, aesthetically pleasing, reliable material;
2. Pressure seal structure, the higher the pressure, the better sealing. The special stainless steel sealing ring, disassembly and assembly is convenient, reliable sealing;
3. The stem surface is super dense and wear-resistant, wear resistant and corrosion resistant, and the friction between start and stop is small, so as to ensure that the product has no leakage.

◆ Main Boundary Connection Dimension

DN(mm)	D	D1	H	L	S	D0
J65Y(H)-1500Lb						
15	22	56	315	155	13	200
20	27	56	315	155	13	200
25	34	56	315	155	13	200
32	43	82	435	210	13	240
40	49	82	435	210	13	280
50	61	90	480	250	16	320

◆ Main Boundary Connection Dimension

DN(mm)	D	D1	H	L	S	D0
J65Y(H)-2500Lb						
15	22	56	315	155	13	200
20	27	56	315	155	13	200
25	34	56	315	155	13	200
32	43	82	435	210	13	240
40	49	82	435	210	13	280
50	61	90	480	250	16	320



◆ Product Overview

The valve utility model relates to a kind of high temperature and high pressure resistance to erosion cut-off valve, mainly by the electric actuator, valve body, valve cover, valve disc, valve stem, high pressure seal. The clapper sealing surfaces. Sphere, material for titanium carbide film crystallization, melting point 3200 °C, is a hard alloy, high hardness, corrosion resistance, good thermal stability characteristics. Cover connected to the electric device through the nut, import and export valve pipe with high pressure to the pipe welding. Disc upper active connection, at the top of the stem through the drive nut connected to the electric actuator. This valve of the utility model is beneficial effects: to achieve zero leakage, the valve leakage, reduce avoid seat and disc pressure erosion, extend the life of the valve.

◆ Main Performance Parameters

Model	PN	Pressure of work (Mpa)	Suitable temperature (°C)	Applicable medium	Material			
					Body	Stem	Sealed ball	Bonnet
JQ961Y-200	200	20	≤450	Water, steam	Carbon steel	Alloy steel	Nanometer materials, ceramics, carbide	Carbon steel
JQ961Y-250	250	25						
JQ961Y-320	320	32						
JQ961Y-P ₅ 100V	100	10	≤540	Water, steam	Alloy steel	Alloy steel		Alloy steel
JQ961Y-P ₅ 140V	140	14						
JQ961Y-P ₅ 200V	200	20						

◆ Main Shapes And Structure Size

DN	Long	Wide	High	L	H	D	D1	Weight (Kg)
10	590	365	535	120	187	20	10	29.1
15	590	365	596	170	236	24	15	24.86
20	590	365	596	170	236	32	20	24.66
25	590	365	605	170	236	36	24	25.9
32	590	365	605	170	236	44	31	25.7
40	590	365	776	250	384	58	40	76.7
50	590	365	776	250	384	68	46	76.7



◆ Use

API Cast steel globe valve are used to cut or connect the pipe medium in Class150~2500 and working temperatures ≤600℃, in oil & chemical industry, thermal power station.

◆ Characteristics

- 1.The products designs are in accordance with the ASME B16.34 and BS 1873, with rational structure reliable seal ,excellent performance, and pretty appearance;
- 2.Co-radix alloy welded sealing surface, anti-wearing, erosion-proof abrasion-proof and longer use life;
- 3.The surface and the adjusting media of the valve shaft are nitrogenized so that it is erosion and abrasion resistant;
- 4.The central cavity with pressure ≥ Class1500 adopts self-tightening sealing structure, which means that the sealing will the internal pressure, and sealing is highly reliable;
- 5.There is backward sealing structure in the valve, so the sealing is reliable;
- 6.The material of the parts and the flange sizes can be chose and matched according to the applications and the requirements of the users. That can satisfies all kinds of working requirements.

◆ Standards Adopted

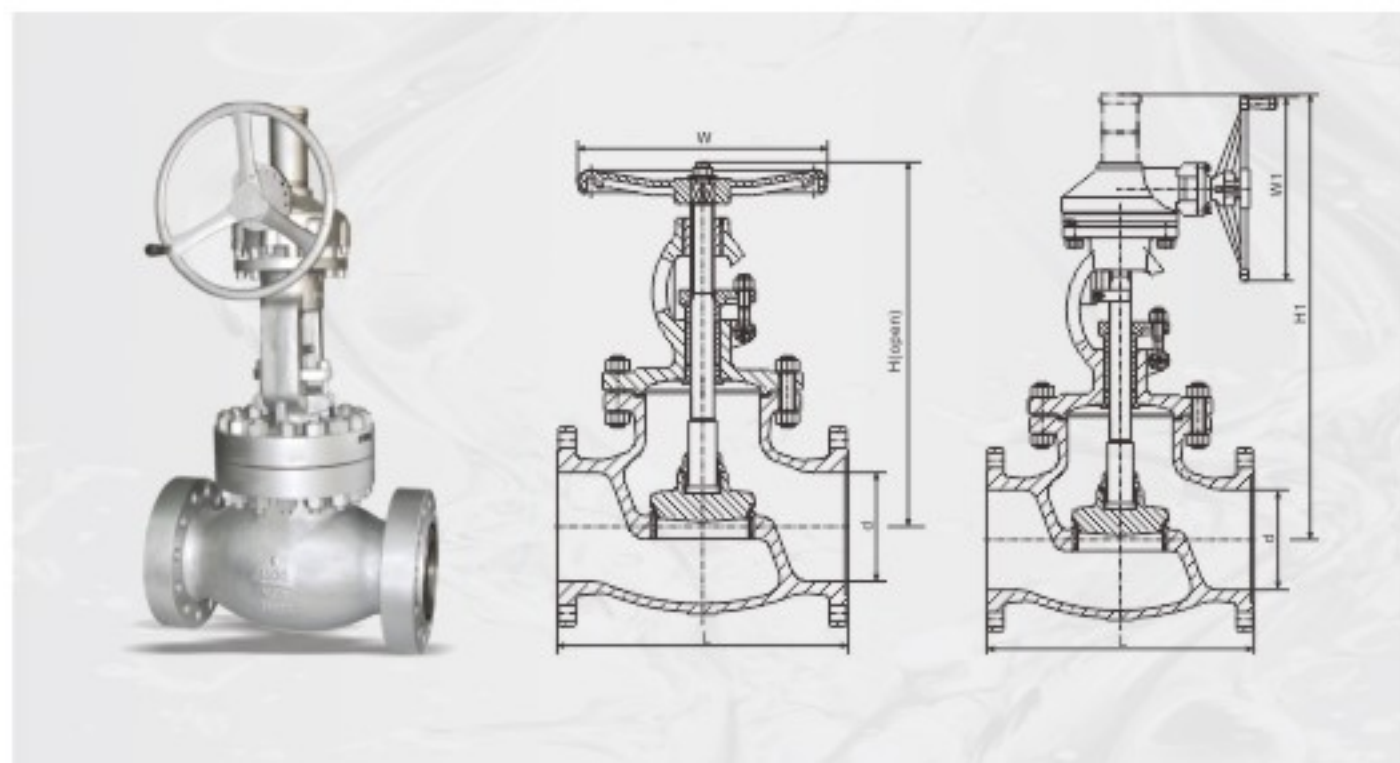
Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	ASME B 16.34 BS1873	ASME B16.10	ASME B16.5	API 598	ASME B16.34

◆ Performance Specification

Nominal Pressure (Lb)	Shell test		Water seal test		Air seal test	
	MPa	Lbf/in ²	MPa	Lbf/in ²	MPa	Lbf/in ²
150	3.1	450	2.2	315	0.5~0.7	60~100
300	7.8	1125	5.6	815		
600	15.3	2225	11.2	1630		
900	23.1	3350	16.8	2440		
1500	38.4	5575	28.1	4080		
2500	64.6	9367	47.4	6873		

◆ Main Part Materials

Body, bonnet, disc	Stem	Sealing face	Sealing shim	Packing	Working temperature	Suitable medium
WCB	2Cr13	13Cr STL With body material PTFE Nylon	Enhanced Flexible 1Cr13/Flexible graphite SFB-2 08Soft steel F304 F316 F304L F316L	Flexible graphite enhanced flexible graphite SFB/260 SFP/260 PTFE	≤ 425	Water、Steam、 Oil
WC1	38CrMoAl 25Cr2MoV 20Cr1Mo1V1A SUH600				≤ 450	
WC6					≤ 550	
WC9					≤ 590	
C5 C12					≤ 600	
CF8	F304				≤ 600	Nitric acid Acetic acid
CF3	F316					
CF8M	F304L					
CF3M	F316L					



◆ Main Boundary Connection Dimension

Class	NPS (in)	DN (mm)	L			d	H	H ₁	W	W ₁	WT (kg)	
			RF	RTJ	BW						Hand wheel	Gear box
150	1/2	15	108	119	108	13	182	—	100	—	3	—
	3/4	20	117	130	117	19	193	—	100	—	4	—
	1	25	127	140	127	25	217	—	100	—	5	—
	1 1/4	32	140	152	140	32	235	—	135	—	8	—
	1 1/2	40	165	178	165	38	258	—	135	—	9	—
	2	50	203	216	203	51	330	—	200	—	19	—
	2 1/2	65	216	229	216	64	360	—	250	—	27	—
	3	80	241	254	241	76	390	—	280	—	36	—
	4	100	292	305	292	102	445	—	300	—	53	—
	5	125	356	369	356	127	480	—	350	—	75	—
	6	150	406	419	406	152	520	556	350	310	94	126
	8	200	495	508	495	203	600	658	400	310	148	180
	10	250	622	635	622	254	773	805	450	460	242	291
	12	300	698	711	698	305	880	955	500	460	438	480



◆ Main Boundary Connection Dimension

Class	NPS (in)	DN (mm)	L			d	H	H ₁	W	W ₁	WT (kg)	
			RF	RTJ	BW						Hand wheel	Gear box
300	1/2	15	152	164	152	13	185	—	100	—	5	—
	3/4	20	178	191	178	19	195	—	100	—	7	—
	1	25	203	216	203	25	220	—	135	—	10	—
	1 1/4	32	216	229	216	32	240	—	135	—	14	—
	1 1/2	40	229	241	229	38	260	—	160	—	19	—
	2	50	267	283	267	51	385	—	200	—	25	—
	2 1/2	65	292	308	292	64	420	—	200	—	42	—
	3	80	318	333	318	76	440	—	280	—	46	—
	4	100	356	371	356	102	515	—	350	—	74	—
	5	125	400	416	400	127	580	—	350	—	111	—
	6	150	444	460	444	152	660	690	400	310	165	195
	8	200	559	575	559	203	900	950	550	460	275	327
	10	250	622	638	622	254	950	990	600	460	400	452
	12	300	711	727	711	305	1030	1080	700	460	624	725
600	2	50	292	295	292	51	360	—	250	—	32	—
	2 1/2	65	330	333	330	64	410	—	280	—	42	—
	3	80	356	359	356	76	465	—	300	—	63	—
	4	100	432	435	432	102	545	575	400	310	107	138
	5	125	508	511	508	127	625	660	500	310	185	215
	6	150	559	562	559	152	785	820	550	460	290	342
	8	200	660	664	660	200	930	960	650	460	540	645
	10	250	711	714	711	254	950	990	700	460	624	725
900	2	50	368	371	368	47	480	—	350	—	55	—
	2 1/2	65	419	422	419	57	520	—	350	—	68	—
	3	80	381	384	381	73	564	630	400	310	95	128
	4	100	457	460	457	98	685	720	450	310	160	210
	5	125	559	562	559	121	780	840	550	460	270	325
	6	150	610	613	610	146	950	1015	650	460	410	480



◆ Use

Low temperature cut-off valve is suitable for low temperature liquid handling equipment management system management system, has the characteristics of flexible switch, reliable seal, also can be used to other management systems of low temperature and cryogenic medium.

◆ Characteristics

1. The valve in the low temperature medium and the surrounding environment temperature should have the ability to work long hours;
2. The valve should not be a low temperature system of a significant source of heat. This is because the heat flow in addition to the lower thermal efficiency, such as flow too much, still can make internal fluid evaporation rapidly, produce abnormal booster, dangerous;
3. Low temperature medium should not produce harmful to the hand wheel operation and packing seal performance;
4. Direct valve assembly shall be in contact with the medium and low temperature with explosion and fire prevention structure;
5. Work under low temperature of the valve assembly cannot lubrication, so you need to take structure measures, in order to prevent the friction abrasion.

◆ Enforce Standards

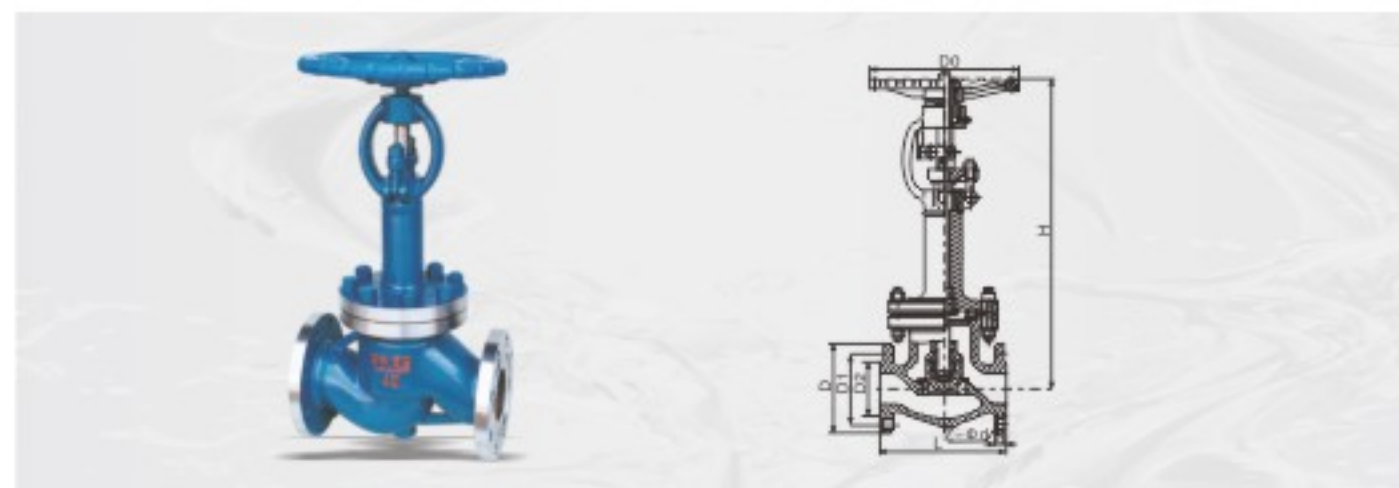
Product Specification	Design Spec	Face to Face	Flange end	Test & Check	Pressure-Temp
	JB/T7749	GB/T12221	JB/T79, GB/T9113 HG/T20592	JB/T9092 GB/T13927	GB/T12224

◆ Performance Specification

PN(MPa) Nominal pressure	Shell test	Water seal test	Back seat test	Air seal test
1.6	2.4	1.8	1.8	0.4-0.7
2.5	3.8	2.8	2.8	
4.0	6.0	4.4	4.4	

◆ Main Part Materials

Body, bonnet, plate	Stem	Sealing surface	Gasket	Packing	Working temperature (°C)	Applicable medium
LCB	1Cr17Ni12	DTL/DTL	1Cr13 (Flexible graphite Low temperature asbestos)	PTFE (Dip four fluorine b Ene asbestos rope Flexible graphite)	-46	Propane, propylene Methanol, ethane Gas, liquid ammonia
LC1					-60	
LC2					-73	
LC3	1Cr18Ni9Ti				-101	
LC4					-115	
LC8					-196	



◆ Main Boundary Connection Dimension

(PN1.6-4.0MPa)

DN(mm)	L	D	D ₁	D ₂	b	Z-φd	D ₀	H			WT (kg)
								-46℃	-101℃	-196℃	
DJ41Y-16C/P/R/PL/RL DJ641Y-16C/P/R/PL/RL DJ9B41Y-16C/P/R/PL/RL											
50	230	160	125	100	16	4-φ18	240	460	480	520	15
65	290	180	145	120	18	4-φ18	280	475	505	525	23
80	310	195	160	135	20	8-φ18	280	520	550	590	28
100	350	215	180	155	20	8-φ18	320	545	575	615	32
125	400	245	210	185	22	8-φ18	360	590	620	660	88
150	480	280	240	210	24	8-φ23	400	650	680	730	98
200	600	335	295	265	26	12-φ23	400	850	880	930	155
250	730	405	355	310	30	12-φ25	450	956	986	1036	425
300	850	460	410	375	30	12-φ25	500	1095	1125	1175	641
DJ41Y-25C/P/R/PL/RL DJ641Y-25C/P/R/PL/RL DJ9B41Y-25C/P/R/PL/RL											
50	230	160	125	100	20	4-φ18	240	460	480	520	16
65	290	180	145	120	22	8-φ18	280	475	505	525	23
80	310	195	160	135	22	8-φ18	280	520	550	590	29
100	350	230	190	160	24	8-φ23	320	545	575	615	32
125	400	270	220	188	28	8-φ25	360	590	620	660	90
150	480	300	250	218	30	8-φ25	400	650	680	730	98
200	600	360	310	278	34	12-φ25	400	850	880	930	159
250	730	425	370	332	36	12-φ30	450	956	986	1036	436
300	850	485	430	390	40	16-φ30	500	1095	1125	1175	657
DJ41Y-40C/P/R/PL/RL DJ641Y-40C/P/R/PL/RL DJ9B41Y-40C/P/R/PL/RL											
50	230	160	125	100	88	20	240	483	504	546	16
65	290	180	145	120	110	22	280	499	530	551	24
80	310	195	160	135	21	22	280	546	578	620	30
100	350	230	190	160	150	24	320	572	604	646	33
125	400	270	220	188	176	28	360	620	651	693	93
150	480	300	250	218	204	30	400	683	741	767	100
200	600	360	320	282	260	38	400	893	924	977	163
250	730	425	385	345	313	42	450	1004	1035	1088	447
300	850	485	450	408	364	46	500	1150	1181	1234	673



◆ Use

Insulation globe valve is widely used in petroleum, chemical, metallurgical, pharmaceutical and other kinds of systems, in order to transport under normal temperature solidification of high viscosity medium.

◆ Characteristics

1. Simple structure, manufacture and maintenance more convenient;
2. Small work schedule, opening and closing time is short;
3. Good sealing, small friction between the sealing surface, long service life.

◆ Enforce Standards

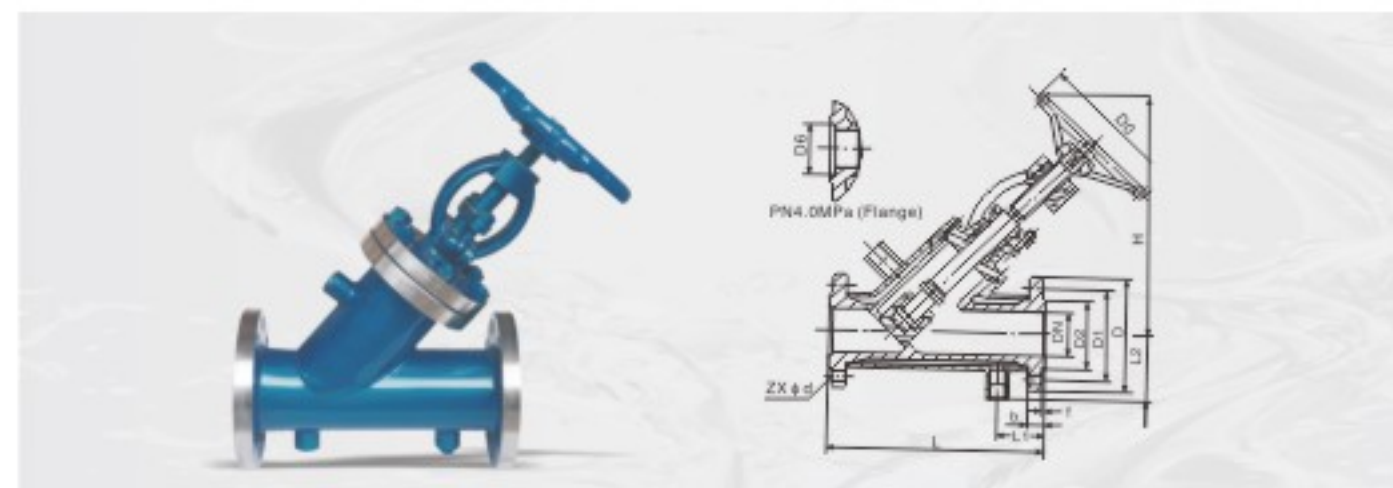
Product Specification	Design Spec	Face to face	Flange end	Test&Check
	GB/T12235	GB/T12221	JB/T79、GB/T9113 HG/T20592	JB/T9092 GB/T13927

◆ Performance Specification

PN(MPa) Nominal pressure	(MPa)Test pressure		Applicable temperature ℃	Applicable medium	(Mpa) Insulation sets of pressure
	Shell	Seal			
1.6	2.4	1.8	≤350	Acid	≤1.0
2.5	3.8	2.8	≤350	Acid	≤1.0

◆ Main Part Materials

Part name	ZG1Cr18Ni9Ti (Series)	ZG00Cr18Ni10 (Series)	ZG1Cr18Ni12Mo2Ti (Series)	ZG00Cr17Ni14Mo2 (Series)	WCB(Series)
Body, bonnet	ZG1Cr18Ni9Ti	ZG00Cr18Ni10	ZG1Cr18Ni12Mo2Ti	ZG00Cr17Ni14Mo2	WCB
Disc	ZG1Cr18Ni9Ti	ZG00Cr18Ni10	ZG1Cr18Ni12Mo2Ti	ZG00Cr17Ni14Mo2	1Cr13
Stem	1Cr18Ni9Ti	00Cr18Ni10	1Cr18Ni12MoTi	00Cr17Ni14Mo	1Cr13
Packing	PTFE (Textile)	PTFE (Textile)	PTFE (Textile)	PTFE (Textile)	Graphite
Gasket	304L+PTFE	304L+PTFE	316L+PTFE	316L+PTFE	(Graphite)+304
Gland	ZG1Cr18Ni9Ti	ZG00Cr18Ni10	ZG1Cr18Ni12Mo2Ti	ZG00Cr17Ni14Mo2	WCB
Packing gland ring	1Cr18Ni9Ti	00Cr18Ni10	1Cr18Ni12MoTi	00Cr17Ni14Mo	1Cr13
Bolt	1Cr17Ni2	1Cr17Ni2	1Cr17Ni2	1Cr17Ni2	35CrMoA
Nut	1Cr18Ni9Ti	1Cr18Ni9Ti	1Cr18Ni9Ti	1Cr18Ni9Ti	45



◆ Main Boundary Connection Dimension

(PN1.6-4.0MPa)

(PN) Nominal pressure	DN(mm)	L	L1	L2	H	D	D1	D2	b	f	z × φd	D0	WT(Kg)
BJ41W-16/25/40													
PN16 PN25	25	210	50	65	250	135	100	78	18	2	4 × φ18	160	25
	32	230	55	70	270	145	110	85	18	3	4 × φ18	160	30
	40	260	60	78	310	160	125	100	20	3	4 × φ18	160	36
	50	300	60	88	330	180	145	120	22	3	8 × φ18	240	40
	65	340	65	95	360	195	160	135	22	3	8 × φ18	240	54
	80	380	70	112	400	230	190	160	24	3	8 × φ23	280	70
	100	430	75	132	480	270	220	188	28	3	8 × φ23	320	100
	125	490	80	146	550	300	250	218	30	3	8 × φ25	360	130
PN40	150	550	90	172	620	330	280	248	32	3	12 × φ25	360	170
	200	690	95	205	750	395	340	302	36	3	12 × φ25	400	250
	25	210	50	65	250	135	100	78	18	2	4 × φ18	160	25
	32	230	55	70	270	145	110	85	18	3	4 × φ18	160	33
	40	260	60	78	310	160	125	100	20	3	4 × φ18	160	41
	50	300	60	88	330	180	145	120	22	3	8 × φ18	240	45
	65	340	65	95	360	195	160	135	22	3	8 × φ18	240	62
	80	380	70	112	400	230	190	160	24	3	8 × φ23	280	80
	100	430	75	132	480	270	220	188	28	3	8 × φ25	320	100
	125	490	80	146	550	300	250	218	30	3	8 × φ25	360	130
	150	550	90	172	620	350	295	258	34	3	12 × φ30	360	185
	200	690	95	205	750	415	355	315	40	3	12 × φ34	400	268



◆ Use

Oxygen special globe valve material excellent silicon brass or stainless steel casting and become, has high mechanical strength, wear resistance, good security, etc. Used in the way of oxygen tubes, have best explosion-proof flame retardant performance, eliminating oxygen and the unsafe factors on the road.

◆ Characteristics

This product not only have the normal function of the valve, and has its own characteristics. With strict ban oil measures in manufacture, and all parts were strict degreasing before installation to deal with. All sizes have conductive screw hole flange end, to prevent static electricity. The leakage valve parts has protective measures to prevent dust and oil pollution. Materials used on this product in two kinds: one kind is to choose the casting silicon brass body, cover, disc material; Another kind is to choose the high quality stainless steel for body, cover, the material of the disc.

◆ Enforce Standards

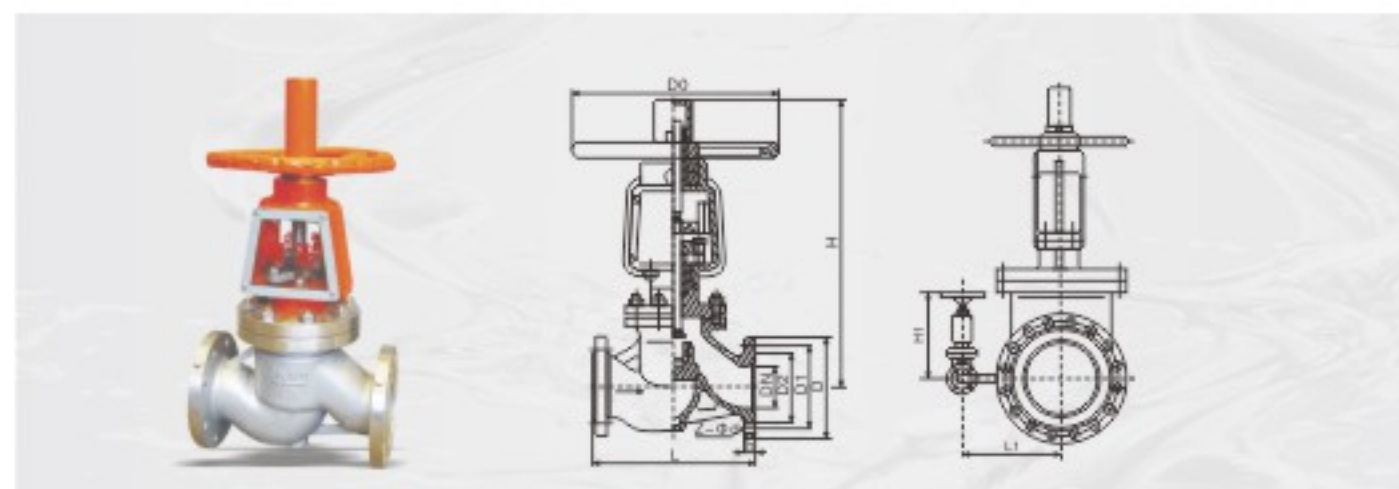
Product Specification	Design Spec	Face to face	Flange end	Test & Check
	GB/T12235	GB/T12221	JB/T79、GB/T9113 HG/T20592	JB/T9092 GB/T13927

◆ Performance Specification

(DN) Nominal diameter		15—400		
(Mpa) Nominal pressure		1.6	2.5	4.0
(Mpa) Test pressure	strength test	2.4	3.75	6.0
	Sealing	1.76	2.75	4.4
Applicable Temp.		≤200℃		
Applicable medium		Oxygen		

◆ Main Part Materials

Part name	Part Material
Body, bonnet	Stainless steel, brass
Stem	Stainless steel, brass
Disc	25# (Sealing surface nylon)
Stem nut	Bronze
Packing	Enhanced ptfе forming
Gasket	XB450
Handwheel	Nodular cast iron



◆ Main Boundary Connection Dimension

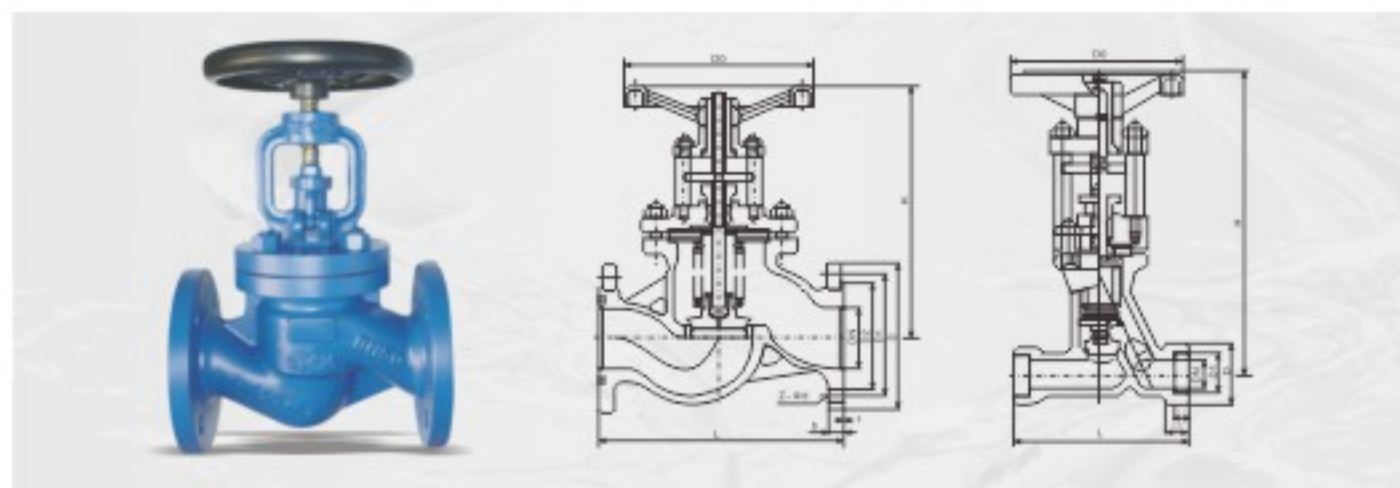
(PN2.5MPa)

DN(mm)	L	D	D ₁	D ₂	b	Z-φd	D ₀	H	H ₁	L ₁
JY41W-25P/PL JY41W-25T										
15	130	95	65	45	16	4-φ14	100	190	-	-
20	150	105	75	55	16	4-φ14	100	213	-	-
25	160	115	85	65	16	4-φ14	125	236	-	-
32	180	135	100	78	18	4-φ18	180	312	-	-
40	200	145	110	85	18	4-φ18	160	328	-	-
50	230	160	125	100	20	4-φ18	320	450	-	-
65	290	180	145	120	22	8-φ18	360	530	-	-
80	310	195	160	135	22	8-φ18	400	560	-	-
100	350	230	190	160	24	8-φ23	450	618	-	-
125	400	270	220	188	28	8-φ25	450	675	-	-
150	480	300	250	218	30	8-φ25	560	743	-	-
200	600	360	310	278	34	12-φ25	640	850	-	-
250	650	425	370	332	36	12-φ30	720	975	340	380
300	750	485	430	390	40	16-φ30	800	1115	340	415
400	950	610	550	505	48	16-φ34	900	1380	340	465

◆ Main Boundary Connection Dimension

(PN4.0MPa)

DN(mm)	L	D	D ₁	D ₂	b	Z-φd	D ₀	H	H ₁	L ₁
JY41W-40P/PL JY41W-40T										
15	130	95	65	45	40	4-φ14	100	202	-	-
20	150	105	75	55	51	4-φ14	100	225	-	-
25	160	115	85	65	58	4-φ14	125	236	-	-
32	180	135	100	78	66	4-φ18	180	312	-	-
40	200	145	110	85	76	4-φ18	160	328	-	-
50	230	160	125	100	88	4-φ18	320	450	-	-
65	290	180	145	120	110	8-φ18	360	530	-	-
80	310	195	160	135	121	8-φ18	400	560	-	-
100	350	230	190	160	150	8-φ23	450	618	-	-
125	400	270	220	188	176	8-φ25	450	675	-	-
150	480	300	250	218	204	8-φ25	560	743	-	-
200	600	375	320	282	160	12-φ30	640	850	-	-
250	650	445	385	345	313	12-φ34	720	975	340	380
300	750	510	450	408	364	16-φ34	800	1115	340	415
400	950	655	585	535	474	16-φ41	900	1425	340	465

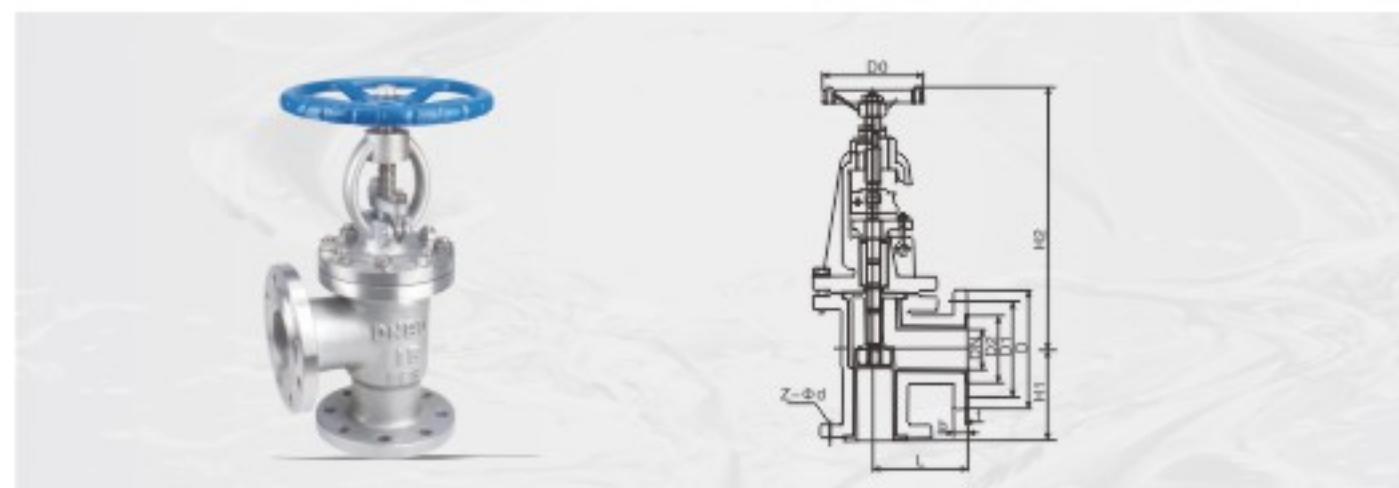


◆ Main Boundary Connection Dimension (PN1.6~4.0MPa)

DN(mm)	L	D	D2	L1	L2	H	D0	WT(kg)
	WJ61H-16C	WJ61H-25	WJ61H-40	WJ61W-16P	WJ61W-25P	WJ61W-40P		
15	110	34	22.5	10	18	214	22.5	1.9
20	130	40	28.5	11	18	242	28.5	2.3
25	140	48	34.5	12	20	245	34.5	3.4
32	160	56	43	14	22	296	43	5.2
40	180	64	49	15	25	337	49	7.3
50	230	85	61	18	28	342	61	10

◆ Main Boundary Connection Dimension (PN1.6~4.0MPa)

DN(mm)	L	D	D1	D2	b	f	Z-φd	H	D0	WT(kg)
	WJ41H-16C	WJ41W-16P								
15	130	95	65	47	14	2	4-φ13.5	202	120	5
20	150	105	75	58	14	2	4-φ13.5	231	140	7
25	160	115	85	68	14	2	4-φ13.5	231	140	9
32	180	140	100	78	16	2	4-φ17.5	286	160	12
40	200	150	110	88	16	3	4-φ17.5	317	200	16
50	230	165	125	102	16	3	4-φ17.5	317	200	19
65	290	185	145	122	18	3	8-φ17.5	331	240	23
80	310	200	160	123	20	3	8-φ17.5	402	240	30
100	350	220	180	158	20	3	8-φ17.5	416	320	42
125	400	250	210	184	22	3	8-φ17.5	467	360	63
150	480	285	240	212	24	3	8-φ22	525	360	90
200	600	340	295	268	26	3	12-φ22	611	500	150
	WJ41H-25	WJ41W-25P								
15	130	95	65	47	16	2	4-φ13.5	202	120	5
20	150	105	75	58	16	2	4-φ13.5	231	160	7
25	160	115	85	68	16	2	4-φ13.5	231	160	9
32	180	140	100	78	18	2	4-φ17.5	286	160	12
40	200	150	110	88	18	3	4-φ17.5	317	200	19
50	230	165	125	102	20	3	4-φ17.5	317	200	24
65	290	185	145	122	22	3	8-φ17.5	330	280	33
80	310	200	160	133	22	3	8-φ17.5	402	280	44
100	350	235	190	158	24	3	8-φ22	416	320	60
125	400	270	220	184	28	3	8-φ26	467	360	72
150	480	300	250	212	30	3	8-φ26	525	360	98
200	600	360	310	278	30	3	12-φ27	611	500	169
	WJ41H-40	WJ41W-40P								
15	130	95	65	47	16	2	4-φ13.5	202	120	5
20	150	105	75	58	16	2	4-φ13.5	228	160	7
25	160	115	85	68	16	2	4-φ13.5	228	160	9
32	180	140	100	78	18	2	4-φ17.5	274	160	12
40	200	150	110	88	20	3	4-φ17.5	345	200	16
50	230	165	125	102	22	3	4-φ17.5	396	200	23
65	290	185	145	122	22	3	8-φ17.5	399	280	33
80	310	200	160	133	24	3	8-φ17.5	405	280	43
100	350	235	190	158	28	3	8-φ22	460	320	69



◆ Performance Specification

1. Test Pressure

(MPa) Nominal pressure	(Mpa) Test pressure			
	Shell	Seal (liquid)	Seal (gas)	Back seat
1.6	2.4	1.8	0.6	1.8
2.5	3.8	2.8	0.6	2.8
4.0	6.0	4.4	0.6	4.4
6.4	9.6	7.0	0.6	7.0
10.0	15.0	11.0	0.6	11.0
16.0	24.0	18.0	0.6	18.0

2. Suitable Scope

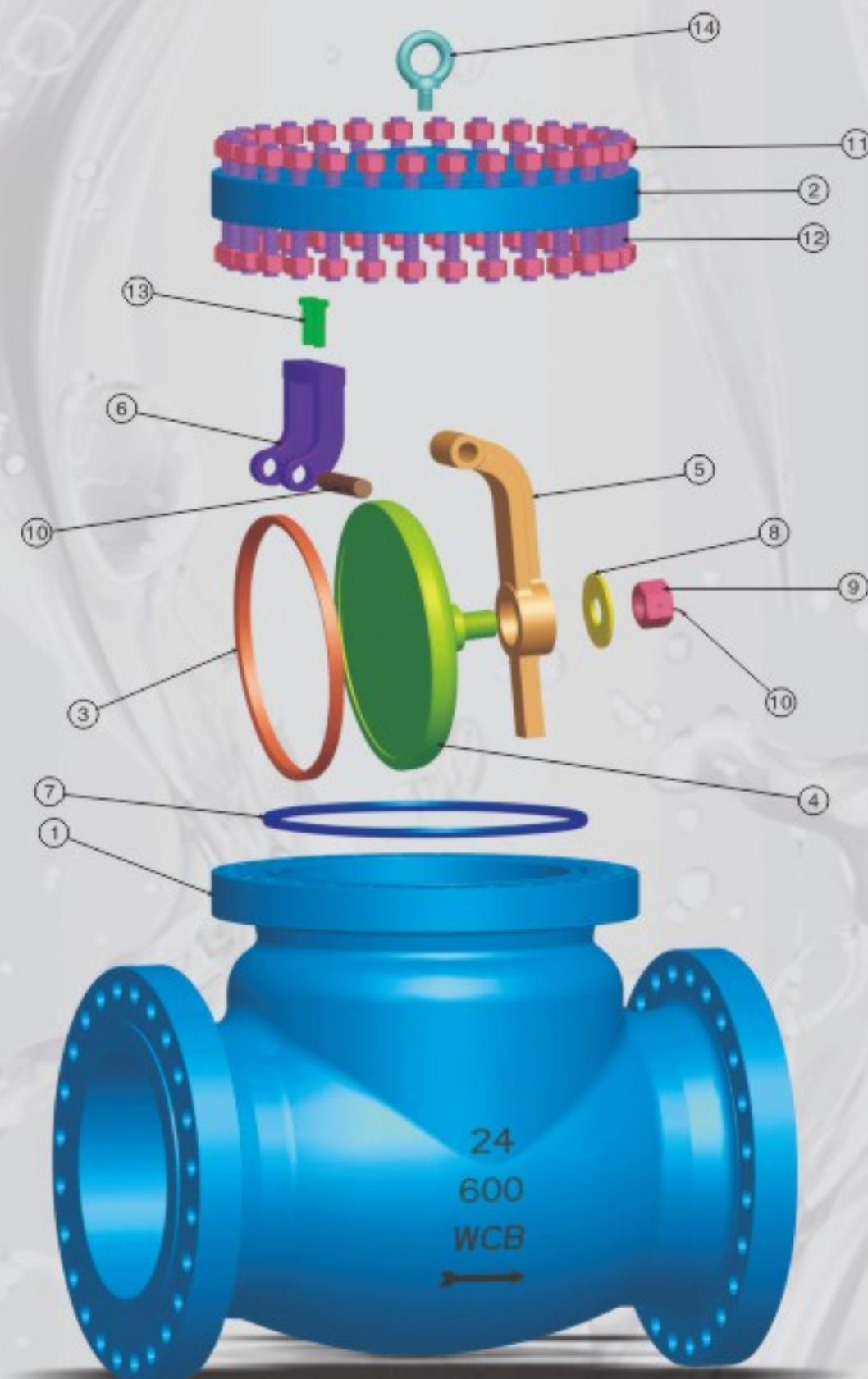
Shell material	Applicable medium	Applicable temperature °C
Carbon steel (C type)	Water, steam, oil goods	≤425
Cr.Ni.Ti steel (P type)	Nitric acid	≤200
Cr.Ni.Mo.Ti steel (R type)	Acetic acid	≤200
Cr.Mo steel(I type)	Water, steam, oil goods	≤550

◆ Main Boundary Connection Dimension

(PN1.6/2.5MPa)

DN(mm)	L	D	D1	D2	b	f	Z-φd	D0	H1	H2
(J44H/Y/W -16/25C/P/R/L)										
25	160	115	85	65	18	3	4-14	100	220	236
32	180	135	100	78	18	3	4-18	120	251	273
40	200	145	110	85	20	3	4-18	140	283	306
50	230	160	125	100	20	3	4-18	160	316	344
65	290	180	145	120	22	3	4-18	180	353	383
80	310	195	160	135	22	3	8-18	200	437	479
100	350	215	180	155	24	3	8-18	240	479	529
125	400	245	210	180	26	3	8-18	280	542	608
150	480	280	240	210	28	4	8-18	320	605	680
200	600	335	295	265	30	4	12-23	360	650	755

CAST STEEL CHECK VALVE SERIES





◆ Overview Of Check Valves

Check valve, also known as check valve, single flow valve, one-way valve or check valve, its role is to ensure that the pipeline medium directional flow without backflow function. Bottom valve pump water pipe check valve also belongs to class. Check valves are automatic valves, pressure 1.6~25MPa/Class150~2500/2.0~42.0MPa, temperature of -29~+550℃, usually material: steel WCB, iron HT200, HT250, QT350, QT450, WC6, WC9, CN7M alloy steel, stainless steel CF8 (M), CF3 (M), A105 forged steel, F304 (L), F316L. It is widely used in petroleum, chemical, pharmaceutical, fertilizer, power industry and other working conditions of the pipeline, the applicable medium for water, oil, steam, acid medium, etc.. It is the valve that controls the one-way flow of the medium in the pipeline, and prevents the backflow of the medium in the pipeline.

◆ Characteristics Of Check Valve

1. The product structure is reasonable, reliable sealing, good performance, beautiful appearance.
2. Sealing surface surfacing Co base cemented carbide, wear resistance, corrosion resistance, good scratch resistance, long service life.
3. The built-in pin structure, reduce leakage point, the use of reliable.
4. When the pressure is larger than 16.0MPa and Class1500, the valve chamber with self sealing structure, the higher the pressure medium, the better the sealing performance.
5. The material and flange, butt welding end size can be selected according to actual conditions or user requirements, to meet the needs of various projects.

◆ Main Part

No.	Part name	No.	Part name
01	Body	08	Disc Washer
02	Bonnet	09	Disc Nut
03	Seat	10	Pin
04	Disc	11	Cover Nut
05	Hinge	12	Cover Stud
06	Bracket	13	Hex Head Screw
07	Bonnet Gasket	14	Eye Bolt



◆ Use

Swing check valves are used in pipes under pressures between PN1.6~42.0MPa, working temperatures between -46℃~570℃, they are used in industries include oil, chemistry, pharmaceutical, fertilizer, and power generation to prevent the backward flux of the media.

◆ Characteristics

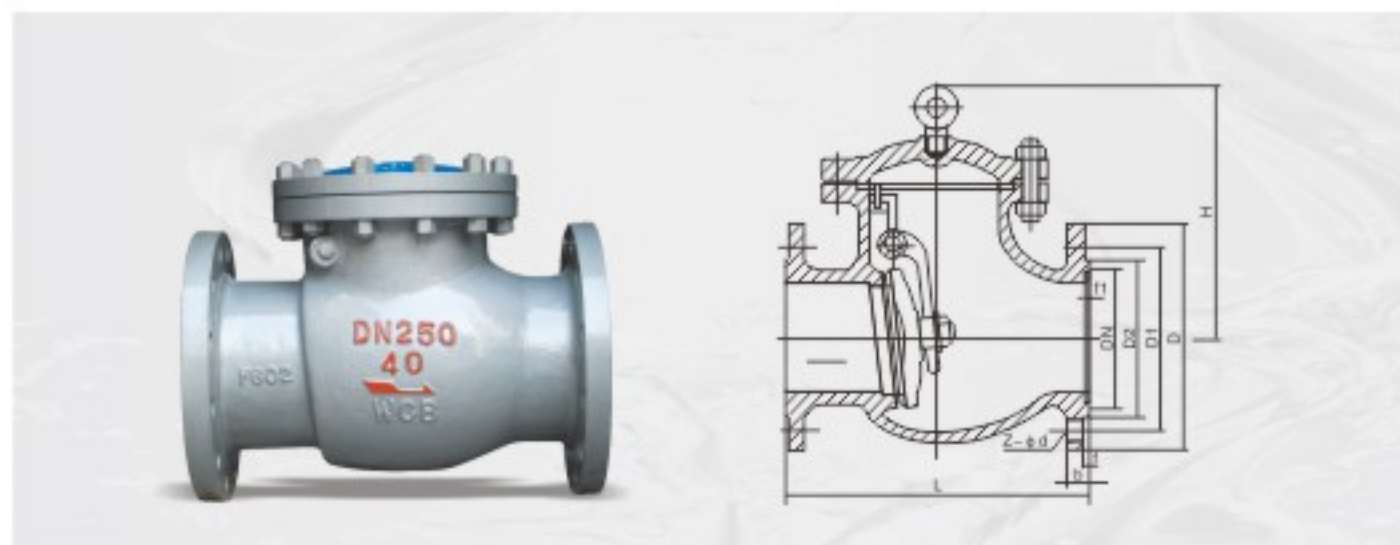
1. Rational structure, reliable sealing, excellent performance, pretty appearance;
2. Co-radix alloy welded sealing surface, anti-wearing, erosion-proof abrasion-proof and longer use life;
3. Inside-set bolt-bearing structure reduces leakage and reliable use;
4. Under pressures ≥ 16.0 MPa the valve belly, self-tightening structure offers a tighter sealing for a higher medium pressure;
5. Different parts materials and different sizes for flange, butt-welding are available for sensible combination according to different working facts and customers' requirements.

◆ Performance Specification

Design standard		GB/T 12236					
Pressure-temperature rating		GB/T 12224					
Face to face		GB/T 12221, GB/T 15188.1					
Flange ends		GB/T 9113.1, JB/T 79.1					
Buttwelding ends		GB/T 12224					
Inspection & test		JB/T 9092, GB/T13927					
(MPa) Test pressure	Normal pressure	PN1.6	PN2.5	PN4.0	PN6.4	PN10.0	PN16.0
	Shell test	2.4	3.8	6.0	9.6	15.0	24.0
	High Pressure seal test	1.8	2.8	4.4	7.1	11.0	17.6
	Low Pressure seal test	0.6					

◆ Main Part Materials

Part name	Carbon steel	Stainless steel	Alloy steel	Low Temperature steel
Body	WCB	CF8	WC6	LCB
Seat	25#	0Cr18Ni9(304)	12Cr1MoVA	0Cr18Ni9(304)
Disc	WCB	CF8	WC6	LCB
Hinge	WCB	CF8	WC6	LCB
Pin	1Cr13	0Cr18Ni9(304)	0Cr18Ni9(304)	0Cr18Ni9(304)
Bearing Bracket	WCB	CF8	WC6	LCB
Gasket	Flexible graphite +SS304	Flexible graphite +SS304	Flexible graphite +SS304	Flexible graphite +SS304
Bonnet	WCB	CF8	WC6	LCB
Stud	35CrMoA	0Cr18Ni9(304)/B8	B16/25Cr2MoVA	35CrMoA/B7
Nut	45#	0Cr18Ni9(304)/8	7/35CrMoA	45/2H



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	Z-φd	H	WT (kg)
H44H-16C			H44W-16P/R/PL/RL			H44Y-16I		
50	230	160	125	100	20	4-φ18	135	21
65	290	180	145	120	20	4-φ18	142	28
80	310	195	160	135	22	8-φ18	165	38
100	350	215	180	155	24	8-φ18	180	58
125	400	245	210	185	26	8-φ18	210	92
150	480	280	240	210	28	8-φ23	233	130
200	500	335	295	265	30	12-φ23	304	210
250	550	405	355	320	32	12-φ25	348	294
300	650	460	410	375	34	12-φ25	390	367
350	750	520	470	435	38	16-φ25	430	410
400	850	580	525	485	40	16-φ30	468	461
450	950	640	585	545	40	20-φ30	523	570
500	1150	705	650	608	46	20-φ34	525	850
H44H-25C			H44W-25P/R/PL/RL			H44Y-25I		
50	230	160	125	100	22	4-φ18	160	22
65	290	180	145	120	24	8-φ18	175	29
80	310	195	160	135	26	8-φ18	185	38
100	350	230	190	160	30	8-φ23	220	61
125	400	270	220	188	32	8-φ25	248	96
150	480	300	250	218	32	8-φ25	276	132
200	550	360	310	278	36	12-φ25	350	213
250	650	425	370	332	40	12-φ30	410	297
300	750	485	430	390	42	16-φ30	430	372
350	850	550	490	448	44	16-φ34	518	415
400	950	610	550	505	48	16-φ34	560	480
450	1025	660	600	555	50	20-φ34	582	610
500	1150	730	660	610	56	20-φ41	618	920



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	D ₆	b	f	F ₁	Z-φd	H	WT (kg)
H44H-40C			H44W-40P/R/PL/RL			H44Y-40I					
50	230	160	125	100	88	20	3	4	4-φ18	169	22
65	290	180	145	120	110	22	3	4	8-φ18	173	29
80	310	195	160	135	121	22	3	4	8-φ18	185	38
100	350	230	190	160	150	24	3	4.5	8-φ23	220	61
125	400	270	220	188	176	28	3	4.5	8-φ25	248	96
150	480	300	250	218	204	30	3	4.5	8-φ25	270	132
200	550	375	320	282	260	38	3	4.5	12-φ30	342	213
250	650	445	385	345	313	42	3	4.5	12-φ34	401	297
300	750	510	450	408	364	46	4	4.5	16-φ34	423	372
350	850	570	510	465	422	52	4	5	16-φ34	455	415
400	950	655	585	535	474	58	4	5	16-φ41	510	480

◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	D ₆	b	f	F ₁	Z-φd	H	WT (kg)
H44H-64C			H44W-64P/R/PL/RL			H44Y-64I					
50	300	175	135	105	88	26	3	4	4-φ23	177	27
65	340	200	160	130	110	28	3	4	8-φ23	197	37
80	380	210	170	140	121	30	3	4	8-φ23	212	57
100	430	250	200	168	150	32	3	4.5	8-φ25	248	89
125	500	295	240	202	176	36	3	4.5	8-φ30	296	135
150	550	340	280	240	204	38	3	4.5	8-φ34	380	184
200	650	405	345	300	260	44	3	4.5	12-φ34	385	266
250	775	470	400	352	313	48	3	4.5	12-φ41	445	396
300	900	530	460	412	364	54	4	4.5	16-φ41	474	643
350	1025	595	525	475	422	60	4	5	16-φ41	514	815
400	1150	670	585	525	474	66	4	5	16-φ48	616	1234



◆ Use

GB Lift Check Valve are used in pipes under nominal pressures between PN1.6~16.0Mpa, working temperatures between-46~550℃. They are used in industries include oil, chemistry, pharmaceutical, fertilizer, and power generation to prevent the backward flux of the media.

◆ Characteristics

1. Rational structure, reliable sealing, excellent performance, pretty appearance;
2. Co hard alloy welded sealing surface of the discs and seats, which is wearing resistant, erosion proof, abrasion proof and long-lived;
3. Different parts materials and different sizes for flange, & gasket-welding are available for sensible combination according to different working facts and customer's requirements.

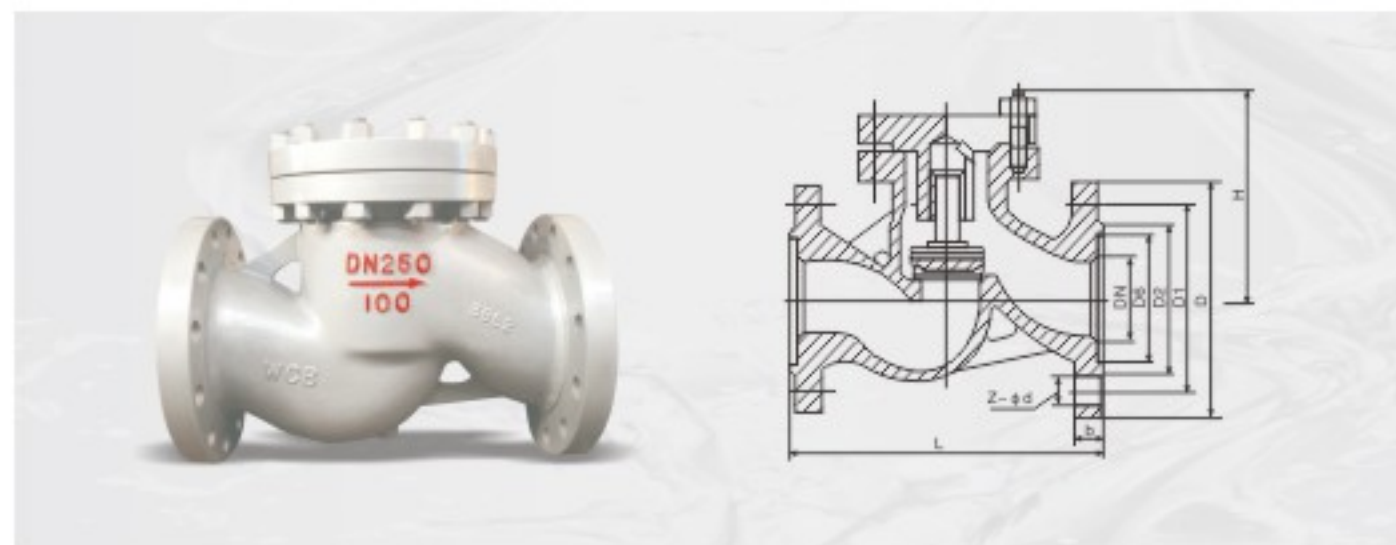
◆ Performance Specification

Design standard		GB/T 12235				
Pressure-temperature rating		GB/T 12224				
Face to face		GB/T 12221				
Flange ends		GB/T 9113.1, JB/T 79.1				
Inspection & test		JB/T 9092, GB/T 13927				
(MPa) Test pressure	Normal pressure	PN1.6	PN2.5	PN4.0	PN6.4	PN10.0
	Shell test	2.4	3.8	6.0	9.6	15.0
	High Pressure seal test	1.8	2.8	4.4	7.1	11.0
	Low Pressure seal test	0.6				

◆ Main Part Materials

No.	Part name	Carbon steel	Stainless steel	Alloy steel	Low Temperature steel
1	Body	WCB	CF8	WC6	LCB
2	Disc	WCB/25	CF8/F304	WC6/F11	LCB/LF2
3	Gasket	Flexible graphite +SS304	Flexible graphite +SS304	Flexible graphite +SS304	Flexible graphite +SS304
4	Bonnet	WCB	CF8	WC6	LCB
5	Stud	35CrMoA	0Cr18Ni9(304)	25Cr2MoVA	35CrMoA
6	Nut	45#	0Cr18Ni9(304)	35CrMoA	45#
7	Spring	60S12Mn	0Cr18Ni9(304)	0Cr18Ni9(304)	0Cr18Ni9(304)

Note: 1. Select different materials for different working temperature and media.
2. Commonly-used trim materials and service temperature referred to Appendix VII.



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	b	Z-φd	H	WT (kg)
H41H-16C H41W-16P/PL H41W-16R/RL H41Y-16I								
15	130	95	65	45	14	4-φ14	77	3
20	150	105	75	55	14	4-φ14	77	4
25	160	115	85	65	14	4-φ14	80	5
32	180	135	100	78	16	4-φ18	85	7
40	200	145	110	85	16	4-φ18	95	9
50	230	160	125	100	16	4-φ18	105	10
65	290	180	145	120	18	4-φ18	120	20
80	310	195	160	135	20	8-φ18	130	30
100	350	215	180	155	20	8-φ18	140	39
125	400	245	210	185	22	8-φ18	155	50
150	480	280	240	210	24	8-φ23	180	70
200	600	335	295	265	26	12-φ23	215	161
250	650	405	355	320	30	12-φ25	260	251
300	750	480	410	375	34	12-φ25	315	395
H41H-25C H41W-25P/PL H41W-25R/RL H41Y-25I								
15	130	95	65	45	16	4-φ14	100	3.4
20	150	105	75	55	16	4-φ14	105	5
25	160	115	85	65	16	4-φ14	120	5.7
32	180	135	100	78	18	4-φ18	130	9.1
40	200	145	110	85	18	4-φ18	135	11.8
50	230	160	125	100	20	4-φ18	149	14.4
65	290	180	145	120	22	4-φ18	160	23
80	310	195	160	135	22	8-φ18	169	30
100	350	230	190	160	24	8-φ23	194	44
125	400	270	220	188	28	8-φ25	222	65
150	480	300	250	218	30	8-φ25	255	99
200	600	360	310	278	34	12-φ25	305	190
250	650	425	370	332	36	12-φ30	355	315
300	750	485	430	390	40	12-φ30	410	450



◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	D ₆	b	Z-φd	H	WT (kg)
H41H-40C			H41W-40P/R/PL/RL			H41Y-40I			
15	130	95	65	45	40	16	4-φ14	100	4
20	150	105	75	55	51	16	4-φ14	105	5.5
25	160	115	85	65	58	16	4-φ14	120	6
32	180	135	100	78	66	18	4-φ18	130	12
40	200	145	110	85	76	18	4-φ18	135	14
50	230	160	125	100	88	20	4-φ18	149	18
65	290	180	145	120	110	22	8-φ18	160	27
80	310	195	160	135	121	22	8-φ18	169	36
100	350	230	190	160	150	24	8-φ23	194	50
125	400	270	220	188	176	28	8-φ25	225	75
150	480	300	250	218	204	30	8-φ25	255	119
200	600	375	320	282	260	38	12-φ30	305	217
250	650	445	385	345	313	42	12-φ34	360	310
300	750	510	450	408	364	46	12-φ34	415	365

◆ Main Boundary Connection Dimension

DN(mm)	L	D	D ₁	D ₂	D ₆	b	Z-φd	H	WT (kg)
H41H-64C			H41W-64P/R/PL/RL			H41Y-64I			
15	170	105	75	55	40	20	4-φ14	100	7
20	190	125	90	68	51	22	4-φ18	110	11
25	210	135	100	78	58	24	4-φ18	125	13
32	230	150	110	82	66	24	4-φ23	140	14
40	260	165	125	95	76	24	4-φ23	168	20
50	300	175	135	105	88	26	4-φ23	170	23
65	340	200	160	130	110	28	8-φ23	188	37
80	380	210	170	140	121	30	8-φ23	205	46
100	430	250	200	168	150	32	8-φ25	230	68
125	500	295	240	202	176	36	8-φ30	203	89
150	550	340	280	240	204	38	8-φ34	265	131
200	650	405	345	300	260	44	12-φ34	310	235



◆ Use

Power station check valve is suitable for the nominal pressure PN20.0-32.0 Mpa, the working temperature of 540℃ or less (P 57) of whom 170V working temperature is 570℃) of petroleum, chemical industry, hydropower and thermal power plant, etc All kinds of working condition of the pipeline. Applicable medium: water, oil, steam, etc.

◆ Characteristics

1. Design and manufacture products according to standard E101 and NB/T47044 rules, reasonable structure, excellent performance;
2. Pressure seal structure is adopted, and the medium pressure is higher, the better the performance of sealing;
3. For butt welding on both ends of the branch pipe, different to meet the demand of the takeover;
4. Disc and seat sealing surface using department too vertical (stellite) cobalt-based hard alloy surfacing and become, wear-resisting, high temperature resistance, good abrasion resistance, long service life;
5. High temperature compression part adopts high quality alloy steel manufacturing, safe and reliable, stable performance and long service life.

◆ Standards Adopted

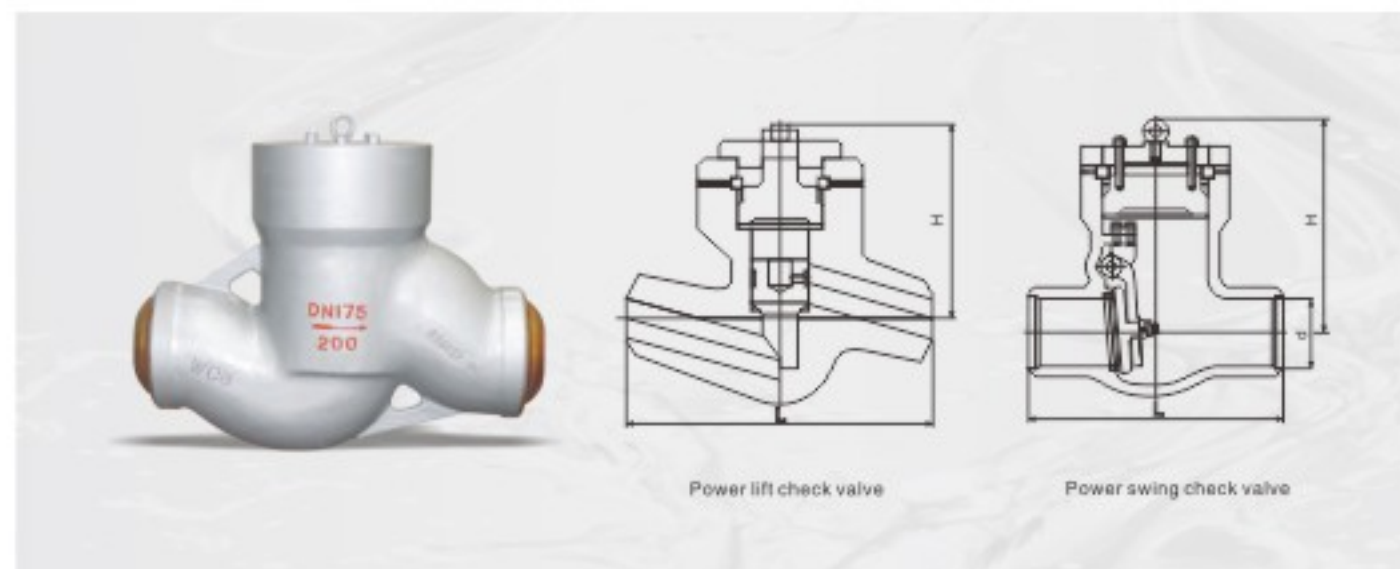
Product specification	Design spec	Face to face	Welding groove	Test & check	Pressure-temp
	NB/T 47044	GB/T12221	NB/T 47044	NB/T 47044	NB/T 47044

◆ Performance Specification

Product model	PN(MPa) Nominal Pressure	(MPa)Test pressure		Working temperature (°C)	Applicable medium
		Shell test	Seal test		
JH61Y-250	25.0	37.5	27.6	≤425	Water, oil, steam
H61Y-320	32.0	48	35.2		
H61Y-P54140V	P54140V	43.1	17.5	≤540	
H61Y-P54170V	P54170V	50.7	21.3		
H61Y-P57170V	P57170V	67.6	21.3	≤570	

◆ Main Part Materials

Part name	Material designation			
Body	WCB	12Cr1MoV	WC6	WC9
Bonnet	A105	12Cr1MoV		
Disc,seat	25 pile of STL cobalt-based hard alloy	12 Cr1MoV pile of STL cobalt-based hard alloy		
Sealing ring	Flexible graphite			

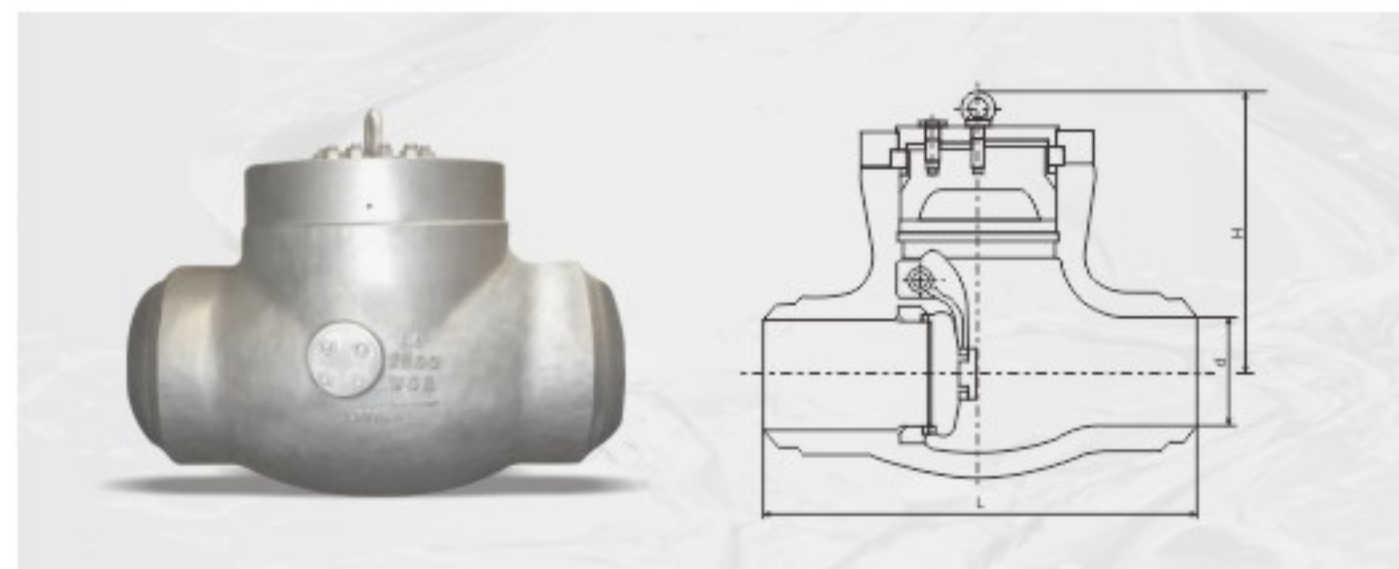


◆ Main Boundary Connection Dimension

Product name	Model	DN(mm)	L	H	WT (kg)
Power station lift	H61Y-250 H61Y-320 H61Y-P54140V H61Y-P54170V H61Y-P57170V	10	120	156	2.5
		15	170	200	8.5
		20	170	210	9
		25	170	210	10
		32	200	245	14
		40	230	270	21
		50	350	300	28
		65	326	412	-
		80	570	370	-
		100	560	418	-

◆ Main Boundary Connection Dimension

Product name	Model	DN(mm)	L	H	WT (kg)
swing check valve	H61Y-250	50	350	250	50
		65	430	282	57
		80	470	325	65
		100	600	350	80
		175	900	440	180
	H61Y-320	125	900	409	170
		225	1000	550	415
		300	1370	680	1200
		350	1370	745	1638



◆ Main Part Materials

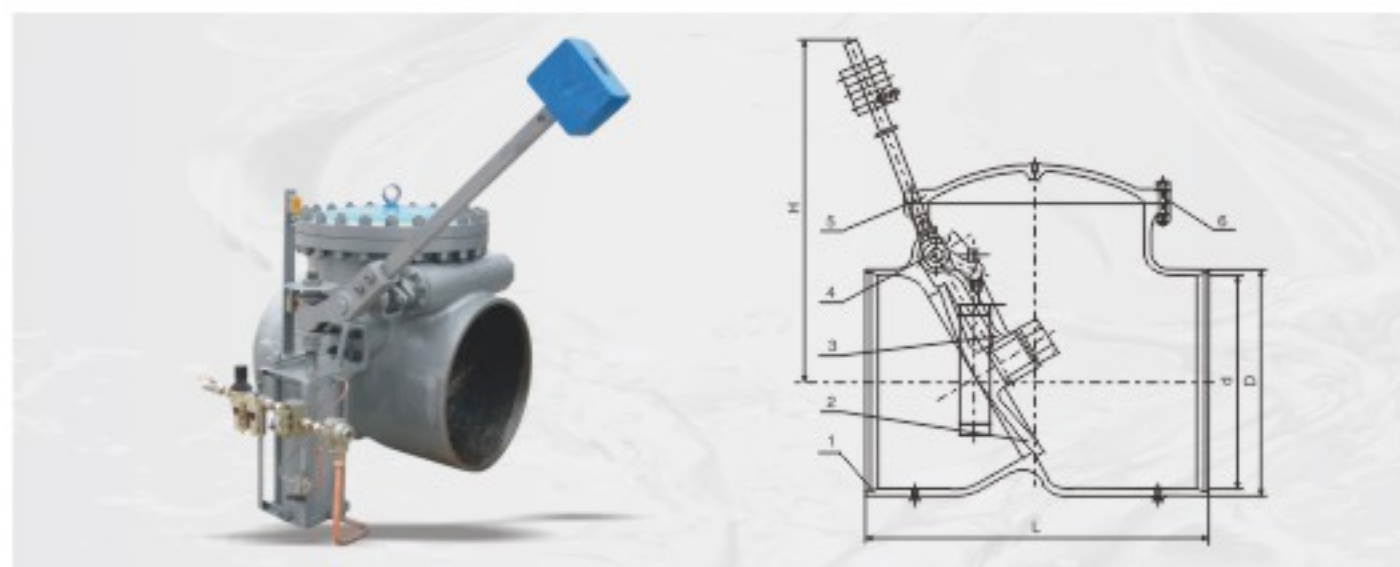
Part name	Material mark			
Body	WCB	WC1	WC6	WC9
Seat	A105	15CrMoA	12Cr1MoVA	
Disc	WCB	WC1	WC6/F11	WC9/F22
Hinge	WCB	WC1	WC6	WC9
Bonnet	A105	15CrMoA	F11/F22	
Sealing ring	S mild steel(reinforced flexible graphite)		S mild steel	F mild steel

◆ Main Boundary Connection Dimension

H64Y-1500Lb H64Y-250/Pss140V				
NPS(in)	d	L	H	WT (kg)
2 1/2	56	254	282	57
3	64	325	300	57
4	84	406	350	80
5	100	483	425	115
6	126	559	400	180
8	158	711	490	270
10	200	864	540	430
12	250	991	650	630
14	280	1067	710	1400

H64Y-2000Lb H64Y-320/Pss170V				
NPS(in)	d	L	H	WT (kg)
2 1/2	50	330	240	40
3	60	368	305	60
4	80	457	315	95
5	96	533	409	170
6	118	610	465	186
8	147	762	528	415
10	180	914	613	658
12	222	1041	680	1200
14	254	1118	745	1638

H64Y-2500Lb H64Y-420/Pss250V				
NPS(in)	d	L	H	WT (kg)
3	54	368	297	44
4	70	457	385	110
5	86	533	410	130
6	104	610	455	192
8	130	762	557	466
10	162	914	615	730
12	210	1041	715	1120
14	234	1118	790	1495
16	264	1245	815	1950
18	304	1397	815	2400



◆ Performance Specification

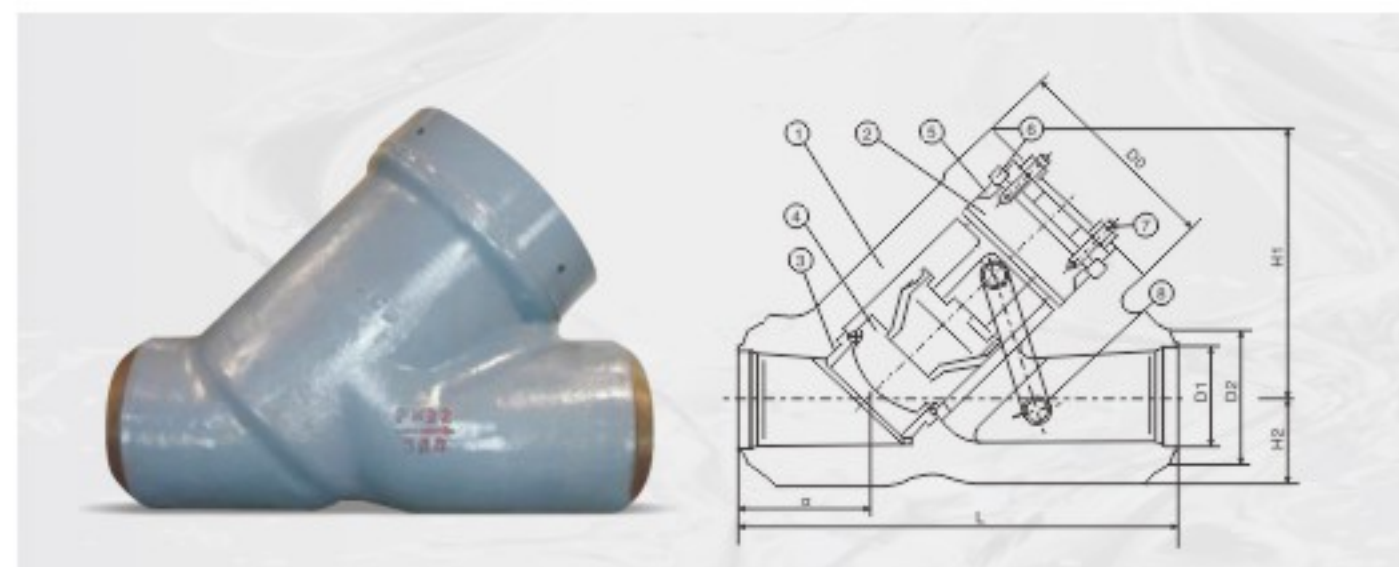
Product model	Nominal pressure	Shell test pressure	Seal test pressure
H664H-150Lb	150	3.0	2.2
H664H-300Lb	300	7.5	5.5
H664-600Lb H664Y-600LbC6	600	15.0	11.0

◆ Main Part Materials

No.	Part name	H664H-150Lb 300Lb/600Lb	H664Y-600Lb
1	Body	WCB	WC6
2	Disc	WCB	WC6
3	Hinge	WCB	WC6
4	Shaft lever	2Cr13	CrMoV
5	Bonnet	WCB	WC6
6	Flange bolts	35CrMoA	CrMoV
7	Flange nut	45	CrMoV

◆ Main Boundary Connection Dimension

NPS(in)	L	d	D	H	WT (kg)
H664H150Lb H664Y150Lb					
18	740	428	476	990	620
20	790	468	520	990	759
28	1040	685	747	1240	1258
36	1448	880	934	1510	1990
42	1600	1000	1080	2080	2287
H664H300Lb H664Y300Lb					
8	526	195	239	815	236
12	610	300	354	845	1537
H664H600Lb					
10	680	250	302	904	385
20	1020	480	584	1240	1537
H664H600LbC6 H664Y600LbC6					
8	526	195	239	815	227



◆ Use

H65Y Type Straight-flow check valve installed in a horizontal pipe, as a safety device automatically to prevent medium counter-current.

◆ Characteristics

1. The disc for lifting movement, communicating pipe of the valve cavity with the valve outlet connected, when the disc rose and fell, reduce the shock and vibration, and use the disc to whole trip.
2. The body for "Y", small resistance, on the guide bar soldering iron carbide, the body cavity of the guide sleeve is made of stainless steel materials, ensure the flexible disc movement.
3. Pressure self-tightening sealing structure, rely on medium pressure seal itself, the higher the pressure, the better sealing.
4. Disc and seat sealing surface using cobalt-based hard alloy plasma spray welding and become, high hardness, resistance to erosion, abrasion resistance and durability.

◆ Main Part Materials

No.	1	2	3	4	5	6	7	8
Part name	Body	Bonnet	Seat	Disc	Sealing ring	Snap ring	Bolt	Connecting pipe
Material	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Flexible graphite	Stainless steel	Alloy steel	Carbon steel

◆ Main Boundary Connection Dimension

DN(mm)	L	α	H1	H2	D0	D1	D2	h	Pipe size	WT (kg)
300	1370	400	238	854	686	306	406	200	Φ406x50	2853
350	1372	405	258	870	670	326	426	220	Φ426x50	3190



◆ Use

API swing check valve are used in pipes under pressures between Class 150~2500LB, working temperatures between -46℃~570℃, they are used in industries include oil, chemistry, pharmaceutical, fertilizer, and power generation to prevent the backward flux of the media.

◆ Characteristics

1. Rational structure, reliable sealing, excellent performance, pretty appearance;
2. Co-radix alloy welded sealing surface, anti-wearing, erosion-proof abrasion-proof and longer use life;
3. Inside-set bolt-bearing structure reduces leakage and reliable use;
4. Under pressures is Class 1500LB, the valve belly, self-tightening structure offers a tighter sealing for a higher medium pressure;
5. Different parts materials and different sizes for flange, butt-welding are available for sensible combination according to different working facts and customers' requirements.

◆ Standards Adopted

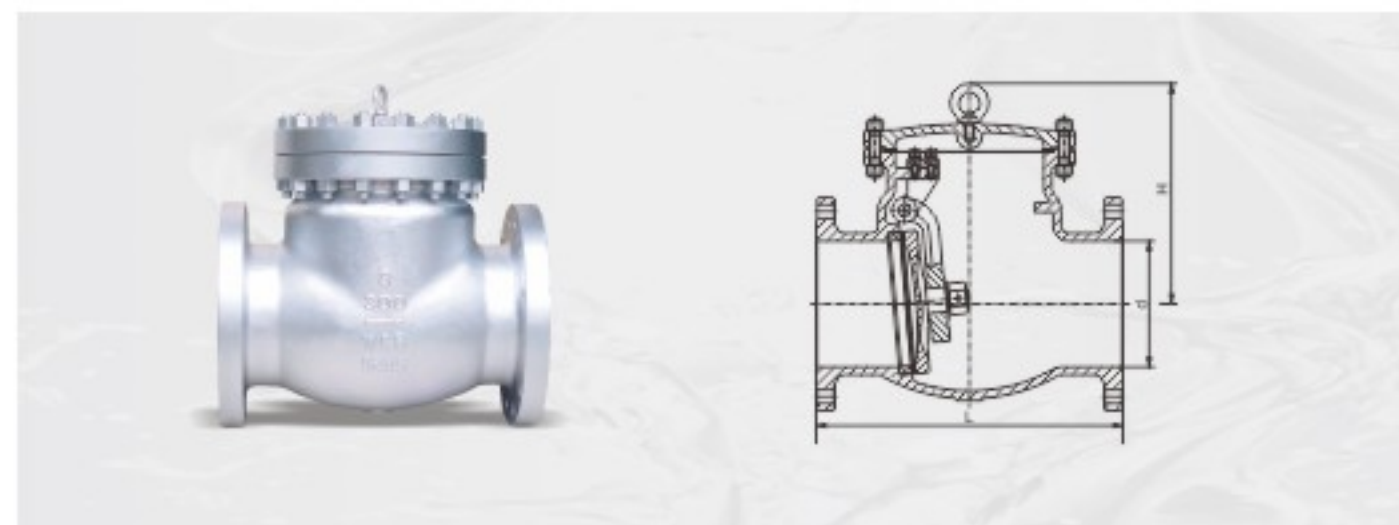
Product specification	Design spec	Face to face	Flange dimension	Pressure-temp	Test & check
	API 6D, BS1868	ASME B16.10	ASME B16.5	ASME B16.34	API 598

◆ Performance Specification

(Lb) Nominal Pressure		150	300	600	900
Strength test	MPa	3.1	7.8	15.3	23.1
	Lbf/in ²	150	1125	2225	3350
Water seal test	MPa	2.2	5.6	11.2	16.8
	Lbf/in ²	315	815	1630	2440
Air seal test	MPa	0.5~0.7			
	Lbf/in ²	60~100			

◆ Main Part Materials

Body, bonnet, disc, rocker, guide sleeve	Hinge pin	Sealing shim	Sealing Face	Working temperature (°C)	Applicable medium
WCB	2Cr13	PTFE Enhanced Flexible graphite 1Cr13/Flexible Graphite S.S/Acic-proof asbestos Tooth profile gasket	13Cr STL PTFE With body material Nylon	≤425	Water, steam, oil, nitric acid, acetic acid, urea, media strong oxidation
WC1				≤450	
WC6				≤550	
WC9				≤590	
C5 C12				≤600	
CF8	304			≤600	
CF3	304L				
CF8M	316				
CF3M	316L				



◆ Main Boundary Connection Dimension

NPS(in)	Class 150						Class 300					
	L			d	H	WT (kg)	L			d	H	WT (kg)
	RF	RTJ	BW				RF	RTJ	BW			
2	203	216	203	51	132	15	267	283	267	51	144	20
2 1/2	216	229	216	64	147	20	292	308	292	64	169	35
3	241	254	241	76	176	27	318	333	318	76	210	40
4	292	305	292	102	198	45	356	371	356	102	260	61
5	330	343	330	127	255	58	400	416	400	127	295	80
6	356	368	356	152	320	69	445	460	445	152	326	130
8	495	508	495	203	380	131	533	549	533	203	380	190
10	622	635	622	254	440	219	622	638	622	254	440	296
12	699	711	698	305	480	321	711	727	711	305	520	450
14	787	800	787	337	530	380	838	854	838	337	540	640
16	864	876	864	387	580	560	864	879	864	387	588	850
18	978	991	978	438	618	630	978	994	978	438	670	1030
20	978	991	978	489	657	770	1016	1035	1016	489	720	1330
24	1295	1308	1295	591	760	960	1346	1368	1346	591	850	1950
26	1295	-	1295	633	840	1250	1346	1372	1346	633	920	2300
28	1448	-	1448	684	920	1580	1499	1524	1499	684	1150	2600
30	1524	-	1524	735	980	1950	1594	1619	1594	735	1260	3200

◆ Main Boundary Connection Dimension

NPS(in)	Class 600						Class 900					
	L			d	H	WT (kg)	L			d	H	WT (kg)
	RF	RTJ	BW				RF	RTJ	BW			
2	292	295	292	51	170	26	368	371	368	47	200	48
2 1/2	330	333	330	64	178	40	419	422	419	57	220	75
3	356	359	356	76	246	68	381	384	381	73	280	95
4	432	435	432	102	290	117	457	460	457	98	320	135
5	508	511	508	127	320	155	559	562	559	121	360	200
6	559	562	559	152	360	192	610	613	610	146	400	264
8	660	664	660	200	430	340	737	740	737	190	480	424
10	787	791	787	248	502	515	838	841	838	234	560	730
12	838	841	838	298	554	750	965	968	965	282	632	1070
14	889	892	889	327	595	890	1029	1038	1029	311	680	1180
16	991	994	991	375	680	1303	1130	1140	1130	354	780	1790
18	1092	1095	1092	419	778	1800	1219	1232	1219	400	880	2500
20	1194	1200	1194	464	970	2150	1321	1334	1321	444	1050	3080
24	1397	1407	1397	559	1100	3200	1549	1568	1549	533	1200	4600



◆ Use

Wafer type piston-lift check valve are used in all kinds of pipes under the pressure of PN1.0~16.0MPa and working temperature of -196~425℃, of they are mainly used to prevent the reverse flux of the media.

◆ Characteristics

1. Short length, small volume and light weight;
2. Hard material welded sealing surface, which is wearing resistant, erosion proof, abrasion proof and long-lived;
3. With a small starting pressure, the valve discs can be fully opened under a very small pressure difference;
4. Fast discs closing and small water hammer pressure;
5. Convenient installation and applicability on both level and vertical pipes;
6. Different materials for the parts, sizes and forms of the valves surfaces are available for free combination according to the working facts and the customer's requirements.

◆ Enforce Standards

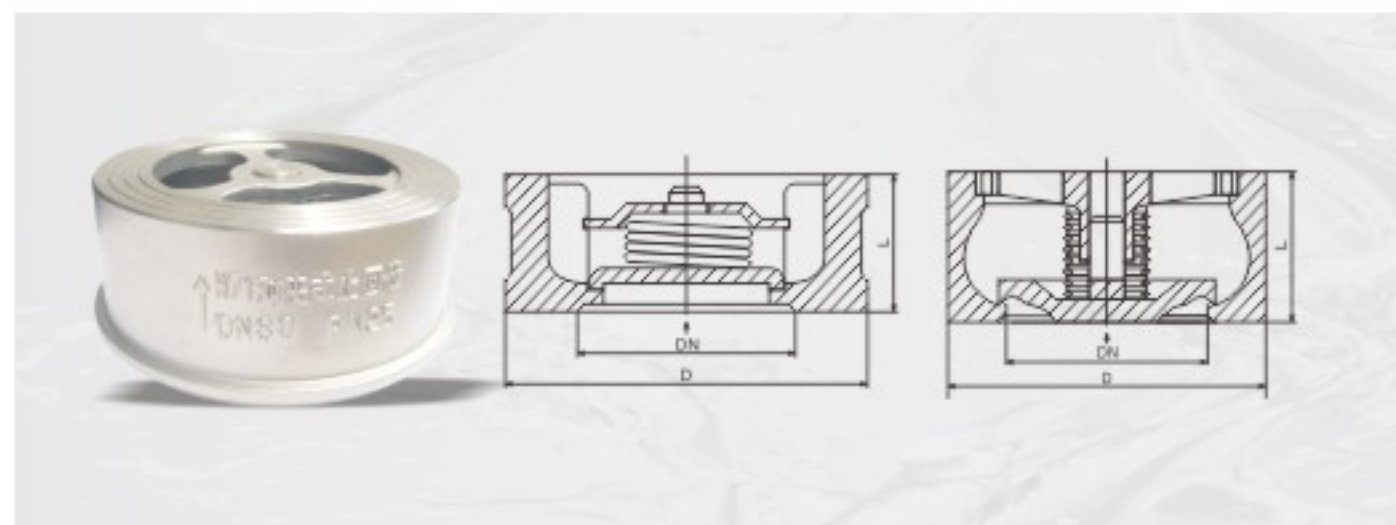
Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	JB/T8937	JB/T8937	JB/T 79.1, GB/T9113 HG/T20592	JB/T 9092 GB/T13927	GB/T 12224

◆ Main Part Materials

Model	Body	Disc	Spring
H71H-16Q/H71H-25Q	QT400-15	25	50CrVA
H71W-25I/H71W-40I	15CrMo	15CrMo	1Cr18Ni9
H71W-25P/H71W-40P	ZG1Cr18Ni9Ti	1Cr18Ni9Ti	1Cr18Ni9Ti

◆ Products Performance Specification

Model	(Mpa) Nominal pressure	(Mpa) Test pressure		Applicable temperature	Applicable medium
		Shell	Seal		
H71H-16Q	1.6	2.4	1.76	≤235℃	Water, steam, oil, etc
H71H-25Q	2.5	3.75	2.75	≤235℃	Water, steam, oil, etc
H71W-25I	2.5	3.75	2.75	≤235℃	Water, steam, oil, etc
H71W-25P	2.5	3.75	2.75	≤235℃	Nitric acid and other corrosive medium
H71W-40I	4.0	6.0	4.4	≤235℃	Water, steam, oil, etc
H71W-40P	4.0	6.0	4.4	≤235℃	Nitric acid and other corrosive medium



◆ Main Boundary Connection Dimension

(PN1.6~4.0MPa)

DN(mm)	L	D			WT (Kg)
		1.6MPa	2.5MPa	4.0MPa	
H71H-16C H71H-25C H71H-40C H71W-16P/R/PL/RL H71W-25P/R/PL/RL H71W-40P/R/PL/RL					
15	25	48	48	48	0.3
20	31.5	58	58	58	0.5
25	35.5	68	68	68	0.8
32	40	80	80	80	1.3
40	45	90	90	90	1.6
50	56	105	105	105	2.3
65	63	125	125	125	3.3
80	71	140	140	140	4.4
100	80	160	165	165	5.6
125	110	190	195	195	9.2
150	125	215	225	225	12.5
200	160	270	285	290	16.5
250	200	330	340	350	20
300	250	385	400	415	27



◆ Use

Wafer type double disc swing check valve are used in all kinds of pipes under the pressure of PN1.6 – 16.0MPa, and working temperature of –196–425°C. They are mainly used to prevent the reverse flux of the media.

◆ Characteristics

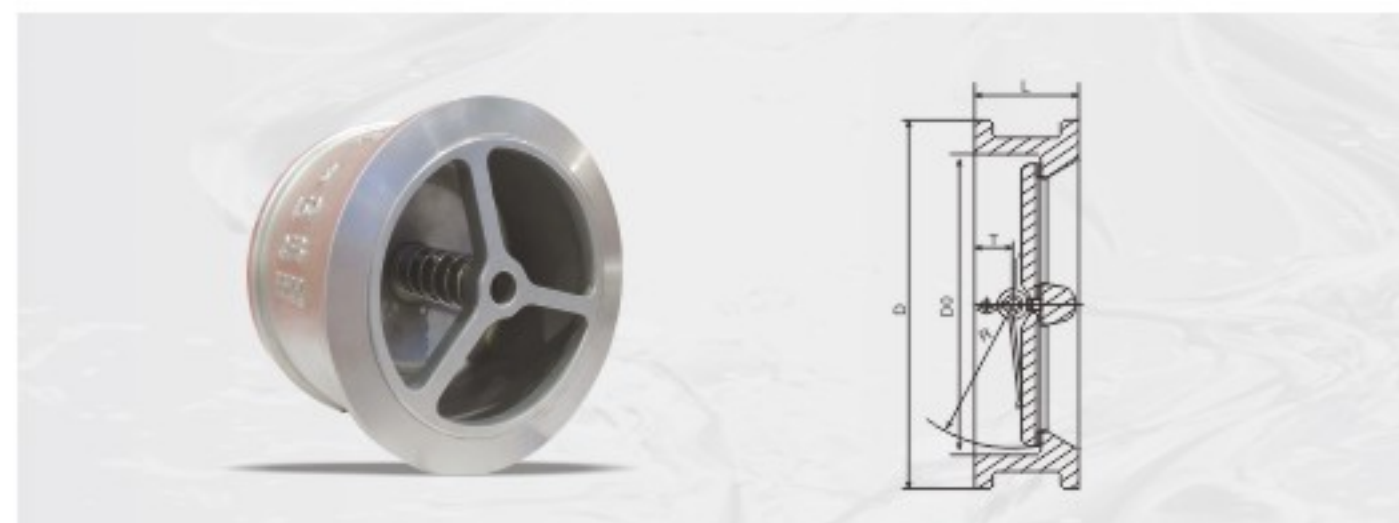
1. Short length, small volume and light weight;
2. Either soft sealing or hard sealing can be applied for the sealing surface according to different working conditions, both of which promise a perfect sealing effect;
3. With a small starting pressure, the valve discs can be fully opened under a very small pressure difference;
4. Fast discs closing and small water hammer pressure;
5. Convenient installation and applicability on both level and vertical pipes;
6. Different materials for the parts, sizes and forms of the valves surfaces are available for free combination according to the working facts and the customer's requirements.

◆ Enforce Standards

Product specification	Design spec	Face-to-face	Flange end	Test & check
	JB/T8937	JB/T8937	GB/T9113 JB/T79.1 HG/T20592	JB/T9092 GB/T13927

◆ Main Part Materials

Body	Disc	Shaft	Spring	Applicable medium
WCB(A105)	WCB(A105)	2Cr13	0Cr18Ni9	Water, steam, oil, nitric acid and other corrosive medium Strong oxidizing medium Acetic acid and other corrosive medium Urea and other corrosive medium
ZG1Cr18Ni9Ti	CF8	1Cr18Ni9Ti	0Cr18Ni9	
CF8(304)	CF8	0Cr18Ni9	0Cr18Ni9	
CF3(304L)	CF3	00Cr19Ni10	00Cr19Ni10	
ZG1Cr18Ni12Mo2Ti	CF8M	1Cr18Ni12Mo2Ti	00Cr17Ni12Mo2	
CF8M(316)	CF8M	0Cr17Ni12Mo2	0Cr17Ni12Mo2	
CF3M(316L)	CF3M	00Cr17Ni14Mo2	00Cr17Ni14Mo2	



◆ Main Boundary Connection Dimension

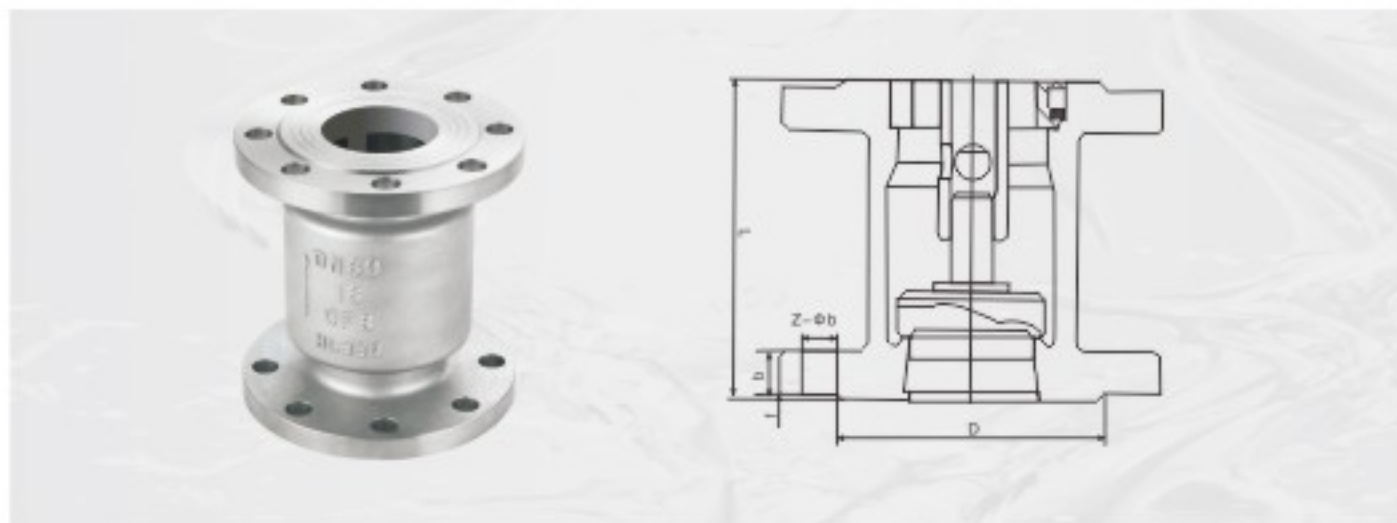
(PN1.0~4.0MPa)

DN(mm)	PN1.0(MPa)		WT(kg)	PN1.6(MPa)		WT(kg)	PN2.5(MPa)		WT(kg)	PN4.0(MPa)		WT(kg)
	L	D		L	D		L	D		L	D	
H76H-10C H76W-10P/R/PL/RL			H76H-16C H76W-16P/R/PL/RL			H76H-25C H76W-25P/R/PL/RL			H76H-40C H76Y-40P/R/PL/RL			
50	60	109	1.8	60	109	1.8	60	109	2	60	109	2.4
65	67	129	2.6	67	129	2.6	67	129	3.2	67	129	3.8
80	73	144	3.6	73	144	4.2	73	144	4.8	73	144	5.6
100	73	164	4.8	73	164	5.2	73	170	6	73	170	7.5
125	83	194	6.3	83	194	6.7	83	198	9	83	198	11
150	98	220	8.7	98	220	9.4	98	228	12	98	228	15
200	127	275	16.5	127	275	18.7	127	288	22	127	293	27
250	146	330	26.2	146	333	29.4	146	343	38	146	355	48
300	181	380	42.3	181	388	48.5	181	403	54	181	420	78
350	184	440	58	184	448	66	184	460	80	222	480	116
400	198	493	76	198	498	90	198	520	118	232	549	152
450	203	543	98	203	558	130	-	-	-	-	-	-
500	219	598	120	219	630	186	-	-	-	-	-	-
600	222	698	235	222	734	298	-	-	-	-	-	-

◆ Main Boundary Connection Dimension

(PN1.0/1.6MPa)

DN(mm)	L	D	D ₀	R	T	WT(kg)
	H76X-10C		H76X-16C			
50	43	107	69	29	19	1.5
65	46	127	84	20	20	2.4
80	64	142	103	26	26	3.6
100	64	162	121	28	28	5.7
125	70	192	135	30	30	7.3
150	76	218	180	31	31	9
200	89	273	250	33	33	17
250	114	328	260	45	45	26
300	114	378	312	48	48	42
350	127	438	365	50	50	55
400	140	489	415	54	54	75
450	152	539	468	58	58	107
500	152	594	526	60	60	111
600	178	695	626	73	73	165



◆ Use

Products are widely used in petroleum, chemical, pharmaceutical, electric power industry under various working conditions such as the pipeline.

◆ Characteristics

The disc along the center position for lifting movement, bushing adopt wear-resisting performance is good, special materials of small friction coefficient, excellent action is flexible and reliable sealing performance.

◆ Enforce Standards

Product specification	Design spec	Face to face	Flange end	Test & check
	GB/T12235	GB/T12221	JB/T79	JB/T9092

◆ Performance Specification

Test pressure	Nominal pressure (MPa)				
	16	25	40		
Shell test	2.4	3.8	6.0		
Sealing test	1.8	2.8	4.4		
Body material	WCB(C)	CF8(P)	CF8M (R)	WC6	WC9
Working temperature	≤425℃	≤100℃	≤100℃	≤550℃	≤550℃
Applicable medium	Water, steam, oil	Nitrate class	Acetic acid	Water, steam	Water, steam

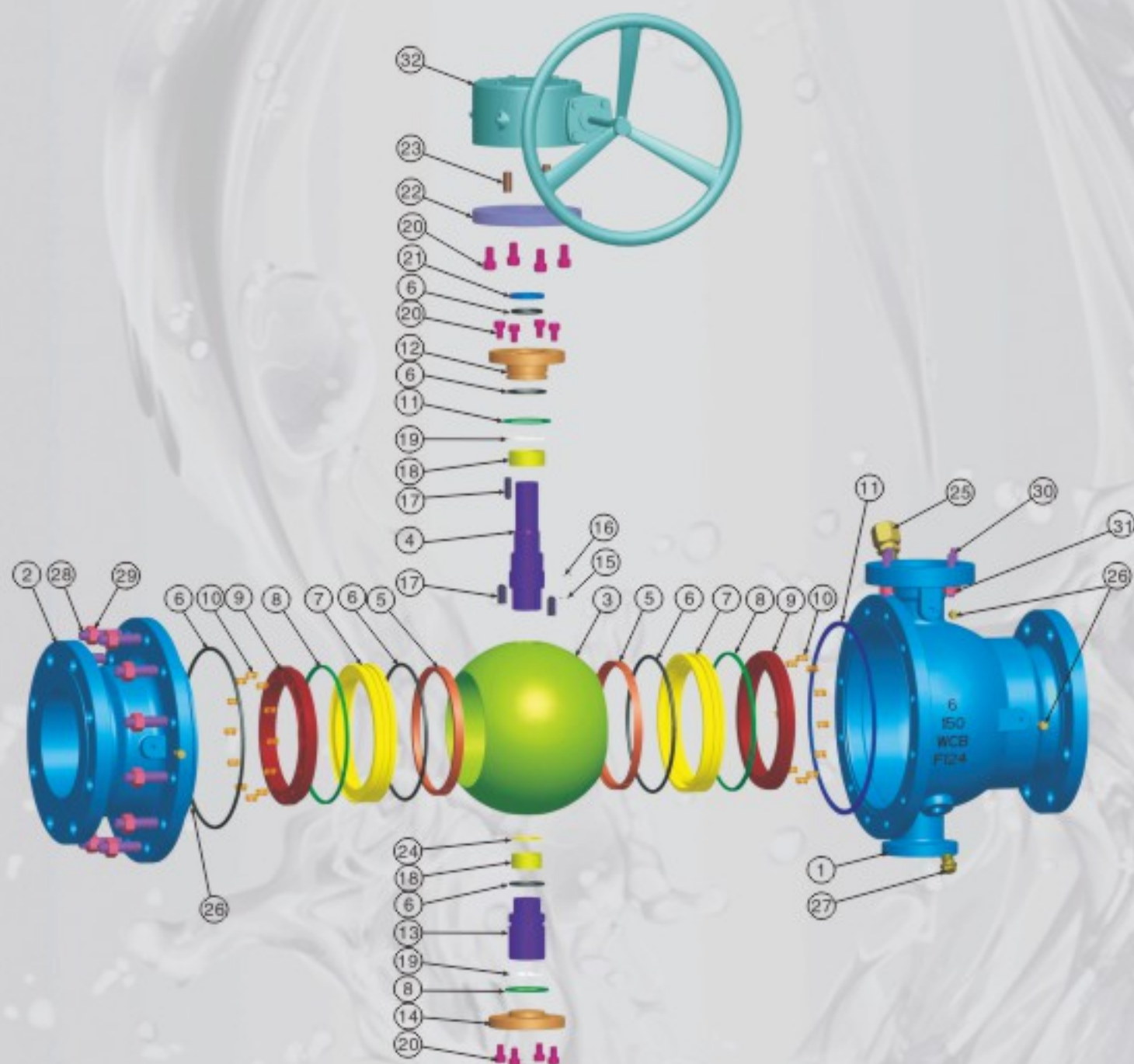
◆ Main Boundary Connection Dimension

(PN1.6~4.0MPa)

H42H-16P/R/PL/RL												
DN(mm)	15	20	25	32	40	50	65	80	100	125	150	200
L	105	105	105	150	160	170	180	200	210	275	300	380
D	95	105	115	135	145	160	180	195	215	245	280	335
WT (kg)	-	-	-	-	-	7.9	11	12	19.5	36	47	65
H42H-25P/R/PL/RL												
DN(mm)	20	25	32	40	50	65	80	100	125	150	200	
L	105	105	150	160	170	180	200	210	275	300	380	
D	105	115	135	145	160	180	195	215	275	300	360	
WT (kg)	-	-	-	-	7.9	11	12	20	38	48	70	
H42H-40P/R/PL/RL												
DN(mm)	50	65	80	100	125	150	200					
L	170	180	200	210	275	300	380					
D	160	180	195	230	270	300	375					
WT (kg)	7.9	11	12	20	38	48	72					

CAST STEEL BALL VALVE SERIES





◆ Products Design Features

Floating ball valve is mainly suitable for natural gas, oil, chemical industry, metallurgy, urban construction, environmental protection, pharmaceutical and food industries, which has series of products applicable to the medium containing hydrogen sulfide, sulfur impurities, severe corrosion of the natural gas long distance pipeline. Series for floating ball valve structure characteristic:

★ **Specific Sealing Structure of Valve Base** Double cant elastic seal ring or V-shaped groove seal ring structural design is adopted to ensure sealing reliability. As for low-pressure, ultralow pressure or vacuum-operated ball valves, a plate spring-loaded sealing structure of valve base is adopted to ensure their longterm sealing reliability. As for moderate or high temperature ball valves, Para-position polyphenylene or mental can be adopted for valve base material.

★ **Automatic pressure relief structure** When the pressure in cloaca cavity increases singularly, the cavity medium can push valve base by its own thrusting force, which results in automatic pressure relief and valve security assurance. **K Reliable Sealing of Valve Rod** The valve rod adopts downward installation structure with back sealing. The sealing force will increase together with the heig-htening of medium pressure, which can ensure the sealing reliability. Moreover, even if the pressure in valve cavity increases singularly, the valve rod will not burst out.

★ **Fire-resistant Structure** According to the operating condition and users requirement, ball valve can be designed with a fire resistant structure up to the fire-resistant standards of API607, API 6FA and JB/T6899. Once the soft seal ring is burnt out on fire, the structure can avoid serious leaking of the medium and prevent the fire from scaling up.

★ **Anti-static Structure** While operating the valve, the friction between the sphere and the base will produce static charges accumulating on the sphere. To avoid static sparkle, the fire-resistant device is designed to derive the accumulated static sparkle, charges from the sphere. **Locking Device** A locking structure is designed on the full-open and full-close spots of manual ball valves to avoid abnormal open-and-close produced by misoperation or unpredictable circuit vibration. On production lines of petroleum and chemicals of flammable mediums, and during the course of outdoor piping, the design is especially advantageous and practical.

★ **Full Bore Structure and Reduced Bore Structure** The two structure series are produced to meet different requirements of users. The passage inside diameter of full diameter ball valves is the same as that of valve pipe, which is convenient for pipe cleaning. The weight of retractive diameter ball valves is relatively lighter, but the fluid resistance is just 1/7 that of stop valves with the same caliber. Therefore, the application prospects of retractive diameter series is much better.

◆ Main Part

No.	Part name	No.	Part Name	No.	Part name	No.	Part name
01	Body	09	Back Seat	17	Key	25	Vent Plug
02	End Cap	10	Spring	18	Bushing	26	Injection Fitting
03	Ball	11	Gasket	19	Thrust Washer	27	Drain Plug
04	Stem	12	Packing Box	20	Socet Cap Screw	28	End Cap Bolt
05	Seat	13	Trunnion	21	Packing	29	End Cap Nut
06	O Ring	14	Bottom Cap	22	Plate	30	Stud
07	Seat	15	Small Ball	23	Pin	31	Nut
08	Safefire gasket	16	Small Spring	24	Thrust Bearing	32	Gear Actuator





◆ Use

Ball valve in the oil, natural gas, coal and ore mining, refining processing and pipeline system; In chemical products, medicine and food production systems; In hydropower, thermal power, and nuclear power production system; In urban and industrial water supply and drainage, heating and gas supply system; In the farmland irrigation and drainage systems; In metallurgical production system should be widely use, it is a kind of related to production and construction, national defense construction and people's life important mechanical products. Ball valve closed in all kinds of pipeline system used to truncate or through flow medium, the medium in accordance with the procedures scheduled delivery to the specified point.

◆ Technical Parameters

Test duration		Test pressure (MPa)	A pilot project (S)	Test temperature (°C)	Test medium
Shell test	150Lb, 1.6MPa	1.5*Pd@38°C	API 598, API 6D, JB/T 9092	≤38°C Normal temperature	Water (Containing corrosion inhibitor) Kerosene or viscosity is not greater than The other is suitable for medium of water
	300Lb, 2.5, 4.0MPa				
	600Lb, 10.0MPa				
	900Lb, 15.0MPa				
	1500Lb, 25.0MPa				
	2500Lb, 42.0MPa				
Low pressure seal test	150Lb, 1.6MPa	0.6	API 598, API 6D, JB/T 9092	≤38°C Normal temperature	Air Or An inert gas
	300Lb, 2.5, 4.0MPa				
	600Lb, 10.0MPa				
	900Lb, 15.0MPa				
	1500Lb, 25.0MPa				
	2500Lb, 42.0MPa				
High pressure seal test	150Lb, 1.6MPa	1.1*Pd@38°C	API 598, API 6D, JB/T 9092	≤38°C Normal temperature	Water (Containing corrosion inhibitor) Kerosene or viscosity is not greater than The other is suitable for medium of water
	300Lb, 2.5, 4.0MPa				
	600Lb, 10.0MPa				
	900Lb, 15.0MPa				
	1500Lb, 25.0MPa				
	2500Lb, 42.0MPa				

◆ Main Part Material

Body	Stem	Ball	Sealing surface	Gasket (ring)	Packing	Working temperature	Applicable medium
WCB	1Cr13	1Cr13	1Cr13 Stellite Body material	Flexible graphite Stainless steel + flexible graphite 08Mild steel F304 F316 Fluorine rubber Nitrile rubber	Flexible graphite Braided graphite O-ring	-29~425°C	Water Steam Oil
WC6	15CrMo	15CrMo				-29~595°C	
WC9	25Cr2MoV	25Cr2MoV				-29~595°C	
LCB	304	304				-46~345°C	
CF8	304	304				-196~600°C	Part Acid, alkali
CF3	304L	304L					
CF8M	316	316					
CF3M	316L	316L					



◆ Floating Ball Valve Torque Parameters

Nominal diameter	pressure level valve torque (N.m)	150LB	300LB	600LB	900LB	1500LB
1/2		6	9	16	20	32
3/4		7	12	20	35	45
1		15	20	42	70	115
1 1/2		40	60	90	140	171
2		50	70	130	200	296
2 1/2		80	90	150	320	440
3		90	120	200	431	590
4		130	230	370	-	-
6		560	930	-	-	-
8		980	2197	-	-	-
10		2000	4500	-	-	-
12		3500	-	-	-	-

◆ Trunnion Ball Valve Torque Parameters

Nominal diameter	pressure level Valve torque (N.m)	Class150 1.6MPa	Class300 2.5MPa 4.0MPa	Class600 10.0MPa	Class900 15.0MPa	Class1500 25MPa
2		49	86	146	207	327
3		60	109	190	270	431
4		151	268	459	649	1032
6		304	540	907	1274	2011
8		1018	1604	2557	3511	5424
10		1083	1829	3044	4258	6694
12		1559	2601	4297	5993	9396
14		2423	4243	7203	10163	16103
16		3016	5348	9141	12934	20546
18		4571	7970	13499	19028	30123
20		6011	10570	17986	25401	40282
22		6933	12141	20610	29079	46074
24		9712	17239	29481	41723	66290
26		11950	20341	33987	47634	-
28		14513	25609	42238	59407	-



◆ Trunnion Ball Valve Torque Parameters

Nominal diameter	pressure level valve torque (N.m)	Class150 1.6MPa	Class300 2.5MPa 4.0MPa	Class600 10.0MPa	Class900 15.0MPa	Class1500 25MPa
30		17986	31628	53814	76000	-
32		21346	37536	63866	90197	-
34		25360	43012	71720	100429	-
36		33174	56336	94005	131674	-
40		42912	72947	121794	-	-
42		50757	86419	144418	-	-
48		66934	113942	190394	-	-

Note: 1. The torque is the maximum pressure difference does not include safety factor, Class150~600 seat seal according to PTFE, Class900~1500 seat seal nylon design, when customers provide actual working pressure difference, can provide torque under actual conditions.

2. Should be considered when choosing drive not less than the safety factor of 1.3 ~ 1.5 times.

3. Additional torque requirements may be required due to medium properties, internal parts and switching frequencies.

◆ Ordering Information

1. The valve specifications (full size, reducing) and the product model;
2. Valve pressure rating (metric system with the nominal pressure PN, said the American Class with said, the Japanese system grade K said);
3. Medium composition (corrosive, do you have any fiber, particulate medium);
4. Temperature range (°C);
5. Installation site (outdoor or indoor);
6. The environment temperature (°C);
7. Using purpose (on-off, emergency cut-off, regulate);
8. Flange end connection size and its sealing surface form standards;
9. The butt end connection size standards;
10. The length of the valve structure standards;
11. Valve drive mode: handle, worm gear - worm drive, pneumatic (domestic and foreign), electric (domestic and foreign), gas-liquid linkage, electro-hydraulic linkage.



◆ Special Shrink Structure

General ball valve has a full size and reducing two kinds of structure forms. Used for conveying adhesion, easy slagging medium pipeline ball valve should be used on the full size, convenient of paraffin purging through on a regular basis. Used for conveying gases or physical properties similar to water medium should be used on the pipeline of red-ucing ball valve, because of its weight is about 30% lighter than the full size of ball valve, is conducive to reducing load pipeline, reduce The cost.

◆ Stem Blow-out Proof Design

Stem with built-in type, shoulder and ptfе (Or enhance graphite) thrust pad structure prevent stem blow out because of the pressure in the pipeline, at the same time reduce the valve opening and closing torque, to ensure the operation Security.

◆ Limit Locking Structure

In order to ensure that the valve fully open and full closed, protect the sealing surface of complete, the spacing device of valve is equipped with ninety degrees. To install in the wild can prevent the non-working personnel mistake operation, as well as on Some of the larger vibration occasions handle hit to produce misoperation, lock when necessary, have insurance effect

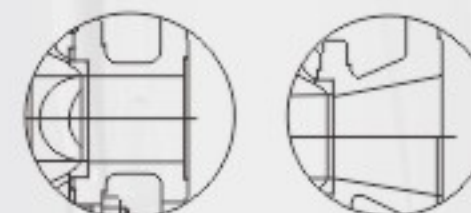
◆ Seal Structure Characteristics

Floating ball valve seat choose ptfе, registration more polystyrene polymer materials, such as good sealing performance, high temperature resis-tant performance is poor. Because the material is relatively soft to achieve certain secret sealing pressure, it is bound to increase the open-close torque, as far as possible in order to improve this situation, using the pressure in the pipeline to help seal, cant use elastic sealing ring structure, reliable sealing, easily in the opening and closing body. Can also according to the need to increase the scour prevention structure, better protection for the seat is not subject to erosion, prolong service life.

There are three kinds of fixed ball valve seat seal form: import seal and seal export, import and export bidirectional sealing. Using medium pressure and the area difference between the D, D1 generating auxiliary sealing force, plus with disc spring pre-tightening force, to achieve reliable seal. Sealing surface material with ptfе, ptfе, para polystyrene, alloy steel, hard alloy, etc., suitable for different working conditions.

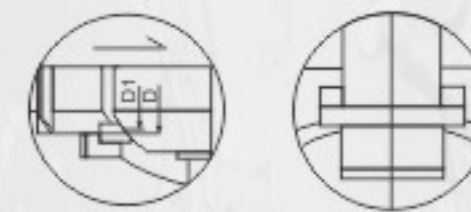


Cant elastic structure

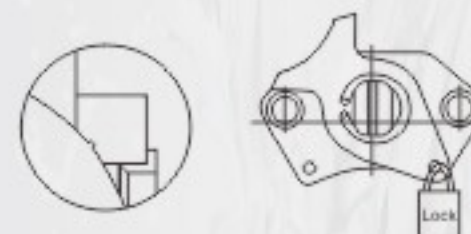


Full size

Shrink neck



Blow-out proof design



Scour prevention structure

Limit locking structure



◆ Execution Standard

Design and manufacture: API 6D, API 608, BS 5351, GB/T 12237

Face to face: ASME B 16.10, GB/T 12221

Connecting flange: JB/T 79.1-79.4, ASME B 16.5, HG/T 20615,

HG/T 20592, JIS B2238, GB/T 9113.1-9113.4

Test & check: API 598, GB/T 13927, GB/T 26480, JB/T9092, ISO 5208

◆ Anti-Static Structure

With soft seal ball valve seal and packing with ptfе, registration such as polystyrene, nylon, rubber, high polymer, in the process of frequent opening and closing easy to generate static electricity, used for partial Yi Ran, explosive medium occasion will hit sparks, dangerous hazard. So some ball valves require has anti-static structure. I plant production of ball valve in the sphere and valve stem, valve stem and valve body between the conductive spring, static electricity in time into the import of underground pipeline, ensure the security of the system.

◆ Refractory Structure

Ball valve is the indispensable key components in the pipeline transportation, in order to prevent the fire occurs, due to the destruction of the sealing surface medium Loss of ball valve can be designed to refractory structure, namely the soft material melt after the formation of a metal to metal hard seal, in the fire Effectively prevent the outflow of medium between causing a greater loss.

◆ Auxiliary Seal Structure

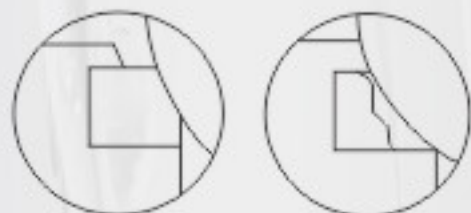
According to the needs of users, the ball valve seat and valve stem seal parts, can add fat injection valve, when sealing parts due to wear and tear or its. He cause leakage, by fat injection valve sealing grease injection, temporary seal effect, so as to take timely measures should be saved.

◆ Other Special Structure

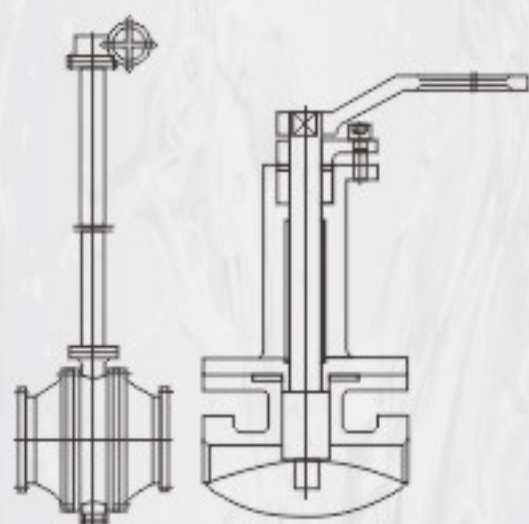
Ball valve can be designed according to need operator extended form, suitable for buried pipelines laid the place of installation. The ball valve is suitable for low temperature condition, using long neck structure design, makes the packing from medium and avoid packing failure. The structure and the operating mechanism of extension has essential difference.



Anti-static structure



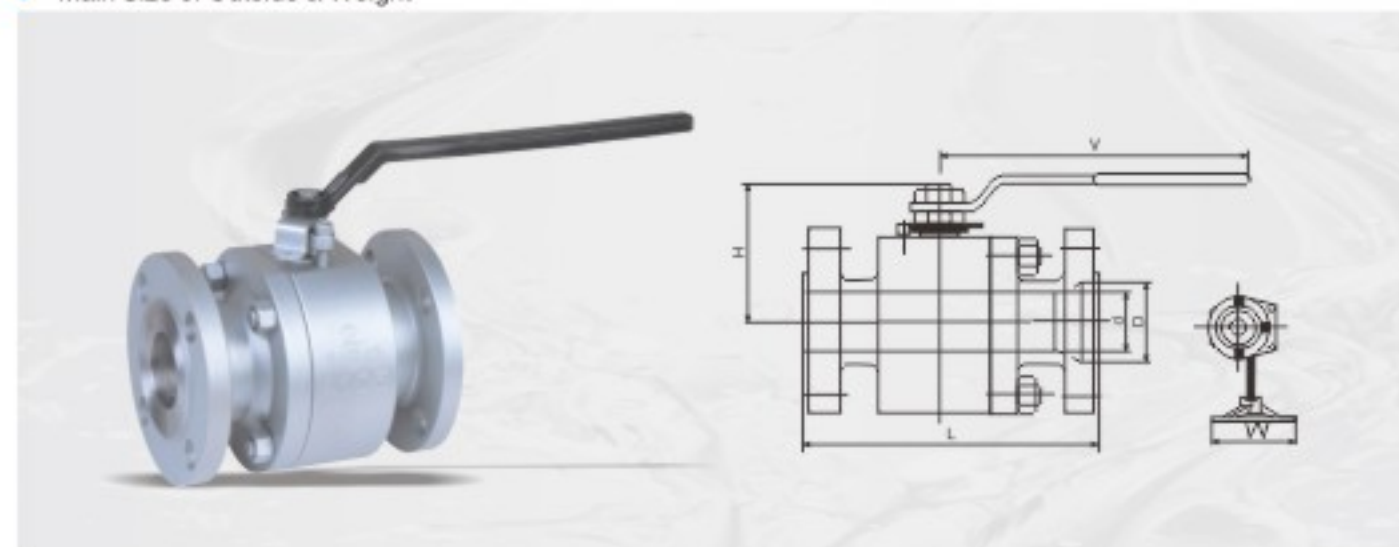
Refractory structure



Lengthen the valve stem



◆ Main Size of Outside & Weight



150Lb Full Size

Caliber DN		D	L		H	V	Weight (kg)
in	mm		RF	BW			
1/2	15	13	108	139.5	56.5	140	2
3/4	20	19	117	152.5	59	140	3
1	25	25	127	165	83.5	215	4
1-1/4	32	32	140	178	105	230	7
1-1/2	40	38	165	191	117.5	265	8
2	50	51	178	216	130.8	430	10
3	80	76	203	283	175.3	1060	16

300Lb Full Size

Caliber DN		D	L		H	V	Weight (kg)
in	mm		RF	BW			
1/2	15	13	140	140	56.5	140	3
3/4	20	19	152	152	59	140	4
1	25	25	165	165	83.5	215	6
1-1/4	32	32	178	178	105	230	8
1-1/2	40	38	191	191	117.5	265	11
2	50	51	216	216	130.8	430	15



◆ Main Size of Outside & Weight

400Lb Full Size

Caliber		D	L		H	V	Weight (kg)
in	mm		RF	BW			
1/2	15	13	165	165	98	150	4
3/4	20	19	191	191	115	180	6
1	25	25	216	216	120.5	265	11
1-1/2	40	38	241	241	159	300	25
2	50	51	292	292	288	450	50

600Lb Full Size

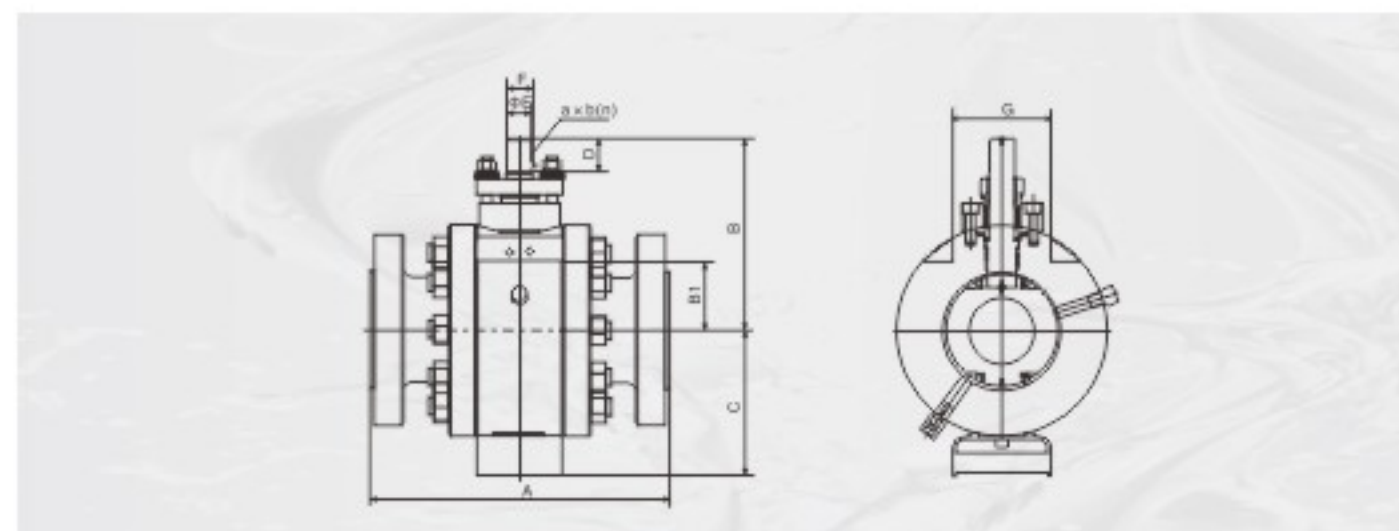
DN Caliber		D	L			H	V	Weight (kg)
in	mm		RF	BW	RTJ			
1/2	15	13	165	165	164	98	150	4
3/4	20	19	191	191	191	115	180	6
1	25	25	216	216	216	120.5	265	11
1-1/4	32	32	229	229	229	130	280	13
1-1/2	40	38	241	241	241	159	300	25

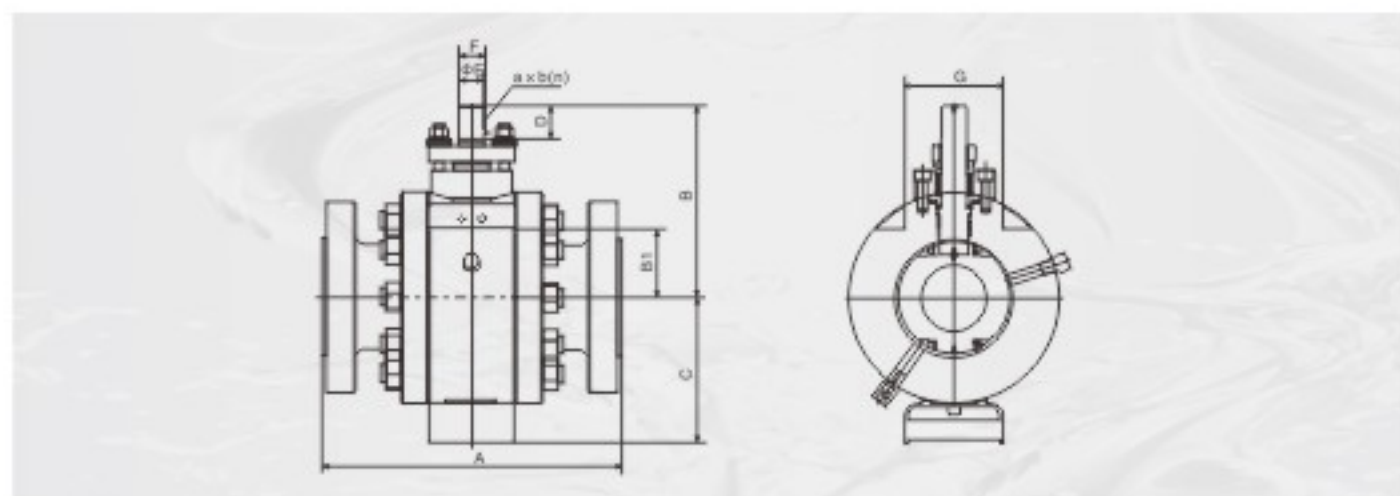
900Lb Full Size

DN Caliber		D	L			H	V	Weight (kg)
in	mm		RF	BW	RTJ			
1/2	15	13	216	216	216	112	180	10
3/4	20	19	229	229	229	120.5	265	13
1	25	25	254	254	254	158.5	300	15
1-1/4	32	32	279	279	279	165	350	25

1500Lb Full Size

DN Caliber		D	L			H	V	Weight (kg)
in	mm		RF	BW	RTJ			
1/2	15	13	216	216	216	112	180	10
3/4	20	19	229	229	229	120.5	265	13
1	25	25	254	254	254	158.5	300	15
1-1/4	32	32	279	279	279	165	350	25

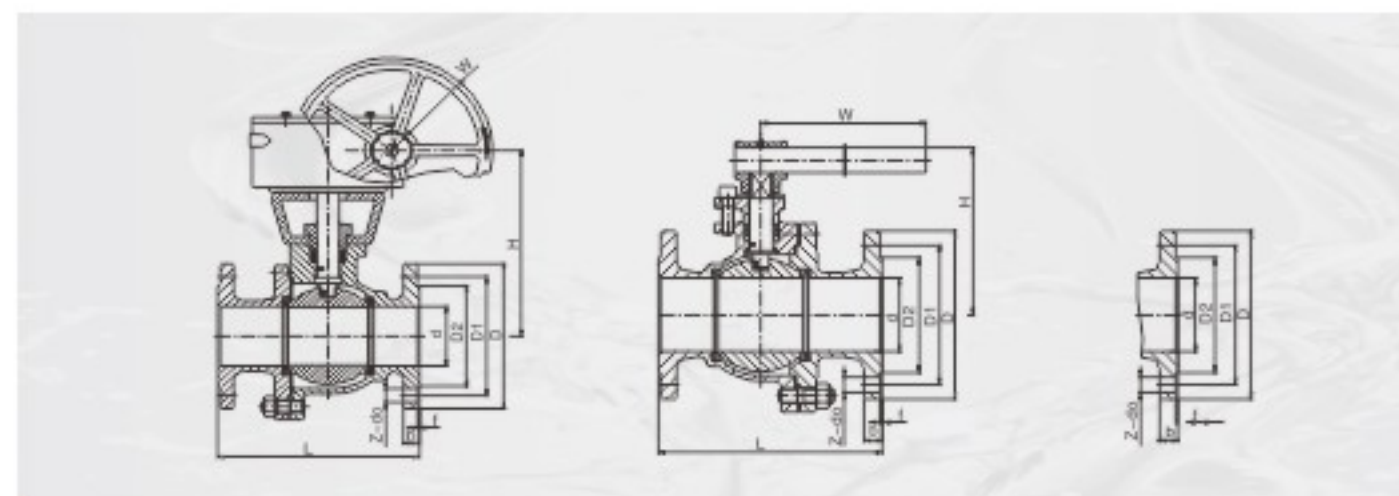




◆ Main Size of Outside & Weight

Unit: mm

Nominal size		900Lb								Weight (kg)
in	DN	A-RJ	B	C	D	ΦE	F	G	a x b(n)	RJ
2"	50	371	175	150	40	32	35	115	10 x 8(1)	76.7
3"	80	384	205	180	40	36	39	130	10 x 8(1)	93.5
4"	100	460	292	195	50	40	43	150	10 x 8(1)	179
6"	150	613	400	210	90	45	48.5	180	14 x 9(2)	463
8"	200	740	495	255	90	55	59	220	16 x 10(2)	655
10"	250	841	530	290	120	65	69.5	255	18 x 11(2)	1258
12"	300	968	630	340	120	85	90	290	25 x 14(2)	1607
14"	350	1038	650	365	150	85	90	315	25 x 14(2)	2301
16"	400	1140	805	400	150	90	95	335	25 x 14(2)	2580
Nominal size		1500Lb								Weight (kg)
in	DN	A-RJ	B	C	D	ΦE	F	G	a x b(n)	RJ
2"	50	371	200	160	90	36	39	130	10 x 8(1)	85
3"	80	473	235	185	90	40	43	150	10 x 8(1)	138
4"	100	549	285	210	100	55	59	220	16 x 10(2)	249
6"	150	711	405	235	100	65	69.5	255	18 x 11(2)	655
8"	200	841	544	405	110	70	75	350	28 x 16(2)	1170
10"	250	1000	605	455	130	85	90	390	25 x 14(2)	1385
12"	300	1146	655	490	130	85	90	420	25 x 14(2)	2650



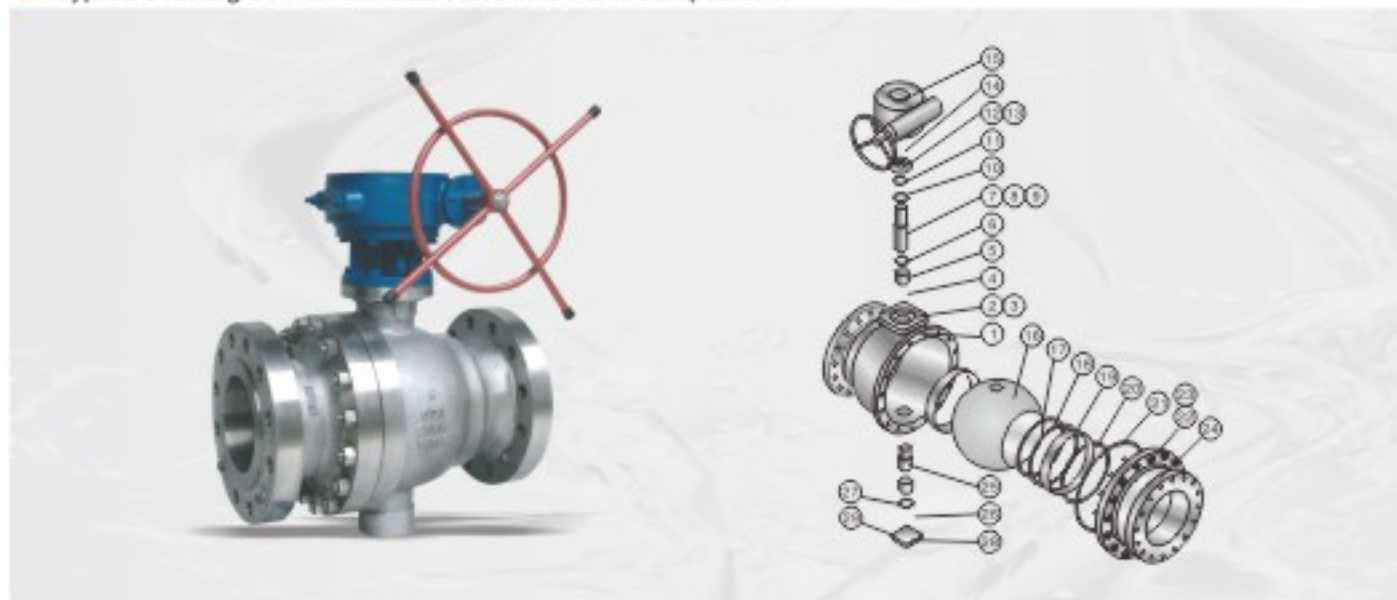
◆ Main Size Of Outside & Weight

Unit: mm

Pressure stage	Size	Dimensions(mm)														WT (kg)	
	NPS	L		d	D	D1	D2	b	f	Z-do	W		H				
		RF	RTJ								Hand wheel	Gear bos	Hand wheel	Gear bos	Hand wheel	Gear bos	
Class150	1/2	108	119	13	89	60.5	35	11.5	1.6	4-15	140	-	85	-	3	-	
	3/4	117	130	19	98	70	43	11.5	1.6	4-15	140	-	90	-	4	-	
	1	127	140	25	108	79.5	51	11.5	1.6	4-15	150	-	99	-	5	-	
	1 1/4	140	153	32	117	89	64	13	1.6	4-15	180	-	105	-	7	-	
	1 1/2	165	178	38	127	98.5	73	14.5	1.6	4-15	200	-	126	-	8	-	
	2	178	191	51	152	120.5	92	16	1.6	4-19	250	-	140	-	12	-	
	2 1/2	190	203	64	178	139.5	105	17.5	1.6	4-19	300	-	165	-	18	-	
	3	203	216	76	190	152.5	127	19.5	1.6	4-19	350	-	178	-	24	-	
	4	229	242	102	229	190.5	157	24	1.6	8-19	500	305	230	380	38	53	
	5	356	369	127	254	216	186	24	1.6	8-22	800	305	280	405	60	79	
Class300	6	394	407	152	279	241.5	216	25.5	1.6	8-22	800	305	310	460	82	102	
	8	457	470	203	343	298.5	270	29	1.6	8-22	1000	305	350	550	145	185	
	10	533	546	254	406	362	324	31	1.6	12-25	-	400	-	706	-	280	
	1/2	140	151	13	95	66.5	35	14.5	1.6	4-15	140	140	85	85	3	-	
	3/4	152	165	19	117	82.5	43	16	1.6	4-19	140	140	90	90	5	-	
	1	165	178	25	124	89	51	17.5	1.6	4-19	150	150	99	99	6	-	
	1 1/4	178	191	32	133	98.5	64	19.5	1.6	4-19	180	180	105	105	8	-	
	1 1/2	190	203	38	156	114.5	73	21	1.6	4-22	200	200	126	126	11	-	
	2	216	232	51	165	127	92	22.5	1.6	8-19	250	250	142	142	16	-	
	2 1/2	241	257	64	190	149	105	25.5	1.6	8-22	300	300	165	165	24	-	
Class600	3	283	299	76	210	168.5	127	29	1.6	8-22	350	350	178	178	34	52	
	4	305	321	102	254	200	157	32	1.6	8-22	500	500	230	230	56	76	
	5	381	397	127	279	235	186	35	1.6	8-22	800	800	280	280	86	124	
	6	403	419	152	318	270	216	37	1.6	12-22	800	800	310	310	125	163	
	8	502	518	203	381	330	270	41.5	1.6	12-25	1000	1000	350	350	222	267	
	1/2	165	164	13	95	66.5	35	14.5	6.4	4-15	140	-	79	-	5	-	
	3/4	190	190	19	118	82.5	43	16	6.4	4-19	140	-	83	-	7	-	
	1	216	216	25	124	89	51	17.5	6.4	4-19	200	-	114	-	9	-	
	1 1/4	229	229	32	133	98.5	64	21	6.4	4-19	200	-	120	-	13	-	
	1 1/2	241	241	38	156	114.5	73	22.5	6.4	4-22	250	-	125	-	17	-	
Class900	2	292	295	51	165	127	92	25.5	6.4	8-19	300	-	156	-	25	-	
	2 1/2	330	333	64	190	149	105	29	6.4	8-22	350	-	172	-	42	-	
	3	356	359	76	210	168	127	32	6.4	8-22	500	305	220	370	56	76	
	4	432	435	102	273	216	157	38.5	6.4	8-25	650	305	250	400	85	123	
	1/2	216	216	13	121	82.5	35	22.5	6.4	4-23	150	-	98	-	9	-	
	3/4	229	229	19	130	88.9	43	25.5	6.4	4-23	150	-	105	-	13	-	
	1	254	254	25	149	101.6	51	29	6.4	4-26	200	-	110	-	16	-	
	1 1/4	279	279	32	159	111.1	64	29	6.4	4-26	250	-	120	-	24	-	
	1 1/2	305	305	38	178	123.5	73	32	6.4	4-29	250	-	125	-	31	-	
	2	368	371	49	216	165.1	92	38.5	6.4	8-26	350	-	160	-	45	-	
Class1500	1/2	216	216	13	121	82.5	35	22.5	6.4	4-23	182	-	98	-	10	-	
	3/4	229	229	19	130	88.9	43	25.5	6.4	4-23	200	-	105	-	14	-	
	1	254	254	25	149	101.6	51	29	6.4	4-26	250	-	110	-	17	-	
	1 1/4	279	279	32	159	111.1	64	29	6.4	4-26	300	-	120	-	25	-	
	1 1/2	305	305	38	178	123.8	73	32	6.4	4-29	350	-	130	-	33	-	
	2	368	371	49	216	165.1	92	38.5	6.4	8-26	500	-	160	-	48	-	



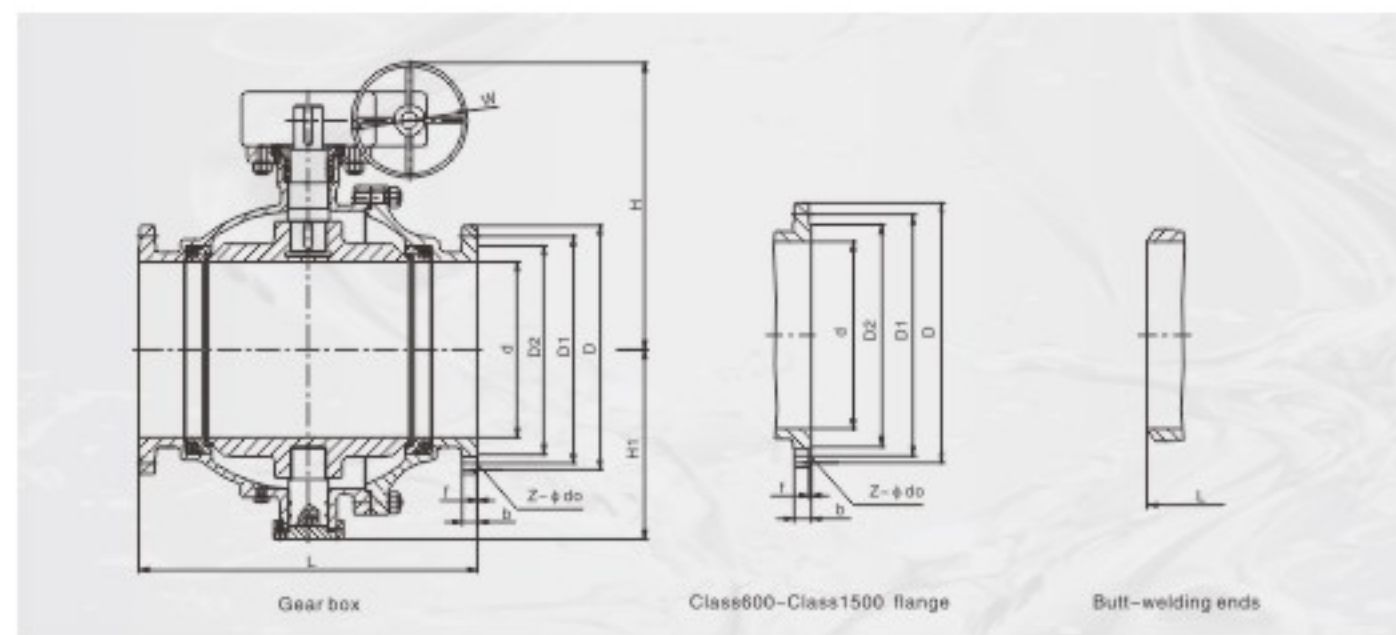
◆ Typical Drawing Of Trunnion Ball Valve And Parts Composition



◆ Parts And Material List

No.	Parts Name	Material				
		WCB/A105+HC(ENP)	WCB/304	WCB/316	CF8	CF8M
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Bolt	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H
3	Nut	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7
4	O ring	Viton	Viton	Viton	Viton	Viton
5	Stem bearing	Metal backed PTFE	Metal backed PTFE	Metal backed PTFE	Metal backed PTFE	Metal backed PTFE
6	Gasket	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
7	Stem	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
8	Key	Carbon steel	Carbon steel	Carbon steel	Stainless steel	Stainless steel
9	Key	Carbon steel	Carbon steel	Carbon steel	Stainless steel	Stainless steel
10	O ring	Viton	Viton	Viton	Viton	Viton
11	Gasket	PTFE	PTFE	PTFE	PTFE	PTFE
12	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A182 F304	ASTM A182 F316
13	Screw	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
14	O ring	Viton	Viton	Viton	Viton	Viton
15	Ball	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
16	Gear	A105+HC(ENP)	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
17	Seat	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE
18	O ring	Viton	Viton	Viton	Viton	Viton
19	Seat	ASTM A105	ASTM A105	ASTM A105	ASTM A182 F304	ASTM A182 F316
20	Spring	SS304 or Inconel 750	SS304 or Inconel 750	SS316 or Inconel 750	SS304 or Inconel 750	SS316 or Inconel 750
21	Bolt	Viton or PTFE or Graphite	Viton or PTFE or Graphite	Viton or PTFE or Graphite	Viton or PTFE or Graphite	Viton or PTFE or Graphite
22	Gasket	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
23	Nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
24	Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
25	Lower trunnion	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
26	O ring	Viton	Viton	Viton	Viton	Viton
27	Gasket	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
28	Lower cover	ASTM A105	ASTM A105	ASTM A105	ASTM A182 F304	ASTM A182 F316
29	Screw	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M

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



◆ Main Size Of Outside & Weight

Unit:mm

Pressure stage	Size	Dimensions(mm)												WT (kg)
	NPS	L		d	D	D1	D2	b	f	Z-Φdo	H	H1	W	
		RF	BW											
Class 150	4	229	305	102	229	190.5	157	24	1.6	8-19	330	135	300	60
	5	356	381	127	254	216	186	24	1.6	8-22	360	165	300	80
	6	394	457	152	279	241.5	216	25.5	1.6	8-22	392	193	300	101
	8	457	521	203	343	298.5	270	29	1.6	8-22	492	240	300	166
	10	533	559	254	406	362	324	31	1.6	12-25	548	293	300	283
	12	610	635	305	483	432	381	32	1.6	12-25	688	340	400	463
	14	686	762	337	533	476	413	35	1.6	12-29	722	372	400	622
	16	762	838	387	597	540	470	37	1.6	16-29	722	415	400	900
	18	864	914	438	635	578	533	40	1.6	19-32	804	462	500	1150
	20	914	991	489	699	635	584	43	1.6	20-32	952	511	600	1360
	24	1067	1143	591	813	749.5	692	48	1.6	20-35	1154	601	750	2514
	26	1143	1245	633	786	744.5	711	40	1.6	36-22	1300	700	750	3200
	28	1245	1346	684	837	795.5	762	43	1.6	40-22	1550	780	750	4000
	30	1295	1397	735	887	846	813	43	1.6	44-22	1650	830	750	4800
	32	1372	1524	779	941	900	864	44	1.6	48-22	1740	870	750	5800
	36	1524	1727	874	1057	1009.5	972	51	1.6	44-26	1950	970	750	8000
Class 300	4	305	305	102	254	200	157	32	1.6	8-22	340	140	300	70
	5	381	381	127	279	235	186	35	1.6	8-22	370	170	300	95
	6	403	457	152	318	270	216	37	1.6	12-22	402	192	300	128
	8	502	521	203	381	330	270	41.5	1.6	12-25	498	246	300	234
	10	568	559	254	445	387.5	324	48	1.6	16-29	655	303	400	403
	12	648	635	305	521	451	381	51	1.6	16-32	658	348	400	602
	14	762	762	337	584	514.5	413	54	1.6	20-32	686	378	400	803
	16	838	838	387	648	571.5	470	58	1.6	20-35	880	429	600	1273
	18	914	914	438	711	628.5	533	61	1.6	24-35	1050	518	750	1450
	20	991	991	489	775	686	584	64	1.6	24-35	1110	540	750	1700
	24	1143	1143	591	914	813	692	70	1.6	24-41	1400	650	750	3100
	26	1245	1245	633	867	803.5	737	87	1.6	32-35.5	1500	750	750	4500
	28	1346	1346	684	921	857	787	87	1.6	36-35.5	1600	800	750	6000
	30	1397	1397	735	991	921	845	92	1.6	36-39	1720	860	750	7500
	32	1524	1524	779	1054	978	902	102	1.6	32-42	1800	900	750	9000
	36	1727	1727	874	1172	1089	1010	102	1.6	32-45	2200	1020	600	12000

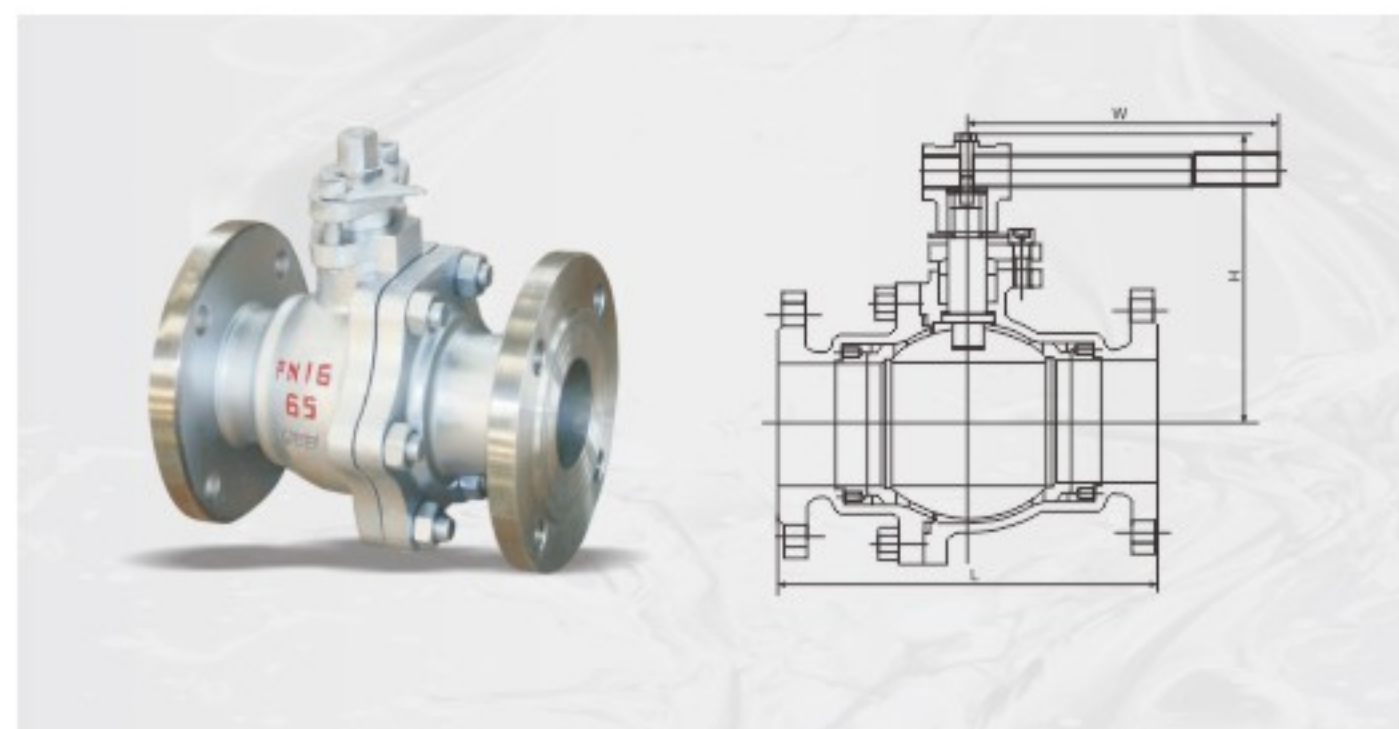


Pressure stage	Size		Dimensions(mm)													Weight (kg)
	DN	NPS	L			d	D	D1	D2	b	f	Z-Φdø	H	H1	W	
			RF	RTJ	BW											
Class 600	50	2	292	295	292	49	165	127	92	26	6.4	8-19	240	94	300	32
	65	2 1/2	330	333	330	62	190	149	105	29	6.4	8-22	290	115	300	47
	80	3	356	359	356	74	210	168	127	32	6.4	8-22	340	136	300	68
	100	4	432	435	432	100	273	216	157	38	6.4	8-25	358	152	300	106
	125	5	508	511	508	127	330	266.5	186	45	6.4	8-29	400	180	300	170
	150	6	559	562	559	150	356	292	216	48	6.4	12-29	445	209	400	241
	200	8	660	664	660	201	419	349	270	56	6.4	12-32	498	263	400	444
	250	10	787	791	787	252	508	432	324	64	6.4	16-35	653	312	400	668
	300	12	838	841	838	303	559	489	381	67	6.4	20-35	665	354	500	1050
	350	14	889	892	889	334	603	527	413	70	6.4	20-38	738	389	600	1317
	400	16	991	994	991	385	686	603	470	77	6.4	20-41	920	440	750	1800
	450	18	1092	1095	1092	436	743	654	533	83	6.4	20-44	1100	530	750	2400
	500	20	1194	1200	1194	487	813	724	584	89	6.4	24-44	1200	560	750	3000
	600	24	1397	1407	1397	538	940	838	692	102	6.4	24-52	1480	670	750	5400
Class 900	50	2	368	371	368	49	216	165.1	92	38.5	6.4	8-26	250	98	300	45
	65	2 1/2	419	422	419	62	244	190.5	105	41.5	6.4	8-29	300	120	300	55
	80	3	381	384	381	74	241	190.5	127	38.5	6.4	8-26	345	140	300	94
	100	4	457	460	457	100	292	234.9	157	44.5	6.4	8-32	415	162	300	141
	125	5	559	562	559	125	349	279.4	186	51	6.4	8-35	446	188	300	230
	150	6	610	613	610	150	381	317.5	216	56	6.4	12-32	477	213	400	325
	200	8	737	740	737	201	470	393.7	270	63.5	6.4	12-39	520	270	400	580
	250	10	838	841	838	252	545	469.9	324	70	6.4	16-39	628	322	400	850
	300	12	965	968	965	305	610	533.4	381	79.5	6.4	20-39	680	360	500	1330
	350	14	1029	1038	1029	322	640	558.8	413	86	6.4	20-42	750	400	600	1660
	400	16	1130	1140	1130	373	705	615.9	470	89	6.4	20-45	940	460	750	2280
	40	1 1/2	305	305	305	38	178	123.8	73	32	6.4	4-29	280	100	300	44
Class 1500	50	2	368	371	368	49	216	165.1	92	38.5	6.4	8-26	320	113	300	67
	65	2 1/2	419	422	419	62	244	190.5	105	41.5	6.4	8-29	340	125	300	80
	80	3	470	473	470	74	267	203.2	127	48	6.4	8-32	385	138	300	130
	100	4	546	549	546	100	311	241.3	157	54	6.4	8-35	415	171	300	192
	125	5	673	676	673	120	375	292.1	186	73.5	6.4	8-42	480	200	400	335
	150	6	705	711	705	144	394	317.5	216	83	6.4	12-39	580	222	400	475
	200	8	832	841	832	192	483	393.7	270	92	6.4	12-45	584	280	400	820
	250	10	991	1000	991	239	585	482.6	324	108	6.4	12-51	650	340	500	1320
	300	12	1130	1146	1130	287	675	571.5	381	124	6.4	16-54	700	370	600	2050
	40	1 1/2	384	387	384	38	203	146	73	44.5	6.4	4-32	290	105	300	72
	50	2	451	454	451	42	235	171.4	92	51	6.4	8-29	320	120	300	104
	65	2 1/2	508	514	508	52	267	196.8	105	57.5	6.4	8-32	350	130	300	140
Class 2500	80	3	578	584	578	62	305	228.6	127	67	6.4	8-35	400	150	300	202
	100	4	673	683	673	87	356	273	157	76.5	6.4	8-42	425	180	400	305
	125	5	794	807	794	100	419	323.8	186	92.5	6.4	8-48	500	210	400	530
	150	6	914	927	914	131	483	368.3	216	108	6.4	8-54	590	230	500	760
	200	8	1022	1038	1022	179	550	438.1	270	127	6.4	12-54	610	290	500	1200
	250	10	1270	1292	1270	223	675	539.7	324	165.5	6.4	12-67	660	350	600	2080
	300	12	1410	1438	1410	279	787	635.0	381	203	6.4	16-67	700	400	750	2800

Notes: 1. RF indicates raised flange, RTJ means ring joint flange, and BW is butt welding ends connection.

2. for NPS ≤ 24 valve, the size of the flange joint ASME B16.5 standard, according to user requirements, Flange size also can press GB/T9112-9124, HG2065-20626, SH3406 Design and manufacture.

3. For valve of NPS ≥ 26, the flange dimensions of above table conforms to B series of ASME B16.47 and API 606. As required by customers, flange dimensions may also conform to A series of ASME B16.47 and MSS-SP-44.



◆ Main Boundary Connection Dimension

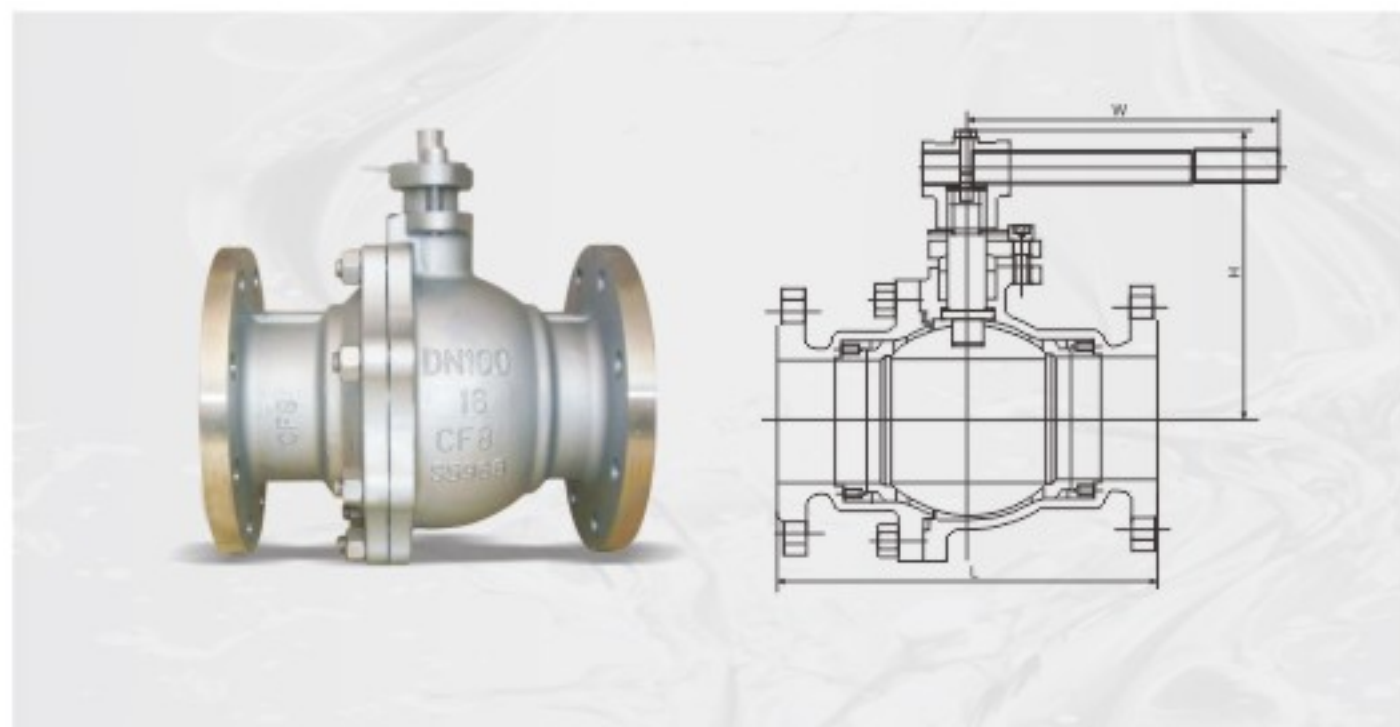
PN1.6 MPa

DN(mm)	15	20	25	32	40	50	65	80	100	125	150	200
L	130	140	150	165	180	200	220	250	280	320	360	400
H	59	63	75	85	95	107	142	152	178	252	272	342
W	130	130	160	180	230	230	400	400	650	1050	1050	1410
WT(kg)	2.5	3	5	6	7	10	15	19	33	58	93	160

◆ Main Boundary Connection Dimension

PN2.5 MPa

DN(mm)	15	20	25	32	40	50	65	80	100	125	150	200
L	130	140	150	165	180	200	220	250	320	400	400	550
H	59	63	75	97	107	142	152	178	252	272	342	345
W	130	130	160	230	230	400	400	700	1100	1100	1500	1500
WT(kg)	3	4	5	10	14	20	25	30	40	65	85	153



◆ Main Boundary Connection Dimension

PN4.0 MPa

DN(mm)	15	20	25	32	40	50	65	80	100	125	150	200
L	130	140	150	180	200	220	250	280	320	400	400	550
H	59	63	75	97	107	142	152	178	252	272	342	345
W	130	130	160	230	230	400	400	700	1100	1100	1500	1500
WT(kg)	3	4	5	10	14	20	25	50	70	80	101	216

◆ Main Boundary Connection Dimension

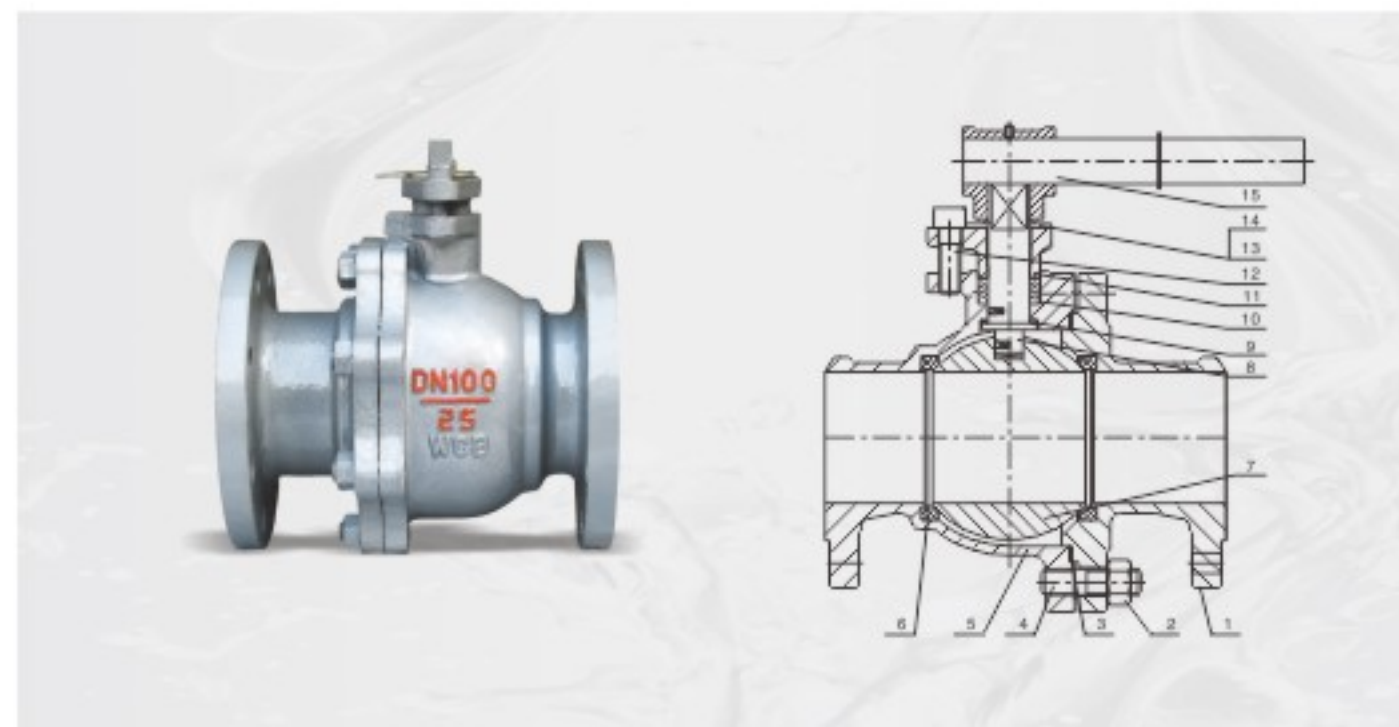
PN6.4 MPa

DN(mm)	15	20	25	32	40	50	65	80	100	125	150	200
L	165	190	216	229	241	292	330	356	432	508	559	660
H	59	63	75	97	107	142	152	178	252	272	305	398
W	130	130	160	230	230	400	400	700	1000	1100	1500	1800
WT(kg)	-	-	-	-	-	34	44	60	87	125	216	346

◆ Main Boundary Connection Dimension

PN10.0 MPa

DN(mm)	15	20	25	32	40	50	65	80	100	125	150	200
L	165	190	216	229	241	292	330	356	432	508	559	660
H	59	63	75	97	107	142	152	178	252	272	305	398
W	130	130	160	230	230	400	400	700	1000	1100	1500	1800
WT(kg)	-	-	-	-	28	41	54	72	105	152	262	428



◆ Standards Adopted

Design reference	Design standard	Structural length	Flanged ends	Butt-welding ends	Test & inspection
GB	GB/T 19672 GB/T 12237	GB/T 12221	GB/T 9113 JB/T 79	GB/T 12224	JB/T 9092

Note: The sizes of valve connecting flange and butt-welding end can be designed according to customer's requirement.

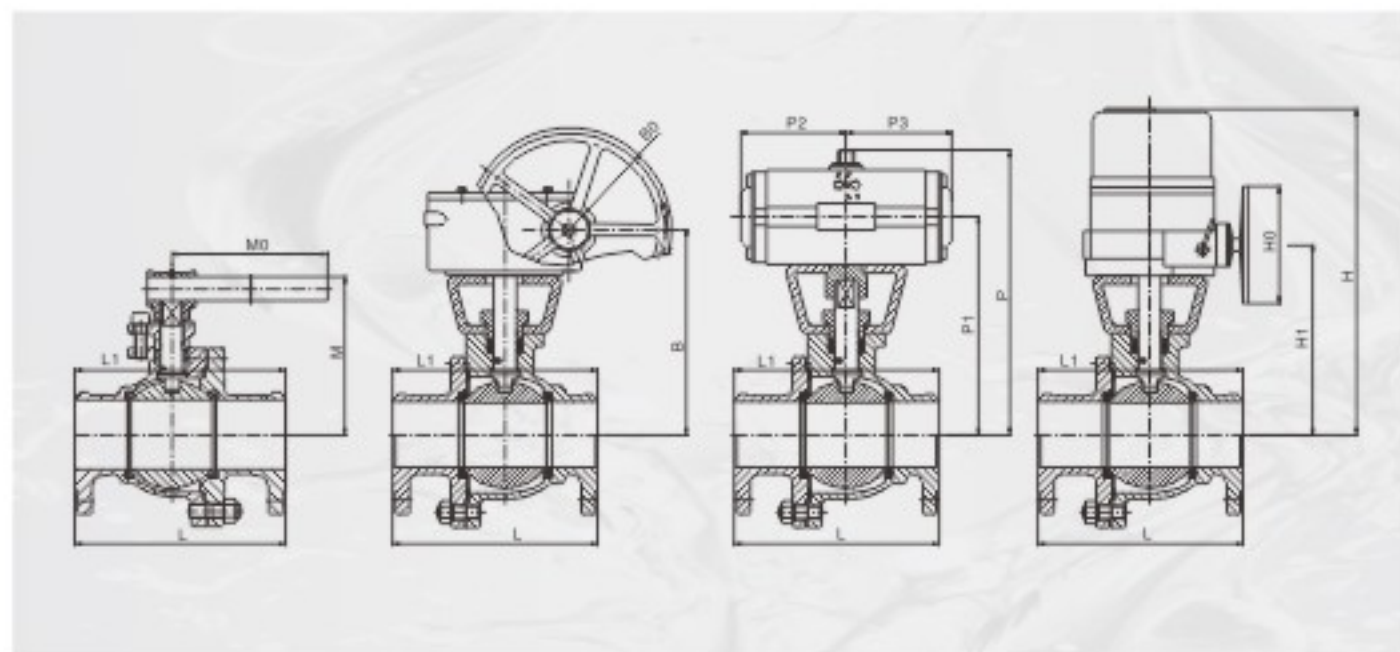
◆ Major Parts Material

No.	Accessory name	Material
		GB
1	Bonnet	WCB
2	Nut	35
3	Gasket	Graphite+stainless steel
4	Stud	35CrMoA
5	Body	WCB
6	Seat	PTFE
7	Ball*	25+HCr
8	Stem**	1Cr13
9	Gasket	PTFE
10	Packing	Graphite
11	Packing gland	WCB
12	Screw nail	35
13	Locating piece	Q235A
14	Ring	65Mn
15	Wrench	KT33

The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9+NiP), ASTM(A182-304+NiP)

The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9),ASTM(A276-321)

Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement



◆ Main Size Of Outside

Model: Q3(6, 7, 8, 9)4(6)1F(Y, N, PPL)

Pressure	Nominal diameter mm	Flange		Butt welding L1	Hand-operated		Worm gear worm			Air-operating and Fluid driving					Electric driving			
		series 1	series 2		M	M0	B	B0	model	P	P1	P2	P3	model	H	H1	H0	model
1.6MPa 2.5MPa	15	130	140	140	59	130	-	-	-	200	122	326	136	AG06	-	-	-	-
	20	140	150	152	63	130	-	-	-	204	126	326	136	AG09	-	-	-	-
	25	150	165	165	75	160	-	-	-	257	162	347	181	AG09	-	-	-	-
	32	165	180	178	95	230	-	-	-	245	169	420	181	AG13	-	-	-	-
	40	180	200	190	95	230	-	-	-	264	169	420	181	AG13	-	-	-	-
	50	200	220	216	107	230	-	-	-	340	209	426	257	AG13	472	377	190	Q60-1
	65	220	250	273	142	400	-	-	-	370	239	426	257	AG13	486	391	190	Q60-1
	80	250	280	310	152	400	-	-	-	389	258	490	257	AG13	579	484	190	Q60-1
	100	280	320	350	178	650	-	-	-	594	337	523	287	AG13	595	500	190	Q60-1
	125	320	360	400	252	1050	-	-	-	646	437	378	378	AW17	650	500	400	Q120-1
	150	360	400	457	272	1050	292	400	A	646	437	378	378	AW17	739	589	400	Q120-1
	200	400	457	521	342	1410	398	600	B	781	537	530	530	AW20	799	649	400	Q120-1

Note: The face to face dimension and connecting flange of a diameter reduced valve are per the non-reducing norms; the sizes of both valve height and actuator are reduced by one norm size.



◆ Main Size Of Outside

Model: Q3(6, 7, 8, 9)4(6)1F(Y, N, PPL)

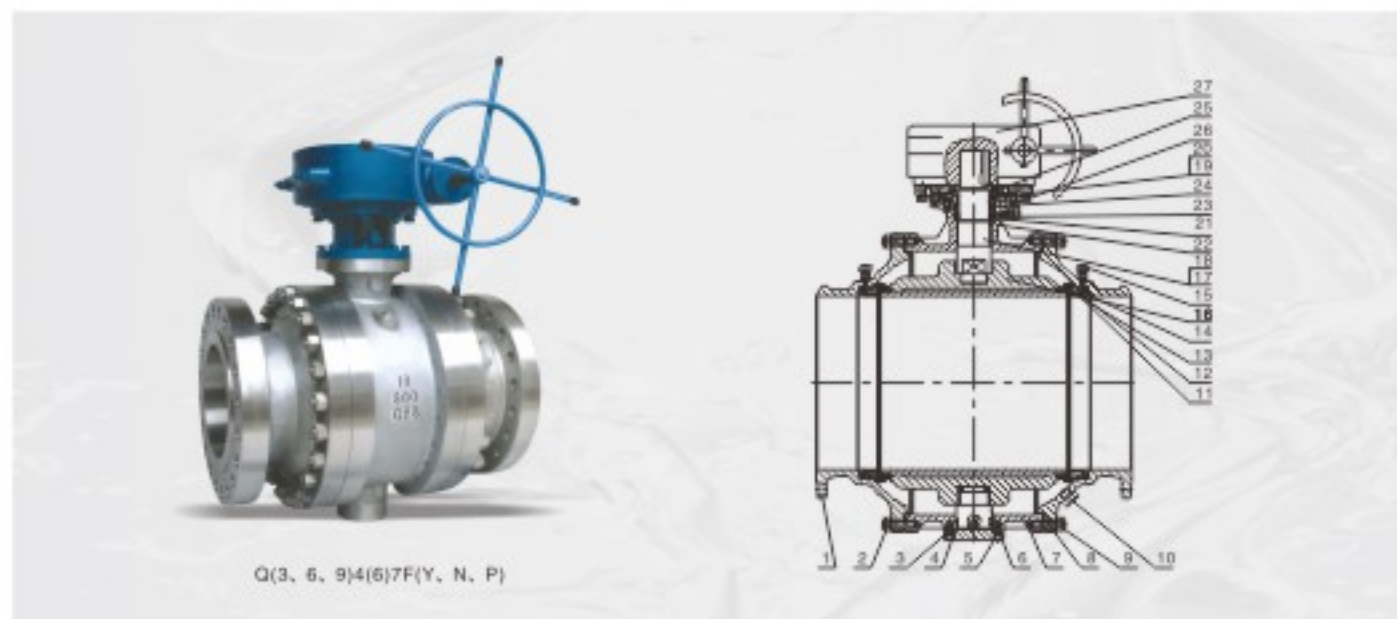
Pressure	Nominal diameter mm	Flange		Butt welding L1	Hand-operated		Worm gear worm			Air-operating and Fluid driving					Electric driving			
		series 1	series 2		M	M0	B	B0	model	P	P1	P2	P3	model	H	H1	H0	model
4.0MPa	15	130	140	140	59	130	-	-	-	200	122	326	136	AG06	-	-	-	-
	20	140	150	152	63	130	-	-	-	204	126	326	136	AG09	-	-	-	-
	25	150	160	165	75	160	-	-	-	257	162	347	181	AG09	-	-	-	-
	32	169	180	178	95	230	-	-	-	245	169	420	181	AG13	-	-	-	-
	40	180	200	190	95	230	-	-	-	264	169	420	181	AG13	-	-	-	-
	50	200	220	216	107	230	-	-	-	340	209	426	257	AG13	472	377	190	Q60-1
	65	220	250	241	142	400	-	-	-	379	248	426	257	AG13	486	391	190	Q60-1
	80	250	280	283	152	400	-	-	-	452	295	490	257	AG13	579	484	190	Q60-1
	100	280	320	305	178	650	-	-	-	594	375	523	287	AG13	595	500	190	Q60-1
	125	320	400	381	252	1050	-	-	-	646	437	378	378	AW17	650	500	400	Q120-1
	150	360	400	457	272	1050	292	400	A	744	500	378	378	AW17	739	589	400	Q120-1
6.4MPa 10.0MPa	200	400	500	521	342	1410	398	600	B	920	615	530	530	AW20	799	649	400	Q120-1
	15	165	140	165	59	160	-	-	-	200	122	326	136	AG06	-	-	-	-
	20	190.5	160	190.5	63	160	-	-	-	204	126	326	136	AG09	-	-	-	-
	25	216	180	216	75	230	-	-	-	257	162	347	181	AG09	-	-	-	-
	32	178	200	178	95	230	-	-	-	245	169	420	181	AG13	-	-	-	-
	40	241	220	241	95	400	-	-	-	264	169	420	181	AG13	-	-	-	-
	50	292	250	292	167	400	-	-	-	340	209	426	257	AG13	472	377	400	Q120-1
	65	330	280	330	180	650	-	-	-	379	248	426	257	AG13	599	449	400	Q120-1
	80	356	320	356	198	650	292	400	A	452	295	490	257	AG13	599	449	400	Q120-1
	100	406 ^① 432	360	406 ^① 432	198	1050	398	600	B	594	375	378	378	AW17	632	472	400	Q120-1
	150	559	500	559	-	-	400	800	C	650	425	378	378	AW17	650	430	400	Q250-1
	200	660	600	660	-	-	430	800	C	680	485	530	530	AW20	710	490	400	Q250-1

Note: The face to face dimension and connecting flange of a diameter reduced valve are per the non-reducing norms; the sizes of both valve height and actuator are reduced by one norm size.

①457 to be the size of PN2.5MPa, 4.0MPa.

Note: The face to face dimension and connecting flange of a diameter reduced valve are per the non-reducing norms; the sizes of both valve height and actuator are reduced by one norm size.

①406 to be the size of PN6.4MPa, Class400Lb; 432 to be the size of PN10.0MPa.



◆ Standards Adopted

Design reference	Design standard	Face to Face	Flanged ends	Butt-welding ends	Test & inspection
GB	GB/T 19672 GB/T 12237	GB/T 12221	GB/T 9113 JB/T 79	GB/T 12224	JB/T 9092

Note: The sizes of valve connecting flange and butt-welding end can be designed according to customer's requirement.

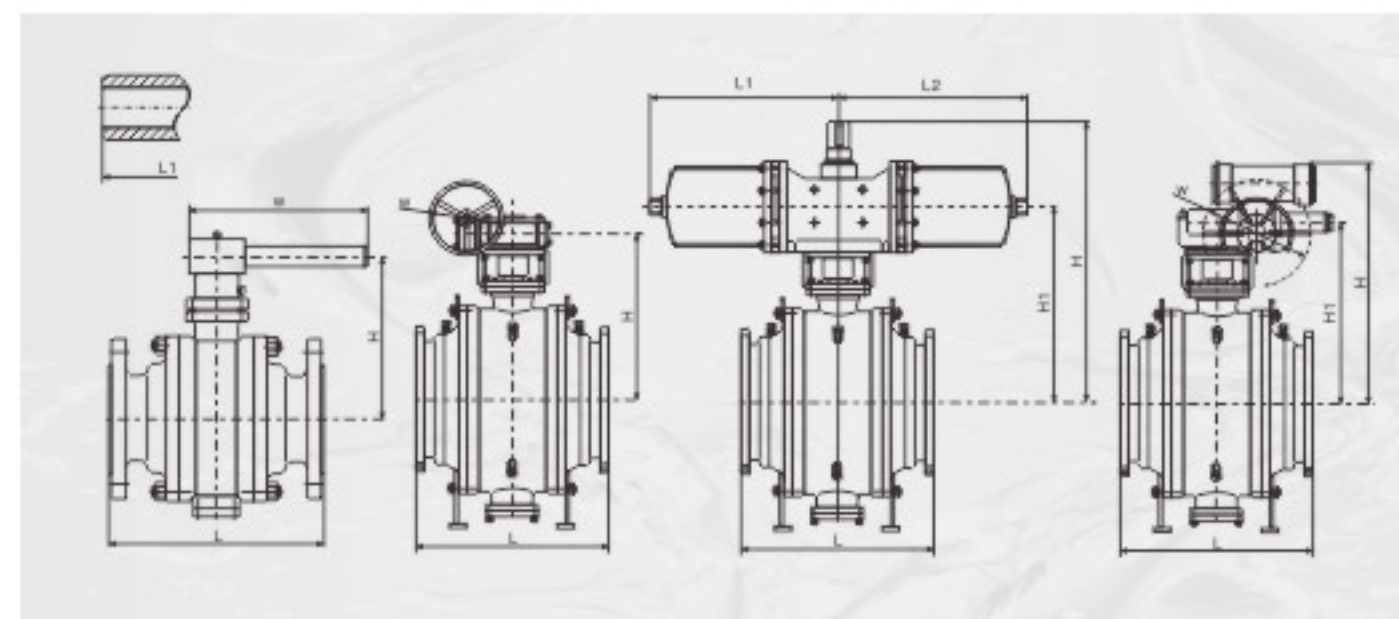
◆ Main Parts Material

No.	Accessory name	Material	No.	Accessory name	Material
		GB			GB
1	End cover	WCB	15	Grease injection valve	Package
2	Nut	45	16	Ball*	WCB+HCr
3	Bottom Cap	WCB	17	Stem**	1Cr13
4	Gasket	PTFE, Graphite+SS	18	Key	45
5	Screw	35CrMo	19	Gasket	PTFE+SS
6	Put the valve stem**	1Cr13	20	"O" Ring	NBR
7	"O" Ring	NBR	21	Packing case	25
8	Gasket	PTFE, Graphite+SS	22	Screw	35CrMo
9	Body	WCB	23	Packing seat	1Cr13
10	Drain plug	25	24	Packing	PTFE, Carbon fibre, Soft graphite
11	Spring	Inconel X-750	25	Packing gland	WCB
12	Seat*	25	26	Bracket	Q235A
13	Sealing ring	PTFE	27	Connection set	45
14	"O" Ring	NBR			

Note: The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9+Ni.P), ASTM(A182-304+Ni.P)

The material of this part about the anti-sulphur type valve is GB(1Cr18Ni9), ASTM(A276-321)

Major parts of the valve series and materials of sealing surface differ according to actual working condition and customer's special requirement.



◆ Main Dimensions & Weight

PN1.6MPa

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
Flange	L	178	191	203	229	356	394	457	533	610	686	762	864	914	1067	1245	1372	1524	1721	1829	2180	2300	2400
Butt Welding	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	1930	1689	2100	2250	2400
Manual	H	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	230	400	400	450	700	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	kg	9.5	15	19	33	58	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worm Gear	H	-	-	-	-	-	-	398	495	580	625	670	698	840	1050	1100	1150	1230	1320	1480	1610	1780	1865
	W	-	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	kg	-	-	-	-	-	-	160	180	240	390	510	750	1190	2600	3000	4490	7800	12560	14280	21900	34100	46200
Pneumatic	H	269	379	389	479	552	666	804	839	972	1127	1459	1529	1559	1145	1160	1460	1540	1630	-	-	-	-
	H1	174	248	258	322	395	457	595	630	728	883	1154	1224	1294	915	930	1100	1180	1280	-	-	-	-
	L1	89	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-
	L2	181	257	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	-	-	-	-
	kg	16.6	38	42.1	53	95.3	105.2	207.8	255	409	518	838	1067	1295	2330	3200	4750	8200	13200	-	-	-	-
Electric	H	-	-	-	-	-	554	600	652	761	771	831	921	943	1123	1218	1328	1696	1925	2105	2245	2395	2470
	H1	-	-	-	-	-	337	382	435	480	520	580	670	770	850	945	1055	1130	1240	1420	1560	1710	1785
	W	-	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600
	kg	-	-	-	-	-	127	210	270	420	535	862	1100	1350	2420	3410	5120	9100	14100	15200	22300	36000	47000



◆ Main Dimensions & Weight

PN2.5, 4.0MPa

DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
Flange	L	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346	1524	1727	2083	2050	2180	2300	2400
Butt Welding	L1	216	241	283	305	381	457	521	559	635	762	838	914	991	1143	1346	1524	1727	2083	1960	2020	2250	2400
Manual	H	107	125	152	178	300	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	230	400	400	600	700	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	kg	20.9	42.5	52.9	92	145	182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worm Gear	H	-	-	-	-	-	-	398	495	580	625	670	698	840	1050	1100	1150	1230	1320	1480	1610	1780	1865
	W	-	-	-	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800
	kg	-	-	-	-	-	-	278	500	733	1029	1418	1592	2195	3460	5770	7932	10093	13775	16105	24060	38155	52350
Pneumatic	H	269	379	452	579	595	595	736	942	994	1188	1280	1480	1554	1380	1430	1749	1540	1630	-	-	-	-
	H1	209	248	295	322	386	386	527	698	750	883	975	1080	1154	930	980	1149	1180	1280	-	-	-	-
	L1	148	148	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	L2	181	257	287	287	378	378	378	530	530	680	680	680	1455	1455	1665	1665	1960	1960	-	-	-	-
	kg	20.9	42.5	52.7	77.9	107	130	220	280	450	570	920	1140	1360	2450	3360	5800	7900	10200	-	-	-	-
Electric	H	-	-	-	-	-	554	600	652	761	771	831	921	943	1123	1218	1328	1696	1925	2105	2245	2395	2470
	H1	-	-	-	-	-	337	382	435	480	520	580	670	770	850	945	1055	1130	1240	1420	1560	1710	1785
	W	-	-	-	-	-	200	200	200	280	280	280	305	305	305	400	400	460	460	600	600	600	600
	kg	-	-	-	-	-	142	240	320	475	590	1050	1200	1470	2520	3720	6250	8300	1121	1620	2510	3940	5560

◆ Main Dimensions & Weight

PN6.4MPa

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
Flange	L	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2300	2057	2400	2400	2700
Butt Welding	L1	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2300	2050	2180	2300	2400
Manual	H	108	155	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	230	400	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	kg	25	45	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worm Gear	H	-	-	-	235	300	374	445	512	550	615	750	810	1050	1100	1180	1274	1366	1540	1680	1840	1915
	W	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000
	kg	-	-	-	66	145	250	540	780	1000	1300	2100	3400	5000	6520	8350	11250	14100	22500	29500	42100	62500
Pneumatic	H	269	-	519	636	728	839	1014	1120	1225	1480	-	1480	1365	1430	-	-	-	-	-	-	-
	H1	209	-	295	322	386	527	698	750	883	1080	-	1080	915	980	-	-	-	-	-	-	-
	L1	148	-	287	287	378	378	530	530	680	680	-	680	1665	1665	-	-	-	-	-	-	-
	L2	257	-	287	287	378	378	530	530	680	680	-	680	1665	1665	-	-	-	-	-	-	-
	kg	33.6	-	5.3	81.2	133.6	236.6	480	760	1050	1400	-	2300	3600	5200	-	-	-	-	-	-	-
Electric	H	-	-	-	-	554	600	652	761	771	831	921	943	1123	1218	1328	1815	1925	2164	2324	2474	2544
	H1	-	-	-	-	337	382	480	520	594	632	670	770	850	945	1055	1130	1240	1440	1660	1750	1820
	W	-	-	-	-	200	200	200	280	280	280	305	305	305	460	460	600	600	600	600	600	600
	kg	-	-	-	-	154	240	495	793	1125	1610	1800	2410	3750	5540	7900	12500	15300	18100	31000	45000	65200



◆ Main Dimensions & Weight

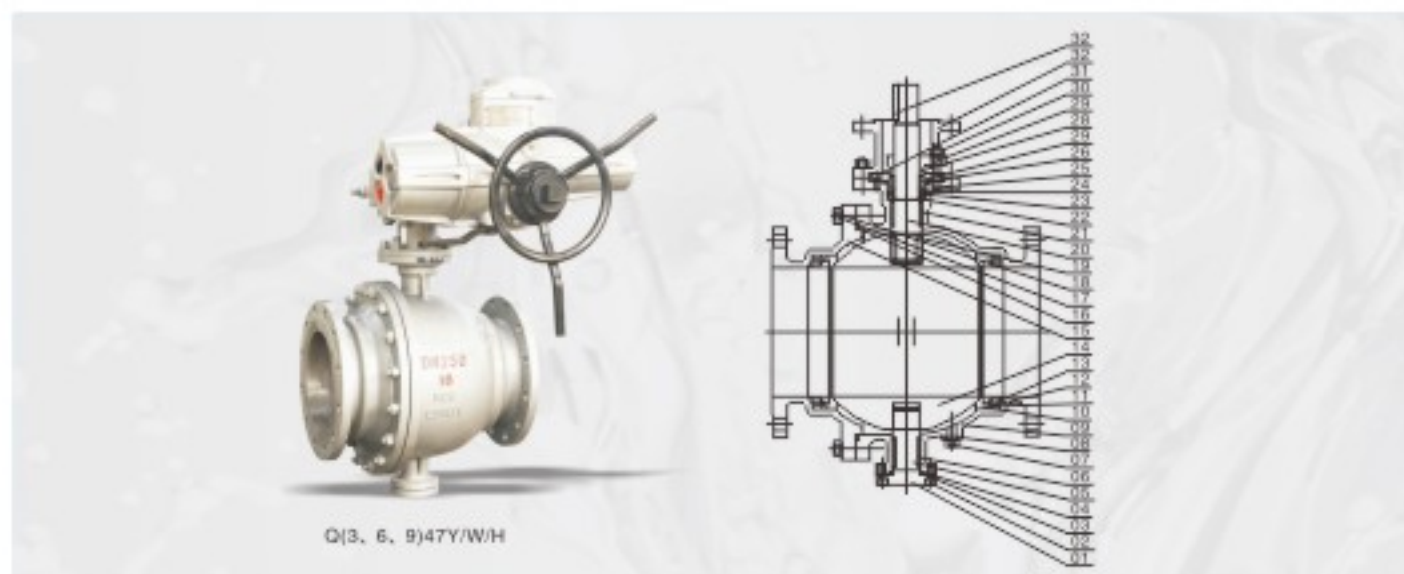
PN10.0MPa

DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1050	1200	1400	1500
NPS	in	2	2½	3	4	6	8	10	12	14	16	18	20	24	28	32	36	40	42	48	56	60
Flange	L	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2100	2400	2400	2700
Butt Welding	L1	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2337	2050	2180	2300	2400
Manual	H	108	155	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	W	400	650	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	kg	31	54	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worm Gear	H	-	-	-	235	300	374	445	512	550	615	750	810	1050	1180	1250	1315	1420	1540	1680	1840	1915
	W	-	-	-	600	600	800	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000	1000
	kg	-	-	-	113	253	485	758	1067	1083	1525	2095	2638	4736	6758	9138	13298	18335	21356	31195	47483	65200
Pneumatic	H	269	-	519	636	728	839	1014	1120	1224	1374	-	1490	1615	1760	-	-	-	-	-	-	-
	H1	209	-	295	479	519	595	770	810	1004	1154	-	1210	1335	1410	-	-	-	-	-	-	-
	L1	148	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-
	L2	257	-	287	287	378	530	530	680	1445	1445	-	1665	1665	1960	-	-	-	-	-	-	-
	kg	225	-	325	656	927	1350	1660	1820	2130	2550	-	3500	5300	6800	-	-	-	-	-	-	-
Electric	H	-	-	-	-	600	652	761	771	831	921	943	1123	1218	1328	1458	1855	1960	2164	2324	2474	2544
	H1	-	-	-	-	382	480	520	594	632	670	770	850	945	1055	1135	1170	1285	1440	1660	1750	1820
	W	-	-	-	-	200	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600	600
	kg	-	-	-	-	930	1410	1620	1910	2200	2600	2950	3620	5410	6920	10000	13420	18450	22300	32000	48000	66200

◆ Main Dimensions & Weight

PN15.0MPa

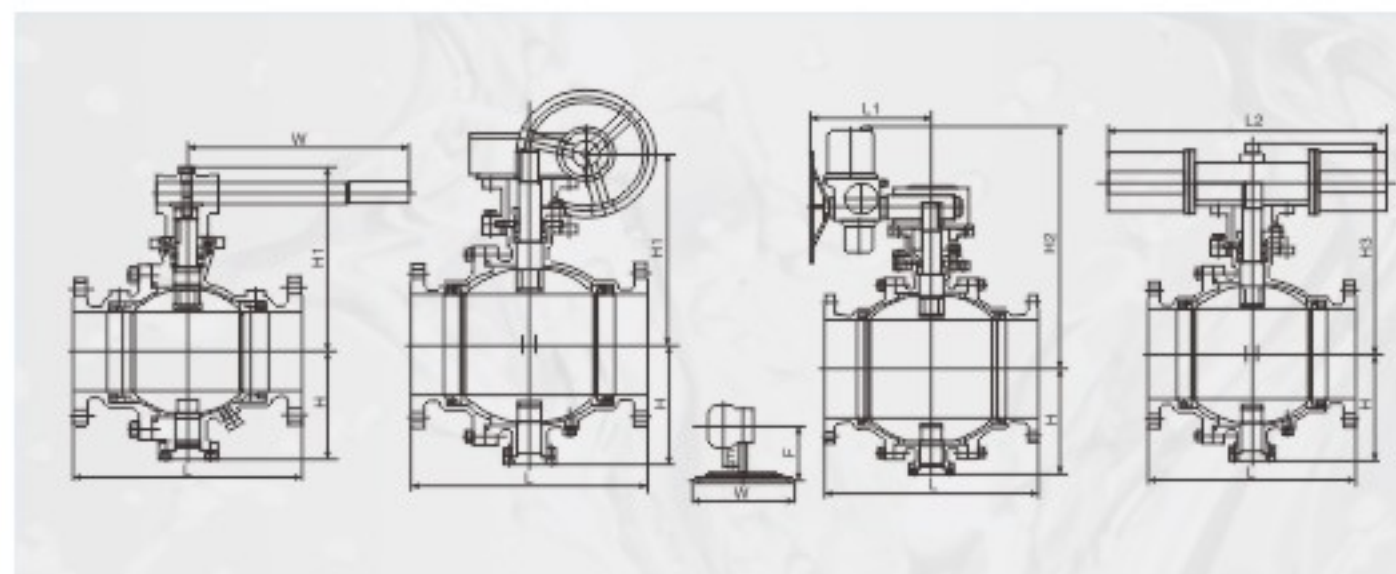
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	800	900	1000	1050	1200
NPS	in	2	2½	3	4	6	8	10	12	14	16	18	20	24	32	36	40	42	48
Flange	L	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1780	2050	2050	2180	2600
Butt Welding	L1	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1700	1780	1960	2100	2376
Manual	H	217	241	259	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	W	650	650	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	kg	48	55	85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worm Gear	H	—	—	—	297	364	394	502	572	675	762	866	894	965	1210	1290	1360	1480	1630
	W	—	—	—	600	800	800	800	800	800	800	800	800	800	800	800	1000	1000	1000
	kg	—	—	—	145	360	580	1010	1510	1450	2150	2820	4200	6800	10180	11820	18900	21500	47500
Pneu-matic	H	519	—	728	842	1014	1120	1124	13747	1490	1615	1760	1760	1760	—	—	—	—	—
	H1	295	—	519	595	770	815	1004	1154	1210	1335	1410	1410	1410	—	—	—	—	—
	L1	287	—	378	530	530	680	1455	1455	1665	1665	1960	1960	1960	—	—	—	—	—
	L2	287	—	378	530	530	680	1455	1455	1685	1685	1960	1960	1960	—	—	—	—	—
	kg	340	—	520	760	1120	1420	1780	2050	2350	3150	3840	4580	6200	—	—	—	—	—
Electric	H	—	—	—	600	761	771	831	921	943	1123	1218	1328	1458	1904	1984	2054	2174	2274
	H1	—	—	—	382	520	594	632	670	770	850	945	1055	1135	1180	1260	1330	1450	1560
	W	—	—	—	200	280	280	280	305	305	305	400	400	600	600	600	600	600	600
	kg	—	—	—	780	1110	1410	1820	2150	2400	3210	3950	4620	6320	10200	11000	17920	22500	47800



Q(3, 6, 9)47Y/W/H

◆ Main Parts Material

No.	Material standard Parts name	Material mark				No.	Material standard Parts name	Material mark			
		Carbon steel		Stainless steel				Carbon steel		Stainless steel	
		GB	API	GB	API			GB	API	GB	API
01	Bottom cover	25	A105	1Cr18Ni9Ti	F304/F316 F304L/F316L	17	Nut	45	A194-2H	0Cr18Ni	A194-8M
02	Bottom cover screw	35CrMoA	A193-B7	1Cr17Ni2	A193-B8M	18	Double end studs	35CrMoA	A193-B7	1Cr17Ni2	A193-B8M
03	Gasket	Metal clip graphite				19	Sphere key	40Cr	40Cr	1Cr17Ni2	1Cr17Ni2
04	Thrust bearing	Metal clip PTFE				20	Upper stem	2Cr13	A276-410	1Cr18Ni9Ti 1Cr18Ni 12Mo2Ti	F304/F316 F304L/F316L
05	Lower stem	2Cr13	A276-410	1Cr18Ni9Ti 1Cr18Ni 12Mo2Ti	F304/F316 F304L/F316L	21	Stem*O*ring	Fluorine rubber	Fluorine rubber	Fluorine rubber	Fluorine rubber
06	Lower stem bearing	Metal clip PTFE				22	Packing O ring	Fluorine rubber	Fluorine rubber	Fluorine rubber	Fluorine rubber
07	Gasket	Metal clip graphite				23	Stem bearing	Metal clip PTFE	Metal clip PTFE	Metal clip PTFE	Metal clip PTFE
08	Drain plug	2Cr13	A276-410	1Cr18Ni9Ti 1Cr18Ni 12Mo2Ti	F304/F316 F304L/F316L	24	Thrust bearing	Graphite	Graphite	Graphite	Graphite
09	Body	WCB	A216-WCB	ZG1Cr18Ni9Ti ZG1Cr18Ni 12Mo2Ti	CF8/CF8M CF3/CF3M	25	Stem stuffing box	25 Chrome plated	A105 Chrome plated	1Cr18Ni9Ti 1Cr18Ni 12Mo2Ti	F304/F316 F304L/F316L
10	Seat	2Cr13 Nitriding	A276-410 Nitriding	1Cr18Ni9Ti 1Cr18Ni 12Mo2Ti	F304/F316 F304L/F316L	26	Stem packing	Graphite			
11	Seat sealing ring	Graphite	Graphite	Graphite	Graphite	27	Packing gland	WCB	A216-WCB	ZG1Cr18Ni9Ti ZG1Cr18Ni 12Mo2Ti	CF8/CF8M CF3/CF3M
12	Seat bearing ring	25 Chrome plated	A105 Chrome plated	1Cr18Ni9Ti 1Cr18Ni 12Mo2Ti	F304/F316 F304L/F316L	28	Nut	45	A194-2H	0Cr18Ni	A194-8M
13	Seat spring	X-750	X-750	X-750	X-750	29	Double end studs	35CrMoA	A193-B7	1Cr17Ni2	A193-B8M
14	Ball	1Cr18Ni9Ti	304	1Cr18Ni9Ti 1Cr18Ni 12Mo2Ti	F304/F316 F304L/F316L	30	Screw	35CrMoA	A193-B7	1Cr17Ni2	A193-B8M
15	Bonnet	WCB	A216-WCB	ZG1Cr18Ni9Ti ZG1Cr18Ni 12Mo2Ti	CF8/CF8M CF3/CF3M	31	Stents	WCB	WCB	WCB	WCB
16	Gasket	Metal clip graphite				32	Key	40Cr	40Cr	1Cr17Ni2	1Cr17Ni2



◆ Main Boundary Connection Dimension

PN1.6 MPa

DN(mm)	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700
d ₁	25	32	40	50	65	80	100	125	150	200	250	300	337	387	438	489	591	686
L	165	180	190	216	241	283	305	356	394	457	533	610	686	762	864	914	1067	1245
H	50	55	80	102	114	127	152	184	219	273	360	395	430	470	550	580	700	800
Manual	H ₁	75	85	95	107	125	152	178	300	330	398	495	580	625	670	698	840	1050
	E	-	-	-	-	-	-	-	-	116	116	171	171	257	257	257	150	83
	F	-	-	-	-	-	-	-	-	350	350	400	420	400	420	400	410	650
	W	160	160	230	230	400	400	650	1050	1050	600	600	800	800	800	800	800	800
	WT(kg)	4.5	5.7	7.0	12	16	22	35	58	74	205	322	460	576	864	1280	1600	4500
Electric	H ₂	-	-	-	-	-	-	-	554	600	652	760	770	830	-	940	940	1115
	L ₁	-	-	-	-	-	-	-	235	235	235	259	400	400	-	410	410	410
Pneumatic	H ₃	215	240	264	274	379	389	479	552	666	736	926	1059	1127	1393	1468	1538	1450
	L ₂	200	270	270	270	405	405	576	576	776	776	1060	1060	1360	1360	1360	1360	2840

◆ Main Boundary Connection Dimension

PN2.5 MPa

DN(mm)	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700
d ₁	25	32	40	50	65	80	100	125	150	200	250	300	337	387	438	489	591	686
L	165	180	190	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346
H	50	55	80	102	114	127	152	184	219	273	360	395	430	470	550	580	700	800
Manual	H ₁	75	85	95	107	125	152	178	300	330	398	495	580	625	670	698	840	1050
	E	-	-	-	-	-	-	-	-	116	116	171	171	257	257	257	150	83
	F	-	-	-	-	-	-	-	-	350	350	420	420	400	400	400	410	650
	W	160	160	230	230	400	400	650	1050	1050	600	600	800	800	800	800	800	800
	WT(kg)	4.5	5.7	7.0	15	24	30	55	87	118	255	370	533	640	1030	1524	2100	5300
Electric	H ₂	-	-	-	-	-	-	-	235	235	400	400	410	410	-	420	690	690
	L ₁	-	-	-	-	-	-	-	74	350	350	420	420	400	-	400	410	650
Pneumatic	H ₃	215	240	264	340	379	452	479	646	666	814	1002	1059	1150	1205	1250	1295	1470
	L ₂	200	270	270	405	405	574	574	756	756	1060	1060	1060	1360	1360	2840	2840	3300



◆ Main Boundary Connection Dimension

PN4.0 MPa

DN(mm)	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700
d ₁	25	32	40	50	65	80	100	125	150	200	250	300	337	387	438	489	591	686
L	165	180	190	216	241	283	305	381	403	502	568	648	762	838	914	991	1143	1346
H	50	55	80	102	114	127	152	184	219	273	360	395	430	470	550	580	700	800
Manual	H ₁	75	85	95	107	125	152	178	300	330	398	495	580	625	670	698	840	1100
	E	-	-	-	-	-	-	-	-	116	116	171	171	257	257	257	150	83
	F	-	-	-	-	-	-	-	-	350	350	420	420	400	400	400	410	650
	W	160	160	230	230	400	400	650	1050	1050	600	600	800	800	800	800	800	800
	WT(kg)	9	13	16	19	24	30	55	87	118	255	370	533	640	1030	1524	2100	5300
Electric	H ₂	-	-	-	-	-	-	-	235	235	400	400	410	410	-	420	690	690
	L ₁	-	-	-	-	-	-	-	74	350	350	420	420	400	-	400	410	650
Pneumatic	H ₃	215	240	264	340	379	452	479	646	666	814	1002	1059	1150	1205	1250	1295	1470
	L ₂	200	270	270	405	405	574	574	756	756	1060	1060	1060	1360	1360	2840	2840	3300

◆ Main Boundary Connection Dimension

PN6.4 MPa

DN(mm)	50	65	80	100	150	200	250	300	350	400	500	600	700
d ₁	50	65	80	100	150	200	250	300	337	387	489	591	686
L	292	330	356	406	495	597	673	762	826	902	1054	1232	1397
H	114	124	133	159	250	294	395	445	500	530	660	800	900
Manual	H ₁	108	155	197	235	300	374	445	512	550	615	810	1180
	E	116	116	116	116	116	171	171	257	257	257	150	83
	F	350	350	350	350	350	420	420	400	400	400	410	650
	W	600	600	600	600	600	800	800	800	800	800	800	800
	WT(kg)	23	35	49	91	192	355	640	880	1100	1540	2800	5700
Electric	H ₂	-	-	-	-	554	574	731	771	867	805	979	1148
	L ₁	-	-	-	-	235	235	400	400	410	410	420	690
Pneumatic	H ₃	340	-	-	479	666	895	1002	1059	1160	1250	1320	1470
	L ₂	405	-	-	576	756	1060	1060	1360	1360	2840	2840	3300

◆ Main Boundary Connection Dimension

PN10.0 MPa

DN(mm)	50	65	80	100	150	200	250	300	350	400	500	600	700
d ₁	50	65	80	100	150	200	250	300	337	387	489	591	686
L	292	330	356	406	559	660	787	838	889	991	1194	1397	1549
H	114	124	133	159	250	294	395	445	500	530	660	800	900
Manual	H ₁	108	155	197	235	300	374	445	512	550	615	810	1180
	E	116	116	116	116	116	171	171	257	257	257	150	83
	F	350	350	350	350	350	420	420	400	400	400	410	650
	W	600	600	600	600	600	800	800	800	800	800	800	800
	WT(kg)	35	38	55	102	232	390	710	960	1700	1970	3250	6700
Electric	H ₂	-	-	-	-	569	658	694	765	825	917	998	1185
	L ₁	-	-	-	-	235	259	400	410	410	420	690	690
Pneumatic	H ₃	340	-	-	479	666	895	1002	1059	1160	1250	1320	1470
	L ₂	405	-	-	576	756	1060	1060	1360	1360	2840	2840	3300

Notice: Large diameter, high pressure ball valve according to the fixed ball valve cast steel manufacturing.



◆ Use

Up-loaded biased half ball valves widely used in water, sewage, containing small solid particles, water vapor, gas, natural gas, oil.

◆ Characteristics

1. Little pressure loss: water loss is zero at full open, completely smooth flow, which will not be deposited on dielectric body;
2. Bears the particles attrition: V shape opens the mouth between the ball crown and the metal seat the action is shear, in the closure process, only then depends on in last the moment ball crown to the seat, does not form the friction, also the seat makes with the wear-resisting nickel alloy, is not easily washed out the attrition, thus is suitable to contains the textile fiber, the small solid particle, the thickliquid and so on;
3. Suitable for high-velocity media: Direct flow, solid eccentric crank make it suitable for high speed without vibration;
4. Long life: no vulnerable parts, there is no friction between the sealing surface when the valve opens and close due to the function of the eccentric, therefore there is long life;
5. Easy maintenance: Valve repair without remove from the pipeline, as long as the cover is opened for maintenance.

◆ Execution Standard

Design and manufacture: API 6D, ASME B16.34

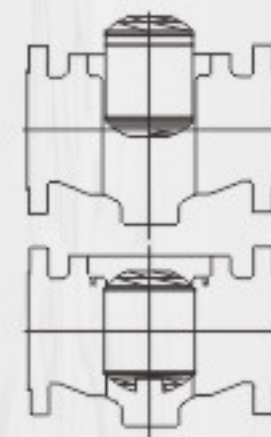
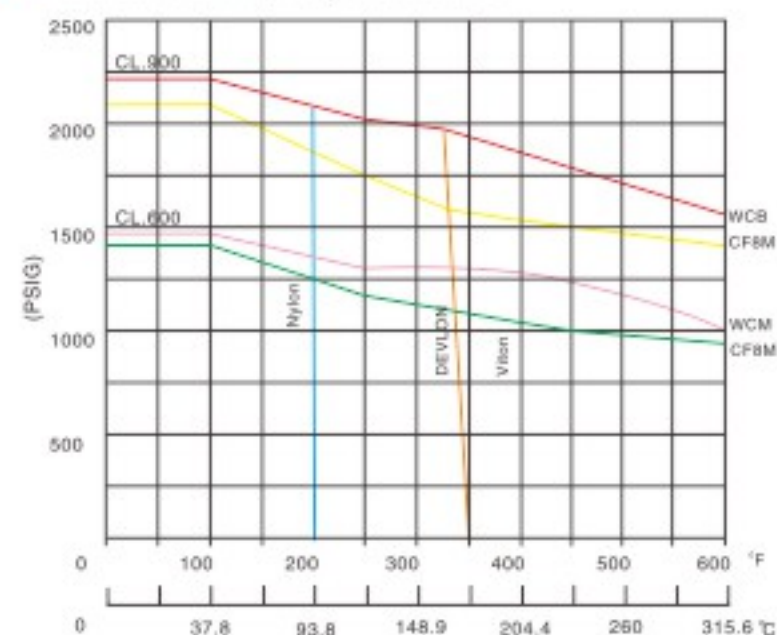
Test & check: API 6D

Connecting flange: ASME B16.5; DIN2543-2550;
JB/T79.1-79.4

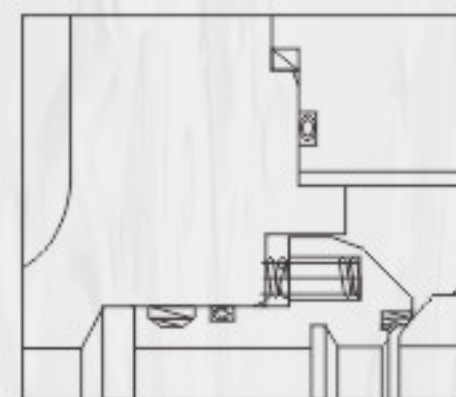
Material: NACE MR0175

Fireproof design: API 607, API6FA

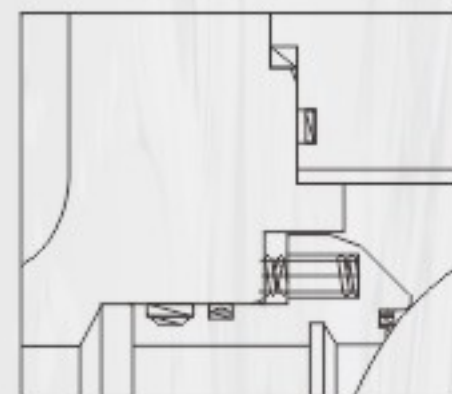
◆ Material Pressure, Temperature Curve



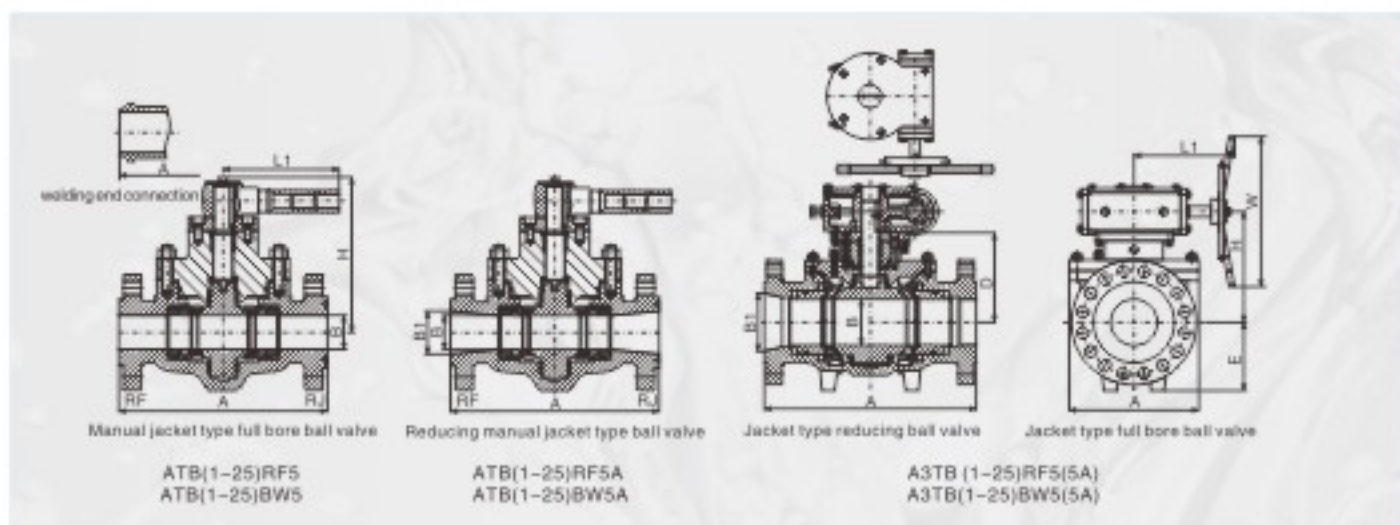
Sphere from installed directly above, convenient disassembly, can be directly in the line maintenance.



* Roller seat, can be prevented coated seat insert washed



When the fire auxiliary seat convex platform fire To the valve cavity when fire emergency greasing



◆ Main Boundary Connection Dimension

(Class 150)

DN(mm)	NPS(in)	A			B	B1	D	E	F	H	L1	W	WT (Kg)
		RF	RTJ	WE									
50×40	2×1 1/2	292	295	292	38	51	/	85	180	212	450	/	25
50	2	292	295	292	51	51	/	85	180	212	450	/	28
80×50	3×2	356	359	356	51	77	/	85	180	212	450	/	37
80	3	356	359	356	77	77	/	112	230	228	600	/	55
100×80	4×3	432	435	432	77	102	/	112	230	228	600	/	75
100	4	432	435	432	102	102	/	145	283	272	600	/	105
150×100	6×4	559	562	559	102	152	/	145	283	272	600	/	140
150	6	559	562	559	152	152	281	220	325	333	297	350	235
200×150	8×6	660	664	660	152	203	281	220	325	333	297	350	265
200	8	660	664	660	203	203	320	260	405	384	360	500	430
250×200	10×8	787	791	787	203	254	320	260	405	384	360	500	480
250	10	787	791	787	254	254	360	311	490	424	360	500	475
300×250	12×10	838	841	838	254	305	360	311	490	424	360	500	510
350×250	14×10	889	892	889	254	337	360	311	490	424	360	500	690
300	12	838	841	838	305	305	403	366	570	467	340	700	610
350×300	14×12	889	892	889	305	337	403	366	570	467	340	700	820

(Class 300)

50×40	2×1 1/2	292	295	292	38	51	/	85	180	212	450	/	29
50	2	292	295	292	51	51	/	85	180	212	450	/	33
80×50	3×2	356	359	356	51	77	/	85	180	212	450	/	43
80	3	356	359	356	77	77	/	112	230	228	600	/	64
100×80	4×3	432	435	432	77	102	/	112	230	228	600	/	88
100	4	432	435	432	102	102	/	145	283	272	1000	/	123
150×100	6×4	559	562	559	102	152	/	145	283	272	1000	/	164
150	6	559	562	559	152	152	281	220	325	345	360	500	275
200×150	8×6	660	664	660	152	203	281	220	325	345	360	500	311
200	8	660	664	660	203	203	330	260	405	385	340	700	505
250×200	10×8	787	791	787	203	254	330	260	405	385	340	700	563
250	10	787	791	787	254	254	371	311	490	426	340	700	557
300×250	12×10	838	841	838	254	305	371	311	490	426	340	700	598
350×250	14×10	889	892	889	254	337	371	311	490	426	340	700	809
300	12	838	841	838	305	305	418	366	570	473	340	700	715
350×300	14×12	889	892	889	305	337	418	366	570	473	340	700	960



◆ Main Boundary Connection Dimension

(Class 600)

DN(mm)	NPS(in)	A			B	B1	D	E	F	H	L1	W	WT (Kg)
		RF	RTJ	WE									
50×40	2×1 1/2	292	295	292	38	51	/	85	180	212	450	/	33
50	2	292	295	292	51	51	/	85	180	212	600	/	37
80×50	3×2	356	359	356	51	77	/	85	180	212	600	/	48
80	3	356	359	356	77	77	/	112	230	228	1000	/	72
100×80	4×3	432	435	432	77	102	/	112	230	228	1000	/	97
100	4	432	435	432	102	102	/	145	283	250	1000	/	137
150×100	6×4	559	562	559	102	152	/	145	283	250	1000	/	181
150	6	559	562	559	152	152	281	220	325	336	340	700	302
200×150	8×6	660	664	660	152	203	281	220	325	336	340	700	340
200	8	660	664	660	203	203	340	260	415	395	340	700	560

(Class 900)

50×40	2×1 1/2	368	371	368	38	51	/	85	195	215	450	/	49
50	2	368	371	368	51	51	/	85	195	215	600	/	52
80×50	3×2	381	384	381	51	77	/	85	195	215	600	/	70
80	3	381	384	381	77	77	/	112	240	193	1000	/	108
100×80	4×3	457	460	457	77	102	/	112	240	193	1000	/	146
100	4	457	460	457	102	102	227	145	295	291	360	500	200
150×100	6×4	610	613	610	102	152	227	145	295	291	360	500	273
150	6	610	613	610	152	152	258	225	330	313	340	700	456
200×150	8×6	737	740	737	152	203	258	225	330	313	340	700	573
200	8	737	740	737	203	203	318	260	425	378	545	700	845

(Class 1500)

50×40	2×1 1/2	368	371	368	38	51	/	85	205	179	450	/	49
50	2	368	371	368	51	51	/	85	205	179	600	/	52
80×50	3×2	470	473	470	51	77	/	85	205	179	600	/	98
80	3	470	473	470	77	77	/	120	250	201	1000	/	152
100×80	4×3	546	549	546	77	102	/	120	250	201	1000	/	205
100	4	546	549	546	102	102	240	155	310	295	340	700	280
150×100	6×4	705	711	705	102	146	240	155	310	295	340	700	382
150	6	705	711	705	146	146	273	240	370	333	545	700	640
200×150	8×6	832	841	832	146	194	273	240	370	333	545	700	720
200	8	832	841	832	194	194	335	280	455	410	575	700	1180

(Class 2500)

50×40	2×1 1/2	451	454	451	38	44.5	/	93	250	150	600	/	80
50	2	451	454	451	44.5	44.5	198	105	270	250	297	300	120
80×50	3×2	578	584	578	44.5	63.5	198	105	270	250	297	300	160
80	3	578	584	578	63.5	63.5	250	127	350	305	340	700	246
100×80	4×3	673	683	673	63.5	89	250	127	350	305	340	700	300
100	4	673	683	673	89	89	305	156	400	360	340	700	470
150×100	6×4	914	927	914	89	133	305	156	400	360	340	700	670
150	6	914	927	914	133	133	355	240	480	430	575	700	937
200×150	8×6	1022	1038	1022	133	181	355	240	480	430	575	700	1150
200	8	1022	1038	1022	181	181	438	280	530	513	575	700	1410



GPB(3, 6, 9)41F(Y, N, P)

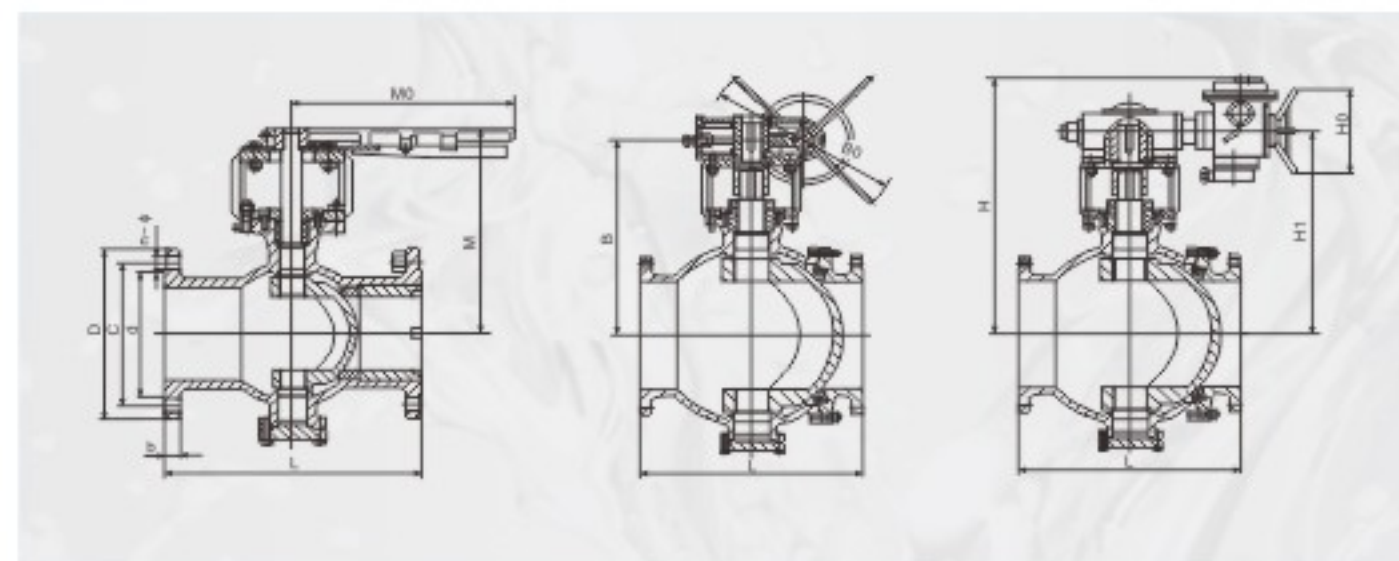
◆ Execution Standard

Design and manufacture	Face to face	Flange connecting	Test & check	Drive mode
GB/T12237	GB/T12221	GB/T9115.8-11	GB/T13927	Manual, electric, worm gear and worm drive

Notice: Series connection flange size can be designed and manufactured according to user requirements.

◆ Main Parts Material

No.	Part name	Material	No.	Part name	Material
1	Body	A216-WCB	12	Half a sphere	A216-WCB+HCr
2	Gasket	Flexible graphite + stainless steel	13	Upper stem	A276-410
3	Bottom cover	A105	14	Gasket	PTFE
4	Bushing	Stainless steel	15	Bonnet	A105
5	Lower Stem	A276-410	16	Packing cushion	A276-410
6	Left body	A216-WCB	17	Packing	Flexible graphite
7	Stud	A193-B7	18	Packing gland set	A105
8	Gasket	Preloaded bolt	19	Connected set	AISI 1045
9	Sealing ring	PTFE	20	Stents	A216-WCB
10	Compression ring	ASTM A105	21	Driving mechanism	-
11	Screw	A193-B7	-	-	-



◆ Main Boundary Connection Dimension

(PN1.0MPa)

DN (mm)	L	D	C	d	b	n-φ	Manual			Worm gear and worm drive				Electric				
							M	M0	WT (kg)	B	B0	Drive	WT (kg)	H	H1	H0	Drive	WT (kg)
50	178	165	125	99	20	4-φ18	160	250	17	-	-	-	-	-	-	-	-	-
65	190	185	145	118	20	4-φ18	195	250	18	-	-	-	-	-	-	-	-	-
80	203	200	160	132	20	8-φ18	215	300	22	255	200	O type	30	454	359	190	Q60-1	100
100	229	220	180	156	22	8-φ18	250	300	30	290	300	A type	40	493	398	190	Q60-1	135
125	254	250	210	184	22	8-φ18	290	350	45	330	300	A type	65	574	424	400	Q120-1	192
150	267	285	240	211	24	8-φ22	295	400	53	350	300	A type	74	646	496	400	Q120-1	200
200	292	340	295	266	24	8-φ22	-	-	-	390	400	B type	100	678	528	400	Q120-1	225
250	394	395	350	319	26	12-φ22	-	-	-	515	400	B type	195	652	435	200	SMC-04/H0BC	360
300	419	445	400	370	26	12-φ22	-	-	-	545	600	C type	250	761	480	280	SMC-04/H0BC	415
350	550	505	460	429	26	16-φ22	-	-	-	590	600	C type	369	771	520	280	SMC-04/H0BC	435
400	600	565	515	480	26	16-φ26	-	-	-	625	600	C type	450	831	580	280	SMC-03/H2BC	542
450	650	615	565	530	28	20-φ26	-	-	-	660	600	D type	600	921	670	305	SMC-00/H3BC	672
500	700	670	620	582	28	20-φ26	-	-	-	695	800	D type	730	943	770	305	SMC-00/H3BC	892
600	800	780	725	682	30	20-φ30	-	-	-	732	800	D type	850	1123	850	305	SMC-0/H4BC	995



◆ Structural Characteristics

The series of the track ball valve is a new type of line pipe valve which is developed and designed by foreign advanced technology. It can be applied to natural gas, petroleum product, chemical industry, metallurgy etc for adjusting, opening and closing the line pipe fluid. The series of the anti-sulfur products can be applied to the medium which has much impurity and to the long distance pipeline of the natural gas which is seriously corroded.

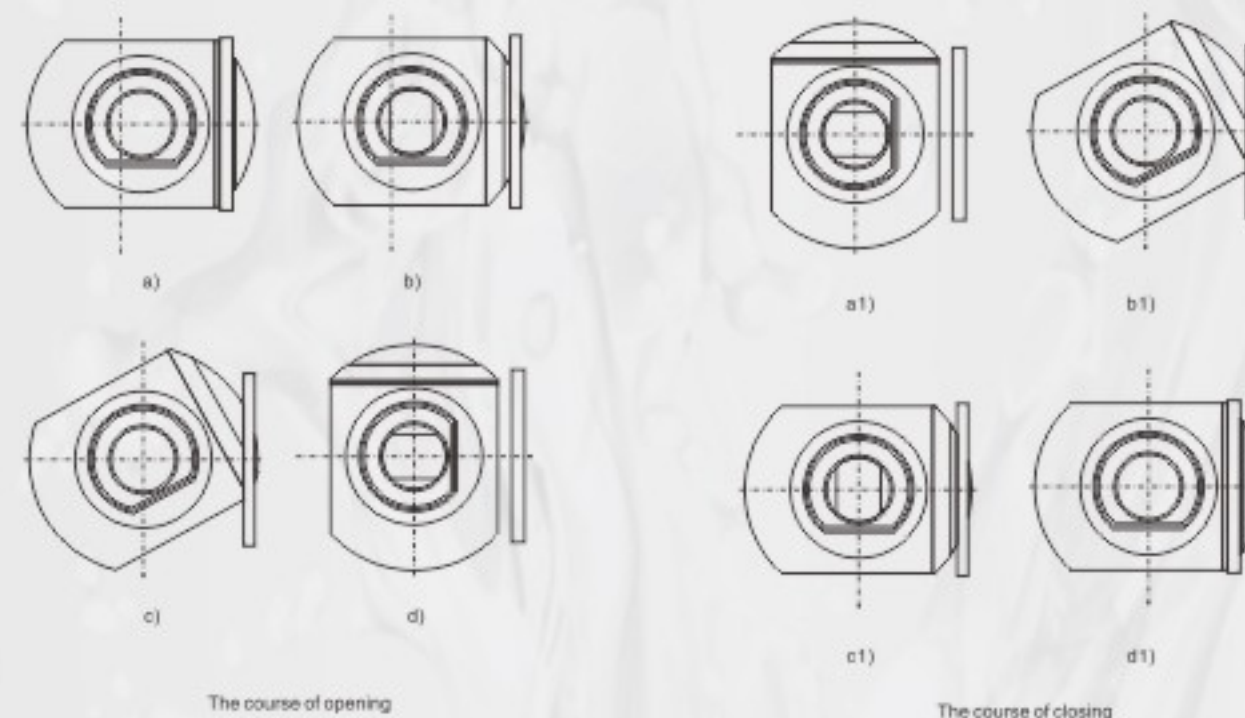
Its main structure is:

1. The construction of the single valve seat under the static state can ensure the tightness, credibility and zero leak of the two surface seal.
2. The top equipment type can make the system service in line.
3. The cam framework under the valve stem can supply a tight power of the mechanical wedge to ensure the continuous tight seal.
4. The opening and the closing course are completed in two segments, the rising and falling distance is short which is easy to operate.
5. In the course of the opening and closing operation, the sealed surface separates from touching completely without abrasion. The operating torsion is short and the life-span is long.
6. The vacuum which is formed by the course of sphere spinning accelerates the velocity of flow of the medium in the channel and this course can achieve the clean out of the sealed surface.
7. The fire-resistant design of the ball valve enforces the standard of API 607, API 6FA and JB/T6899. When the soft seal burns, the fireproofing construction of the ball valve can prevent the medium from much leaking, and the extension of the fire in case of fire.
8. The driving equipment of the valve can be divided into wrench operation, worm gear and worm drive, electric operation. The electric valve is easy to be auto-controlled and to be operated, with its safety and credibility.

◆ Performance Specification

Pressure grade		1.6~42.0MPa	Class 150~2500
(Mpa) Test pressure	Shell test	$1.5 \times PN$	
	Sealing test	$1.1 \times PN$	
Working temperature		$-196^{\circ}\text{C} \sim +180^{\circ}\text{C}$	
Working medium		Water, oil, natural gas, corrosive medium, etc.	

Notice: PN is requested pressure for the body material under the 38°C.



◆ On and Off Principle Analysis

(1) The course of opening

- I) In the location of the closing, the sphere closely presses on the valve seat by the mechanical pressure of the valve stem. See picture a).
- II) When the hand wheel is anti-clockwise, the valve stem will counter move, then the surface of the angle at the bottom will make the sphere disconnect the valve seat. See picture b).
- III) The valve stem continues rising and interacts with the guide pin in the spin slot of the valve stem. The course makes the sphere begin rotating without rub. See picture c).
- IV) Until to the full opening, the valve stem will ascend to the limited location and the sphere will switch to the full opening. See picture d).

(2) The course of closing

- I) The hand wheel is clockwise when closing, then the valve stem will fall and it will make the sphere separate from the valve seat and begin to rotate. See picture a1).
- II) Continue to turn the hand wheel, the valve stem is affected by the guide finger in the spin slot which is embedded over it, and it can make the valve stem and the sphere spin 90° at the same time. See picture b1).
- III) When approaching closing, the sphere has switched 90° without touching the valve seat. See picture c1).
- IV) The last circles of the hand wheel, the surface of the angle at the bottom of the valve stem automatically wedges to the forced sphere and presses it closely on the full seal. See picture d1).



◆ Execution standard

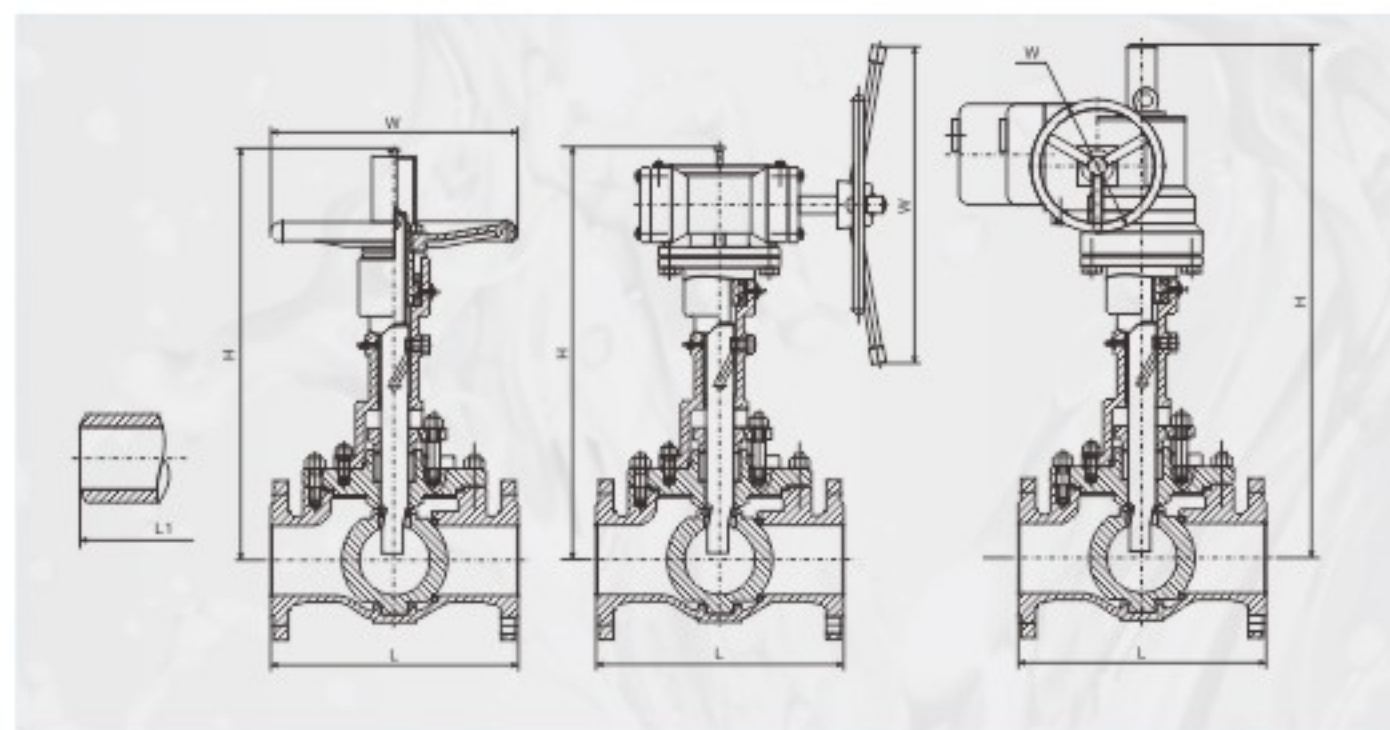
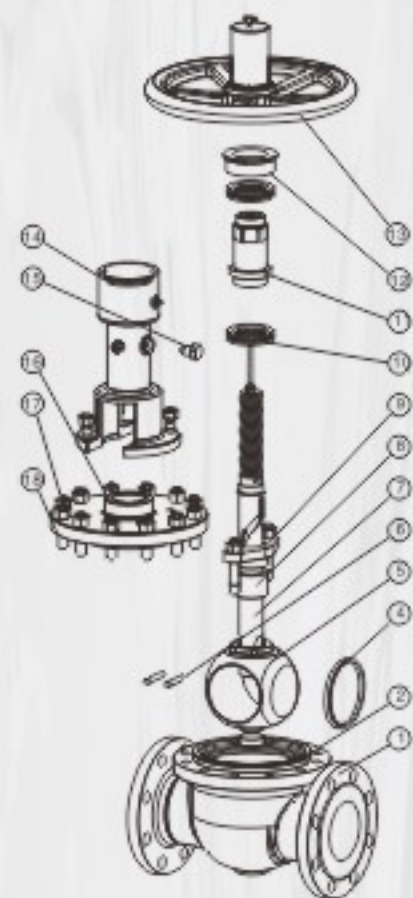
Design Standard	GB	ASME
Face to Face	JB/T 7745, GB/T 12221	ASME B16.10
Flanged Size	GB/T 9113, JB/T 79	ASME B16.5, MSSSP44
Butt welding End	GB/T 12224	ASME B16.25
Test & Inspection	JB/T 9092	API 598

◆ Main Parts Material

No.	Part name	Materials		
		Carbon Steel	Stainless steel	Low temperature steel
1	Body	A216 WC	A351 CF8M	A352 LCB
2	Gasket	Flexible graphite+SS		
3	Sealing ring	Flexible graphite+SS		
4	Ball	A105+ENP	A182 F316	A350 LF3
5	Pin	A182 F6a		
6	Stem	A182 F6a	A182 F316	A182 F316
7	Packing	Flexible graphite		
8	Packing Gland	A182 F6a	A182 F316	A350 LF3
9	Bearing	Assembled		
10	Stem Nut	A439 D2		
11	Cover	A182 F6a	A182 F316	A350 LF3
12	Hand wheel	QT400-17		
13	Yoke	A216 WCB		
14	Fitting pin	A193 B7		
15	Bonnet	A216 WCB	A351 CF8M	A352 LCB
16	Nut	A194 2H	A194 8	A194 4
17	Bolt	A193 B7	A193 B8	A320 L7



GQ(3, 6, 9)(Y, H, F)



◆ Main Boundary Connection Dimension

(PN1.6/2.5 MPa; Class 150)

DN (mm)	NPS (in)	Class 150		PN1.6、2.5		Manual			Driving of Worm Gear				Electric Driving				
		L	L1	L	L1	H	W	WT (kg)	H	W	Device of Worm Gear	WT (kg)	H	W	Electric DrivingDevice		
															Class 150 PN1.6	PN2.5	WT(kg)
15	1/2	108	—	130	140	310	180	16	—	—	—	—	210	200	SMC—04	SMC—04	46
20	3/4	117	—	150	152	325	180	8	—	—	—	—	225	200	SMC—04	SMC—04	48
25	1	127	—	160	165	345	200	12	420	200	O(Type)	25	230	200	SMC—04	SMC—04	52
32	1 1/4	140	—	180	178	360	200	16	440	200	O(Type)	29	290	500	SMC—03	SMC—03	58
40	1 1/2	165	190	200	190	380	200	19	455	200	O(Type)	41	300	500	SMC—03	SMC—03	67
50	2	178	216	230	216	385	200	28	465	200	O(Type)	56	570	460	ZA2—5	ZA2—5	70
65	2 1/2	190	241	290	241	393	300	43	480	200	O(Type)	69	625	460	ZA2—5	ZA2—5	87
80	3	203	283	310	283	402	300	58	500	300	A(Type)	85	760	460	ZA2—20	ZA2—20	102
100	4	229	305	350	305	510	300	75	510	300	A(Type)	130	780	460	ZA2—20	ZA2—20	119
150	6	394	457	480	457	690	400	133	680	300	A(Type)	207	850	460	ZA2—20	ZA2—30	200
200	8	457	521	600	521	785	500	225	820	400	B(Type)	310	840	460	ZA2—30	ZA25—40	290
250	10	533	559	730	559	995	600	345	910	400	B(Type)	496	960	460	ZA2—30	ZA2—30	410
300	12	610	635	850	635	1183	600	440	1090	400	B(Type)	560	990	460	ZA3—60	ZA3—60	545
350	14	686	762	980	762	1254	650	775	1330	600	C(Type)	895	1165	460	ZA3—60	ZA3—90	880
400	16	762	838	1100	838	1565	650	833	1380	600	C(Type)	980	1385	460	ZA3—90	ZA3—120	973
450	18	864	914	1200	914	1637	700	1110	1450	800	D(Type)	1280	1415	460	ZA4—120	ZA3—160	1250
500	20	914	991	1250	991	1705	700	1240	1840	800	D(Type)	1400	1490	460	ZA4—240	ZA4—240	1380
600	24	1067	1143	1450	1143	1883	800	1673	1870	800	DA(Type)	1820	1620	458	SMC—2	SMC—2	1851
700	28	1348	1348	1346	1346	2108	800	2600	2130	800	DA(Type)	2950	1720	458	SMC—2	SMC—3	2800
800	32	1524	1524	1524	1524	—	—	2820	—	—	—	—	1825/1885	610	SMC—3	SMC—3	2930
900	36	1727	1727	1727	1727	—	—	2950	—	—	—	—	2250/2300	610	SMC—3	SMC—4	3150



◆ Main Boundary Connection Dimension

(PN4.0MPa;Class 300)

DN (mm)	NPS (in)	Class 300	PN4.0MPa		Manual			Driving of Worm Gear				Electric Driving			
		L/L1	L	L1	H	W	WT (kg)	H	W	Device of Worm Gear	WT (kg)	H	W	ElectricDriving Device	WT (kg)
15	1/2	140	130	140	310	180	7	-	-	-	-	215	200	SMC-04	47
20	3/4	152	150	152	325	180	9	-	-	-	-	235	200	SMC-04	49
25	1	165	160	165	345	200	13	420	200	O(Type)	225	250	500	SMC-03	53
32	1 1/4	178	180	178	360	200	18	440	200	O(Type)	32	300	305	SMC-00	60
40	1 1/2	190	200	190	380	200	28	455	200	O(Type)	40	305	305	SMC-00	70
50	2	216	230	216	385	200	30	465	200	O(Type)	55	585	460	ZA2-10	72
65	2 1/2	241	290	241	393	300	45	480	300	A(Type)	70	650	460	ZA2-10	89
80	3	283	310	283	402	300	66	500	300	A(Type)	85	775	460	ZA2-20	110
100	4	305	350	305	510	300	78	510	300	A(Type)	105	795	460	ZA2-20	122
150	6	403/457	480	457	690	400	152	680	400	B(Type)	185	895	460	ZA25-40	217
200	8	502/521	600	521	785	500	230	820	400	B(Type)	280	900	460	ZA3-30	295
250	10	568/559	730	559	995	600	375	910	400	B(Type)	410	973	460	ZA25-40	440
300	12	648/635	850	635	1183	600	446	1090	600	C(Type)	480	1135	460	ZA3-90	551
350	14	762	980	762	1254	650	795	1370	600	C(Type)	850	1302	460	ZA3-120	900
400	16	838	1100	838	1565	650	950	1430	600	C(Type)	1020	1514	460	ZA4-160	1090
450	18	914	1200	914	1637	700	1130	1450	800	D(Type)	1210	1534	460	ZA4-240	1270
500	20	991	1250	991	1705	700	1270	1640	800	D(Type)	1350	1625	458	SMC-2	1410
600	24	1143	1450	1143	1883	800	1713	1870	800	DA(Type)	1780	1686	458	SMC-2	1881
700	28	1346	1346	1346	2108	800	2650	2130	800	DA(Type)	2550	1780	610	SMC-3	2830
800	32	1524	1524	1524	-	-	2720	-	-	-	-	1940	610	SMC-4	2950
900	36	1727	1727	1727	-	-	2850	-	-	-	-	2320	610	SMC-4	3100

◆ Main Boundary Connection Dimension

(PN6.4MPa;Class 400)

DN (mm)	NPS (in)	Class 150		Manual			Driving of Worm Gear				Electric Driving			
		L	L1	H	W	WT (kg)	H	W	Device of Worm Gear	WT (kg)	H	W	Electric Driving Device	WT (kg)
15	1/2	165	165	320	200	8	390	200	O(Type)	25	215	500	SMC-03	48
20	3/4	190	190	340	200	11	415	200	O(Type)	30	240	500	SMC-03	51
25	1	216	216	360	200	16	435	200	O(Type)	45	250	500	SMC-03	56
32	1 1/4	229	229	370	250	21	455	200	O(Type)	50	300	305	SMC-00	61
40	1 1/2	241	241	395	300	33	465	200	O(Type)	62	305	305	SMC-00	73
50	2	292	292	430	300	36	501	200	A(Type)	68	585	460	ZA2-10	78
65	2 1/2	330	330	465	400	54	535	300	A(Type)	85	650	460	ZA2-20	96
80	3	356	356	515	500	79	575	300	A(Type)	98	775	460	ZA2-20	123
100	4	406	406	572	600	80	625	400	B(Type)	112	800	460	ZA2-30	124
150	6	495	495	773	600	174	790	400	B(Type)	215	895	460	ZA25-40	239
200	8	597	597	967	650	222	900	400	B(Type)	360	900	460	ZA25-40	387
250	10	673	673	1225	650	323	1090	600	C(Type)	425	970	460	ZA3-60	525
300	12	762	762	1350	700	435	1350	600	C(Type)	580	1135	460	ZA3-120	675
350	14	826	826	1490	700	954	1490	600	C(Type)	975	1305	460	ZA3-120	1094
400	16	902	902	1590	750	1140	1640	800	D(Type)	1280	1515	460	ZA4-240	1316
450	18	978	978	1720	750	1355	1740	800	D(Type)	1420	1585	460	ZA4-240	1534
500	20	1054	1054	1805	800	1524	1930	800	DA(Type)	1690	1625	610	SMC-3	1740
600	24	1232	1232	1945	800	2055	2005	800	DA(Type)	2150	1710	610	SMC-3	2225
700	28	1397	1397	2180	800	2740	2180	800	DB(Type)	2880	1815	610	SMC-3	2950
800	32	1651	1651	-	-	2880	-	-	-	-	1975	610	SMC-4	3120
900	36	1880	1880	-	-	3100	-	-	-	-	2370	610	SMC-4	3350



◆ Main Boundary Connection Dimension

(PN10.0MPa;Class 600)

DN (mm)	NPS (in)	Class 150		Manual			Driving of Worm Gear				Electric Driving			
		L	L1	H	W	WT (kg)	H	W	Device of Worm Gear	WT (kg)	H	W	ElectricDriving Device	WT (kg)
15	1/2	165	165	320	200	10	390	200	O(Type)	25	230	500	SMC-03	50
20	3/4	190	190	340	200	13	415	200	O(Type)	35	250	500	SMC-03	53
25	1	216	216	360	200	26	435	200	O(Type)	48	300	305	SMC-00	66
32	1 1/4	229	229	370	250	28	455	200	O(Type)	59	305	305	SMC-0	70
40	1 1/2	241	241	395	300	52	465	200	O(Type)	76	585	305	SMC-0	94
50	2	292	292	430	300	60	501	300	A(Type)	85	650	460	ZA2-20	104
65	2 1/2	330	330	465	400	86	535	300	A(Type)	115	725	460	ZA2-20	130
80	3	356	356	515	500	103	575	300	A(Type)	127	800	460	ZA2-30	147
100	4	432	432	572	600	110	625	400	B(Type)	148	835	460	ZA2-30	175
150	6	559	559	773	600	287	790	400	B(Type)	325	895	460	ZA3-60	392
200	8	660	660	967	650	520	900	400	B(Type)	602	900	460	ZA2-60	625
250	10	787	787	1225	650	770	1090	600	C(Type)	890	970	460	ZA3-90	910
300	12	838	838	1350	700	910	1350	600	C(Type)	980	1135	460	ZA4-160	1090
350	14	889	889	1490	700	1045	1490	600	C(Type)	1180	1305	460	ZA4-160	1225
400	16	991	991	1590	750	1880	1640	800	D(Type)	1980	1515	460	ZA4-240	2060
450	18	1092	1092	1720	750	2050	1740	800	D(Type)	2090	1585	458	SMC-2	2150
500	20	1194	1194	1805	800	2230	1930	800	DA(Type)	2320	1625	610	SMC-3	2420
600	24	1397	1397	1945	800	2560	2005	800	DA(Type)	2680	1710	610	SMC-3	2710
700	28	1549	1549	2180	800	2910	2180	800	DB(Type)	3150	1815	610	SMC-4	3120
800	32	1778	1778	-	-	3050	-	-	-	-	1975	610	SMC-4	3300
900	36	2083	2083	-	-	3300	-	-	-	-	2370	610	SMC-4	3480

◆ Main Boundary Connection Dimension

(PN15.0MPa;Class 900)

DN (mm)	NPS (in)	Class 150		Manual			Driving of Worm Gear				Electric Driving			
		L	L1	H	W	WT (kg)	H	W	Device of Worm Gear	WT (kg)	H	W	Electric Driving Device	WT (kg)
25	1	254	254	387	250	13	435	200	O(Type)	45	300	305	SMC-00	66
32	1 1/4	279	279	400	250	26	490	200	O(Type)	68	305	305	SMC-0	80
40	1 1/2	305	305	457	250	63	505	200	O(Type)	95	585	305	SMC-0	103
50	2	368	368	480	300	74	560	300	A(Type)	102	650	460	ZA2-20	116
65	2 1/2	419	419	500	300	108	590	300	A(Type)	127	775	460	ZA2-20	152
80	3	381	381	560	360	129	610	300	A(Type)	146	800	460	ZA2-30	173
100	4	457	457	575	400	138	690	400	B(Type)	182	835	460	ZA2-30	200
150	6	610	610	780	450	372	705	400	B(Type)	415	895	460	ZA3-60	478
200	8	737	737	980	500	650	930	600	C(Type)	720	900	460	ZA2-60	790
250	10	838	838	1170	550	960	1130	600	C(Type)	1020	920	460	ZA3-90	1143
300	12	965	965	1330	550	1021	1330	800	D(Type)	1120	1135	460	ZA4-160	1200
350	14	1029	1029	1520	600	1250	1480	800	D(Type)	1370	1305	460	ZA4-160	1430
400	16	1130	1130	1730	650	1430	1710	800	DA(Type)	1510	1585	460	ZA4-240	1610
450	18	1219	1219	1840	700	1625	1920	800	DA(Type)	1720	1625	456	SMC-2	1790
500	20	1321	1321	1920	800	1750	2080	800	DB(Type)	1890	1710	610	SMC-3	1940



◆ Use

Cryogenic ball valve is mainly used in the ethylene device, such as liquefied natural gas chemical industry, the output of the cryogenic liquid medium such as ethylene, liquid oxygen and liquid hydrogen. This kind of media not only flammable and explosive, and when temperature gasification, gasification and volume expansion is hundreds of times.

◆ Characteristics

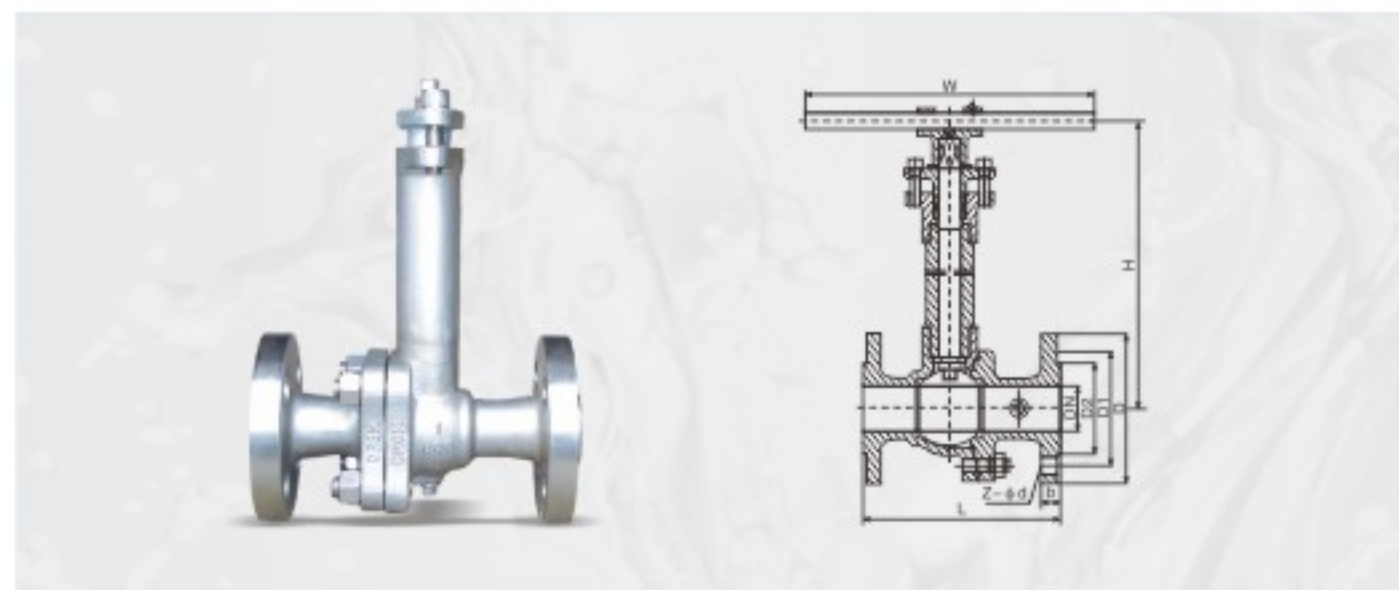
1. The pressure on a material can withstand the medium temperature change caused by the expansion and contraction, the structure of the sealing parts, when the temperature changes will not produce permanent deformation. Used for - below 100℃ conditions, the valve parts should be carried out before finishing the cryogenic treatment, the parts are immersed in liquid nitrogen tank for cooling, when parts -192℃ temperature is reached, began to heat preservation 1-2 h, then take out box outside natural treatment to room temperature, review cycle 2 times;
2. Bonnet adopts grow strong structure, its purpose to protect the function of the stuffing box, the packing box in a far away place at low temperature, to ensure that the packing sealing effect, at the same time can also be wrapped cold insulation materials, can prevent cold damage. Long neck long neck can be used according to the temperature and the thickness of the insulating materials to choose different length. When packing seal effect to reduce, can from the stuffing box to join in the middle grease oil seal layer formation, reduce the pressure difference of stuffing box, improve the sealing performance;
3. Using the temperature lower than 100 ℃, the valve stem material after chrome plating or nitriding process, to improve the surface hardness of the valve stem, improve the reliability of packing seal;
4. The structure of the cryogenic ball valve is to prevent abnormal pressure, because of the cryogenic valves after gasification medium, the swelling volume, abnormal pressure will rise, when the valve lumen pressure rises, the valve cavity and import connected, or placed on the valve inlet end relief valves, ensure safe use of the valve;
5. Cryogenic ball valve with gasket at room temperature and low temperature condition and reliable sealing and resilience under temperature changes.

◆ Enforce Standards

Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	GB/T12237	GB/T12221	GB/T9113	JB/T9092 GB/T13927	GB/T12224

◆ Main Part Materials

Part name	Material	
Body	LCB	CF8
Ball	304	304
Stem	304	304
Sealing ring	PTFE	PTFE
Packing	PTFE+O Ring	PTFE+O Ring
Applicable medium	Water, oil, steam, etc	Acid and other corrosive medium
Applicable temperature	-50-29℃	-196-29℃



◆ Main Boundary Connection Dimension

(PN1.6 MPa)

Product model	DN(mm)	L	D	D ₁	D ₂	b	Z-φd	H	W	WT (kg)
DQ41F-16C DQ41F-16P DQ641F-16C DQ641F-16P DQ9B41F-16C DQ9B41F-16P	15	130	95	65	45	14	4-φ14	178	140	3
	20	140	105	75	55	14	4-φ14	184	160	4
	25	150	115	85	65	14	4-φ14	195	180	5
	32	165	135	100	78	16	4-φ18	280	250	9
	40	180	145	110	85	16	4-φ18	280	300	11
	50	203	160	125	100	16	4-φ18	300	350	15
	65	222	180	145	120	18	4-φ18	330	350	19
	80	241	195	160	135	20	8-φ18	360	400	27
	100	305	215	180	155	20	8-φ18	400	500	38
	125	356	245	210	185	22	8-φ18	430	600	58
	150	394	280	240	210	24	8-φ23	500	800	81
	200	457	335	295	265	26	12-φ23	680	800	95
	250	533	405	355	320	30	12-φ25	790	1300	140

◆ Main Boundary Connection Dimension

(PN2.5 MPa)

Product model	DN(mm)	L	D	D ₁	D ₂	b	Z-φd	H	W	WT (kg)
DQ41F-25 DQ41F-25P DQ641F-25 DQ641F-25P DQ9B41F-25 DQ9B41F-25P	15	140	95	65	45	16	4-φ14	178	140	3
	20	152	105	75	55	16	4-φ14	184	160	4
	25	165	115	85	65	16	4-φ14	195	180	6
	32	178	135	100	78	18	4-φ18	280	250	10
	40	190	145	110	85	18	4-φ18	280	300	14
	50	216	160	125	100	20	4-φ18	300	350	20
	65	241	180	145	120	22	8-φ18	330	350	25
	80	283	195	160	135	22	8-φ18	360	400	30
	100	305	230	190	160	24	8-φ23	400	500	40
	125	381	270	220	188	28	8-φ25	430	600	65
	150	403	300	250	218	30	8-φ25	500	800	85
	200	502	360	310	278	34	12-φ25	680	800	100
	250	568	425	370	332	36	12-φ30	790	1300	165

CAST STEEL BUTTERFLY VALVE SERIES



◆ Main Part

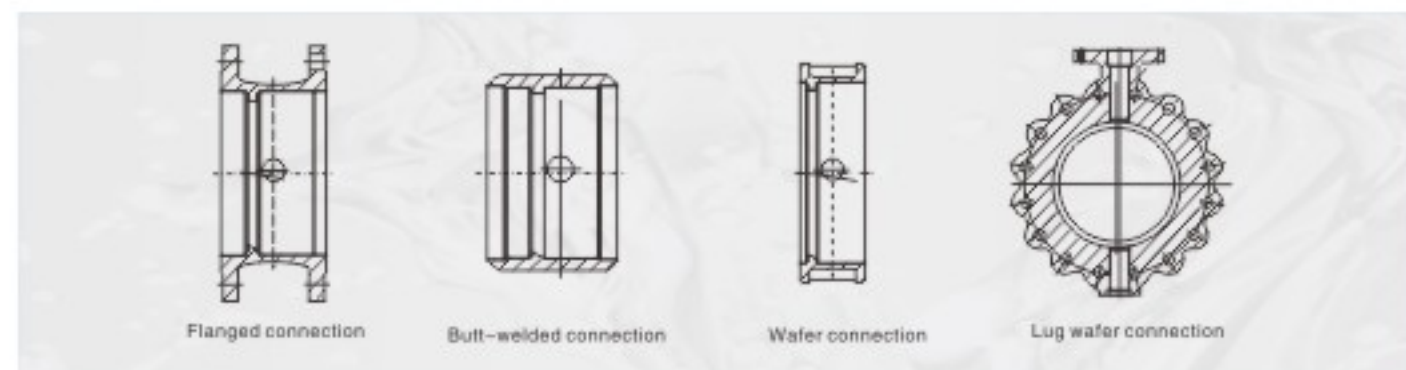
No.	Part Name	No.	Part Name
1	Body	9	Seal Ring
2	End Cover	10	Bolt, Nut
3	Disc	11	Bushing
4	Upper Stem	12	Bushing
5	Lower Stem	13	Retainer Flange
6	Packing	14	Handwheel
7	Packing Bushing	15	Gear Actuator
8	Gasket	16	Pin



◆ Butterfly Valve Design Features

Butterfly valves are used to open and close (seal type) or adjust the medium flow in pipes in the fields of foodstuff, drinks, chemical, industrial water treatment, high-rise constructions, water supply and drainage etc. They are mainly structured as following:

1. Simple structure, small sizes, light weight and low installation dimensions. According to the types of body connection, they are basically classified to wafer type (including lug wafer type), flanged and welded.



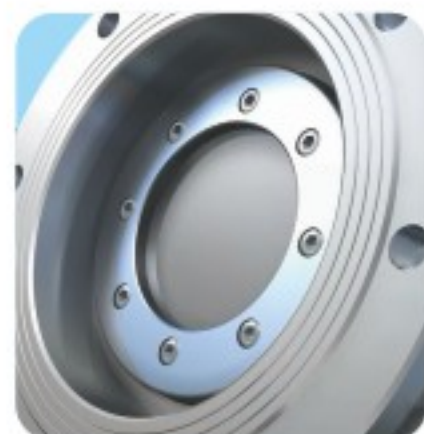
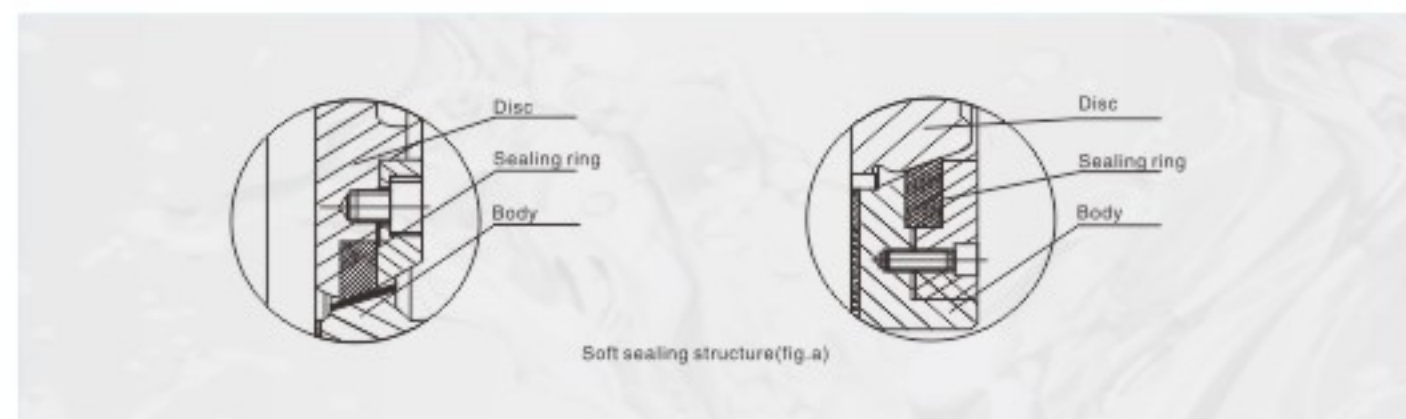
2. Sealing materials may be soft or hard, placed on body or disc, to meet different working conditions, and to effect good seal and long life.

1) Soft sealing structure (see fig. a), is applicable for single and double eccentric butterfly valves, pressure rating Class600. Centered sealing structure is applicable for pressure rating ≤ Class 250. Sealing ring (PTFE) is placed on the valve body to feature the following:

A) To effect dependable sea with no need of accessorial sealing ring or metal bracing ring.

B) Bidirectional leakproof seal.

C) Little maintenance and long service life.



◆ Product Overview

Triple eccentric metal hard seal butterfly valve series multi-level products, long life, energy-efficient and butterfly valve. The structure using the three di-mensional design of principle of heart valve seat adopt hard and soft sealing compatible multi-level structure, advanced technology, exquisite processing. This product consists of body, disc, multi-level seat, valve stem, drive mechanism and so on the main parts.

◆ Use

Triple eccentric metal hard seal butterfly valve is widely used in multi-level medium temperature of 650 °C or less, metallurgy, electric power, petrochemical industry, medium such as air, gas, and water supply and drainage pipeline, the flow adjustment and cutting fluid, reliable sealing performance, are universal in the butterfly valve to the medium pressure, extension and the development direction in the field of high temperature.

◆ Characteristics

Due to the product principle of eccentric butterfly valve is used in 3 d design, make the space of the sealing surface movement to achieve ideal, no friction, no interference with each other, together with the optimal allocation of sealing material, so that the butterfly valve sealing, corrosion resistance, high temperature resistance and wear resistance are the reliable guarantee. Its main characteristics are as follows: 1, the small open torque, flexible, convenient and saving energy. 2, 3 d braided structure, make the butterfly plate is shut tight, reliable sealing performance, zero leakage. 3, high resistance to Pressure, corrosion resistance, wear resistance, long service life, etc.

◆ Standards Adopted

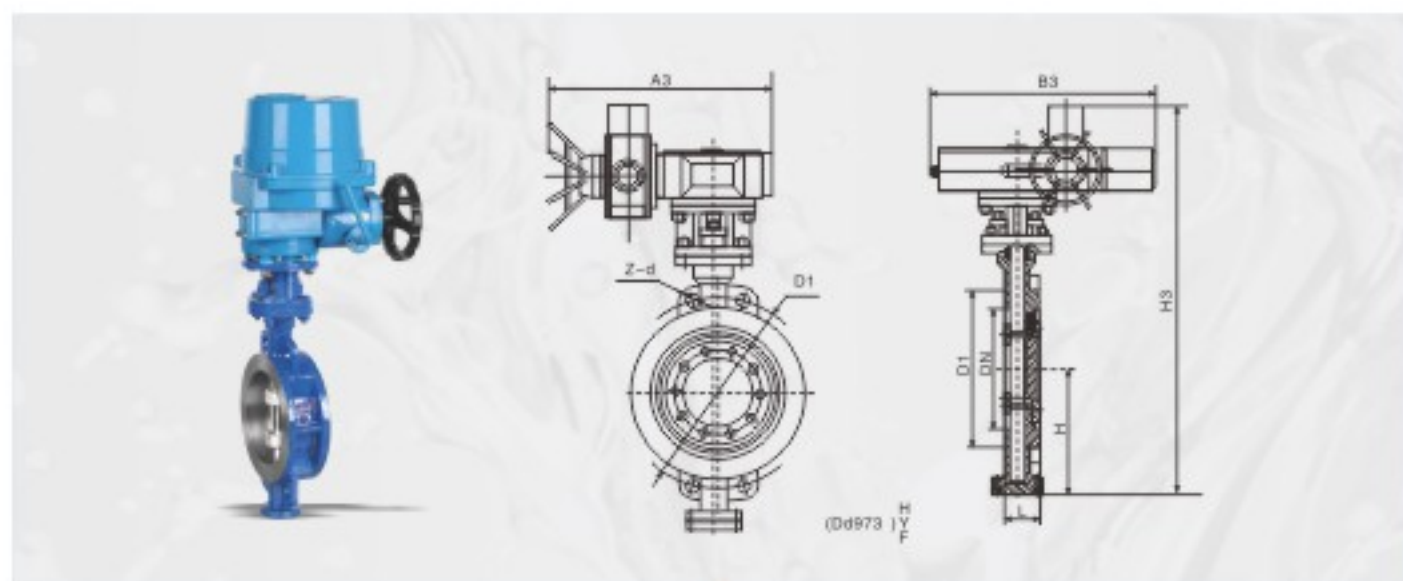
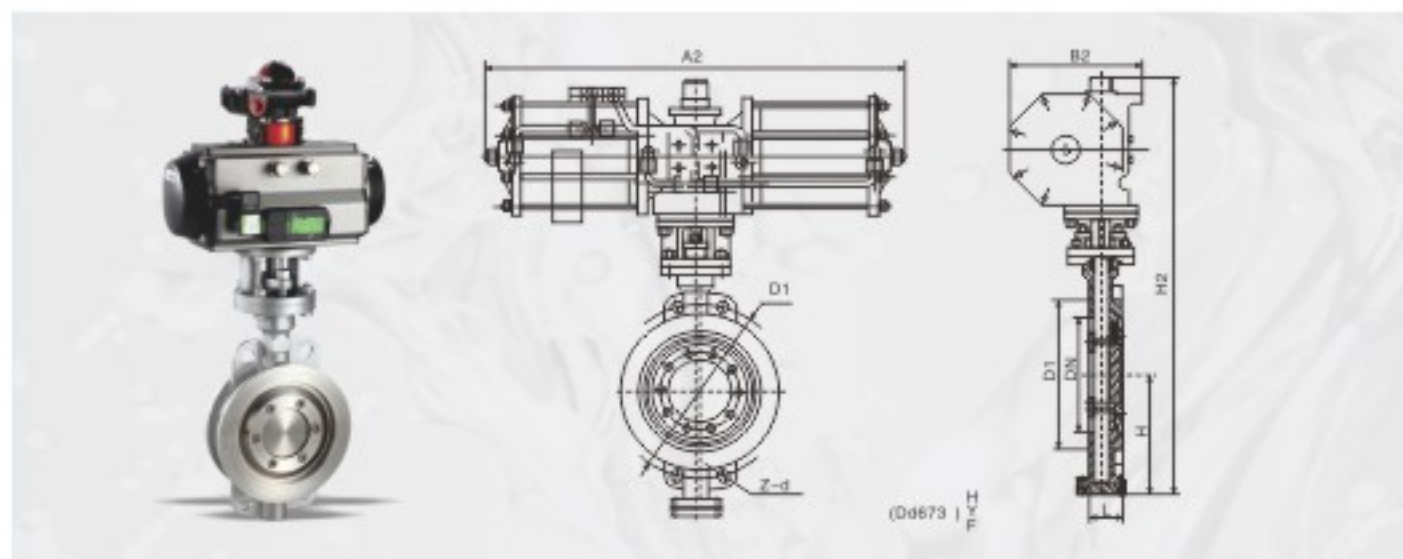
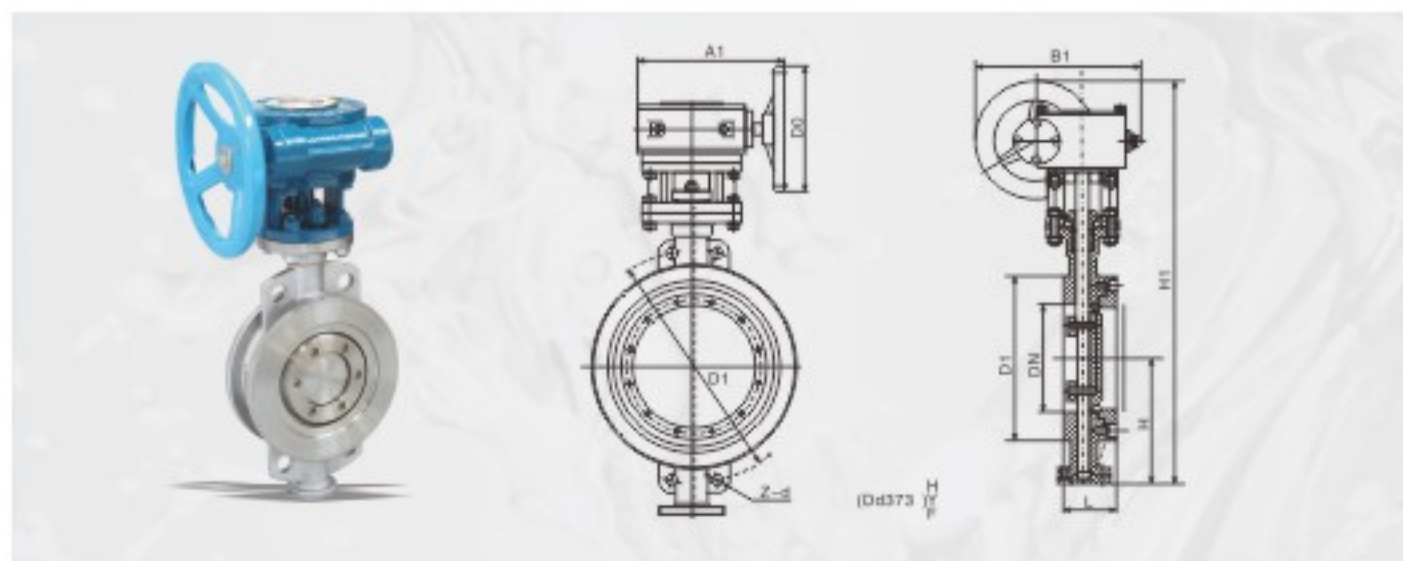
Design and manufacture	Flange connection	Length structure	Test and inspection
GB/T 12238, JB/T8527	GB/T 9113, JB/T79, HG20592	GB/T 12221	GB/T 13927

◆ Main Technical Parameters

Nominal diameter	DN(mm)	50-2000				50-500
Nominal pressure	PN(MPa)	0.6	1.0	1.6	2.5	4.0
Ps(MPa) Test pressure	Strength test	0.9	1.5	2.4	3.8	6.0
	Sealing test	0.7	1.1	1.8	2.8	4.4
	Gas seal test	0.6	0.6	0.6	0.6	0.6
Leak rate	[Zero leakage or] $<0.1 \times DNmm^3/s$ (Conform GB/T13927-92 Standard)					
Applicable temperature	Carbon steel : -29°C-425°C Stainless steel : -40°C-600°C					
Applicable medium	Air, water, steam, gas, oil, acid, alkali, salt with weak corrosive medium, etc					
Drive form	Worm gear drive, pneumatic drive, electric drive, hydraulic drive					

◆ Main Parts Material

Part name	Material
Body	Cast steel, stainless steel, chrome molybdenum steel, alloy steel, dual phase steel
Plate	Cast steel, stainless steel, chrome molybdenum steel, alloy steel, dual phase steel
Seat	Stainless steel, welding department is instant cemented carbide
Sealing ring	Stainless steel and high temperature resistant graphite board layers
Stem	20Cr13, 1Cr13 Stainless steel, chrome molybdenum steel, special material
Shaft	Austenitic stainless steel, 304 Nitride
Packing	Flexible graphite, PTFE
Packing gland	Cast steel, stainless steel
Bracket	Cast steel, stainless steel



Main Boundary Connection Dimensions

Unit: mm

DN		L Structure length		dimensions (reference)										Flange dimensions (standard)				D373H WT(Kg)
				H	Dd373H			Dd673H			Dd973H			PN0.6MPa		PN1.0MPa		
mm	Inches	short	Long			H1	A1	B1	H2	A2	B2	H3	A3	B3	D1	Z-d	D1	Z-d
40	1 1/2	43	43	107	330	180	200	625	245	72	530	250	255	100	4-14	110	4-18	10
50	2	43	43	112	350	180	200	625	245	72	530	250	255	110	4-14	125	4-18	12
65	2 1/2	46	46	115	370	180	200	625	245	72	530	250	255	130	4-14	145	4-18	13
80	3	49	64	125	380	180	200	645	245	72	565	250	255	150	4-18	160	8-18	15
100	4	56	64	138	420	180	200	675	355	92	600	250	255	170	4-18	180	8-18	17
125	5	64	70	164	460	180	200	715	355	92	640	250	255	200	8-18	210	8-18	27
150	6	70	76	175	555	270	280	800	355	92	704	300	315	225	8-18	240	8-22	29
200	8	71	89	215	780	400	425	850	250	170	775	300	315	280	8-18	295	8-22	45
250	10	76	114	243	840	400	425	925	250	170	945	300	315	335	12-18	350	12-22	69
300	12	83	114	285	995	450	560	1035	450	220	1070	300	315	395	12-22	400	12-22	86
350	14	92	127	320	1050	450	560	1070	450	220	1140	300	315	445	12-22	460	16-22	122
400	16	102	140	350	1220	535	580	1190	450	220	1210	300	315	495	16-22	515	16-26	141
450	18	114	152	350	1280	535	580	1250	650	280	1335	575	714	550	16-22	565	20-26	191
500	20	127	152	380	1365	535	580	1290	650	280	1415	575	714	600	20-22	620	20-26	260
600	24	154	178	435	1460	570	660	1455	850	380	1605	656	810	705	20-26	725	20-30	380
700	28	165	229	480	1520	750	550	1585	850	380	1844	656	810	810	24-26	840	24-30	450
800	32	190	241	530	1710	750	550	1700	1250	380	2040	656	810	920	24-30	950	24-33	650
900	36	203	241	595	1810	750	550	1965	1250	380	2255	785	863	1020	24-30	1050	28-33	830
1000	40	216	300	650	1900	900	750	2015	1250	380	2380	785	863	1120	28-30	1160	28-36	1050
1200	48	254	360	775	1180	1000	925	2250	1250	380	2640	785	863	1340	32-33	1380	32-39	1400
1400	56	279	390	870	1450	1000	925	-	-	-	2886	-	-	1560	36-36	1590	36-42	1900
1600	64	318	440	1000	1730	1000	925	-	-	-	3156	-	-	1760	40-36	1820	40-48	2900
1800	72	356	490	1110	3020	1100	980	-	-	-	3421	-	-	1970	44-39	2020	44-48	4000
2000	80	406	540	1250	3270	1100	980	-	-	-	3685	-	-	2180	48-42	2230	48-48	5300

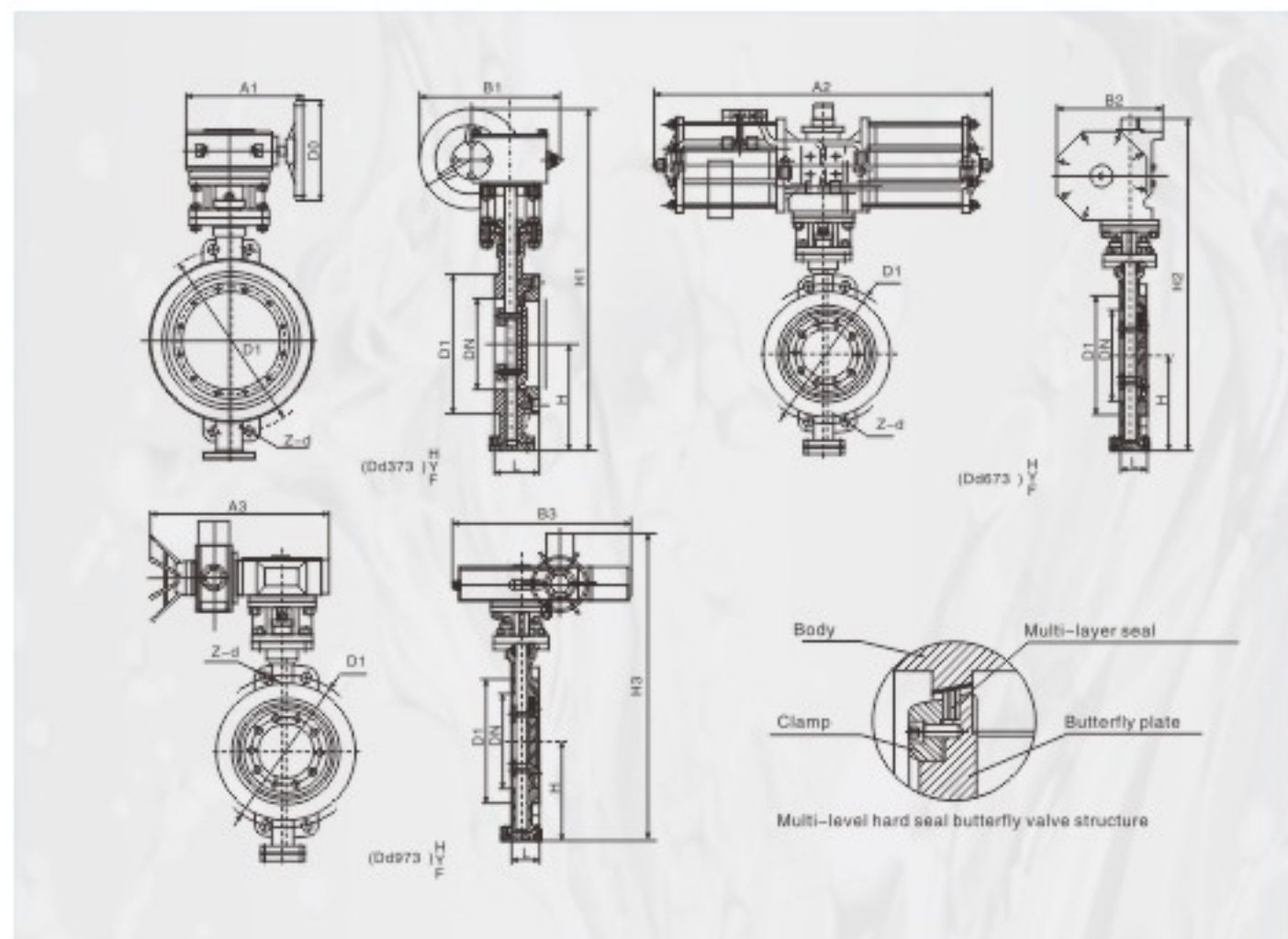
Main Boundary Connection Dimensions

Unit: mm

DN		L Structure length		dimensions (reference)											Flange dimensions (standard)				D373H WT(Kg)
				H	Dd373H			Dd673H			Dd973H			PN1.6MPa		PN2.5MPa			
mm	inches	short	Long			H1	A1	B1	H2	A2	B2	H3	A3	B3	D1	Z-d	D1	Z-d	
40	1	43	43	107	330	180	200	625	245	72	530	250	255	110	4-18	110	4-18	10	
50	2	43	43	112	350	180	200	625	245	72	530	250	255	125	4-18	125	4-18	12	
65	2 1/2	46	46	115	370	180	200	625	245	72	530	250	255	145	4-18	145	8-18	13	
80	3	49	64	125	380	180	200	645	245	72	565	250	255	160	8-18	160	8-18	15	
100	4	56	64	138	420	180	200	675	355	92	600	250	255	180	8-18	190	8-22	17	
125	5	64	70	164	460	180	200	715	355	92	640	250	255	210	8-18	220	8-26	27	
150	6	70	76	175	555	270	280	800	355	92	704	300	315	240	8-22	250	8-26	29	
200	8	71	89	215	780	400	425	850	250	170	775	300	315	295	12-22	310	12-26	45	
250	10	76	114	243	840	400	425	925	250	170	945	300	315	355	12-26	370	12-30	69	
300	12	83	114	285	995	450	560	1035	450	220	1070	300	315	410	12-26	430	16-30	86	
350	14	92	127	320	1050	450	560	1070	450	220	1140	300	315	470	16-26	490	16-33	122	
400	16	102	140	350	1220	535	580	1190	450	220	1210	300	315	525	16-30	550	16-36	141	
450	18	114	152	350	1280	535	580	1250	650	280	1335	575	714	585	20-30	600	20-36	191	
500	20	127	152	380	1365	535	580	1290	650	280	1415	575	714	650	20-33	660	20-36	260	
600	24	154	178	435	1460	570	660	1455	850	380	1605	656	810	770	20-36	770	20-39	380	
700	28	165	229	480	1520	750	550	1585	850	380	1844	656	810	840	24-36	875	24-42	450	
800	32	190	241	530	1710	750	550	1700	1250	380	2040	656	810	950	24-39	990	24-48	650	
900	36	203	241	595	1810	750	550	1965	1250	380	2255	785	863	1050	28-39	1090	28-48	830	
1000	40	216	300	650	1900	900	750	2015	1250	380	2380	785	863	1170	28-42	1210	28-56	1050	
1200	48	254	360	775	1180	1000	925	2250	1250	380	2640	785	863	1390	32-48	1420	32-56	1400	
1400	56	279	390	870	1450	1000	925	-	-	-	2886	-	-	1590	36-48	1640	36-62	1900	
1600	64	318	440	1000	1730	1000	925	-	-	-	3156	-	-	1820	40-56	1860	40-62	2900	
1800	72	356	490	1110	3020	1100	980	-	-	-	3421	-	-	2020	44-56	2070	44-70	4000	
2000	80	406	540	1250	3270	1100	980	-	-	-	3685	-	-	2230	48-62	2300	48-70	5300	

Note: the Dd - on behalf of the multi-layer sealing butterfly valve; The flange standard: GB/T9113, JB/T79, HG/T20592.

User notice: H1, H2, H3 size in table all can according to user needs to lengthen (long pole butterfly valves), is proposed for special material orders.



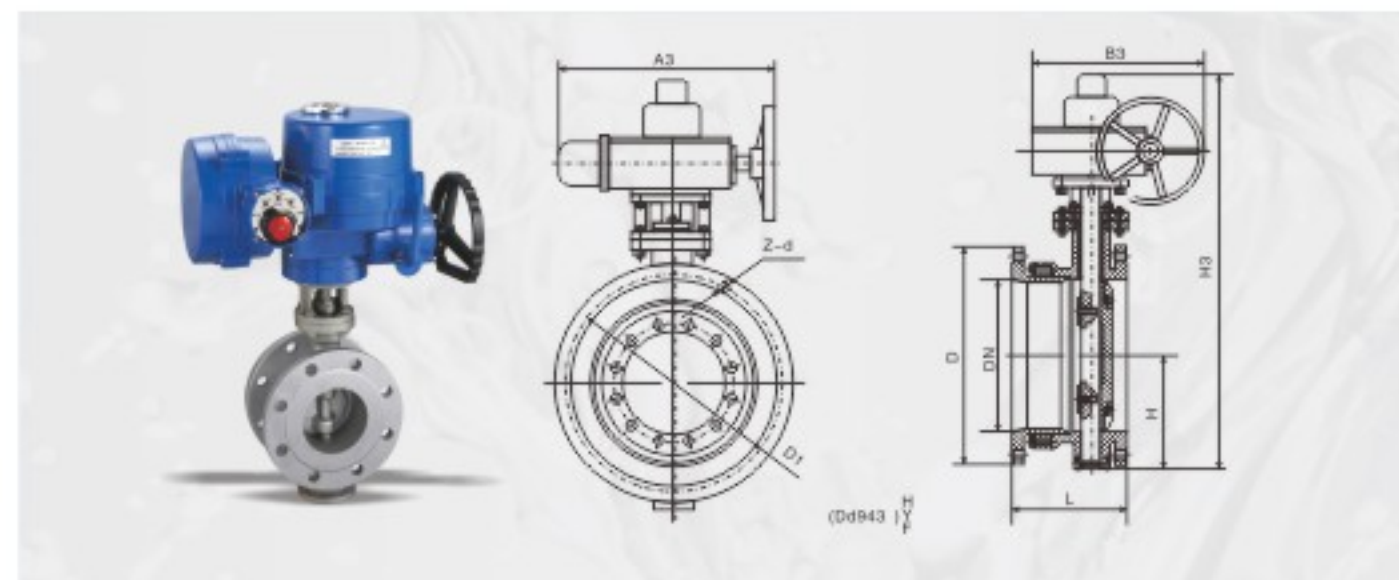
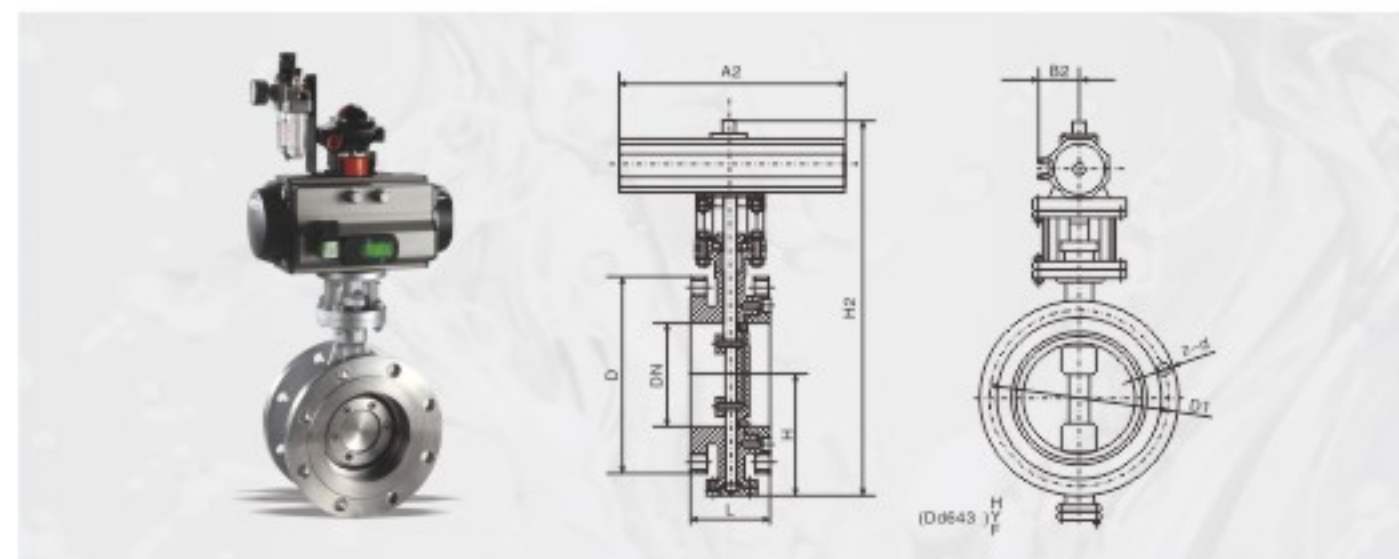
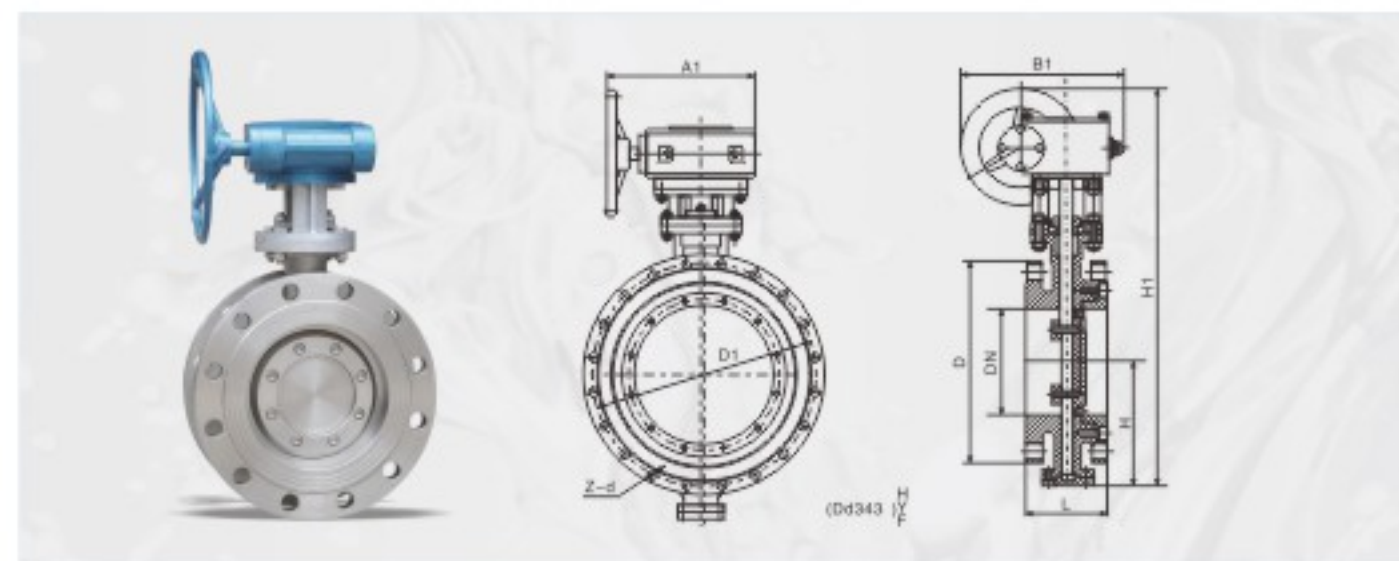
◆ Main Boundary Connection Dimensions

Unit: mm

DN		Structure length (standard)	Boundary dimensions (reference)										Flange dimensions (standard)	
			H	Dd373H			Dd673H			Dd973H			PN4.0MPa	
mm	inches	L		H1	A1	B1	H2	A2	B2	H3	A3	B3	D1	Z-d
50	2	43	112	350	180	200	625	250	170	530	250	255	125	4-18
65	2 1/2	46	115	370	270	280	625	250	170	530	250	255	145	8-18
80	3	64	120	380	270	280	645	250	170	565	250	255	160	8-18
100	4	64	138	420	270	280	675	250	170	600	250	255	190	8-22
125	5	70	164	460	380	420	715	450	220	640	250	255	220	8-26
150	6	76	175	555	380	420	800	450	220	705	300	315	250	8-26
200	8	89	208	780	400	425	850	450	220	775	300	315	320	12-30
250	10	114	243	840	400	425	925	450	280	945	300	315	385	12-33
300	12	114	285	995	450	560	1035	650	280	1070	300	315	450	16-33
350	14	127	320	1050	450	560	1070	650	280	1140	300	315	510	16-36
400	16	140	350	1220	535	580	1190	650	280	1210	300	315	585	16-39
450	18	152	350	1280	535	580	-	-	-	1335	575	714	610	20-39
500	20	152	380	1365	535	580	-	-	-	1415	575	714	670	20-42

Note: the Dd - on behalf of the multi-layer sealing butterfly valve; The flange standard: GB/T9113, JB/T79, HG/T20592.

User notice: H1, H2, H3 size in table all can according to user needs to lengthen (long pole butterfly valves), is proposed for special material orders.





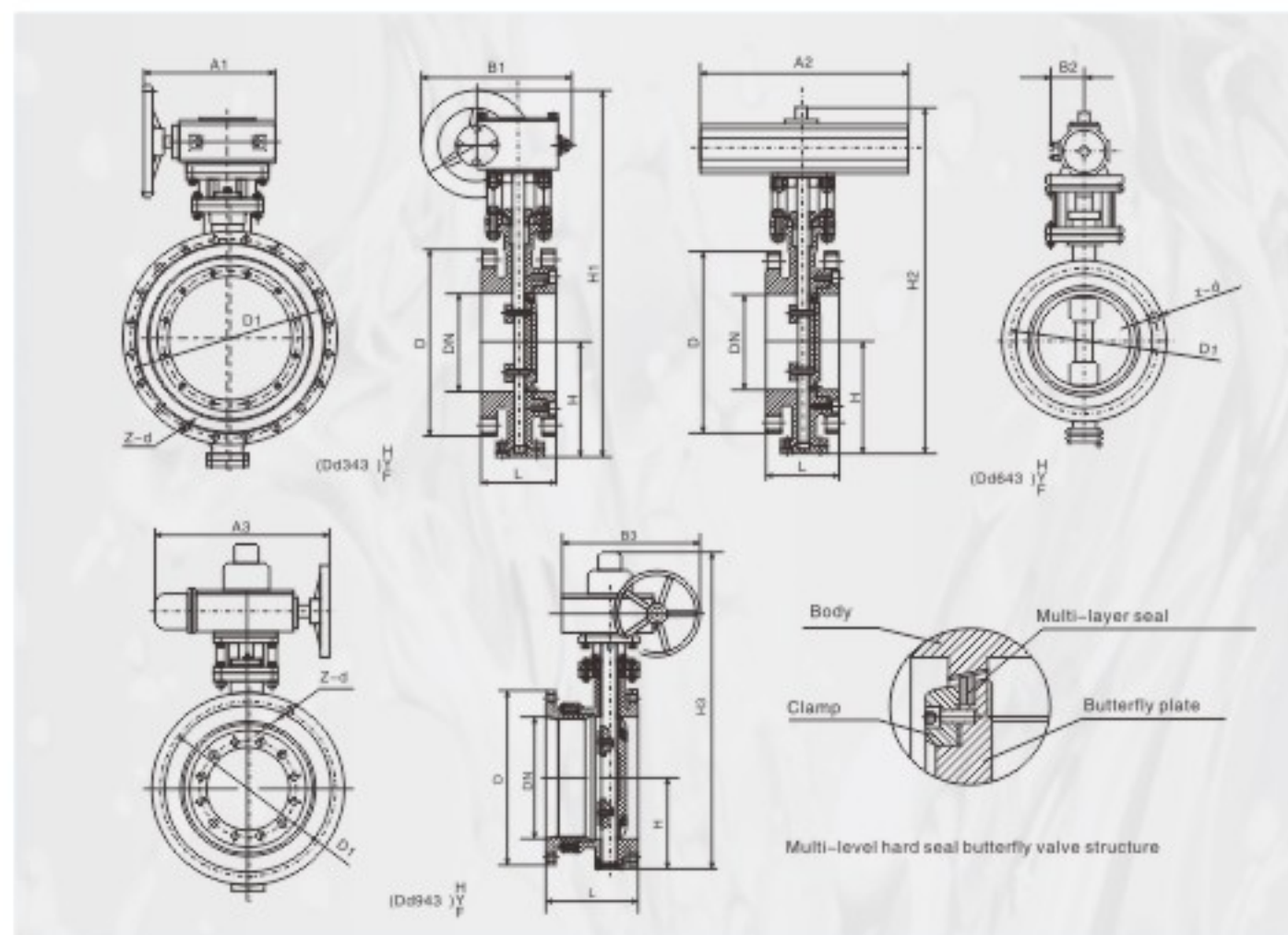
◆ Main Boundary Connection Dimensions

Unit: mm

DN		Structure length (standard)		Boundary dimensions (reference)											Flange dimensions (standard)								
		L		H	Dd343H			Dd643H			Dd943H			PN0.25MPa			PN0.6MPa			PN1.0MPa			
mm	Inches	short	Long		H1	A1	B1	H2	A2	B2	H3	A3	B3	D	D1	Z-d	D	D1	Z-d	D	D1	Z-d	
40	1 1/2	106	140	107	330	180	200	605	245	72	530	250	255	130	100	4-14	130	100	4-14	150	110	4-18	
50	2	108	150	112	350	180	200	625	245	72	530	250	255	140	110	4-14	140	110	4-14	165	125	4-18	
65	2 1/2	112	170	115	370	180	200	645	245	72	530	250	255	160	130	4-14	160	130	4-14	185	145	4-18	
80	3	114	180	120	380	180	200	675	355	92	565	250	255	190	150	4-18	190	150	4-18	200	160	8-18	
100	4	127	190	138	420	180	200	715	355	92	600	250	255	210	170	4-18	210	170	4-18	220	180	8-18	
125	5	140	200	164	460	180	200	800	355	92	640	250	255	240	200	8-18	240	200	8-18	250	210	8-18	
150	6	140	210	175	555	270	280	850	250	170	705	300	315	265	225	8-18	265	225	8-18	285	240	8-22	
200	8	152	230	200	760	400	425	925	250	170	775	300	315	320	280	8-18	320	280	8-18	340	295	8-22	
250	10	165	250	243	830	400	425	1035	450	220	945	300	315	375	335	12-18	375	335	12-18	395	350	12-22	
300	12	178	270	250	895	450	560	1070	450	220	1070	300	315	440	395	12-22	440	395	12-22	445	400	12-22	
350	14	190	290	280	950	450	560	1190	450	280	1140	300	315	490	445	12-22	490	445	12-22	505	460	16-22	
400	16	216	310	305	1190	535	580	1250	650	280	1210	300	315	540	495	16-22	540	495	16-22	565	515	16-26	
450	18	222	330	350	1255	535	580	1295	650	280	1335	575	714	595	550	16-22	595	550	16-22	615	565	20-26	
500	20	229	350	380	1305	535	580	1455	850	380	1415	575	714	645	600	20-22	645	600	20-22	670	620	20-26	
600	24	267	390	445	1340	570	660	1585	850	380	1605	656	810	755	705	20-26	755	705	20-26	780	725	20-30	
700	28	292	430	480	1520	750	550	1700	1250	380	1844	656	810	860	810	24-26	860	810	24-26	895	840	24-30	
800	32	318	470	530	1710	750	550	1865	1250	380	2040	656	810	975	920	24-30	975	920	24-30	1015	950	24-33	
900	36	330	510	580	1810	750	550	2015	1500	580	2255	785	863	1075	1020	24-30	1075	1020	24-30	1115	1050	28-33	
1000	40	410	550	650	1960	900	750	2226	1500	580	2380	785	863	1175	1120	28-30	1175	1120	28-30	1230	1160	28-36	
1200	48	470	630	760	2250	1000	925	-	-	-	2640	785	863	1375	1320	32-30	1405	1340	32-33	1455	1380	32-39	
1400	56	530	710	850	2435	1000	925	-	-	-	2886	-	-	1575	1520	36-30	1630	1560	36-36	1675	1590	36-42	
1600	64	600	790	1030	2780	1000	925	-	-	-	3156	-	-	1790	1730	40-30	1830	1760	40-36	1915	1820	40-48	
1800	72	670	870	1230	3020	1100	980	-	-	-	3421	-	-	1990	1930	44-30	2045	1970	44-39	2115	2020	44-48	
2000	80	760	950	1350	3270	1100	980	-	-	-	3685	-	-	2190	2130	48-30	2265	2180	48-42	2325	2230	48-48	

◆ Main Boundary Connection Dimensions

DN		Structure length (standard)		Boundary dimensions (reference)											Flange dimensions (standard)					
		L		H	Dd343H			Dd643H			Dd943H			PN1.6MPa			PN2.5MPa			
		mm	inches		short	Long	H1	A1	B1	H2	A2	B2	H3	A3	B3	D	D1	Z-d	D	D1
50	2	108	150	112	350	180	200	625	245	72	530	250	255	165	125	4-18	165	125	4-18	
65	2 1/2	112	170	115	370	180	200	625	245	72	530	250	255	185	145	4-18	185	145	8-18	
80	3	114	180	120	380	180	200	645	245	72	565	250	255	200	160	8-18	200	160	8-18	
100	4	127	190	138	420	180	200	675	355	92	600	250	255	220	180	8-18	235	190	8-22	
125	5	140	200	164	460	180	200	715	355	92	640	250	255	250	210	8-18	270	220	8-26	
150	6	140	210	175	555	270	280	800	355	92	705	300	315	285	240	8-22	300	250	8-26	
200	8	152	230	200	760	400	425	850	250	170	775	300	315	340	295	12-22	360	310	12-26	
250	10	165	250	243	830	400	425	925	250	170	945	300	315	405	355	12-26	425	370	12-30	
300	12	178	270	250	895	450	560	1035	450	220	1070	300	315	460	410	12-26	485	430	16-30	
350	14	190	290	280	950	450	560	1070	450	220	1140	300	315	520	470	16-26	555	490	16-33	
400	16	216	310	305	1190	535	580	1190	450	220	1210	300	315	580	525	16-30	620	550	16-36	
450	18	222	330	350	1255	535	580	1250	650	280	1335	575	714	640	585	20-30	670	600	20-36	
500	20	229	350	380	1305	535	580	1290	650	280	1415	575	714	715	650	20-33	730	660	20-36	
600	24	267	390	445	1340	570	660	1455	850	380	1605	656	810	840	770	20-36	845	770	20-39	
700	28	292	430	480	1520	750	550	1585	850	380	1844	656	810	910	840	24-36	960	875	24-42	
800	32	318	470	530	1710	750	550	1700	1250	380	2040	656	810	1025	950	24-39	1085	990	24-48	
900	36	330	510	580	1810	750	550	1865	1250	380	2255	785	863	1125	1050	28-39	1185	1090	28-48	
1000	40	410	550	650	1960	900	750	2015	1250	380	2380	785	863	1255	1170	28-42	1320	1210	28-56	
1200	48	470	630	760	2250	1000	925	2250	1250	380	2640	785	863	1485	1390	32-48	1530	1420	32-56	
1400	56	530	710	850	2435	1000	925	-	-	-	2886	-	-	1685	1590	36-48	1755	1640	36-62	
1600	64	600	790	1030	2780	1000	925	-	-	-	3156	-	-	1930	1820	40-56	1975	1860	40-62	
1800	72	670	870	1230	3020	1100	980	-	-	-	3421	-	-	2130	2020	44-56	2195	2070	44-70	
2000	80	760	950	1350	3270	1100	980	-	-	-	3685	-	-	2345	2230	48-62	2425	2300	48-70	



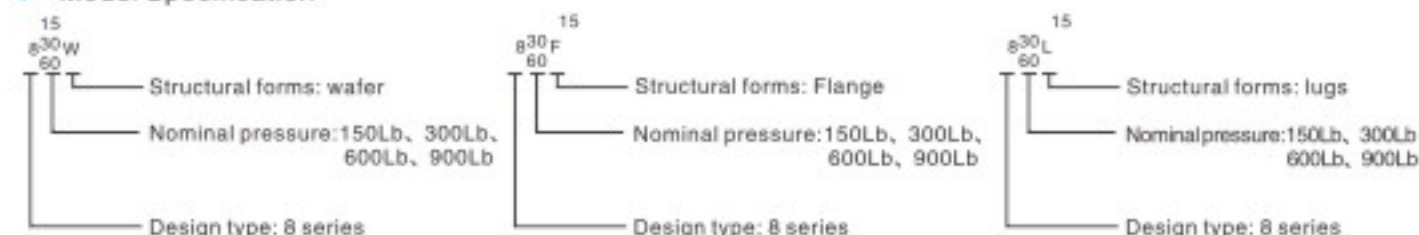
◆ Main Boundary Connection Dimensions

Unit: mm

DN		Structure length (standard)		Boundary dimensions(reference)											Flange dimensions (standard)		
				L		H	Dd343H			Dd643H			Dd943H				
		mm	Inches	short	Long		H1	A1	B1	H2	A2	B2	H3	A3	B3	D	D1
50	2	108	150	112	350	180	200	625	250	170	530	250	255	165	125	4-18	
65	2 1/2	112	170	115	370	270	280	625	250	170	530	250	255	185	145	8-18	
80	3	114	180	120	380	270	280	645	250	170	565	250	255	200	160	8-18	
100	4	127	190	138	420	270	280	675	250	170	600	250	255	235	190	8-22	
125	5	140	200	164	460	380	420	715	450	220	640	250	255	270	220	8-26	
150	6	140	210	175	555	380	420	800	450	220	705	300	315	300	250	8-26	
200	8	152	230	200	780	400	425	850	450	220	775	300	315	375	320	12-30	
250	10	165	250	243	830	400	425	925	450	280	945	300	315	450	385	12-33	
300	12	178	270	250	895	450	560	1035	650	280	1070	300	315	515	450	16-33	
350	14	190	290	280	950	450	560	1070	650	280	1140	300	315	580	510	16-36	
400	16	216	310	305	1190	535	580	1190	650	280	1210	300	315	660	585	16-39	
450	18	222	330	350	1255	535	580	-	-	-	1335	575	714	685	610	20-39	
500	20	229	350	380	1305	535	580	-	-	-	1415	575	714	755	670	20-42	



◆ Model Specification



◆ Product Overview

API butterfly valve is according to the current standard API609 design and manufacture a kind of high performance butterfly valve. Using three-dimensional eccentric oblique cone valve seat seal, butterfly plate sealing adopts new type metal embedded put on the butterfly plate and valve seat. Using disc rotating pressure tight seal, so the sealing surface friction small, closed with functions of closed more and more tightly, sealing performance and reliable, so open to ensure sealing completely out of contact, to ensure the sealing surface is not damaged. 815w, 830w, 860w series of butterfly valve of the main structure characteristics of wafer and flange three eccentric structure, and 815l, 830l series butterfly valve around the main structure characteristics of the valve body with lugs design into a single flange with screw hole structure.

◆ Characteristics

1. Appearance of simple structure, small volume light weight, low cost, wide application range;
2. The butterfly valve structure ruled out other types had not seal of faults, and at high temperature can normal use, overcome when used under the condition of high temperature easy leaking defects due to thermal expansion;
3. The butterfly valve in accordance with the requirements of working medium, choose different sealing surface material, to ensure the sealing surface wear resistance, corrosion resistance, scouring long service life.

◆ Use

API butterfly valve is widely used in metallurgy, electric power, petroleum, chemical, food, medicine, city building water and drainage industry, such as in the line for open/close or adjusting medium flow.

◆ Standards Adopted

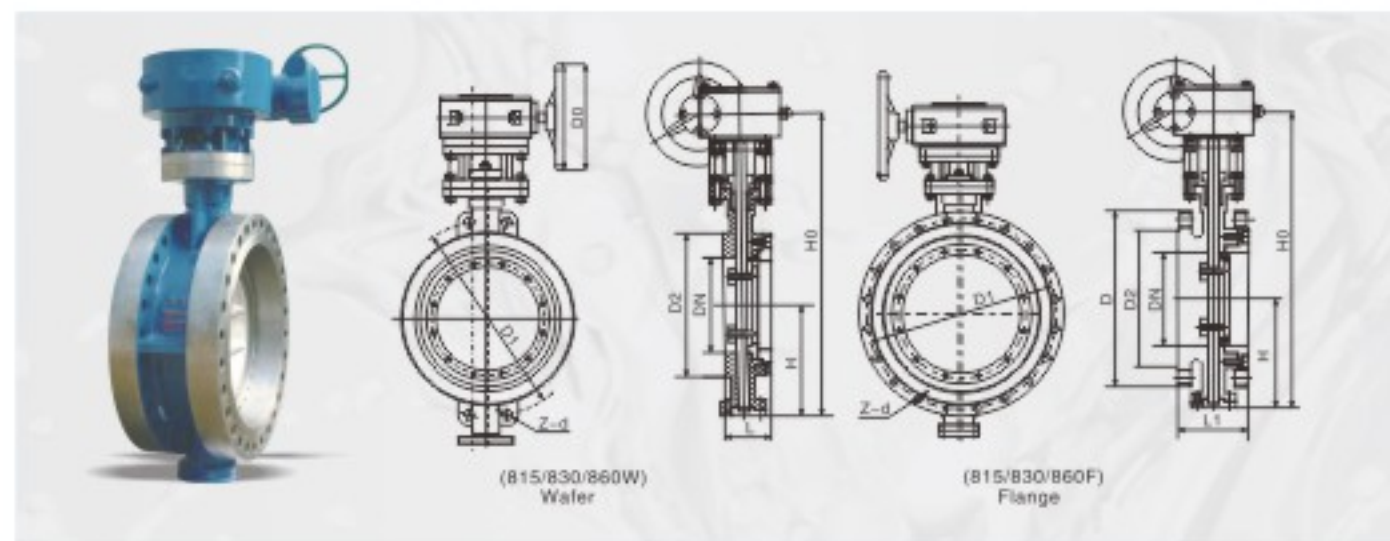
Design and manufacture	Face to Face	Flange connection	Test and inspection
API 609	ASME B16.10	ASME B16.5, ASME 16.47	API 598

◆ Main Technical Parameters

DN(mm) Nominal diameter	830W	830L		
	2" ~ 40"			
PN(Lb) Nominal pressure	Class	150	300	600
(MPa)Test pressure	Strength test	3.0	7.7	15.4
	Sealing test	2.2	5.7	11.3
Applicable medium	Water, steam, oil, water, etc			
Applicable temperature	-29-425℃			

◆ Main Parts Material

Part name	Material
Body	WCB, CF8, CF8M, CF3, CF3M
Disc	WCB, CF8, CF8M, CF3, CF3M
Stem	F6a, F304, F316, F304L, F316L
Seal ring	430, 304, 316, PTFE
Packing	Flexible graphite, PTFE



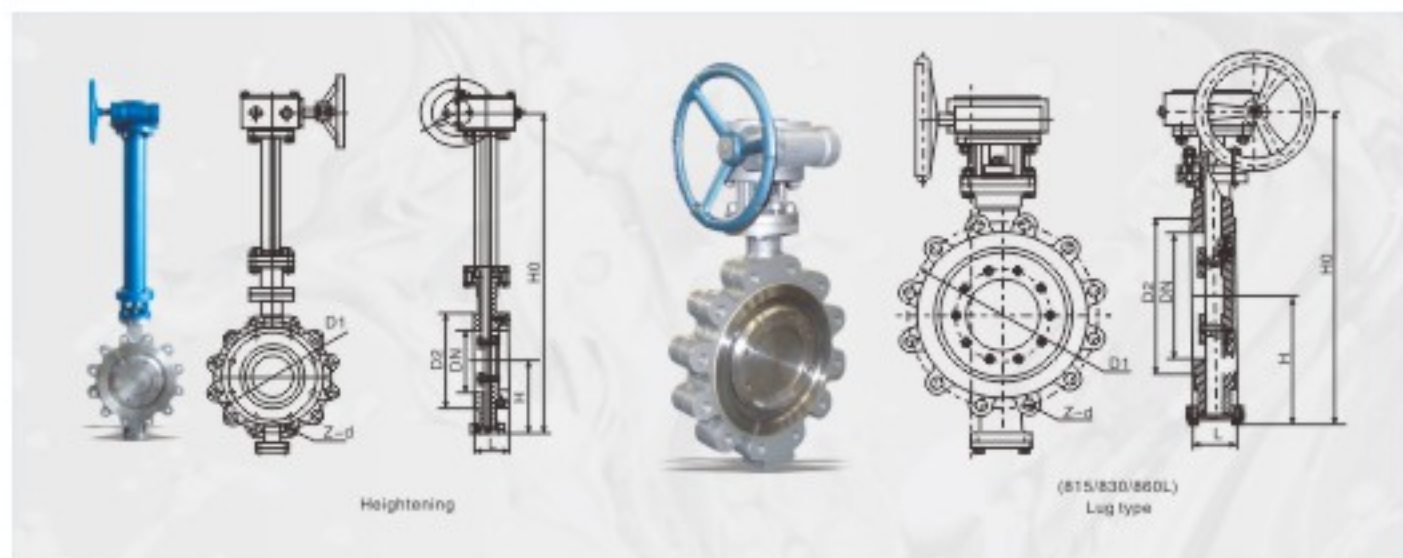
◆ Main Boundary Connection Dimensions

(American standard 518F series Class150)

Unit: mm

DN		Structure length (standard)				Boundary dimensions (reference)				Connection dimensions (standard)								Refer weight (kg)	
		L		L1		H		H0		D		D1		D2		M	Z-d		
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm				
2	50	1.69	43	4.25	108	4.33	110	13.58	345	6.00	152	4.75	120.5	3.62	92	M16	4-19	9	20
2 1/2	65	1.81	46	4.40	112	4.64	118	14.25	362	7.00	178	5.50	139.5	4.13	105	M16	4-19	10	25
3	80	1.88	49	4.50	114	4.92	125	14.96	380	7.50	190	6.00	152.5	5.00	127	M16	4-19	11	29
4	100	2.12	56	5.00	127	5.70	145	16.34	415	9.00	229	7.50	190.5	6.19	157	M16	8-19	13	33
5	125	2.19	64	5.50	140	6.50	165	17.91	455	10.00	254	8.50	216	7.32	186	M20	8-22	16	38
6	150	2.25	70	5.60	140	6.89	175	21.45	545	11.00	279	9.50	241.5	8.50	216	M20	8-22	26	74
8	200	2.50	71	6.00	152	8.26	210	24.21	615	13.50	343	11.75	298.5	10.62	270	M20	8-22	34	86
10	250	2.81	76	6.50	165	9.84	250	27.36	695	16.00	406	14.25	362	12.75	324	M24	12-26	51	142
12	300	3.19	83	7.00	178	11.24	285	32.78	830	19.00	483	17.00	432	15.00	381	M24	12-26	72	167
14	350	3.62	92	7.50	190	12.60	320	35.43	900	21.00	533	18.75	476	16.25	413	M27	12-30	106	218
16	400	4.00	102	8.50	216	13.98	355	38.58	980	23.50	597	21.25	540	18.50	470	M27	16-30	133	275
18	450	4.50	114	8.75	222	14.96	380	40.55	1030	25.00	635	22.75	578	21.00	533	M30	16-33	176	315
20	500	5.00	127	9.00	229	16.34	415	43.70	1110	27.50	699	25.00	635	23.00	584	M30	20-33	190	395
24	600	6.06	154	10.50	267	18.70	475	51.37	1305	32.00	813	29.50	749.5	27.25	692	M33	20-36	394	580
26	650	6.50	165	11.50	292	20.85	530	54.72	1390	34.25	786	29.31	745	28	711	M20	36-22	415	620
28	700	6.50	165	11.50	292	22.04	560	58.07	1475	32.94	837	31.31	795	30	762	M20	40-22	435	680
30	750	6.50	165	12.52	318	22.38	580	60.03	1525	34.94	887	33.31	845	32	813	M20	44-22	476	717
32	800	7.50	190	12.50	318	24.80	630	62.40	1585	37.06	941	35.44	900	34	864	M20	48-22	618	880
34	850	7.88	203	13.00	330	25.60	650	63.00	1600	39.56	1005	37.69	957	36.25	921	M24	40-26	670	980
36	900	7.88	203	13.00	330	26.77	680	69.48	1765	41.62	1057	39.75	1010	38.25	972	M24	44-26	762	1042
38	950	7.88	203	16.14	410	27.95	710	72.84	1850	44.25	1124	42.12	1070	40.25	1022	M27	40-30	960	1250
40	1000	8.50	216	16.14	410	29.53	750	76.00	1930	46.25	1175	44.12	1121	42.5	1080	M27	44-30	1050	1500

Note: The above the wafer, lug wafer, flange, three kinds of connection has manual, worm gear, pneumatic and electric operation.



◆ Main Boundary Connection Dimensions
(American standard 815L/W series Class15)

DN		Structure length (standard)		Boundary dimensions (reference)				Connection dimensions (standard)						Refer weight (kg)
		L		H		H0		D1		D2		M	Z-d	
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm			
2	50	1.69	43	4.33	110	13.58	345	4.75	120.5	3.62	92	M16	4-18	11
2 1/2	65	1.81	46	4.64	118	14.25	362	5.50	139.5	4.13	105	M16	4-18	12
3	80	1.88	49	4.92	125	14.96	380	6.00	152.5	5.00	127	M16	4-18	13
4	100	2.12	56	5.70	145	16.34	415	7.50	190.5	6.19	157	M16	8-18	15
5	125	2.19	64	6.50	165	17.91	455	8.50	216	7.32	186	M20	8-22	18
6	150	2.25	70	6.89	175	21.45	545	9.50	241.5	8.50	215	M20	8-22	25
8	200	2.50	71	8.26	210	24.21	615	11.75	298.5	10.62	270	M20	8-22	36
10	250	2.81	76	9.84	250	27.36	695	14.25	362	12.75	324	M24	12-26	53
12	300	3.19	83	11.24	285	32.78	830	17.00	432	15.00	381	M24	12-26	74
14	350	3.62	92	12.60	320	35.43	900	18.75	478	16.25	413	M27	12-30	110
16	400	4.00	102	13.98	355	38.58	980	21.25	540	18.50	470	M27	16-30	138
18	450	4.50	114	14.96	380	40.55	1030	22.75	578	21.00	533	M30	16-33	180
20	500	5.00	127	16.34	415	43.70	1110	25.00	635	23.00	584	M30	20-33	196
24	600	6.06	154	18.70	475	51.37	1305	29.50	749.5	27.25	692	M33	20-36	400
26	350	6.50	165	20.85	530	54.72	1390	29.31	745	28	711	M20	36-22	420
28	700	6.50	165	22.04	560	58.07	1475	31.31	795	30	762	M20	40-22	435
30	750	6.50	165	22.38	580	60.03	1520	33.31	845	32	813	M20	44-22	482
32	800	7.50	190	24.80	630	62.40	1585	35.44	900	34	864	M20	48-22	650
34	850	7.88	203	25.60	650	63.00	1600	37.69	957	36.25	921	M24	40-26	690
36	900	7.88	203	26.77	680	69.48	1765	39.75	1010	38.25	972	M24	44-26	800
38	950	7.88	203	27.95	710	72.84	1850	42.12	1070	40.25	1022	M27	40-30	1000
40	1000	8.50	216	29.53	750	76.00	1930	44.12	1121	42.5	1080	M27	44-30	1200

Note: The above the wafer, lug wafer, flange, three kinds of connection has manual, worm gear, pneumatic and electric operation.



◆ Main Boundary Connection Dimensions
(American standard 830F/W series Class300)

Unit: mm

DN		Structure length (standard)				Boundary dimensions (reference)				Connection dimensions (standard)								Refer weight (kg)	
		L		L1		H		H0		D		D1		D2		M	Z-d		
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm				
2"	50	1.69	43	4.25	108	4.33	110	13.58	345	6.50	165	5.00	127	3.62	92	M16	8-19	9	20
2 1/2"	65	1.81	46	4.50	112	4.64	118	14.25	362	7.50	190	5.86	149	4.13	105	M20	8-22	10	25
3"	80	1.88	64	4.50	180	4.92	125	14.96	380	8.25	210	6.63	168	5.00	127	M20	8-22	12	29
4"	100	2.12	64	5.00	190	5.70	145	16.34	415	10.00	254	7.87	200	6.19	157	M20	8-22	13	35
5"	125	2.19	70	5.50	200	6.50	165	17.91	455	11.00	279	9.25	235	7.32	186	M20	8-22	18	40
6"	150	2.31	76	5.50	210	6.89	175	21.45	545	12.50	318	10.63	270	8.50	216	M20	12-22	28	81
8"	200	2.88	89	5.90	230	8.26	210	24.21	645	15.00	381	13.00	330	10.62	270	M24	12-26	37	94
10"	250	3.25	114	6.30	250	9.84	250	27.36	695	17.50	445	15.24	387	12.75	324	M27	16-30	56	158
12"	300	3.62	114	7.00	270	11.24	285	32.78	830	20.50	521	17.76	451	15.00	381	M30	16-33	79	183
14"	350	4.62	127	7.50	290	12.60	320	35.43	900	23.00	584	20.24	514	16.25	413	M30	20-33	116	239
16"	400	5.25	140	8.50	310	13.98	355	38.58	980	25.50	648	22.50	571	18.50	470	M33	20-36	146	302
18"	450	5.88	152	8.74	330	14.96	380	40.55	1030	28.00	711	24.75	629	21.00	533	M33	24-36	193	346
20"	500	6.25	152	9.00	350	16.34	415	43.70	1110	30.50	775	27.00	686	23.00	584	M33	24-36	209	434
22"	550	7.12	178	10.50	370	17.50	445	46.5	1180	33.00	838	29.25	743	25.25	641	M39	24-42	320	550
24"	600	7.12	178	10.50	390	18.70	475	51.37	1305	36.00	914	32.00	813	27.25	692	M39	24-42	433	638
26"	650	8.25	229	11.50	410	20.00	510	54.0	1370	34.12	867	31.62	803	29	737	M33	32-36	450	650
28"	700	9.01	229	11.50	430	22.04	560	58.07	1475	36.25	921	33.75	857	31	787	M33	36-36	498	698
30"	750	9.01	229	12.50	450	22.38	580	60.03	1525	39	991	36.25	921	33.25	845	M36	36-39	523	788
32"	800	9.48	241	12.50	470	25.59	650	64.37	1635	41.5	1054	38.5	978	35.5	902	M39	32-42	588	988
34"	850	9.50	241	13.00	490	26.00	660	66.0	1675	43.62	1108	40.62	1032	37.5	953	M39	36-42	750	1050
36"	900	9.48	241	13.00	510	26.77	680	69.48	1765	46.12	1172	42.88	1040	39.75	1010	M42	32-45	838	1146
38"	950	11.80	300	16.15	530	28.5	725	72.0	1830	48.12	1222	44.88	1140	41.75	1060	M42	36-45	1200	1450
40"	1000	11.80	300	16.15	550	31.0	785	78.0	1980	50.12	1273	46.88	1191	43.88	1115	M42	40-45	1600	2000

◆ Main Boundary Connection Dimensions
(American standard 830L/W series Class300)

Unit: mm

DN		Structure length (standard)		Boundary dimensions (reference)				Connection dimensions (standard)						Refer weight (kg)	
		L		H		H0		D1		D2		M	Z-d		
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm				
2-5" Same as above in the table wafer type corresponding data															
6"	150	2.31	76	6.89	175	21.45	545	10.62	270	8.50	216	M20	12-22	29	
8"	200	2.88	89	8.26	210	24.21	615	13.00	330	10.62	270	M24	12-26	38	
10"	250	3.25	114	9.84	250	27.36	695	15.25	387	12.75	324	M27	16-30	58	
12"	300	3.62	114	11.24	285	32.78	830	17.75	451	15.00	381	M30	16-33	81	
14"	350	4.62	127	12.60	320	35.43	900	20.24	514	16.25	413	M30	20-33	119	
16"	400	5.25	140	13.98	355	38.58	980	22.50	591	18.50	470	M33	20-36	149	
18"	450	5.88	152	14.96	380	40.55	1030	24.75	628	21.00	533	M33	24-36	198	
20"	500	6.25	152	16.34	415	43.70	1110	27.00	686	23.00	584	M33	24-36	215	
22"	550	7.12	178	17.50	445	46.5	1180	29.25	743	25.25	641	M39	24-42	350	
24"	600	7.12	178	18.70	475	51.37	1305	32.00	813	27.25	692	M39	24-42	436	
26"	650	8.25	229	20.00	510	54.0	1370	31.62	803	29	737	M33	32-36	500	
28"	700	9.01	229	22.04	560	58.07	1475	33.75	857	31	787	M33	36-36	498	
30"	750	9.01	229	22.38	580	60.03	1525	36.25	921	33.25	845	M36	36-39	528	
32"	800	9.48	241	25.59	650	64.37	1635	38.5	978	35.5	902	M39	32-42	588	
34"	850	9.50	241	26.00	660	66.0	1675	40.62	1032	37.5	953	M39	36-42	850	
36"	900	9.48	241	26.77	680	69.48	1765	42.88	1039	39.75	1010	M42	32-45	843	
38"	950	11.80	300	28.5	725	72.0	1803	44.88	1140	41.75	1060	M42	36-45	1300	
40"	1000	11.80	300	31.0	785	78.0	1980	46.88	1191	43.88	1115	M42	40-45	1800	

Note: The above the wafer, lug wafer, flange, three kinds of connection has manual, worm gear, pneumatic and electric operation.