

VALVES

To create a better value for the future
It will make customers' dreams and happiness

valpe

28, Jungmongju-ro 847beon-gil, Nam-gu, Pohang, South Korea
Tel +82 54-275-5045 Fax +82 54-275-5062 www.valpe.co.kr



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We, Valpe Co., Ltd., established as NANO TECH on 2002, have professionally supplied valves, pipings and fittings for the steel, heavy and petrochemical industries to domestic and overseas. Especially, as an exclusive agent of over seas leading makers which proved of its technology and experiences worldly, we have been participating in Korean EPC companies' overseas projects for their subcontractor. Our company have highly qualified professional manpower and management system which have been improved by lots of performances, especially the various kinds of plant constructions and material

supplies since founded in 2002. We sure it will lead your projects successfully and also , we guarantee that not only in low cost but also highly qualified materials would be delivered in earlier time. All of our members always try to do our best to develop our company as the best company in the field of Pipings & Facilities. We need your continuous attention and encouragement.

Thank you.

All the managers and employees of **Valpe Co., Ltd**

Company Overview

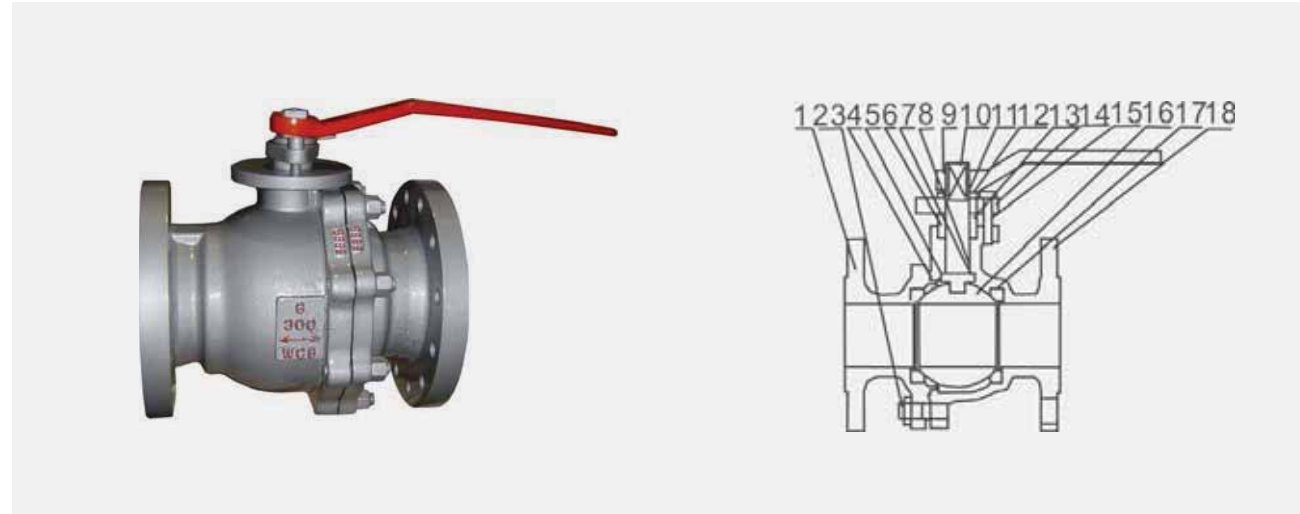
Company name	VALPE Co., Ltd. (For the Value-Added Plant Engineering)
President	Gwang-dong, Yang (Mr.)
Date of Foundation	March 13,2002 (NANO TECH)
Corporation Date	January 8, 2010 (VALPE)
Contact No	Tel : +82 54-275-5045 FAX : +82 54-275-5062
Website	www.valpe.co.kr
Registration No	506-81-70279
Business Status	Manufacturing/Machine parts/Steel trade
Head Office	28, Jungmongju-ro 847beon-gil, Nam-gu, Pohang, South Korea
Plant Engineering Office	437, POSCO-daero, Nam-gu, Pohang-si, Gyeongsangbuk-do,Korea

Company History

- 2015** Thailand CGL Project Supply Contract, Vietnam 2800A Valve Supply Contract, Vietnam 2800A PIPE Supply Contract
Seokmun Group Energy Power Plant Valve Supply Contract
Chuncheon Energy Power Plant Valve and Special Items Supply Contract
- 2010** Incorporated to Valpe Co., Ltd.
Authorized Supplier for Deawoo Engineering Co., Ltd (POSCO Engineering, now)
Authorized Supplier for SAMSUNG Techwin Co., Ltd
Participated in CGL project of POSCO-INDIA
- 2002** NANO TECH Established
Started working with POSCO Group

CAST STEEL FLOATING BALL VALVE _ FB

TRUNNION MOUNTED BALL VALVE _ TB



Technical Specification

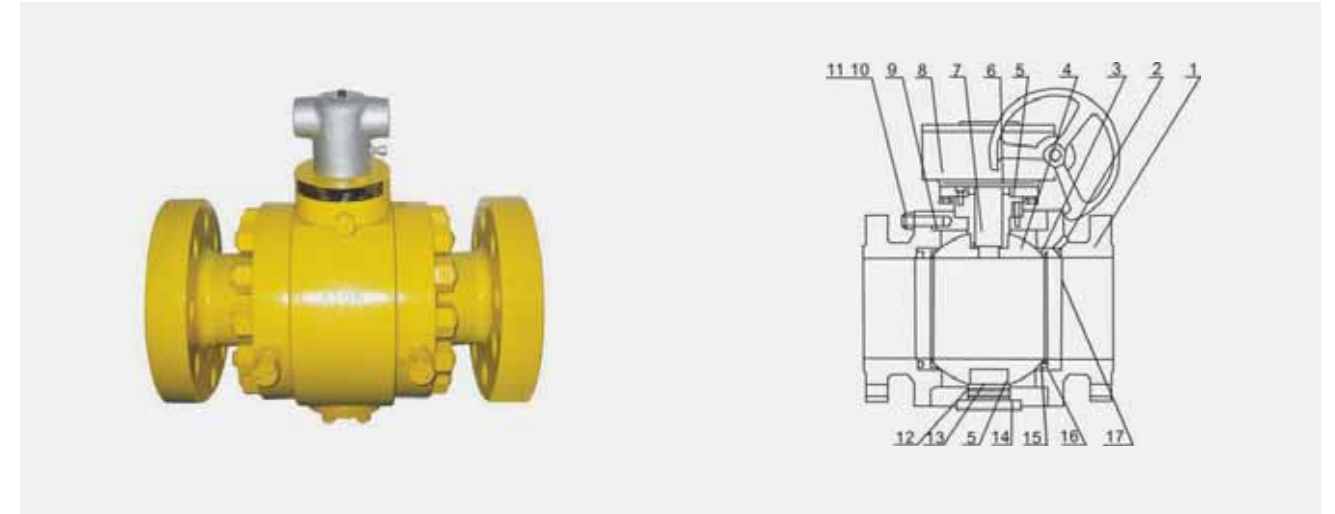
Design Reference	GB	API	ASME
Design standard	GB/T12237	API6D	ASME B16.34
Face to face	GB/T12221	API6D	ASME B16.10
Flanged ends	GB/T9092 JB/T79		ASME B16.5
Test&inspection	GB/T13927	API6D	API598

Note : The dimension of the connecting flange and butt welding can be designed according to customers' requirements.

Materials of Major Parts

NO	Accessory name	Material	
		GB	ASTM
1	Body	WCB	A216 WCB
2	Nuts	45	A194-2H
3	Stud	35CrMoA	A193 2B
4	Ring	PTFE	PTFE
5	Ring	PTFE	PTFE
6	Packing	PTFE	PTFE
7	Spring	lnconelX-750	lnconelX-750
8	Spring Seat	1Cr18Ni9	A182-F304
9	Lever	WCB	A216 WCB
10	Stem	1Cr13	A182-F304
11	Ring	6Mn	AISI 1556
12	Lock piece	Q235A	A36
13	Packing gland	2Cr13	A216-420
14	Gland flange	WCB	A216-WCB
15	Bolts	45	A193-B7
16	Ball	1Cr18Ni9	A182-F304
17	Seat	PTFE	PTFE

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.



Technical Specification

Design reference	GB	API	ASME
Design standard	GB/T12237	API6D	ASME B16.34
Face to face	GB/T12221	API6D	ASME B16.10
Flanged ends	GB/T9092 JB/T79		ASME B16.5
Test&inspection	GB/T13927	API6D	API598

Note : The dimension of the connecting flange and butt welding can be designed according to customers' requirements.

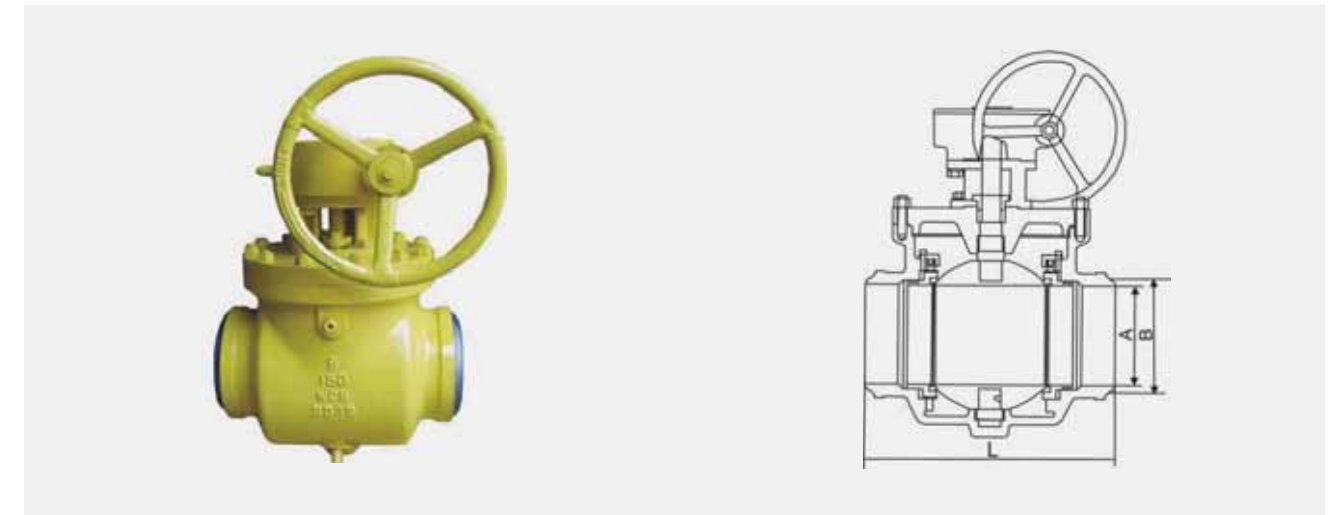
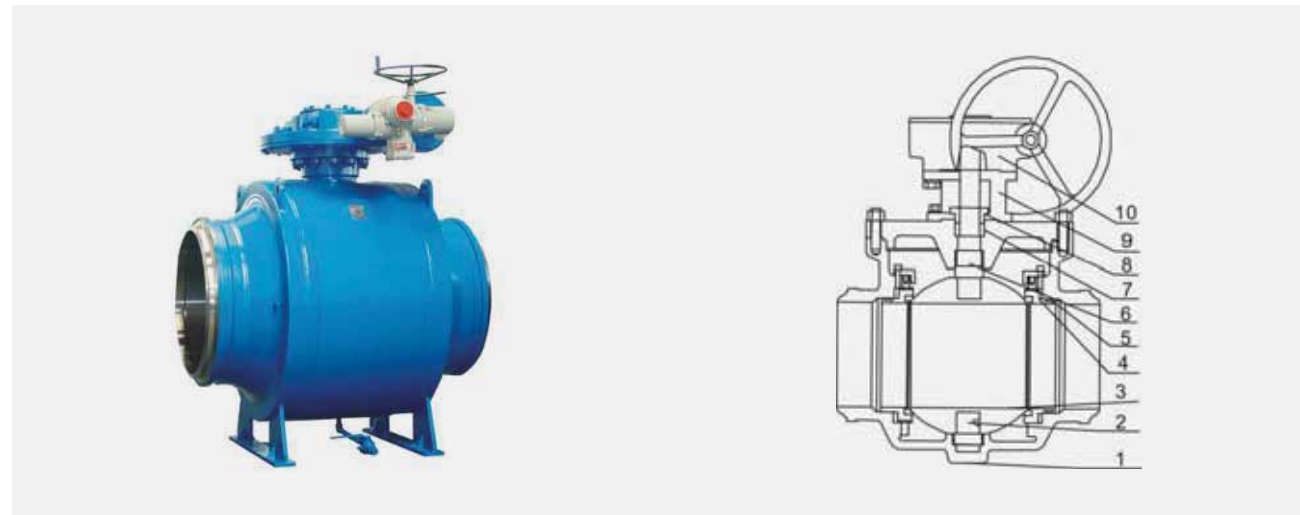
Materials of Major Parts

NO	Accessory name	Material	
		GB	ASTM
1	Body	WCB	A216 WCB
2	Spring	65Mn	lnconelX-750
3	Seat ring	PTFE	
4	Ball	25+ENP	A105+ENP
5	Bearing	PTFE+304	
6	"O" Ring	NBR	
7	Stem	1Cr13	A276-410
8	Worm gear	Subassembly	
9	Gasket	PTFE	
10	Nuts	45	A194-2H
11	Bolts	35CrMoA	A193-B7
12	"O" Ring	NBR	
13	Stem	1Cr13	A276-410
14	Bolts	35CrMoA	A193-B7
15	Seat	25+ENP	A105+ENP
16	"O" Ring	NBR	
17	Grease fitting	Subassembly	

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.

TOP ENTRY BALL VALVE _ TEB

TOP ENTRY BALL VALVE (BUTT-WELDING)



Technical Specification

Design Reference	API	ASME
Design standard	API6D	ASME B16.34
Face to face	Flanged ends	ASME B16.10
	Welded connection	
Flanged ends	ASME B16.5	ASME B16.47
Butt-welding ends	ASME B16.25	
Test & inspection	API6D	API598

Note : The dimension of the connecting flange and butt welding terminals can be designed according to customers' requirements.

Materials of Major Parts

NO	Accessory name	Material
1	Body	A216 WCB
2	Bottom Stem	A182-F304
3	Ball	A182-F304
4	Seat	A216 WCB
5	"O" Ring	Si rubber
6	Upper Stem	A182-F304
7	Packing	PPL
8	Gland flange	A216 WCB
9	Yoke	A216 WCB
10	Worm gear	-

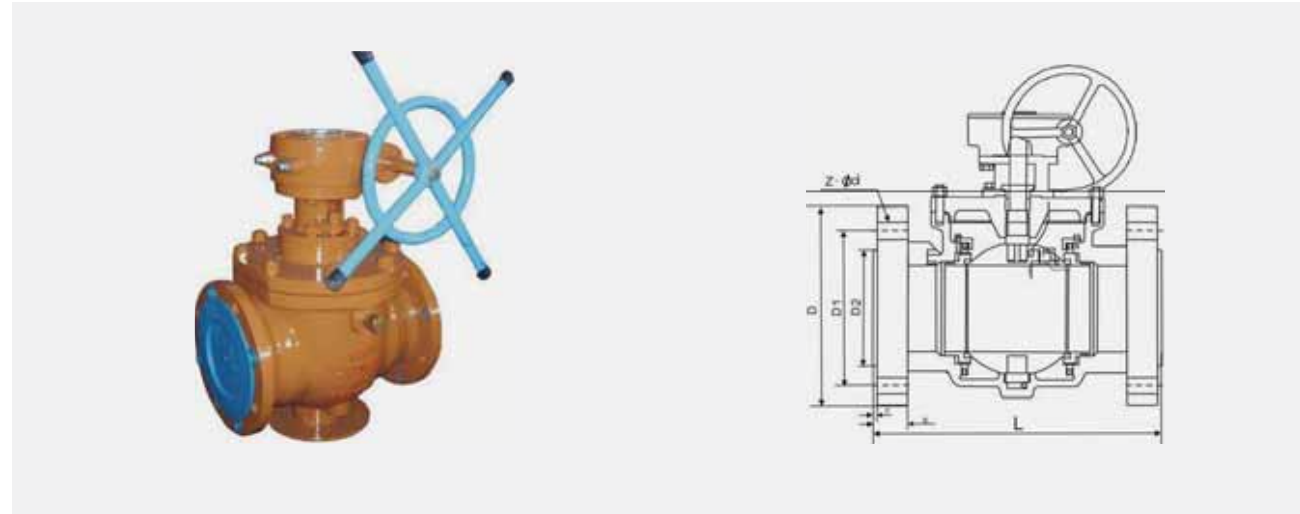
Note : The dimension of connecting flange and butt welding terminals can be designed according to customers' requirements.

External Dimensions

Pressure	Nominal diameter		Size(mm)		
	mm	inch	L	A	B
Class 150	25	1	127	26.6	-
	32	1¼	140	33.6	-
	40	1½	165	39.6	-
	50	2	178	50.6	-
	65	2½	191	75	59
	80	3	203	91	73.5
	100	4	229	117	85.5
	125	5	356	114	128
	150	6	394	172	154
	200	8	457	223	203
	250	10	533	278	254.5
	300	12	610	329	305
	350	14	686	362	333.5
Class 300	40	1½	190.5	39.6	-
	50	2	216	50.6	-
	65	2½	241	75	59
	80	3	283	91	73.5
	100	4	305	117	146.5
	125	5	381	144	203
	150	6	403	172	254.5
	200	8	502	223	198.5
	250	10	568	278	247.5
	300	12	648	329	295
	350	14	762	362	325.5
	400	16	838	413	373
	450	18	914	464	419
500	20	991	516	467	
600	24	1143	619	560.5	

Pressure	Nominal diameter		Size(mm)		
	mm	inch	L	A	B
Class 600	25	1	216	26.6	-
	32	1¼	178	33.6	-
	40	1½	241	39.6	-
	50	2	292	50.6	-
	65	2½	330	75	59
	80	3	356	91	73.5
	100	4	432	117	85.5
	125	5	559	114	128
	150	6	559	172	154
	200	8	660	223	203
	250	10	787	278	254.5
	300	12	838	329	305
	350	14	889	362	333.5
Class 900	40	1½	241	39.6	-
	50	2	368	50.6	-
	65	2½	419	75	54
	80	3	381	91	66.5
	100	4	457	117	87.5
	125	5	457	144	109.5
	150	6	610	172	132
	200	8	737	223	173
	250	10	838	278	216
	300	12	965	329	257
	350	14	1029	362	284
	400	16	1130	413	325.5
	450	18	1219	464	366.5
500	20	1321	516	450.5	
600	24	1549	619	490.5	

TOP ENTRY BALL VALVE (FLANGE)

THREE WAY
BALL VALVE (L TYPE & T TYPE) _ 3WB

External Dimensions

Pressure	Nominal diameter		Size(mm)					
	mm	inch	L	D	D1	D2	b	Z-ød
Class 150	25	1	127	108	79.5	51	14	4-16
	32	1¼	140	117	89	64	16	4-16
	40	1½	165	127	98.5	73	17.5	4-16
	50	2	175	152	120.5	92	19	4-19
	65	2½	191	178	139.5	105	22.5	4-19
	80	3	203	190	152.5	127	24	4-19
	100	4	229	229	190.5	157	24	4-19
	125	5	356	254	216	186	24	8-22
	150	6	394	280	241	216	26	8-22
	200	8	457	343	298.5	270	29	8-22
	250	10	533	407	362	324	31	12-25
	300	12	610	483	432	381	32	12-25
	350	14	686	534	476	412.8	35	12-25
	400	16	762	597	540	470	37	16-29
450	18	864	635	578	533.4	40	16-32	
500	20	914	699	635	584	43	20-32	
600	24	1067	813	749	692	48	20-35	
Class 300	25	1	165	124	89	51	18	4-19
	32	1¼	178	133	98.5	64	19	4-19
	40	1½	190.5	156	114.5	73	21	4-22
	50	2	216	165	127	92	23	8-19
	65	2½	241	190	149	105	26	8-22
	80	3	283	210	168.5	127	29	8-22
	100	4	305	254	200	157	32	8-22
	125	5	381	279	235	186	35	8-22
	150	6	403	318	270	216	37	12-22
	200	8	502	381	330	270	42	12-25
	250	10	568	445	387.4	324	48	16-29
	300	12	648	521	450.8	381	51	16-32
	350	14	762	584	514.4	412.8	54	20-32
	400	16	838	648	571.5	470	58	20-35
450	18	914	711	628.6	533.4	61	24-35	
500	20	991	775	685.8	584	64	24-35	
600	24	1143	914	812.8	692	70	24-41	

Products Summary

Our 3-way ball valve has particular structure and design of appropriate control system. It could be used widely in automatic control systems and industrial sectors like metallurgy, mining, petroleum, chemical, electricity, light industry, watercraft and so on, matching with pneumatic control system.

It is applicable to mixed or split stream project of different substance like fluid, gas or stive.

We adopt dynamic balance four sides of seat sealed structure (Y type 3-way ball valve is three sides of seat sealed), this kind of structure make sure the good sealing: the slippery flow passage make the resistance of fluid to be weaker, and make the stream more smooth.

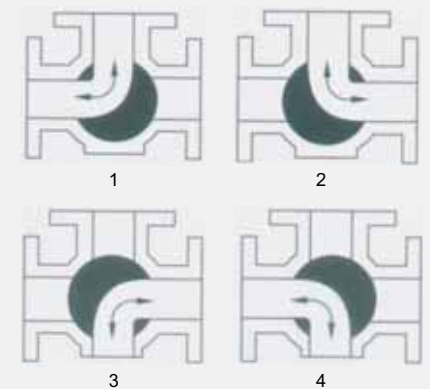
The valve could be divided to L type and T type by the new open-back type of flow passage. The flange connection of valve could be designed according to the requirement of customer.

Working Modality

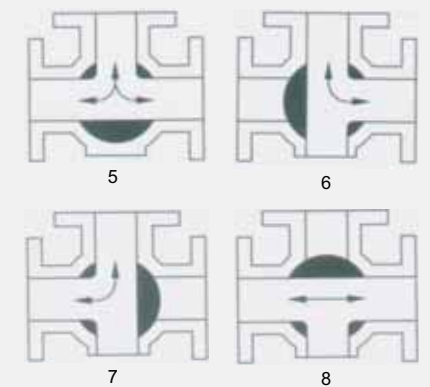
The 3-way ball valve with four sides in L type flow passage can achieve the transformation from working condition 1 to 4 (see picture 1), adopting two sides seat with balanced stress can make sure the good sealing of apolipsis passage. It is mainly used to change the direction of the stream.

The 3-way ball valve with four sides in T type flow passage can achieve the transformation from working condition 5 to 8 (see picture 2), adopting two sides seat with balanced stress can make sure the good sealing of apolipsis passage. It is mainly used to split stream, mix stream, change the direction of the stream, and open all the three passages and so on.

L Type (Fig1)

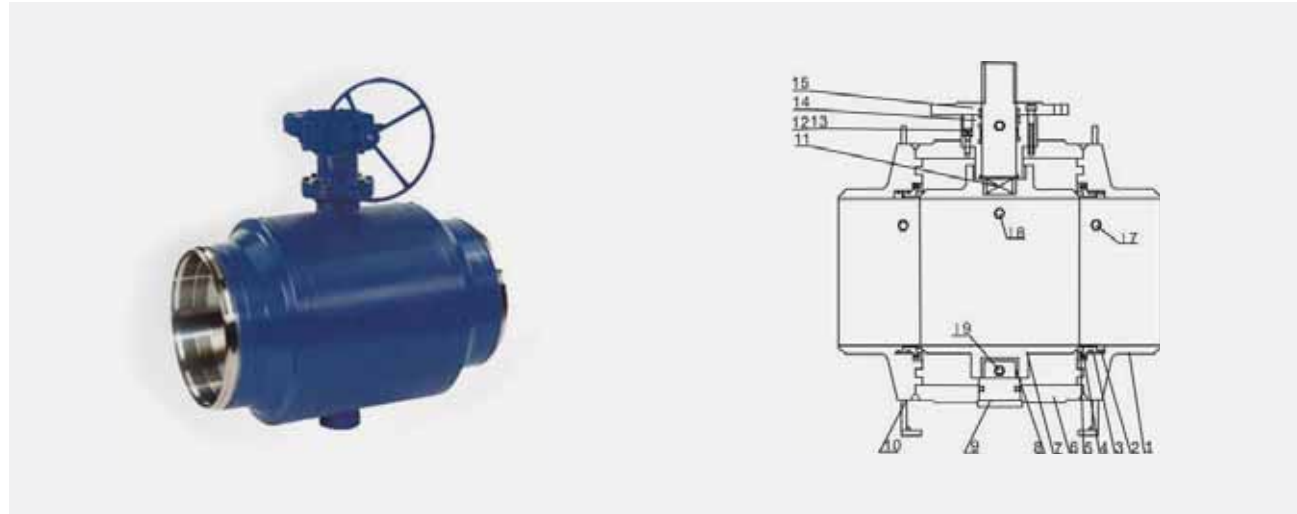


T Type (Fig2)



FULLY WELDED BALL VALVE _ FWB

DIN CAST STEEL BALL VALVE _ DFB/DTB



Technical Specification

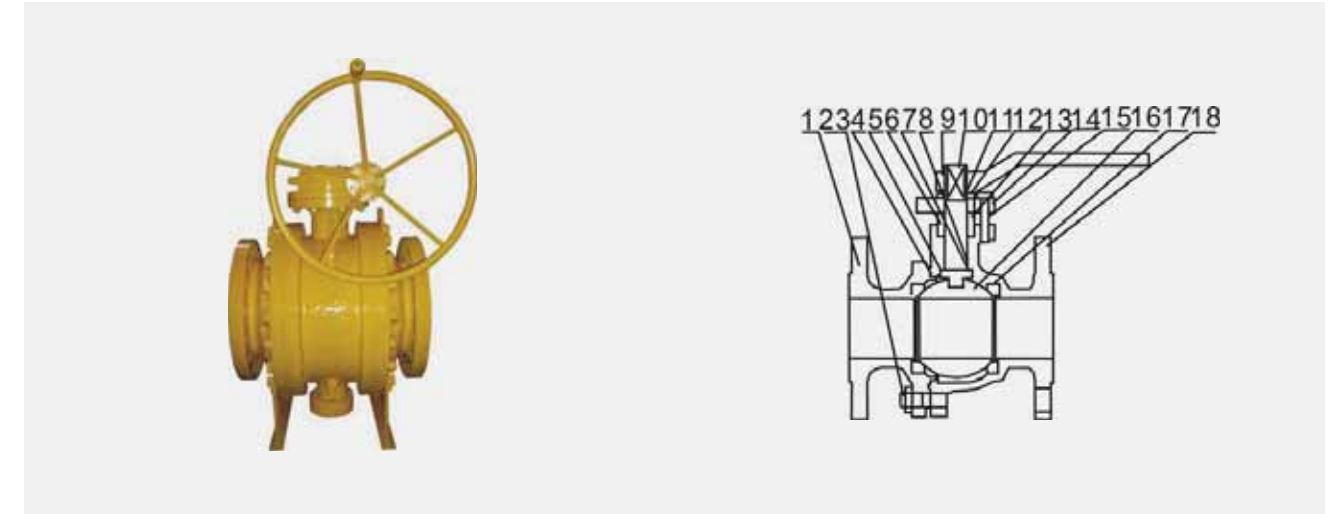
Design Reference	API	ASME
Design standard	API6D	ASME B16.34
Face to face	API6D	ASME B16.10
Welded ends	ASME B16.5	
Test & Inspection	API6D	API598

Note : The dimension of the connecting flange can be designed according to customers' requirements.

Materials of Major Parts

NO	Accessory name	Material (ASTM)
1	Body	A216 WCB
2	"O" Ring	RPTFE
3	Seat	A105+ENP
4	Spring	316
5	Ring	RPTFE
6	Middle body	A105
7	Ball	A105+ENP
8	Bearing	Subassembly
9	Steam	A276-410
10	Pedestal	A105
11	Steam	A276-410
12	Bolts	A193-B7
13	Gasket	65Mn
14	Press and cover	A105
15	Flange	A105
16	Lug	A105
17	Grease injection valve	Subassembly
18	Safety valve	Subassembly
19	Blow-off valve	Subassembly

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.



Technical Specification

Design reference	DIN 3357-1, EN12516-1
Face to face	DIN 3202 F1/F4/F5/F17/F18
Flange ends	DIN 2542-DIN2545 EN1092
Test & Inspection	DIN3230/3, EN12266

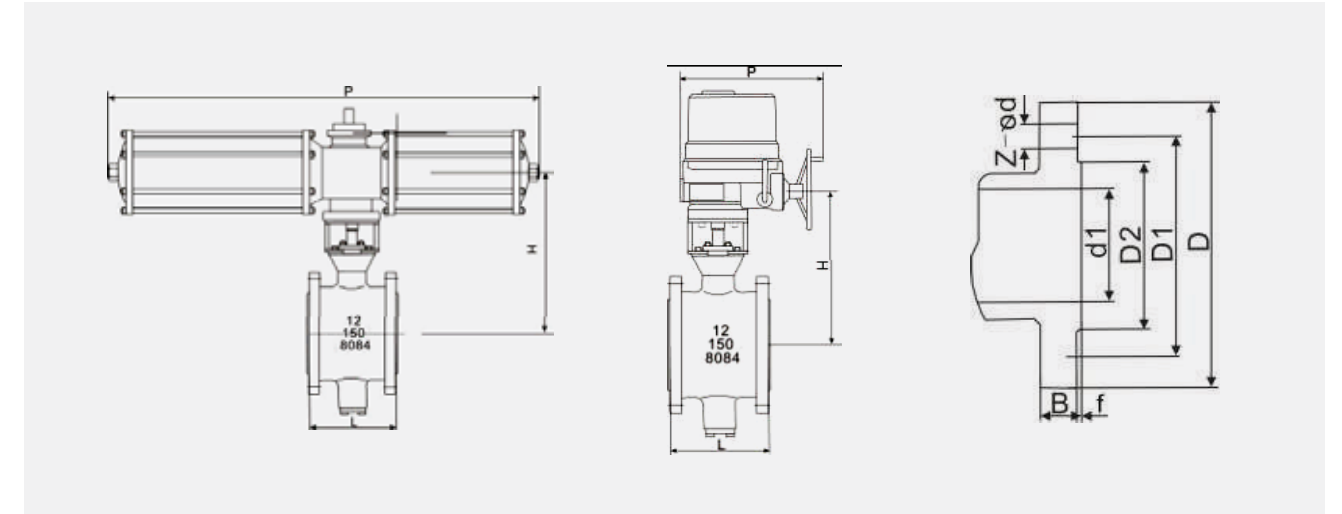
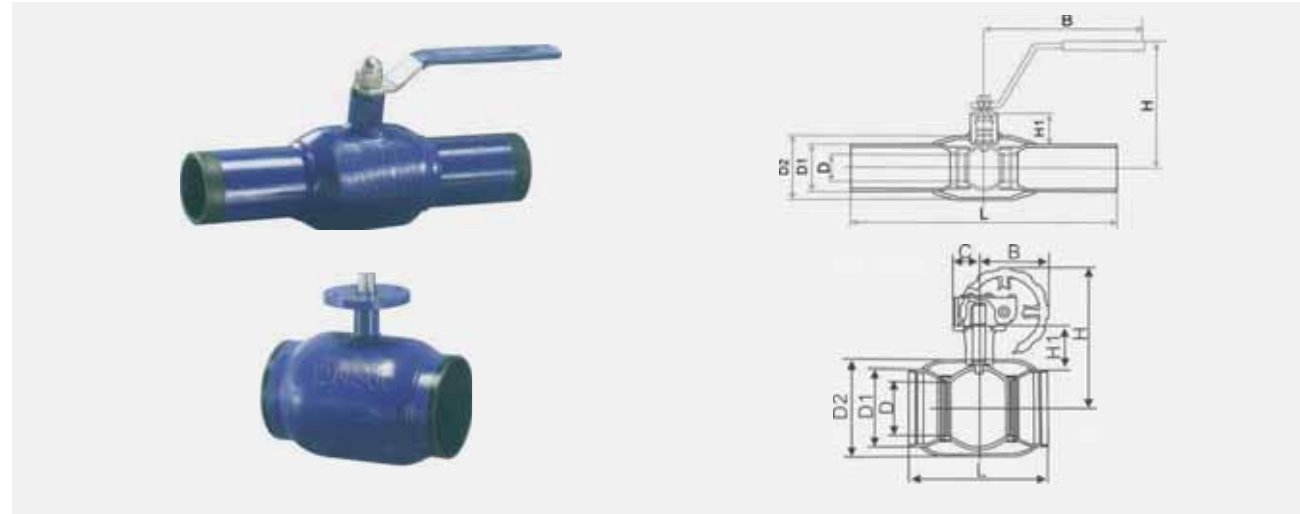
Materials of Major Parts

NO	Accessory name	Material (ASTM)
1	Body	1.0619
2	Nut	A194 2H
3	Stud	A193 2B
4	Ring	PTFE
5	Ring	PTFE
6	Packing	PTFE
7	Spring	lnconelX-750
8	Spring Seat	A182-F304
9	Lever	A216 WCB/CF8
10	Steam	A182-F304
11	Ring	AISI 1556
12	Lock piece	A36
13	Packing gland	A216-420
14	Gland flange	A216-WCB
15	Bolts	A193-B7
16	Ball	A182-F304
17	Seat	PTFE

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.

DIN FULLY WELDED STEEL BALL VALVES _ DFWB

HV SEGMENT BALL VALVE_HV-SB



External Dimensions

PN	DN	Size (mm)								WT (Kg)
		L	D	D1	D2	H	B	C	H1	
Class 150	DN10	230	10	17.2	33.7	98	145	-	22	0.5
	DN15	230	10	21.3	33.7	98	145	-	22	0.5
	DN20	230	15	26.9	42.4	103	145	-	23	0.7
	DN25	230	20	33.7	48.3	118	145	-	34	1
	DN32	260	25	42.4	60.3	121	145	-	34	1.4
	DN40	260	32	48.3	76.1	120	190	-	43	1.8
	DN50	300	40	60.3	88.9	127	190	-	44	2.6
Class 300	DN65	300	50	76.1	114.3	280	280	-	71	4.4
	DN80	300	65	88.9	139.7	280	280	-	77	5.6
	DN100	325	80	114.3	168.3	280	280	-	102	8.4
	DN125	325	100	139.7	177.8	400	400	-	102	13.4
	DN150	350	125	168.3	219.1	600	600	-	107	18
	DN200	400	150	219.1	273	900	900	-	123	36.3
	DN250	530	200	273	355.6	120	120	-	123	72
	DN300	550	250	323.9	457	280	280	193	155	193
	DN350	650	300	355.6	508	325	325	150	187	385
	DN400	760	350	406.4	610	466	466	175	221	567
	DN500	914	400	508	680	466	466	175	221	746
	DN600	1067	500	610	830	466	466	175	259	1568

Main Features

1. High output torque, and Small volume
2. Large adjustable range, can provide precise control in a broad variation range, small volume
3. Type V ball valve is under full vertical angle rotary control, so its maximum volume is especially large, and flow capacity is very big.
4. Type V ball valve uses duplex bearing, so its mechanical stability is very high and the starting torque is small.
5. The valve uses metallic seal structure. A shearing force is generated at the joint of the V-notch and the valve seat, which can cut off the raffles like fibers, so as to avoid blocks and has the self-cleaning function.
6. Its leakage Volume satisfy the requirements of the GB/T 17213.4-2005/IEC 60534-4:1999 Class IV
7. Return Difference; Intrinsic Error; Dead Area; Deviation between Ends; Rated Flow Coefficient, Static Air Consumption

External Dimensions

Pressure	Nominal diameter		Size(mm)					
	mm	inch	L	D	D1	D2	b	Z-ød
Class 150	25	1	127	108	79.5	51	14	4-16
	32	1¼	140	117	89	64	16	4-16
	40	1½	165	127	98.5	73	17.5	4-16
	50	2	175	152	120.5	92	19	4-19
	65	2½	191	178	139.5	105	22.5	4-19
	80	3	203	190	152.5	127	24	4-19
	100	4	229	229	190.5	157	24	4-19
	125	5	356	254	216	186	24	8-22
	150	6	394	280	241	216	26	8-22
	200	8	457	343	298.5	270	29	8-22
	250	10	533	407	362	324	31	12-25
	300	12	610	483	432	381	32	12-25
	350	14	686	534	476	412.8	35	12-25
	400	16	762	597	540	470	37	16-29
	450	18	864	635	578	533.4	40	16-32
	500	20	914	699	635	584	43	20-32
	600	24	1067	813	749	692	48	20-35

API METAL TO METAL SEAT BUTTERFLY VALVE



Technical Specification

Design Reference	API	ASME
Design standard	API609	ASME B16.5
	ASME B16.10	
Flanged ends	ASME B16.5	
Test & inspection	API598	

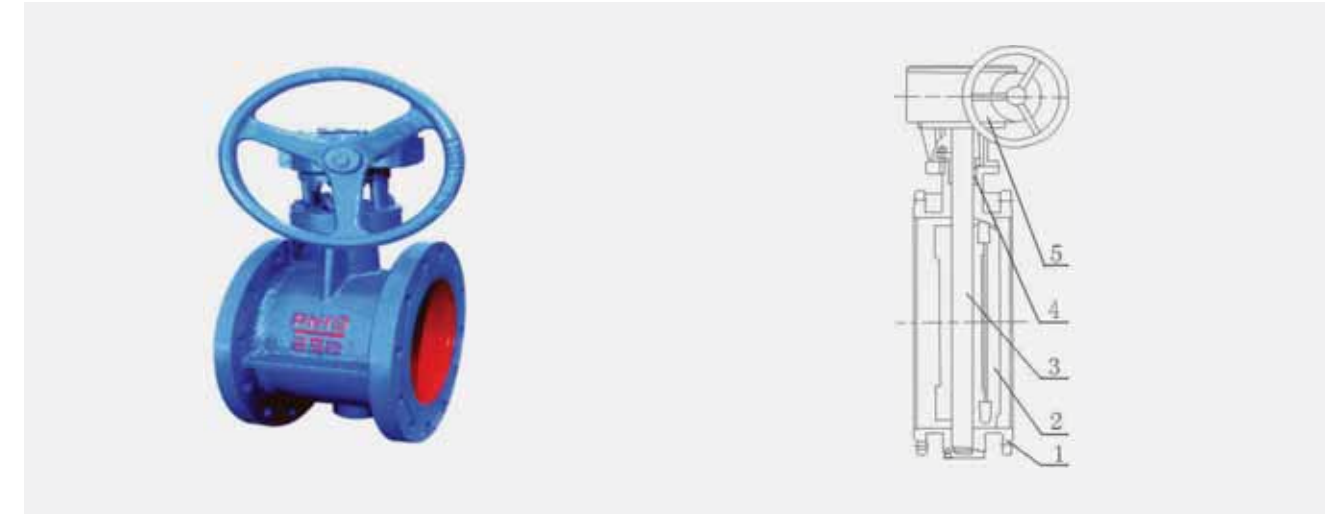
Note : The dimension of the connecting flange can be designed according to customers requirements.

Materials of Major Parts

NO	Accessory name	Material
1	Body	A216 WCB
2	Disc	CF8 A182-F304
3	Pin	35
4	Stem	A276-420
5	Bearing	HPb59-1
6	'O' Ring	NBR
7	Bolt	A193-B7
8	Gasket	65Mn

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers special requirements.

DIN METAL TO METAL SEAT BUTTERFLY VALVE



Technical Specification

Face to face	DIN3202 F4 F16
Flanged ends	DIN 2543, 2544
Test & inspection	DIN 3230

Note : The dimension of the connecting flange can be designed according to customers requirements.

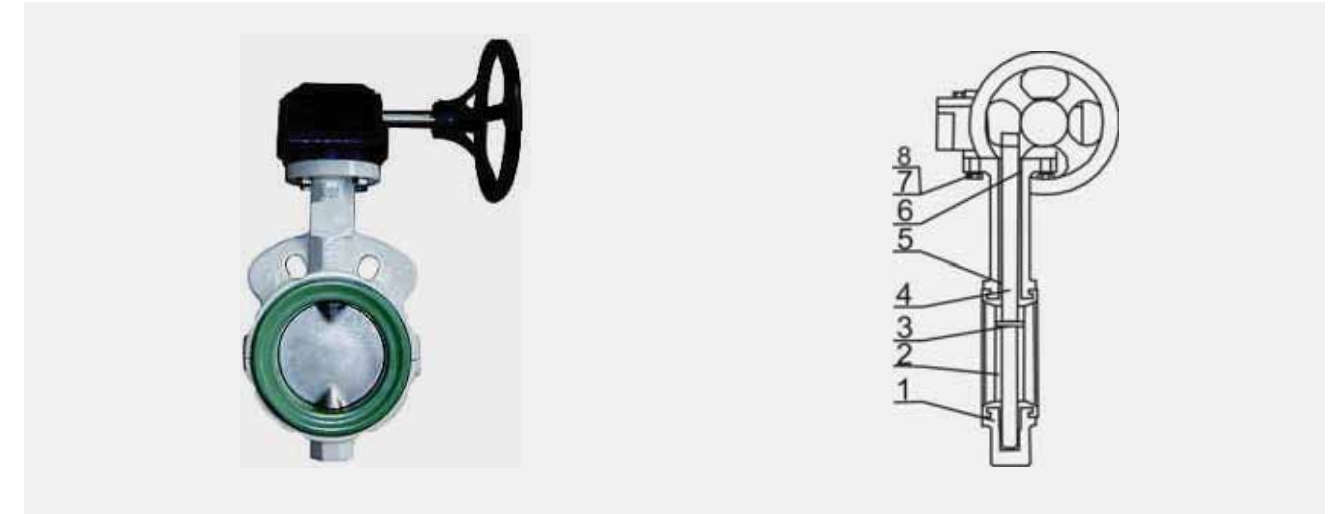
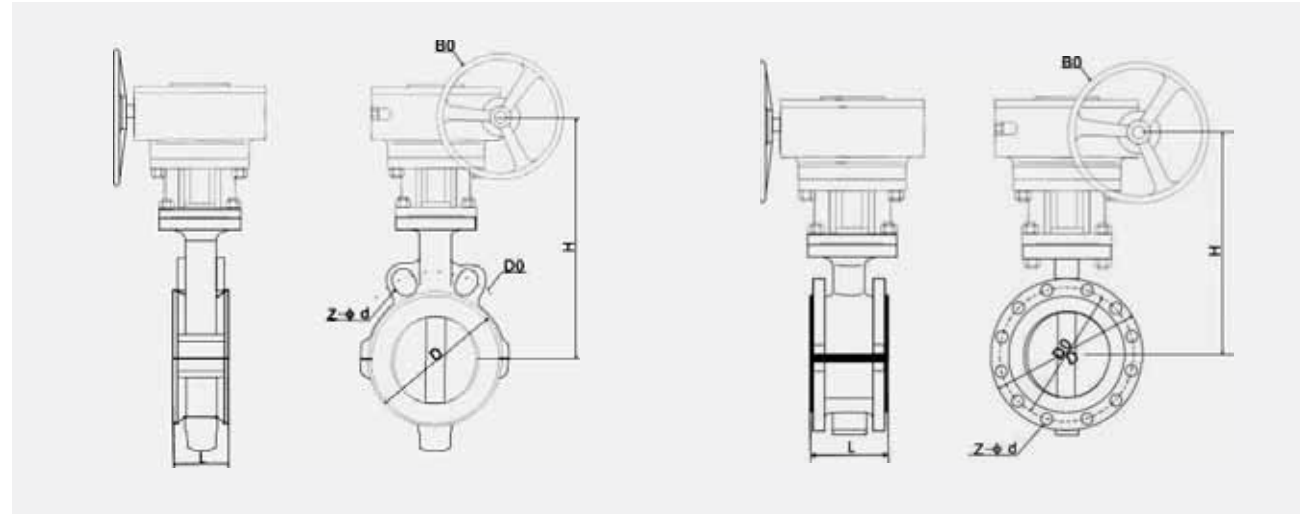
Materials of Major Parts

NO	Accessory name	Material (ASTM)
1	Body	1.0619
2	Disc	0Cr18Ni9
3	Stem	2Cr13
4	Bearing	HPb59-1
5	Worm Gear	Subassembly

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers special requirements.

TEFLON (RUBBER) LINING BUTTERFLY VALVE _ D71F (D71J/D41J)

SPLIT BODY BUTTERFLY VALVE _ FD



External Dimensions

Pressure	Nominal diameter		Wafer type butterfly valve			Flange type butterfly valve		
	DN	NPS	L	H	B0	L	H	B0
Class 150	50	2"	43	185	130	108	185	130
	80	3"	46	195	130	114	195	130
	100	4"	52	209	130	127	209	150
	125	5"	56	243	150	140	243	150
	150	6"	56	263	150	140	263	150
	200	8"	61	295	250	152	295	250
	250	10"	68	342	300	165	342	300
	300	12"	78	385	300	178	385	300
	350	14"	78	430	300	190	430	300
	400	16"	79	469	300	216	469	300
	450	18"	101	500	400	222	500	400
	500	20"	111	618	400	229	618	400
	600	24"	154	746	600	267	746	600
	750	30"	165	810	600	292	810	600
	800	32"	190	875	600	318	875	600
	900	36"	203	965	600	330	965	600
	1000	40"	216	980	600	410	1065	600
1200	48"	276	1170	600	470	1170	600	
1400	56"	-	-	-	530	1319	600	
1600	64"	-	-	-	600	1443	600	
1800	72"	-	-	-	670	1595	600	
2000	80"	-	-	-	760	1743	600	

Technical Specification

Design standard	JB/T 8527 JIS 10K API 609
Face to face	GB/T12221 JISB2002 ASME16.10
Flanged ends	GB 4216 JISB2212-2214 ASME16.5a
Test & inspection	GB/T13927 API598

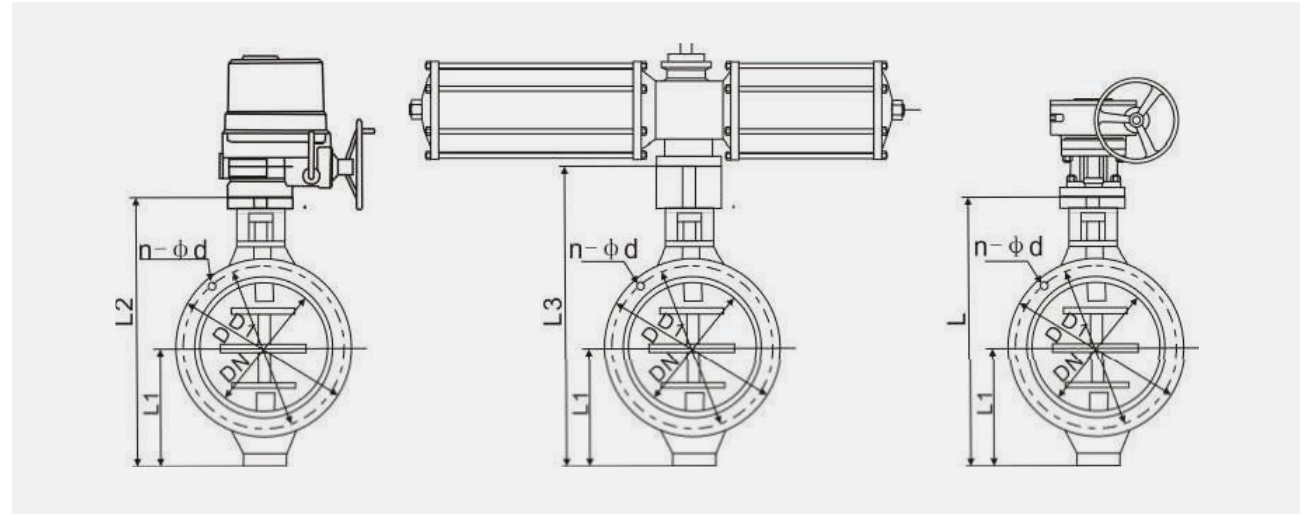
Note : The dimension of the connecting flange can be designed according to customers requirements.

Materials of Major Parts

NO	Accessory name	Material (ASTM)
1	Body	A216 WCB
2	Disc	CF8 A182-F304
3	Pin	35
4	Stem	A276-420
5	Bearing	HPb59-1
6	'O' Ring	NBR
7	Bolt	A193-B7
8	Gasket	65Mn

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers special requirements.

QD SERIES LIGHT-DUTY ELECTRIC (PNEUMATIC, MANUAL) AERATION BUTTERFLY VALVE



Structural Features & Uses

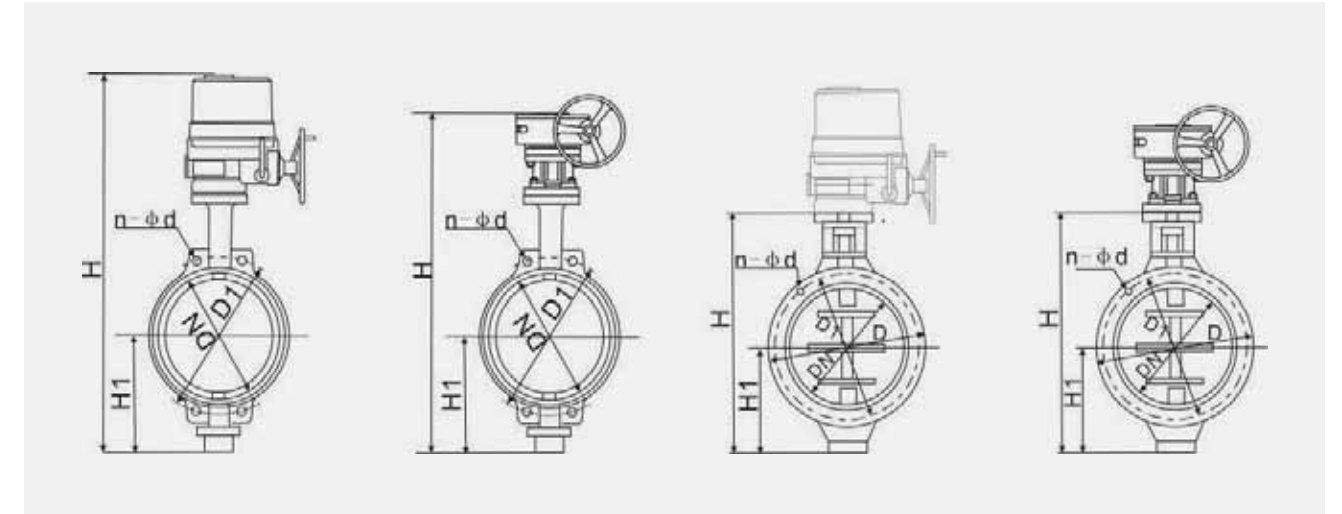
This valve is ideal starting and stopping as well as conditioning equipment for dust removal and ventilation and environmental protection systems, unique in structure, welded with high quality alloy-steel plate, characterized by small volume, light weight, large flow area, flexible start and stop and choice for site operation and remote operation and control, and applicable to metallurgy, mining, power station, building materials, medicine, chemical, and light industries.

Main Outline Dimensional Drawing

Pressure	Nominal diameter		Size(mm)					
	mm	inch	L	D	D1	D2	b	Z-ød
Class 150	25	1	127	108	79.5	51	14	4-16
	32	1¼	140	117	89	64	16	4-16
	40	1½	165	127	98.5	73	17.5	4-16
	50	2	175	152	120.5	92	19	4-19
	65	2½	191	178	139.5	105	22.5	4-19
	80	3	203	190	152.5	127	24	4-19
	100	4	229	229	190.5	157	24	4-19
	125	5	356	254	216	186	24	8-22
	150	6	394	280	241	216	26	8-22
	200	8	457	343	298.5	270	29	8-22
	250	10	533	407	362	324	31	12-25
	300	12	610	483	432	381	32	12-25
	350	14	686	534	476	412.8	35	12-25
	400	16	762	597	540	470	37	16-29
	450	18	864	635	578	533.4	40	16-32
	500	20	914	699	635	584	43	20-32
600	24	1067	813	749	692	48	20-35	

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers special requirements.

AD SERIES LIGHT-DUTY ELECTRIC (MANUAL) AERATION BUTTERFLY VALVE



Structural Features & Uses

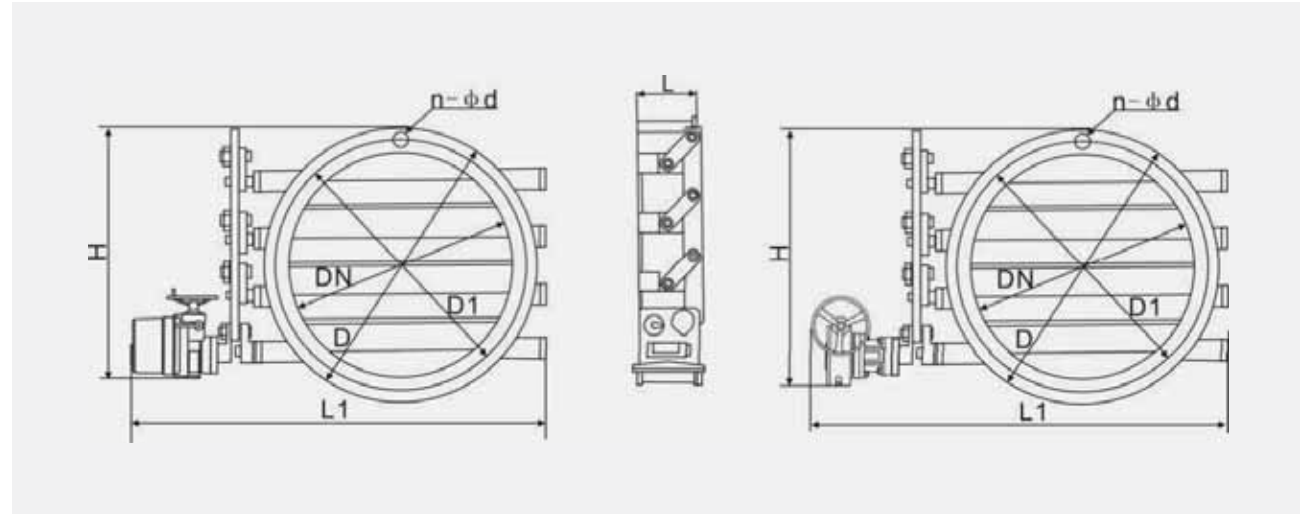
This valve is welded with high quality alloy-steel plate, and characterized by small volume, light weight, large flow area, flexible start and stop, easy use and maintenance and cheap price. It adopts DN100-500 wafer connection and DN600-DN3000 flange connection. It is applicable to metallurgy, mining, power station, building materials, medicine, chemical, and light industries, and available for site operation or remote control.

Main Outline Dimensional Drawing

Pressure	Nominal diameter		Size(mm)					
	mm	inch	L	D	D1	D2	b	Z-ød
Class 150	25	1	127	108	79.5	51	14	4-16
	32	1¼	140	117	89	64	16	4-16
	40	1½	165	127	98.5	73	17.5	4-16
	50	2	175	152	120.5	92	19	4-19
	65	2½	191	178	139.5	105	22.5	4-19
	80	3	203	190	152.5	127	24	4-19
	100	4	229	229	190.5	157	24	4-19
	125	5	356	254	216	186	24	8-22
	150	6	394	280	241	216	26	8-22
	200	8	457	343	298.5	270	29	8-22
	250	10	533	407	362	324	31	12-25
	300	12	610	483	432	381	32	12-25
	350	14	686	534	476	412.8	35	12-25
	400	16	762	597	540	470	37	16-29
	450	18	864	635	578	533.4	40	16-32
	500	20	914	699	635	584	43	20-32
600	24	1067	813	749	692	48	20-35	

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers special requirements.

DYD-Y SERIES ROUND MULTI BLADE BUTTERFLY VALVE



Structural Features

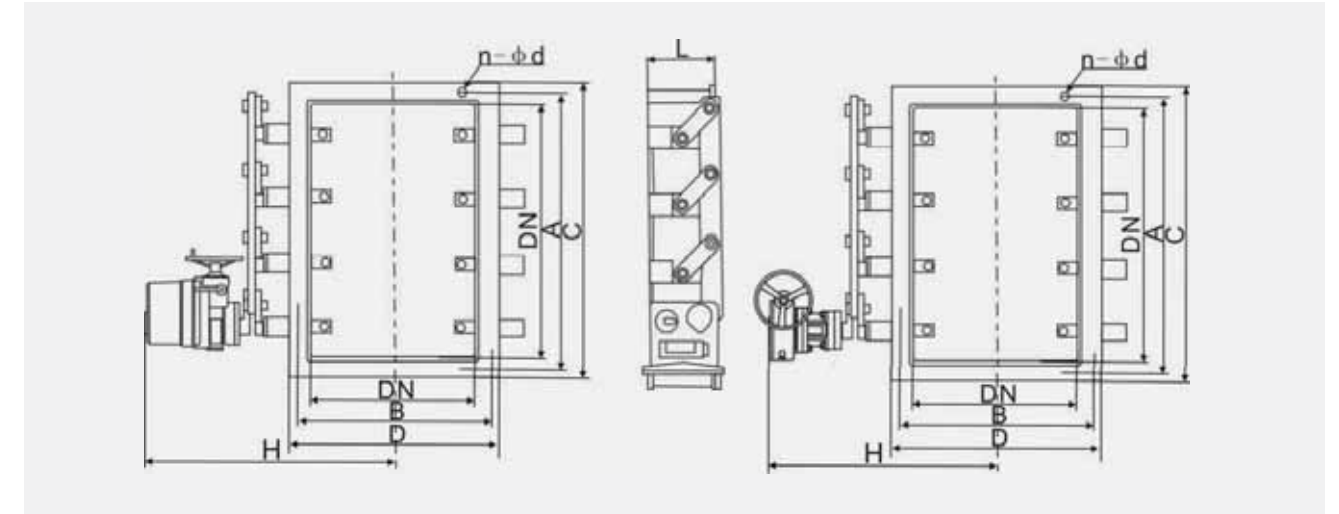
This series of round multi blade butterfly valve is widely used in dusty cold air or warm air ducts of ventilation and environmental protection works in metallurgy, building materials, chemical, power station and glass industries, particularly applicable to inlets and outlets of fans as air regulation and starting and stopping equipment to reduce open and close moment, and able to be used with various kinds of actuators to present different equipment performance.

Main Parameters

Pressure	Nominal diameter		Size(mm)					
	mm	inch	L	D	D1	D2	b	Z-φd
Class 150	25	1	127	108	79.5	51	14	4-16
	32	1¼	140	117	89	64	16	4-16
	40	1½	165	127	98.5	73	17.5	4-16
	50	2	175	152	120.5	92	19	4-19
	65	2½	191	178	139.5	105	22.5	4-19
	80	3	203	190	152.5	127	24	4-19
	100	4	229	229	190.5	157	24	4-19
	125	5	356	254	216	186	24	8-22
	150	6	394	280	241	216	26	8-22
	200	8	457	343	298.5	270	29	8-22
	250	10	533	407	362	324	31	12-25
	300	12	610	483	432	381	32	12-25
	350	14	686	534	476	412.8	35	12-25
	400	16	762	597	540	470	37	16-29
	450	18	864	635	578	533.4	40	16-32
	500	20	914	699	635	584	43	20-32
600	24	1067	813	749	692	48	20-35	

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers special requirements.

DYD-F SERIES ROUND MULTI BLADE BUTTERFLY VALVE



Structural Features

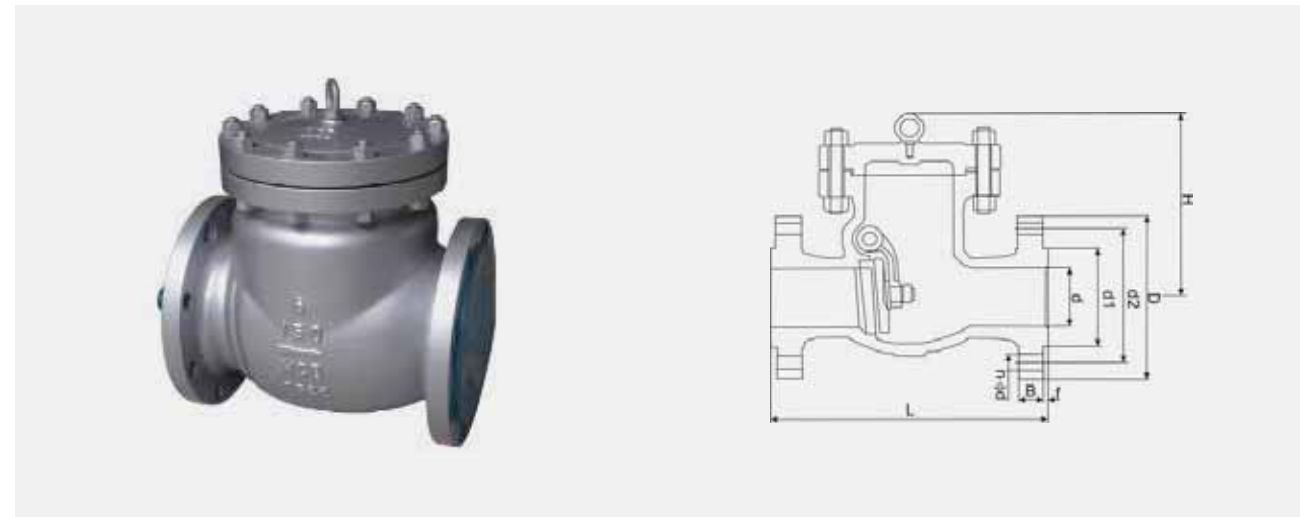
This series of round multi blade butterfly valve is widely used in dusty cold air or warm air ducts of ventilation and environmental protection works in metallurgy, building materials, chemical, power station and glass industries, particularly applicable to inlets and outlets of fans as air regulation and starting and stopping equipment to reduce open and close moment, and able to be used with various kinds of actuators to present different equipment performance.

Main Parameters

Pressure	Nominal diameter		Size(mm)					
	mm	inch	L	D	D1	D2	b	Z-φd
Class 150	25	1	127	108	79.5	51	14	4-16
	32	1¼	140	117	89	64	16	4-16
	40	1½	165	127	98.5	73	17.5	4-16
	50	2	175	152	120.5	92	19	4-19
	65	2½	191	178	139.5	105	22.5	4-19
	80	3	203	190	152.5	127	24	4-19
	100	4	229	229	190.5	157	24	4-19
	125	5	356	254	216	186	24	8-22
	150	6	394	280	241	216	26	8-22
	200	8	457	343	298.5	270	29	8-22
	250	10	533	407	362	324	31	12-25
	300	12	610	483	432	381	32	12-25
	350	14	686	534	476	412.8	35	12-25
	400	16	762	597	540	470	37	16-29
	450	18	864	635	578	533.4	40	16-32
	500	20	914	699	635	584	43	20-32
600	24	1067	813	749	692	48	20-35	

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers special requirements.

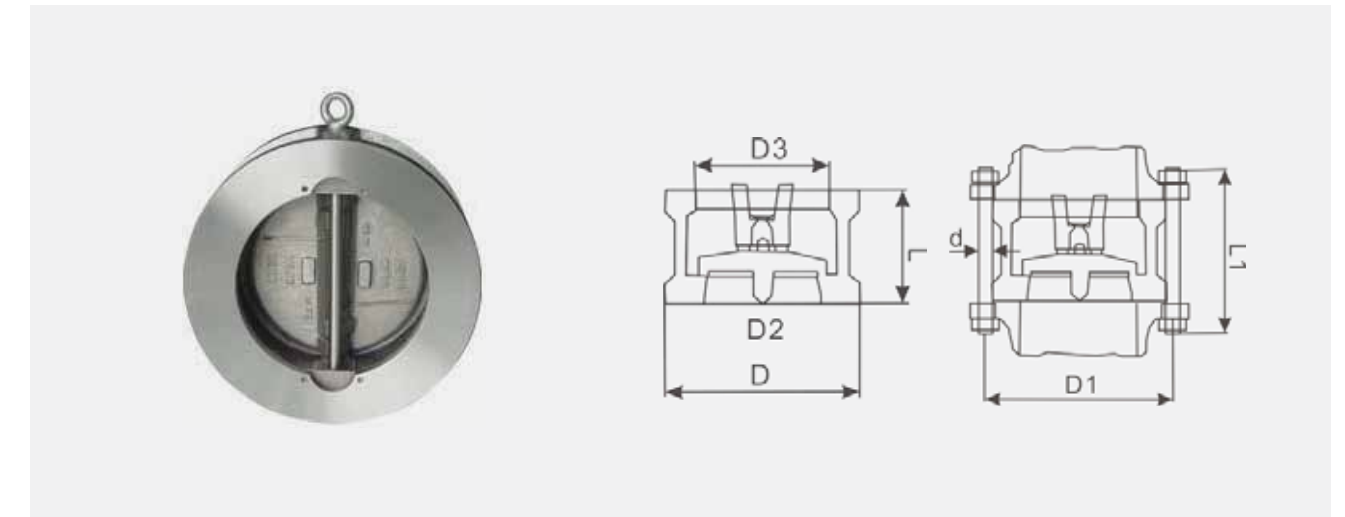
SINGLE-CLACK SWING TYPE CHECK VALVES (H44)



Main Connection Dimensions and Weights

Pressure	NPS (Inch)	Size (mm)									WT (Kg)	
		L			d1	d2	D	B	n-∅d	H	BF	BW
		RF	BW	RTJ								
Class 150	2	203	216	92	120.5	152	16	419	135	17	13	
	2 1/2	216	229	105	139.5	178	17.5	4-19	155	21	17	
	3	241	254	127	152.5	190	19	4-19	168	29	24	
	4	292	305	157	190.5	229	24	8-19	235	42	36	
	5	330	343	186	216	254	25	8-22	249	69	57	
	6	356	368	216	241.5	279	26	8-22	277	74	62	
	8	495	508	270	298.5	343	29	8-22	339	108	96	
	10	622	635	324	362	406	31	12-25	398	177	158	
	12	698	711	381	432	483	32	12-25	525	282	238	
	14	787	800	413	476	533	35	12-29	553	372	324	
	16	864	876	470	540	597	37	16-29	584	570	483	
	18	978	991	533	578	635	40	16-32	688	665	548	
	20	978	991	584	635	699	43	20-32	712	900	782	
	24	1295	1308	692	749.5	813	48	20-35	740	1359	1150	
Class 300	2	267	283	92	127	165	23	8-19	158	21	16	
	2 1/2	292	308	105	149	190	26	8-22	167	32	24	
	3	318	333	127	168.5	210	29	8-22	188	43	35	
	4	356	371	157	200	254	32	8-22	259	61	44	
	5	400	416	186	235	279	35	8-22	281	84	61	
	6	444	460	216	270	318	37	12-22	319	131	105	
	8	533	549	270	330	381	42	12-25	401	213	167	
	10	622	638	324	387.5	445	48	16-29	483	384	272	
	12	711	727	381	451	521	51	16-32	555	449	375	
	14	838	854	413	514.5	584	54	20-32	585	680	560	
	16	864	876	470	571.5	648	58	20-35	615	840	710	
	18	978	994	533	628.5	711	61	24-35	643	1025	828	
	10	622	635	324	362	406	31	12-25	398	177	158	
	12	698	711	381	432	483	32	12-25	525	282	238	

WAFER DOUBLE DISC TYPE SWING CHECK VALVES (H76)

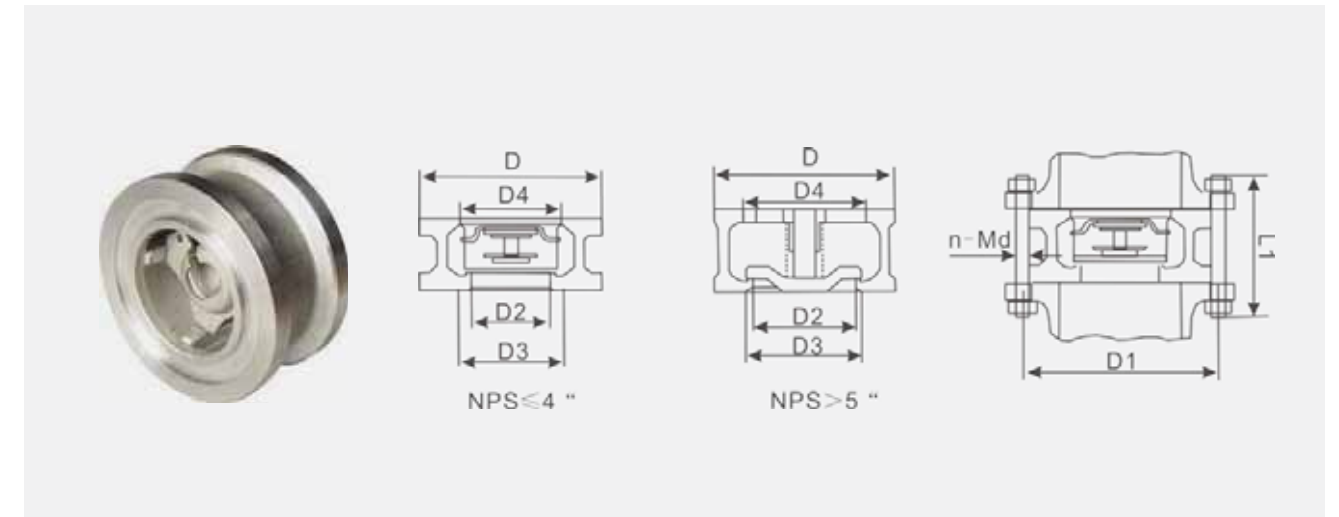
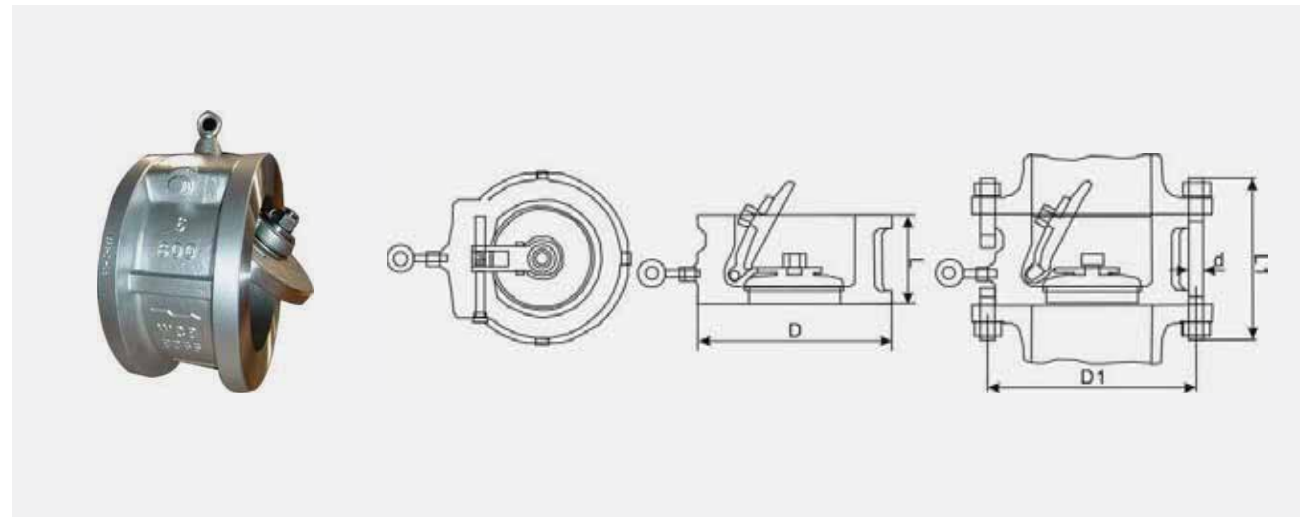


Main Connection Dimensions and Weights

Pressure	NPS (Inch)	Size (mm)				Flange (as referenced) (mm)				WT (Kg)
		L	D	D2	D3	L1		D1	n-∅d	
						RF	RJ			
Class 150	2	203	120.5	216	92	120.5	152	16	419	135
	2 1/2	216	139.5	229	105	139.5	178	17.5	4-19	155
	3	241	152.5	254	127	152.5	190	19	4-19	168
	4	292	190.5	305	157	190.5	229	24	8-19	235
	5	330	216	343	186	216	254	25	8-22	249
	6	356	241.5	368	216	241.5	279	26	8-22	277
	8	495	298.5	508	270	298.5	343	29	8-22	339
	10	622	362	635	324	362	406	31	12-25	398
	12	698	432	711	381	432	483	32	12-25	525
	14	787	476	800	413	476	533	35	12-29	553
	16	864	540	876	470	540	597	37	16-29	584
	18	978	578	991	533	578	635	40	16-32	688
	20	978	635	991	584	635	699	43	20-32	712
	24	1295	749.5	1308	692	749.5	813	48	20-35	740
20	978	635	991	584	635	699	43	20-32	712	
Class 300	2	267	165	283	92	127	165	23	8-19	158
	2 1/2	292	190	308	105	149	190	26	8-22	167
	3	318	210	333	127	168.5	210	29	8-22	188
	4	356	254	371	157	200	254	32	8-22	259
	5	400	279	416	186	235	279	35	8-22	281
	6	444	318	460	216	270	318	37	12-22	319
	8	533	381	549	270	330	381	42	12-25	401
	10	622	445	638	324	387.5	445	48	16-29	483
	12	711	521	727	381	451	521	51	16-32	555
	14	838	584	854	413	514.5	584	54	20-32	585
	16	864	648	876	470	571.5	648	58	20-35	615
	18	978	711	994	533	628.5	711	61	24-35	643
	14	838	584	854	413	514.5	584	54	20-32	585
	16	864	648	876	470	571.5	648	58	20-35	615
18	978	711	994	533	628.5	711	61	24-35	643	

SINGLE DISC WAFER TYPE SWING CHECK VALVES (H74)

WAFER TYPE LIFT CHECK VALVES (H71)



Main Connection Dimensions and Weights

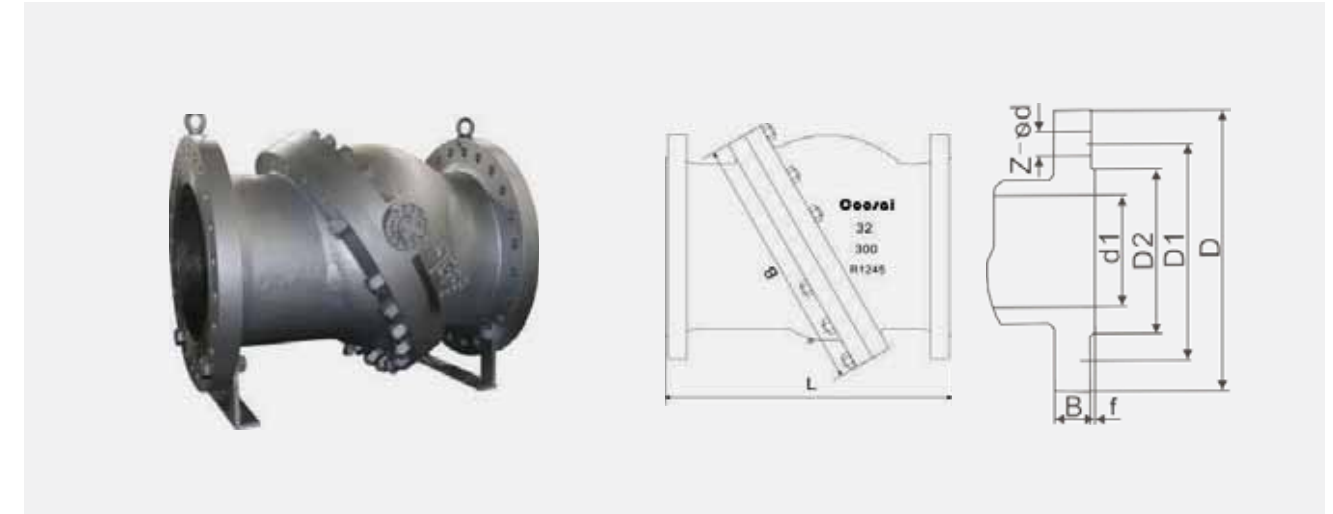
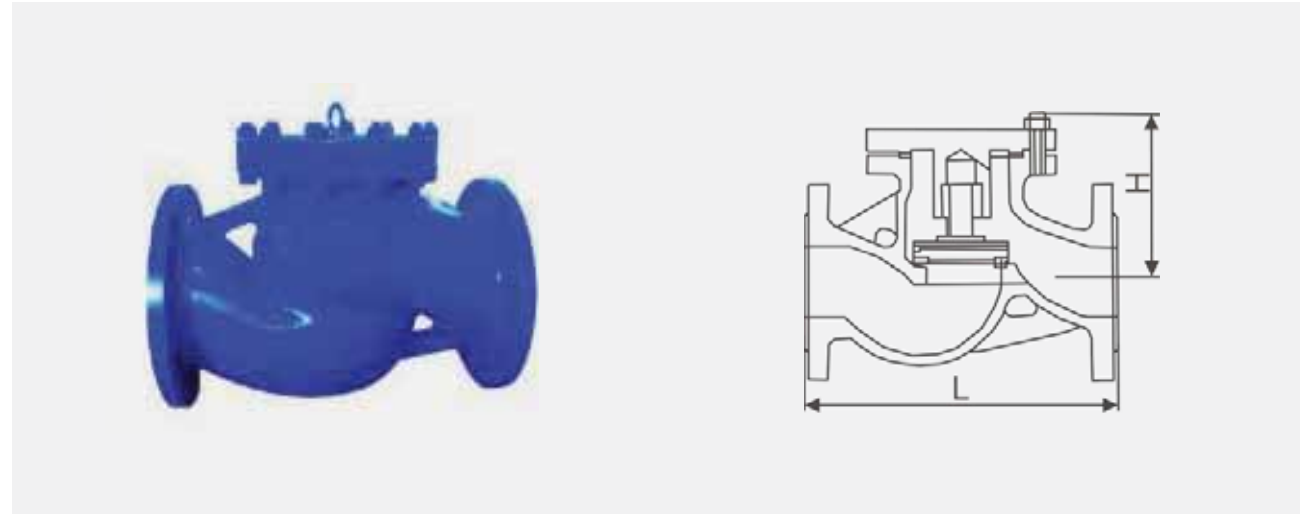
Pressure	NPS (Inch)	Size (mm)		Flange (as referenced) (mm)				WT (Kg)
		L	D	D2		D1	n-Md	
				RF	RJ			
Class 150	2	203	120.5	216	92	120.5	152	16
	2 1/2	216	139.5	229	105	139.5	178	17.5
	3	241	152.5	254	127	152.5	190	19
	4	292	190.5	305	157	190.5	229	24
	5	330	216	343	186	216	254	25
	6	356	241.5	368	216	241.5	279	26
	8	495	298.5	508	270	298.5	343	29
	10	622	362	635	324	362	406	31
	12	698	432	711	381	432	483	32
	14	787	476	800	413	476	533	35
	16	864	540	876	470	540	597	37
	18	978	578	991	533	578	635	40
20	978	635	991	584	635	699	43	
24	1295	749.5	1308	692	749.5	813	48	
Class 300	2	267	127	283	92	127	165	23
	5	292	149	308	105	149	190	26
	3	318	168.5	333	127	168.5	210	29
	4	356	200	371	157	200	254	32
	5	400	235	416	186	235	279	35
	6	444	270	460	216	270	318	37
	8	533	330	549	270	330	381	42
	10	622	387.5	638	324	387.5	445	48
	12	711	451	727	381	451	521	51
	14	838	514.5	854	413	514.5	584	54
	16	864	571.5	876	470	571.5	648	58
	18	978	628.5	994	533	628.5	711	61
3	318	168.5	333	127	168.5	210	29	
4	356	200	371	157	200	254	32	

Main Connection Dimensions and Weights

Pressure	NPS (Inch)	Size (mm)					Flange (as referenced) (mm)				WT (Kg)
		L	D	D2	D3	D4	L1		D1	n-Md	
							RF	RJ			
Class 150	2	203	120.5	216	92	152	216	92	120.5	152	16
	2 1/2	216	139.5	229	105	178	229	105	139.5	178	17.5
	3	241	152.5	254	127	190	254	127	152.5	190	19
	4	292	190.5	305	157	229	305	157	190.5	229	24
	5	330	216	343	186	254	343	186	216	254	25
	6	356	241.5	368	216	279	368	216	241.5	279	26
	8	495	298.5	508	270	343	508	270	298.5	343	29
	10	622	362	635	324	406	635	324	362	406	31
	12	698	432	711	381	483	711	381	432	483	32
	14	787	476	800	413	533	800	413	476	533	35
	16	864	540	876	470	597	876	470	540	597	37
	18	978	578	991	533	635	991	533	578	635	40
20	978	635	991	584	699	991	584	635	699	43	
24	1295	749.5	1308	692	813	1308	692	749.5	813	48	
Class 300	2	267	127	283	92	165	283	92	127	165	23
	5	292	149	308	105	190	308	105	149	190	26
	3	318	168.5	333	127	210	333	127	168.5	210	29
	4	356	200	371	157	254	371	157	200	254	32
	5	400	235	416	186	279	416	186	235	279	35
	6	444	270	460	216	318	460	216	270	318	37
	8	533	330	549	270	381	549	270	330	381	42
	10	622	387.5	638	324	445	638	324	387.5	445	48
	12	711	451	727	381	521	727	381	451	521	51
	14	838	514.5	854	413	584	854	413	514.5	584	54
	16	864	571.5	876	470	648	876	470	571.5	648	58
	18	978	628.5	994	533	711	994	533	628.5	711	61
3	318	168.5	333	127	210	333	127	168.5	210	29	
4	356	200	371	157	254	371	157	200	254	32	

DIN CHECK VALVES (H74)

TILLING CHECK VALVES (H48H)



Main Connection Dimensions and Weights

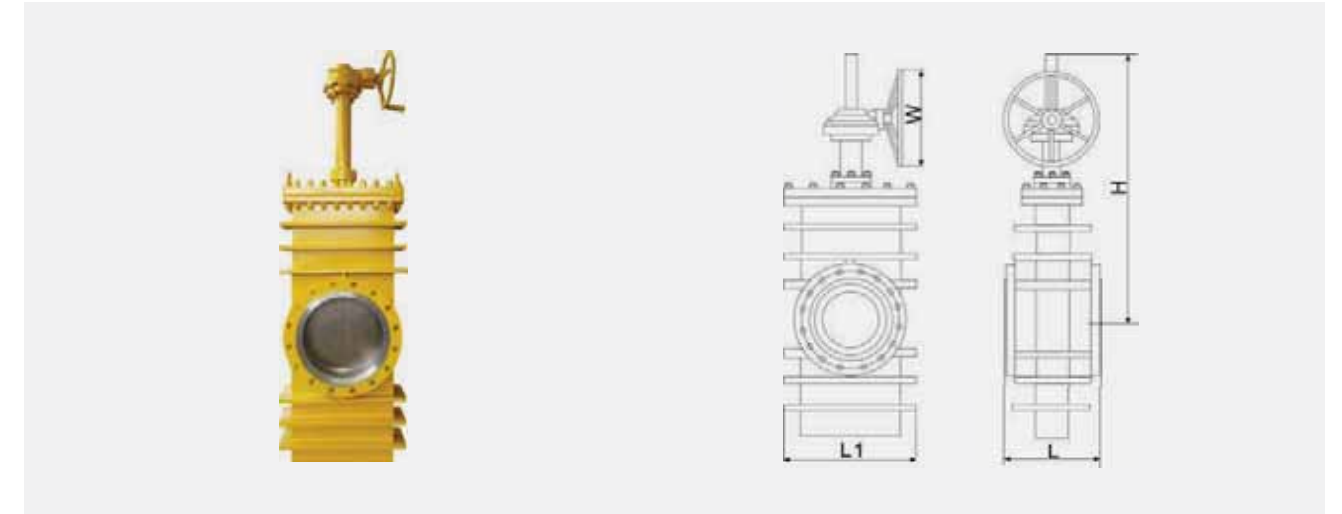
PN	PN	L	H	D	D1	D2	B	f	Z-ød
16	25	1	127	108	79.5	51	14	4-16	51
	32	1½	140	117	89	64	16	4-16	64
	40	1½	165	127	98.5	73	17.5	4-16	73
	50	2	175	152	120.5	92	19	4-19	92
	65	2½	191	178	139.5	105	22.5	4-19	105
	80	3	203	190	152.5	127	24	4-19	127
	100	4	229	229	190.5	157	24	4-19	157
	125	5	356	254	216	186	24	8-22	186
	150	6	394	280	241	216	26	8-22	216
	200	8	457	343	298.5	270	29	8-22	270
	250	10	533	407	362	324	31	12-25	324
	300	12	610	483	432	381	32	12-25	381
	350	14	686	534	476	412.8	35	12-25	412.8
	400	16	762	597	540	470	37	16-29	470
450	18	864	635	578	533.4	40	16-32	533.4	
500	20	914	699	635	584	43	20-32	584	
600	24	1067	813	749	692	48	20-35	692	
16	25	1	165	124	89	51	18	4-19	51
	32	1½	178	133	98.5	64	19	4-19	64
	40	1½	190.5	156	114.5	73	21	4-22	73
	50	2	216	165	127	92	23	8-19	92
	65	2½	241	190	149	105	26	8-22	105
	80	3	283	210	168.5	127	29	8-22	127
	100	4	305	254	200	157	32	8-22	157
	125	5	381	279	235	186	35	8-22	186
	150	6	403	318	270	216	37	12-22	216
	200	8	502	381	330	270	42	12-25	270
	250	10	568	445	387.4	324	48	16-29	324
	300	12	648	521	450.8	381	51	16-32	381
	350	14	762	584	514.4	412.8	54	20-32	412.8
	400	16	838	648	571.5	470	58	20-35	470
450	18	914	711	628.6	533.4	61	24-35	533.4	
500	20	991	775	685.8	584	64	24-35	584	
600	24	1143	914	812.8	692	70	24-41	692	

Main Connection Dimensions and Weights

PN	DN (d1)		L	D	D1	D2	b	Z-ød	B
	Inch	mm							
Class 150	25	1	127	108	79.5	51	14	4-16	51
	32	1½	140	117	89	64	16	4-16	64
	40	1½	165	127	98.5	73	17.5	4-16	73
	50	2	175	152	120.5	92	19	4-19	92
	65	2½	191	178	139.5	105	22.5	4-19	105
	80	3	203	190	152.5	127	24	4-19	127
	100	4	229	229	190.5	157	24	4-19	157
	125	5	356	254	216	186	24	8-22	186
	150	6	394	280	241	216	26	8-22	216
	200	8	457	343	298.5	270	29	8-22	270
	250	10	533	407	362	324	31	12-25	324
	300	12	610	483	432	381	32	12-25	381
	350	14	686	534	476	412.8	35	12-25	412.8
	400	16	762	597	540	470	37	16-29	470
450	18	864	635	578	533.4	40	16-32	533.4	
500	20	914	699	635	584	43	20-32	584	
600	24	1067	813	749	692	48	20-35	692	
Class 300	25	1	165	124	89	51	18	4-19	51
	32	1½	178	133	98.5	64	19	4-19	64
	40	1½	190.5	156	114.5	73	21	4-22	73
	50	2	216	165	127	92	23	8-19	92
	65	2½	241	190	149	105	26	8-22	105
	80	3	283	210	168.5	127	29	8-22	127
	100	4	305	254	200	157	32	8-22	157
	125	5	381	279	235	186	35	8-22	186
	150	6	403	318	270	216	37	12-22	216
	200	8	502	381	330	270	42	12-25	270
	250	10	568	445	387.4	324	48	16-29	324
	300	12	648	521	450.8	381	51	16-32	381
	350	14	762	584	514.4	412.8	54	20-32	412.8
	400	16	838	648	571.5	470	58	20-35	470
450	18	914	711	628.6	533.4	61	24-35	533.4	
500	20	991	775	685.8	584	64	24-35	584	
600	24	1143	914	812.8	692	70	24-41	692	

FORGED STEEL GATE VALVE

THROUGH CONDUIT GATE VALVE



Technical Specification

Design Reference	API	ASME
Design standard	API6D	ASME B16.34
Flanged ends	Thread ends	Socket welded ends
ASME B16.10	ASME B1.20.1	ASME B1.20.1
Flanged ends	ASME B16.5 ASME B16.47	
Butt-welding ends	ASME B16.25	

Note : The dimension of the connecting flange can be designed according to customers' requirements.

Materials of Major Parts

NO	Accessory name	Material
1	Body	A216 WCB
2	Bottom Stem	A182-F304
3	Ball	A182-F304
4	Seat	A216 WCB
5	"O" Ring	Si rubber
6	Upper Stem	A182-F304
7	Packing	PPL
8	Gland flange	A216 WCB
9	Yoke	A216 WCB
10	Worm gear	-

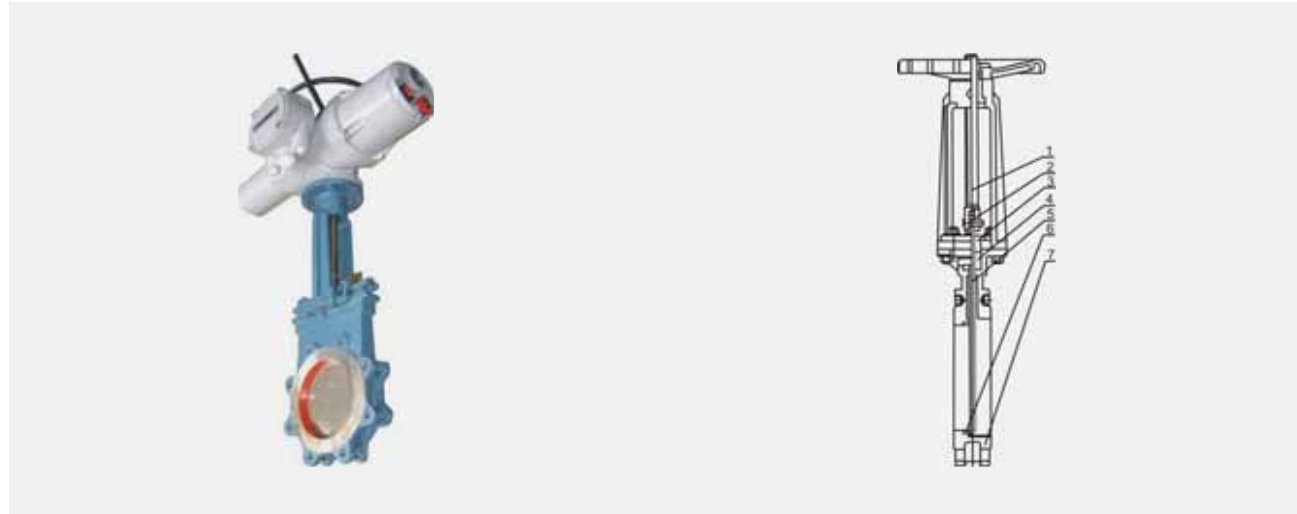
Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.

External Dimensions (mm)

Pressure	DN		L	L1	H	W	D	D1	D2	B	Z-ød
	Inch	mm									
Class 150	25	1	127	108	79.5	51	14	4-16	51	4-16	51
	32	1¼	140	117	89	64	16	4-16	64	4-16	64
	40	1½	165	127	98.5	73	17.5	4-16	73	4-16	73
	50	2	175	152	120.5	92	19	4-19	92	4-19	92
	65	2½	191	178	139.5	105	22.5	4-19	105	4-19	105
	80	3	203	190	152.5	127	24	4-19	127	4-19	127
	100	4	229	229	190.5	157	24	4-19	157	4-19	157
	125	5	356	254	216	186	24	8-22	186	8-22	186
	150	6	394	280	241	216	26	8-22	216	8-22	216
	200	8	457	343	298.5	270	29	8-22	270	8-22	270
	250	10	533	407	362	324	31	12-25	324	12-25	324
	300	12	610	483	432	381	32	12-25	381	12-25	381
	350	14	686	534	476	412.8	35	12-25	412.8	12-25	412.8
	400	16	762	597	540	470	37	16-29	470	16-29	470
	450	18	864	635	578	533.4	40	16-32	533.4	16-32	533.4
	500	20	914	699	635	584	43	20-32	584	20-32	584
	600	24	1067	813	749	692	48	20-35	692	20-35	692
	25	1	165	124	89	51	18	4-19	51	4-19	51
	32	1¼	178	133	98.5	64	19	4-19	64	4-19	64
	40	1½	190.5	156	114.5	73	21	4-22	73	4-22	73
	50	2	216	165	127	92	23	8-19	92	8-19	92
	65	2½	241	190	149	105	26	8-22	105	8-22	105
	80	3	283	210	168.5	127	29	8-22	127	8-22	127
	100	4	305	254	200	157	32	8-22	157	8-22	157
125	5	381	279	235	186	35	8-22	186	8-22	186	
150	6	403	318	270	216	37	12-22	216	12-22	216	
200	8	502	381	330	270	42	12-25	270	12-25	270	
250	10	568	445	387.4	324	48	16-29	324	16-29	324	
300	12	648	521	450.8	381	51	16-32	381	16-32	381	
350	14	762	584	514.4	412.8	54	20-32	412.8	20-32	412.8	
400	16	838	648	571.5	470	58	20-35	470	20-35	470	
450	18	914	711	628.6	533.4	61	24-35	533.4	24-35	533.4	
500	20	991	775	685.8	584	64	24-35	584	24-35	584	
600	24	1143	914	812.8	692	70	24-41	692	24-41	692	

KNIFE GATE VALVE

API CAST STEEL GATE VALVE



Technical Specification

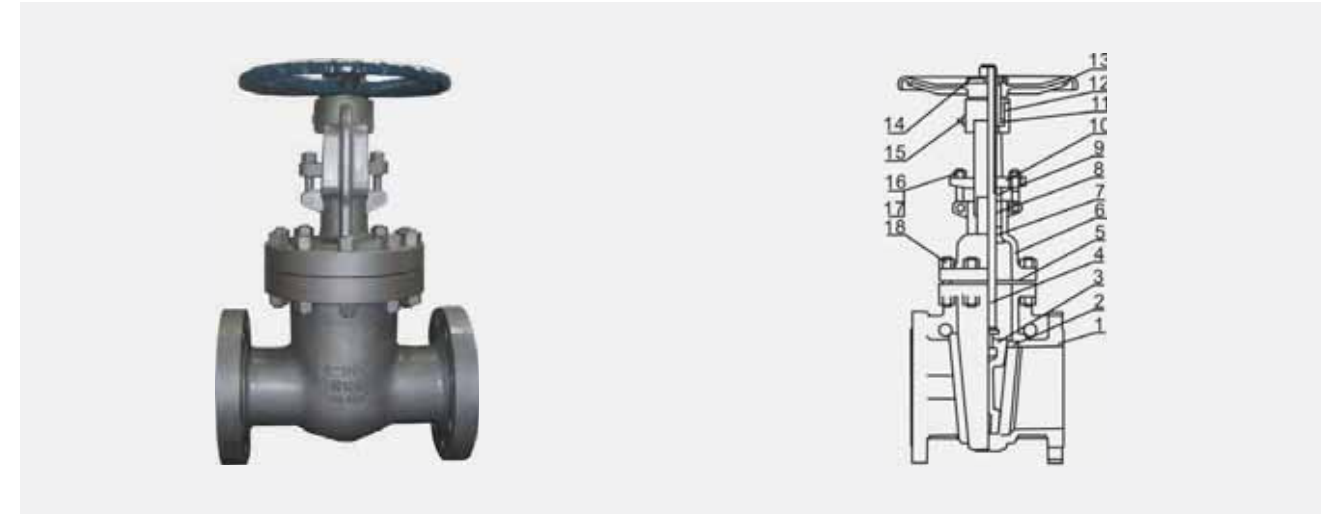
Design standard	MSS.SP-81
Structural length	KSS.SP-81 & TAPPI TIS405-8
Flanged ends	ASME B16.5 2"-24"
Test & Inspection	MSS.SP-81

Note : The dimension of the connecting flange can be designed according to customers' requirements.

Materials of Major Parts

NO	Accessory name	Material ASTM
1	Body	A216 WCB
2	Disc	A182-F304
3	Pin	A182-F304
4	Stem	A216 WCB
5	Packing	SFT-1
6	Gate	A182-F304
7	Seat	A276-420

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.



Technical Specification

Design Reference		API	ASME
Design standard		API6D	ASME B16.34
Structural length	Flanged ends	API6D	ASME B16.10
Flanged ends		ASME B16.5	
Test & Inspection		API6D API598	

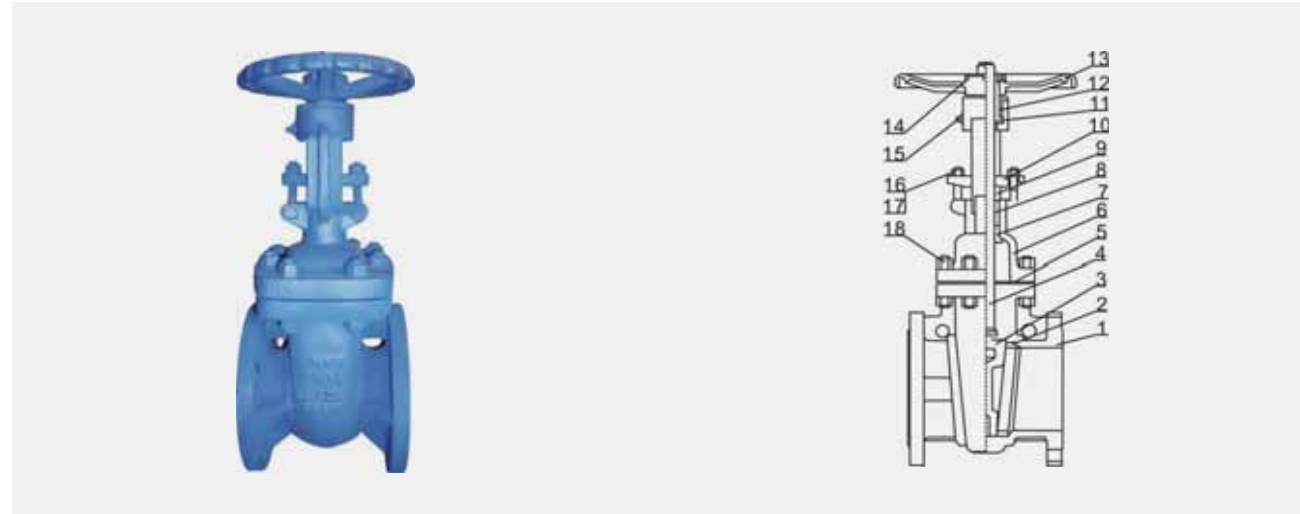
Note : The dimension of the connecting flange can be designed according to customers' requirements.

Materials of Major Parts

NO	Accessory name	Material ASTM
1	Body	A216 WCB
2	Bottom Stem	A182-F304
3	Ball	A182-F304
4	Seat	A216 WCB
5	"O" Ring	Si rubber
6	Upper Stem	A182-F304
7	Packing	PPL
8	Gland flange	A216 WCB
9	Yoke	A216 WCB
10	Worm gear	-

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.

DIN GATE VALVE



Technical Specification

Design Reference	DIN3352
Flanged ends	DIN2543, 2544, 2545, 2546
Face to face	DIN3202 F4/ F5
Test & Inspection	DIN 3230

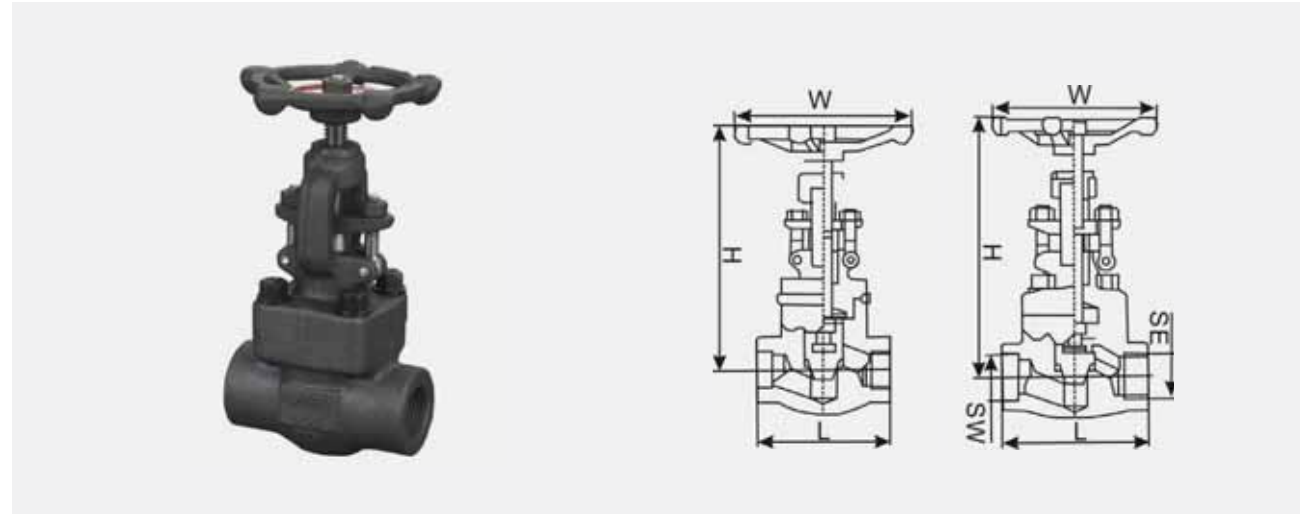
Note : The dimension of the connecting flange can be designed according to customers' requirements.

Materials of Major Parts

NO	Accessory name	Material
1	Body	A216 WCB
2	Bottom Stem	A182-F304
3	Ball	A182-F304
4	Seat	A216 WCB
5	"O" Ring	Si rubber
6	Upper Stem	A182-F304
7	Packing	PPL
8	Gland flange	A216 WCB
9	Yoke	A216 WCB
10	Worm gear	-
11	Body	A216 WCB
12	Disc	CF8 A182-F304
13	Pin	35
14	Stem	A276-420
15	Bearing	HPb59-1
16	'O' Ring	NBR
17	Bolt	A193-B7
18	Gasket	65Mn

Note : Major parts of the valve series and materials of sealing surface differ according to casual working condition and customers' special requirements.

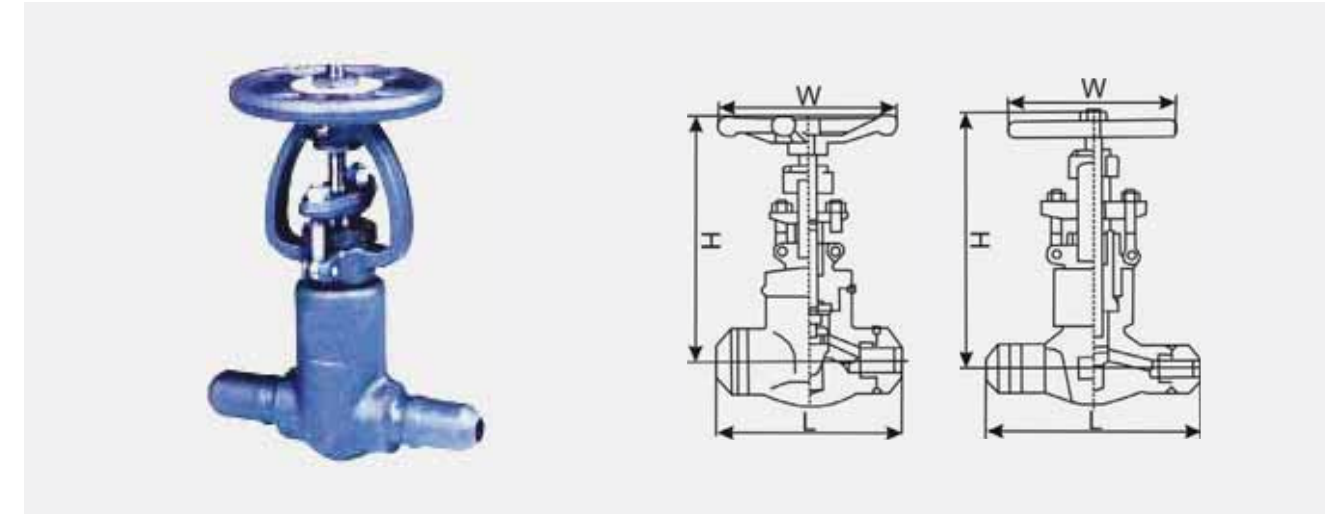
SOCKET WELDED (FEMALE THREADED) GLOBE VALVE



External Dimensions (mm)

Pressure	NPS		Size (mm)			WT (Kg)	
	Reduced port	Full port	L	H	W	B.B	W.B
Class 150~800	50	2"	43	185	130	108	185
	80	3"	46	195	130	114	195
	100	4"	52	209	130	127	209
	125	5"	56	243	150	140	243
	150	6"	56	263	150	140	263
	200	8"	61	295	250	152	295
	250	10"	68	342	300	165	342
	300	12"	78	385	300	178	385
	350	14"	78	430	300	190	430
	400	16"	79	469	300	216	469
450	18"	101	500	400	222	500	
Class 900~1500	500	20"	111	618	400	229	618
	600	24"	154	746	600	267	746
	750	30"	165	810	600	292	810
	800	32"	190	875	600	318	875
	900	36"	203	965	600	330	965
	1000	40"	216	980	600	410	1065
	1200	48"	276	1170	600	470	1170
	1400	56"	-	-	-	530	1319
	1600	64"	-	-	-	600	1443
	1800	72"	-	-	-	670	1595
2000	80"	-	-	-	760	1743	

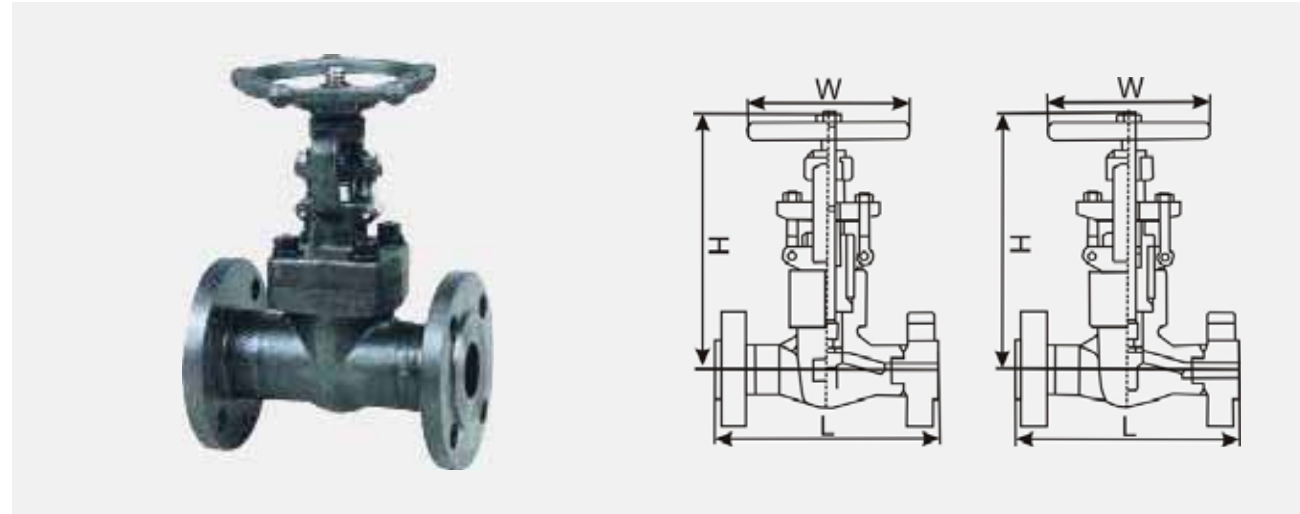
BUTT WELDED GLOBE VALVE



External Dimensions (mm)

Pressure	NPS (Inch)	Size (mm)			WT (Kg)		
		L	H		W	P.S	W.B
			P.S	W.B			
Class 150~800	2	203	120.5	216	92	120.5	152
	2 1/2	216	139.5	229	105	139.5	178
	3	241	152.5	254	127	152.5	190
	4	292	190.5	305	157	190.5	229
	5	330	216	343	186	216	254
	6	356	241.5	368	216	241.5	279
	8	495	298.5	508	270	298.5	343
	10	622	362	635	324	362	406
	12	698	432	711	381	432	483
	Class 900~1500	2	267	165	283	92	127
2 1/2		292	190	308	105	149	190
3		318	210	333	127	168.5	210
4		356	254	371	157	200	254
5		400	279	416	186	235	279
6		444	318	460	216	270	318
8		533	381	549	270	330	381
10		622	445	638	324	387.5	445
12		711	521	727	381	451	521

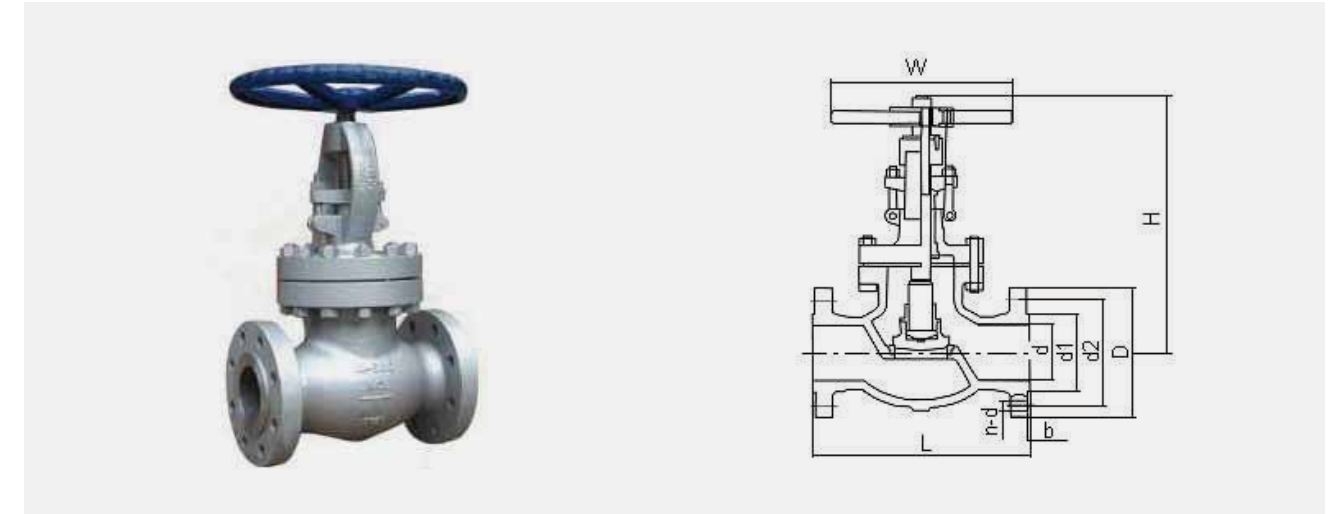
FLANGE GLOBE VALVE



External Dimensions (mm)

Pressure	NPS	Size (mm)			WT (Kg)
		L	H	W	
1/2	Class 50	43	185	300	108
	Class 80	46	195		114
	Class 100	52			127
3/4	Class 125	56	243	150	140
	Class 150	56	263		140
	Class 200	61			152
1	Class 250	68	342	300	165
	Class 300	78	385		178
	Class 350	78			190
1 1/4	Class 500	111	618	400	229
	Class 600	154	746		267
	Class 750	165			292
1 1/2	Class 800	190	875	600	318
	Class 900	203	965		330
	Class 1000	216			410
2	Class 1200	276	1170	300	470
	Class 1400	50	300		530
	Class 1600	150			600

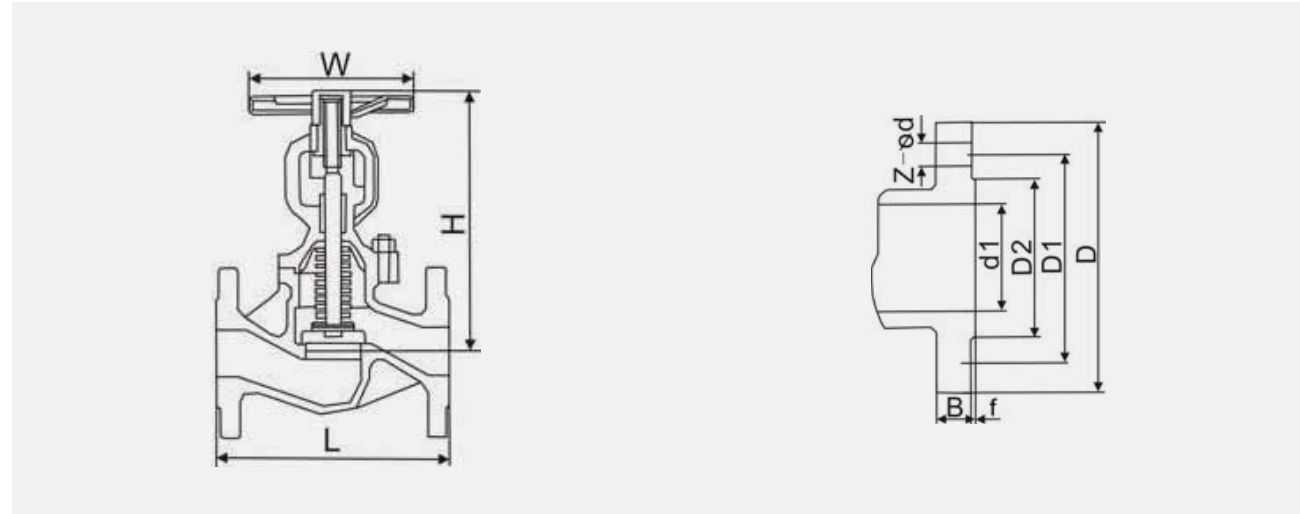
CAST STEEL GLOBE VALVE



External Dimensions (mm)

Pressure	NPS	L		d1	d2	D	b	n-ød	H	W	WT(Kg)	
		RF-BW	RTJ								BF	BW
Class 150	25	1	127	108	79.5	51	14	4-16	51	1	127	108
	32	1½	140	117	89	64	16	4-16	64	1½	140	117
	40	1½	165	127	98.5	73	17.5	4-16	73	1½	165	127
	50	2	175	152	120.5	92	19	4-19	92	2	175	152
	65	2½	191	178	139.5	105	22.5	4-19	105	2½	191	178
	80	3	203	190	152.5	127	24	4-19	127	3	203	190
	100	4	229	229	190.5	157	24	4-19	157	4	229	229
	125	5	356	254	216	186	24	8-22	186	5	356	254
	150	6	394	280	241	216	26	8-22	216	6	394	280
	200	8	457	343	298.5	270	29	8-22	270	8	457	343
Class 300	250	10	533	407	362	324	31	12-25	324	10	533	407
	300	12	610	483	432	381	32	12-25	381	12	610	483
	450	18	864	635	578	533.4	40	16-32	533.4	18	864	635
	600	24	1067	813	749	692	48	20-35	692	24	1067	813
	25	1	165	124	89	51	18	4-19	51	89	51	18
	32	1½	178	133	98.5	64	19	4-19	64	98.5	64	19
	40	1½	190.5	156	114.5	73	21	4-22	73	114.5	73	21
	50	2	216	165	127	92	23	8-19	92	127	92	23
	65	2½	241	190	149	105	26	8-22	105	149	105	26
	80	3	283	210	168.5	127	29	8-22	127	168.5	127	29
Class 300	100	4	305	254	200	157	32	8-22	157	200	157	32
	125	5	381	279	235	186	35	8-22	186	235	186	35
	150	6	403	318	270	216	37	12-22	216	270	216	37
	200	8	502	381	330	270	42	12-25	270	330	270	42
	250	10	568	445	387.4	324	48	16-29	324	387.4	324	48
	300	12	648	521	450.8	381	51	16-32	381	450.8	381	51
	350	14	762	584	514.4	412.8	54	20-32	412.8	514.4	412.8	54

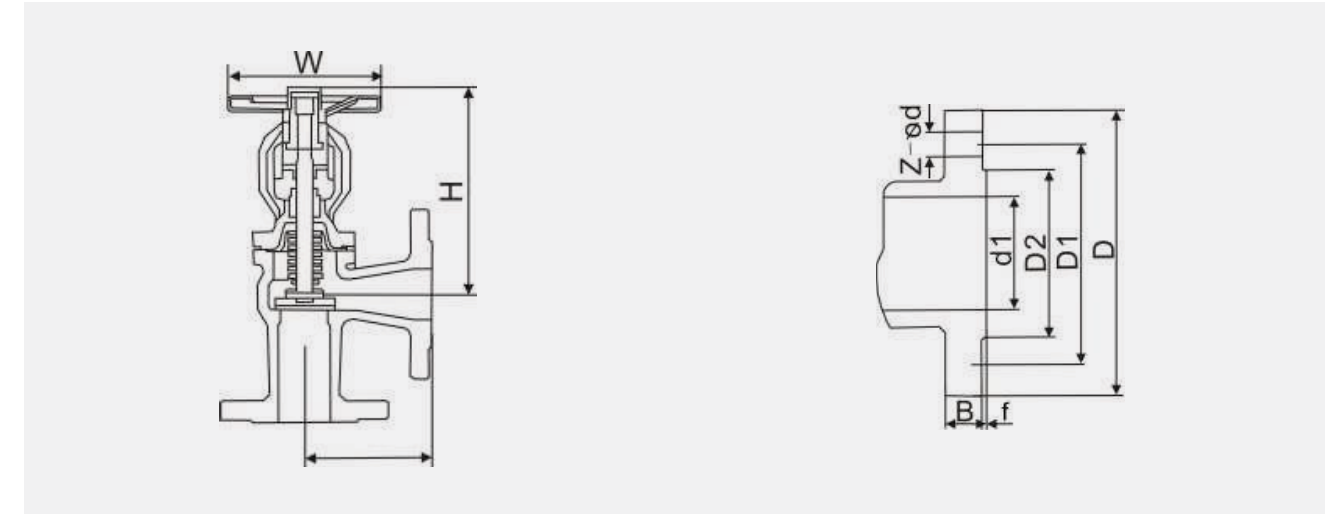
DIN BELLOWS SEAL GLOBE VALVE WITH FLANGE



External Dimensions (mm)

PN	DN (d1)	L	D	D1	D2	B	f	Z-ød	H	W
16	25	1	127	108	79.5	51	14	4-16	51	14
	32	1½	140	117	89	64	16	4-16	64	16
	40	1½	165	127	98.5	73	17.5	4-16	73	17.5
	50	2	175	152	120.5	92	19	4-19	92	19
	65	2½	191	178	139.5	105	22.5	4-19	105	22.5
	80	3	203	190	152.5	127	24	4-19	127	24
	100	4	229	229	190.5	157	24	4-19	157	24
	125	5	356	254	216	186	24	8-22	186	24
	150	6	394	280	241	216	26	8-22	216	26
	200	8	457	343	298.5	270	29	8-22	270	29
	250	10	533	407	362	324	31	12-25	324	31
	300	12	610	483	432	381	32	12-25	381	32
	350	14	686	534	476	412.8	35	12-25	412.8	35
	400	16	762	597	540	470	37	16-29	470	37
450	18	864	635	578	533.4	40	16-32	533.4	40	
500	20	914	699	635	584	43	20-32	584	43	
600	24	1067	813	749	692	48	20-35	692	48	
25	25	1	165	124	89	51	18	4-19	51	18
	32	1½	178	133	98.5	64	19	4-19	64	19
	40	1½	190.5	156	114.5	73	21	4-22	73	21
	50	2	216	165	127	92	23	8-19	92	23
	65	2½	241	190	149	105	26	8-22	105	26
	80	3	283	210	168.5	127	29	8-22	127	29
	100	4	305	254	200	157	32	8-22	157	32
	125	5	381	279	235	186	35	8-22	186	35
	150	6	403	318	270	216	37	12-22	216	37
	200	8	502	381	330	270	42	12-25	270	42
	250	10	568	445	387.4	324	48	16-29	324	48
	300	12	648	521	450.8	381	51	16-32	381	51
	350	14	762	584	514.4	412.8	54	20-32	412.8	54
	400	16	838	648	571.5	470	58	20-35	470	58
	450	18	914	711	628.6	533.4	61	24-35	533.4	61
	500	20	991	775	685.8	584	64	24-35	584	64
600	24	1143	914	812.8	692	70	24-41	692	70	

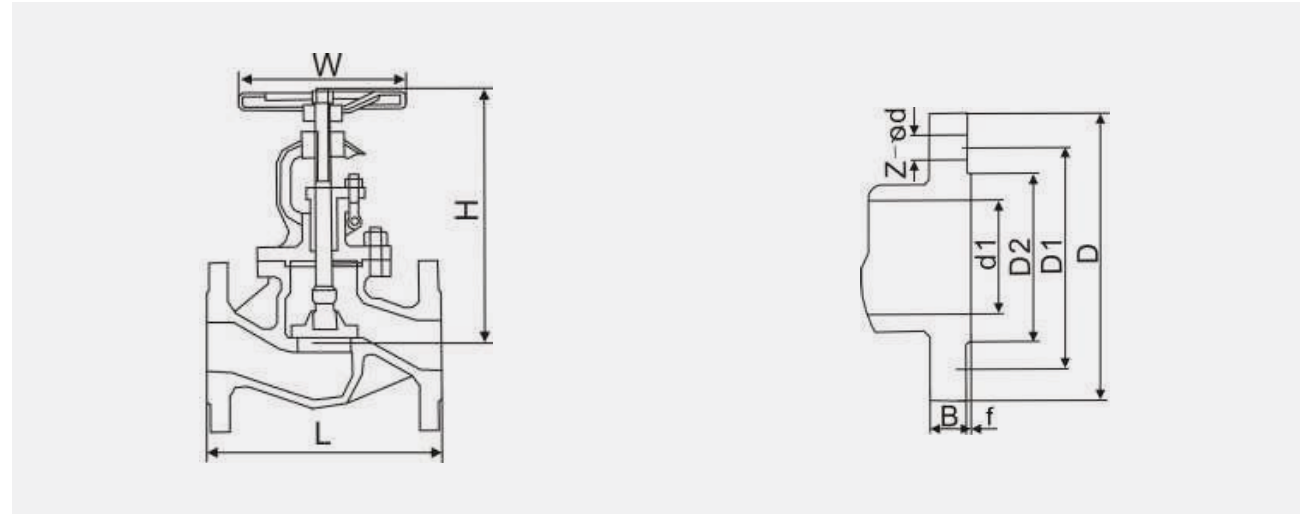
DIN BELLOWS SEAL GLOBE VALVE ANGLE TYPE WITH FLANGE



External Dimensions (mm)

PN	DN (d1)	L	D	D1	D2	B	f	Z-ød	H	W
16	25	1	127	108	79.5	51	14	4-16	51	14
	32	1½	140	117	89	64	16	4-16	64	16
	40	1½	165	127	98.5	73	17.5	4-16	73	17.5
	50	2	175	152	120.5	92	19	4-19	92	19
	65	2½	191	178	139.5	105	22.5	4-19	105	22.5
	80	3	203	190	152.5	127	24	4-19	127	24
	100	4	229	229	190.5	157	24	4-19	157	24
	125	5	356	254	216	186	24	8-22	186	24
	150	6	394	280	241	216	26	8-22	216	26
	200	8	457	343	298.5	270	29	8-22	270	29
	250	10	533	407	362	324	31	12-25	324	31
	300	12	610	483	432	381	32	12-25	381	32
	350	14	686	534	476	412.8	35	12-25	412.8	35
	400	16	762	597	540	470	37	16-29	470	37
450	18	864	635	578	533.4	40	16-32	533.4	40	
500	20	914	699	635	584	43	20-32	584	43	
600	24	1067	813	749	692	48	20-35	692	48	
25	25	1	165	124	89	51	18	4-19	51	18
	32	1½	178	133	98.5	64	19	4-19	64	19
	40	1½	190.5	156	114.5	73	21	4-22	73	21
	50	2	216	165	127	92	23	8-19	92	23
	65	2½	241	190	149	105	26	8-22	105	26
	80	3	283	210	168.5	127	29	8-22	127	29
	100	4	305	254	200	157	32	8-22	157	32
	125	5	381	279	235	186	35	8-22	186	35
	150	6	403	318	270	216	37	12-22	216	37
	200	8	502	381	330	270	42	12-25	270	42
	250	10	568	445	387.4	324	48	16-29	324	48
	300	12	648	521	450.8	381	51	16-32	381	51
	350	14	762	584	514.4	412.8	54	20-32	412.8	54
	400	16	838	648	571.5	470	58	20-35	470	58
	450	18	914	711	628.6	533.4	61	24-35	533.4	61
	500	20	991	775	685.8	584	64	24-35	584	64
600	24	1143	914	812.8	692	70	24-41	692	70	

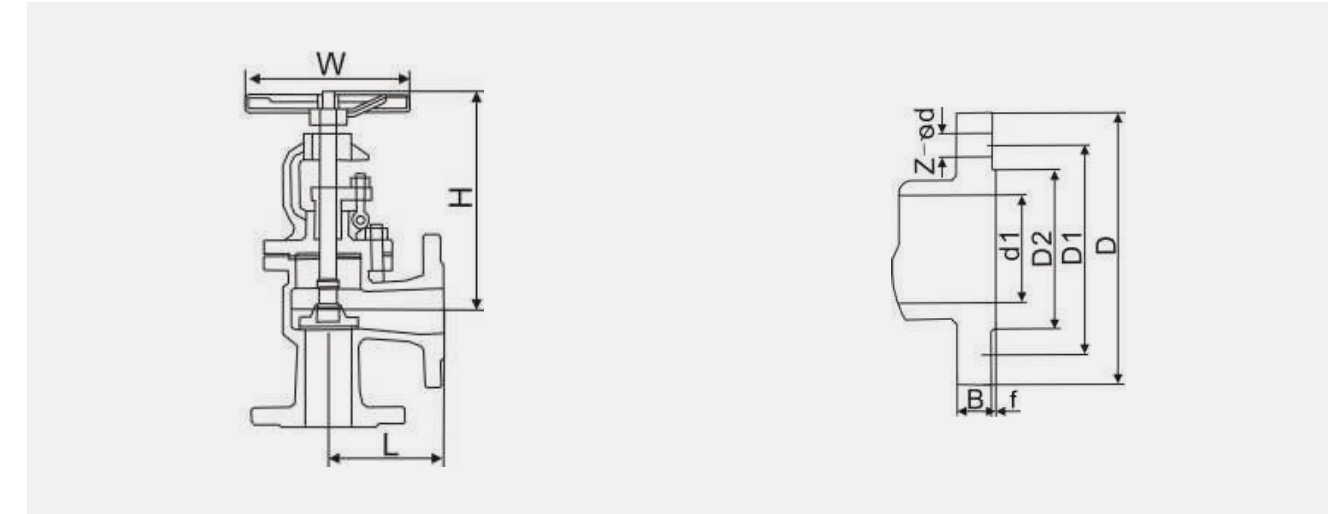
DIN GLOBE VALVE STRAIGHT WAY WITH FLANGE



External Dimensions (mm)

PN	DN (d1)	L	D	D1	D2	B	f	Z-ød	H	W
16	25	1	127	108	79.5	51	14	4-16	51	14
	32	1½	140	117	89	64	16	4-16	64	16
	40	1½	165	127	98.5	73	17.5	4-16	73	17.5
	50	2	175	152	120.5	92	19	4-19	92	19
	65	2½	191	178	139.5	105	22.5	4-19	105	22.5
	80	3	203	190	152.5	127	24	4-19	127	24
	100	4	229	229	190.5	157	24	4-19	157	24
	125	5	356	254	216	186	24	8-22	186	24
	150	6	394	280	241	216	26	8-22	216	26
	200	8	457	343	298.5	270	29	8-22	270	29
	250	10	533	407	362	324	31	12-25	324	31
	300	12	610	483	432	381	32	12-25	381	32
	350	14	686	534	476	412.8	35	12-25	412.8	35
	400	16	762	597	540	470	37	16-29	470	37
450	18	864	635	578	533.4	40	16-32	533.4	40	
500	20	914	699	635	584	43	20-32	584	43	
600	24	1067	813	749	692	48	20-35	692	48	
25	25	1	165	124	89	51	18	4-19	51	18
	32	1½	178	133	98.5	64	19	4-19	64	19
	40	1½	190.5	156	114.5	73	21	4-22	73	21
	50	2	216	165	127	92	23	8-19	92	23
	65	2½	241	190	149	105	26	8-22	105	26
	80	3	283	210	168.5	127	29	8-22	127	29
	100	4	305	254	200	157	32	8-22	157	32
	125	5	381	279	235	186	35	8-22	186	35
	150	6	403	318	270	216	37	12-22	216	37
	200	8	502	381	330	270	42	12-25	270	42
	250	10	568	445	387.4	324	48	16-29	324	48
	300	12	648	521	450.8	381	51	16-32	381	51
	350	14	762	584	514.4	412.8	54	20-32	412.8	54
	400	16	838	648	571.5	470	58	20-35	470	58
	450	18	914	711	628.6	533.4	61	24-35	533.4	61
	500	20	991	775	685.8	584	64	24-35	584	64
600	24	1143	914	812.8	692	70	24-41	692	70	

DIN GLOBE VALVE ANGLE TYPE WITH FLANGE

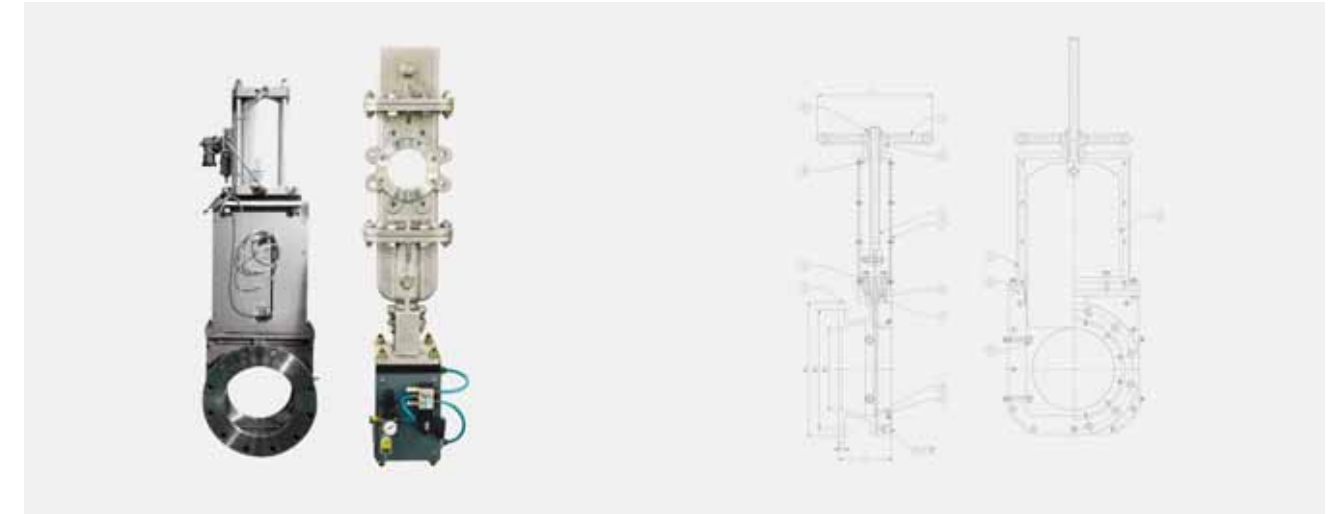
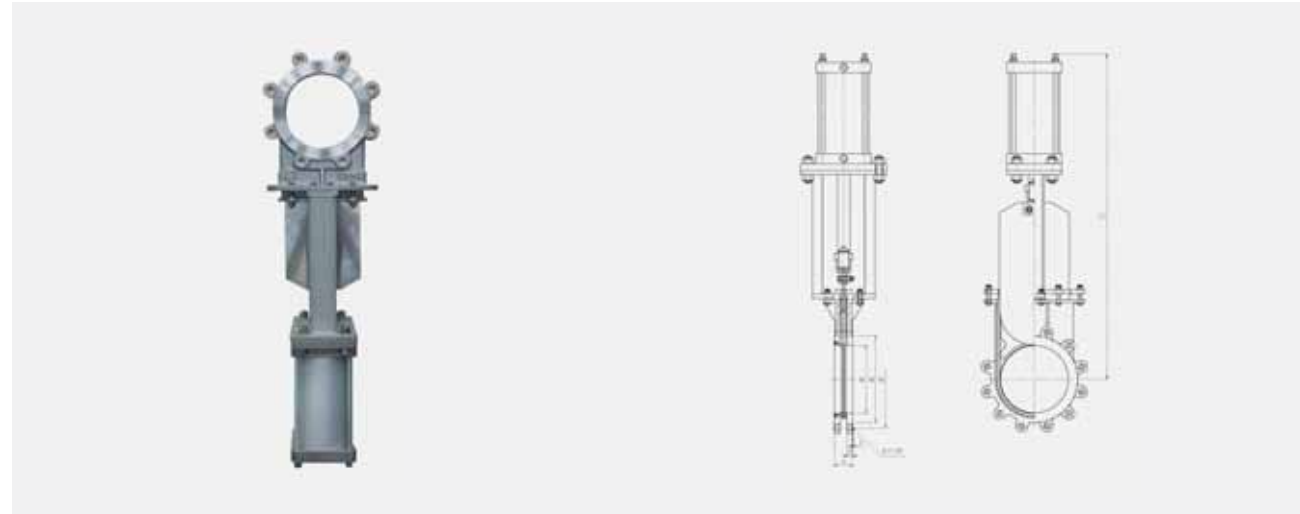


External Dimensions (mm)

PN	DN (d1)	L	D	D1	D2	B	f	Z-ød	H	W
16	25	1	127	108	79.5	51	14	4-16	51	14
	32	1½	140	117	89	64	16	4-16	64	16
	40	1½	165	127	98.5	73	17.5	4-16	73	17.5
	50	2	175	152	120.5	92	19	4-19	92	19
	65	2½	191	178	139.5	105	22.5	4-19	105	22.5
	80	3	203	190	152.5	127	24	4-19	127	24
	100	4	229	229	190.5	157	24	4-19	157	24
	125	5	356	254	216	186	24	8-22	186	24
	150	6	394	280	241	216	26	8-22	216	26
	200	8	457	343	298.5	270	29	8-22	270	29
	250	10	533	407	362	324	31	12-25	324	31
	300	12	610	483	432	381	32	12-25	381	32
	350	14	686	534	476	412.8	35	12-25	412.8	35
	400	16	762	597	540	470	37	16-29	470	37
450	18	864	635	578	533.4	40	16-32	533.4	40	
500	20	914	699	635	584	43	20-32	584	43	
600	24	1067	813	749	692	48	20-35	692	48	
25	25	1	165	124	89	51	18	4-19	51	18
	32	1½	178	133	98.5	64	19	4-19	64	19
	40	1½	190.5	156	114.5	73	21	4-22	73	21
	50	2	216	165	127	92	23	8-19	92	23
	65	2½	241	190	149	105	26	8-22	105	26
	80	3	283	210	168.5	127	29	8-22	127	29
	100	4	305	254	200	157	32	8-22	157	32
	125	5	381	279	235	186	35	8-22	186	35
	150	6	403	318	270	216	37	12-22	216	37
	200	8	502	381	330	270	42	12-25	270	42
	250	10	568	445	387.4	324	48	16-29	324	48
	300	12	648	521	450.8	381	51	16-32	381	51
	350	14	762	584	514.4	412.8	54	20-32	412.8	54
	400	16	838	648	571.5	470	58	20-35	470	58
	450	18	914	711	628.6	533.4	61	24-35	533.4	61
	500	20	991	775	685.8	584	64	24-35	584	64
600	24	1143	914	812.8	692	70	24-41	692	70	

KNIFE GATE VALVE

SLIDE&BONNET TYPE LONG KNIFE GATE VALVE



Dimensions Data

VALVE SIZE	A	B	C	D	E	H		N-H	K
						(HAND WHEEL TYPE)	(CYLINDER TYPE)		
2"	47.8	12.7	50.8	91.9	120.7	347.0	490.0	4-5 / 8"	1.6
3"	50.8	12.7	76.2	127.0	152.4	455.0	590.0	4-5 / 8"	1.6
4"	50.8	12.7	101.6	157.2	190.5	526.0	686.0	8-3 / 4"	1.6
5"	57.2	16.0	127.0	185.7	215.9	600.0	761.0	8-3 / 4"	1.6
6"	57.2	16.0	152.4	215.9	241.3	670.0	830.0	8-3 / 4"	1.6
8"	69.9	16.0	203.2	269.7	298.5	824.0	1004.0	8-3 / 4"	1.6
10"	69.9	19.1	254.0	323.9	362.0	1030.0	1186.0	12-7 / 8"	1.6
12"	76.2	19.1	304.8	381.0	431.8	1174.0	1354.0	12-7 / 8"	1.6
14"	76.2	20.6	336.6	412.8	476.3	1333.0	1528.0	12-1"	1.6
16"	88.9	22.4	387.4	469.9	539.8	1537.0	1688.0	16-1"	1.6
18"	88.9	23.9	438.0	533.4	577.9	1722.9	1890.0	16-11 / 8"	1.6
20"	114.3	25.4	489.0	584.2	635.0	1860.0	2150.0	20-11 / 8"	1.6
24"	114.3	25.4	591.0	692.2	749.3	2159.0	2590.0	20-11 / 4"	1.6
28"	140	35.0	692.2	800.1	863.6		2904.0	28-11 / 4"	1.6

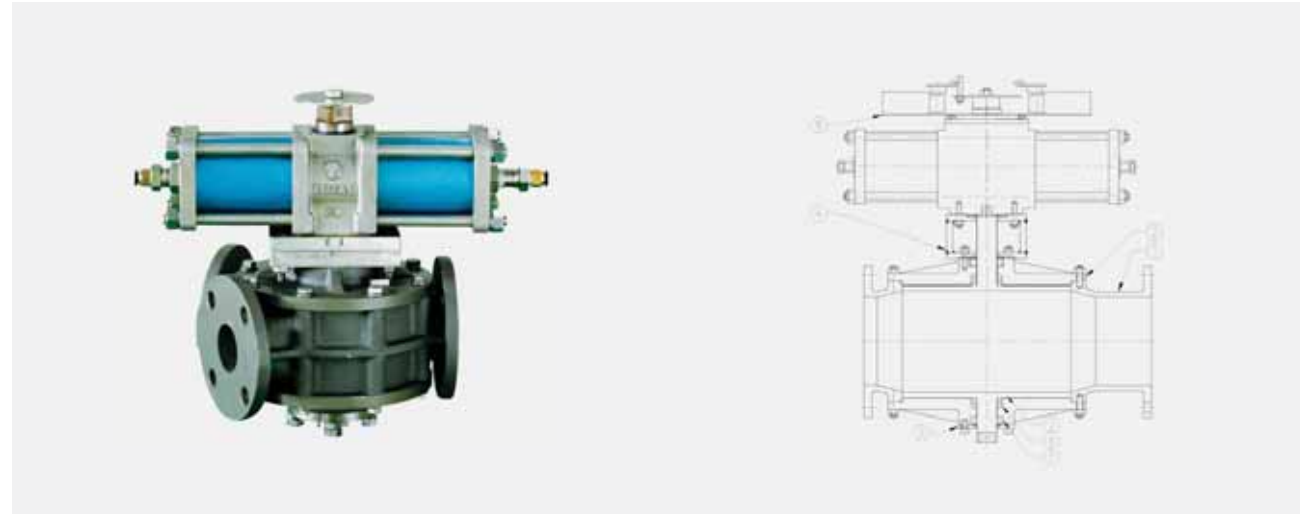
Reference Standard

No	DESCRIPTION	MATERIAL	
		HAND WHEEL TYPE	CYLINDER TYPE
01	BODY	ASTM A351-CF8, CF8M, CF3M, ETC	
02	YOKE	CARBON STEEL OR STAINLESS STEEL	
03	BLADE	304SS, 316	
04	STEM	304SS	-
05	YOKE SLEEVE	BRASS	-
06	GLAND FLANGE	304SS	
07	INSERT	304SS, 316	
08	INNER RING	316	
09	PACKING	MANUFACTURE STANDARD	
10	HAND WHEEL	ASTM A536	-
11	HAND WHEEL NUT	Brass	-
12	KNUCKLE	304SS	
13	SLEEVE GLAND	304SS	-
14	CYLINDER	-	MANUFACTURE STANDARD
15	SEAT RING	P.T.F.E or RTFE	
16	SPRING	304SS, 316	
17	GASKET	GRAPHITE SHEET	
18	BONNET	ASTM A351-CF8, CF8M, CF3M ETC	
19	COVER	ASTM A351-CF8, CF8M, CF3M ETC	

Dimensions Data

SIZE	A	B	C	D	E	F	L	T	N-H
6"	57.0	152.4	215.9	241.3	279.4	300	57.2	1.6	8-3 / 4"
8"	70.0	203.2	269.8	298.5	342.9	350	69.9	1.6	8-3 / 4"
10"	70.0	254.0	323.9	362.0	406.4	400	69.9	1.6	12-17 / 8"
12"	76.0	304.8	381.0	431.8	482.6	450	76.2	1.6	12-17 / 8"
14"	76.0	338.8	412.8	478.3	533.4	550	76.2	1.6	12-1"
16"	89.0	387.4	469.9	539.8	596.9	550	88.9	1.6	16-1"
18"	89.0	438.2	533.4	577.9	635.0	550	88.9	1.6	18-11 / 8"
20"	114.0	489.0	584.2	635.0	698.5	600	114.3	1.6	20-11 / 8"
24"	114.0	590.8	692.2	749.3	812.8	650	114.3	1.6	20-11 / 4"

DIVERTER VALVE



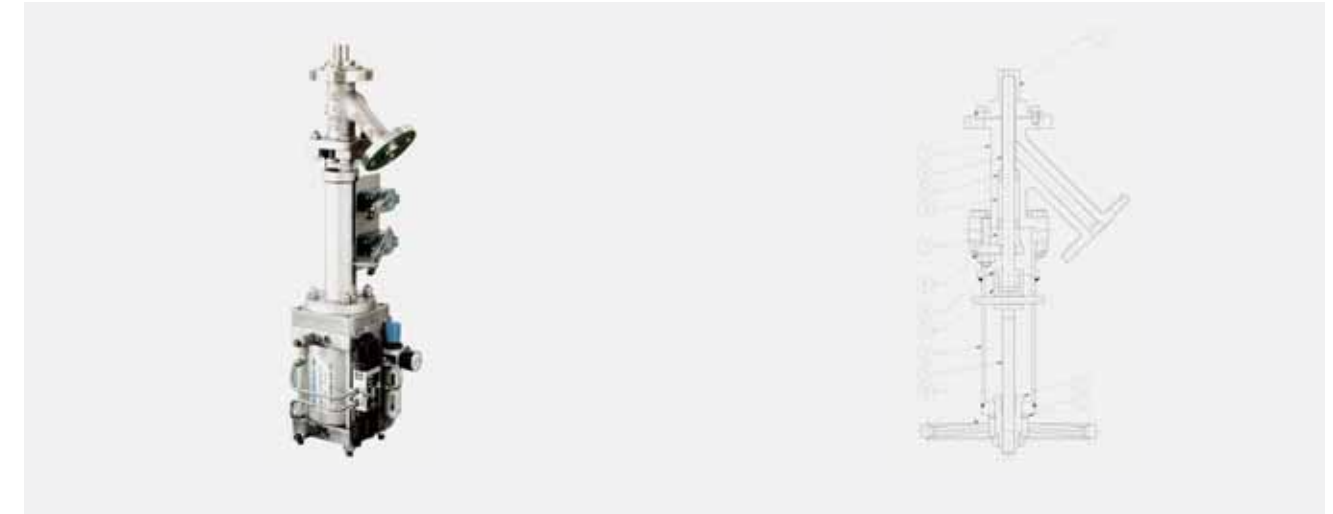
Reference Standard

No	DESCRIPTION	MATERIAL
01	BODY	ASTM B23-356 or CF8,CF8M,CF3M
02	COVER	ASTM B23-356 or CF8,CF8M,CF3M
03	PLUG	304SS
04	YOKE	304SS
05	CAP	304SS
06	BUSH	Brass
07	BEARING	-
08	PLATE	304SS

Dimensions Data

ACCESSORY PART	
ACTUATOR	AS PER PROJECT REQUIREMENT
TERMINAL BOX	AS PER PROJECT REQUIREMENT
LIMIT SWITCH	AS PER PROJECT REQUIREMENT
SPEED CONTROLLER	AS PER PROJECT REQUIREMENT
SILENCER	AS PER PROJECT REQUIREMENT
SOLENOID VALVE	AS PER PROJECT REQUIREMENT
AIR SET	AS PER PROJECT REQUIREMENT
CYLINDER	AS PER PROJECT REQUIREMENT

RAM PISTON VALVE



Reference Standard

No	DESCRIPTION	MATERIAL	
		HAND WHEEL TYPE	CYLINDER TYPE
01	BODY	ASTM A351-CF8, CF8M, CF3M, ETC	
02	YOKE	304SS	
03	ADAPTER	304 / 316SS	
04	PISTON	304 / 316SS	
05	STEM	304SS	
06	GLAND FLANGE	304SS	
07	PACKING GLAND	304SS	
08	CAGE	304SS / 316SS	
09	BUSH	304SS / 316SS	
10	PACKING	P.T.F.E / GRAPHITE	
11	YOKE SLEEVE	Brass	-
12	THRUST WASHER	Brass	-
13	JOINT		304SS
14	PISTON GLAND	304 / 316 + CHROMEPLATED WITH STELLITE	
15	INDICATOR	304SS	
16	HAND-WHEEL	ASTM A536	-

Reference Standard & Other Information

No	DESCRIPTION	MATERIAL	
		HAND WHEEL TYPE	CYLINDER TYPE
01	BODY	ASTM A351-CF8, CF8M, CF3M, ETC	
02	YOKE	304SS	
03	ADAPTER	304SS or 316SS	
04	PISTON	304SS or 316SS	
05	STEM	304SS	
06	GLAND FLANGE	304SS	
07	PACKING GLAND	304SS	
08	CAGE	304SS	
09	PACKING	P.T.F.E or GRAPHITE (Varied by design factors)	
10	YOKE SLEEVE	BRASS	
11	PISTON GLAND	304 / 316 + CHROMEPLATED WITH STELLITE	
12	HAND WHEEL	ASTM A536	
13	HAND WHEEL NUT	ASTM A194-B	

TANK BOTTOM FLUSH VALVE

SELF LAPPING VALVE



Reference Standard

No	DESCRIPTION	MATERIAL	
		HAND WHEEL TYPE	CYLINDER TYPE
01	BODY	ASTM A351-CF8, CF8M, CF3M, ETC	
02	YOKE	CARBON STEEL / STAINLESS STEEL	
03	ADAPTER	304SS / 316SS	
04	PISTON	304 / 316 + CHROMEPLATED WITH STELLITE	
05	STEM	304SS	
06	GLAND FLANGE	304SS	
07	PACKING GLAND	304SS	
08	BUSH	304SS / 316SS	
09	PACKING	P.T.F.E / GRAPHITE	
10	YOKE SLEEVE	BRASS	
11	THRUST WASHER	BRASS	
12	DISC	304SS or 316SS	
13	JOINT	304SS	
14	DISC GLAND	304SS / 316SS	
15	INDICATOR	304SS	
16	HAND WHEEL	ASTM A536	
17	HAND WHEEL NUT	BRASS	

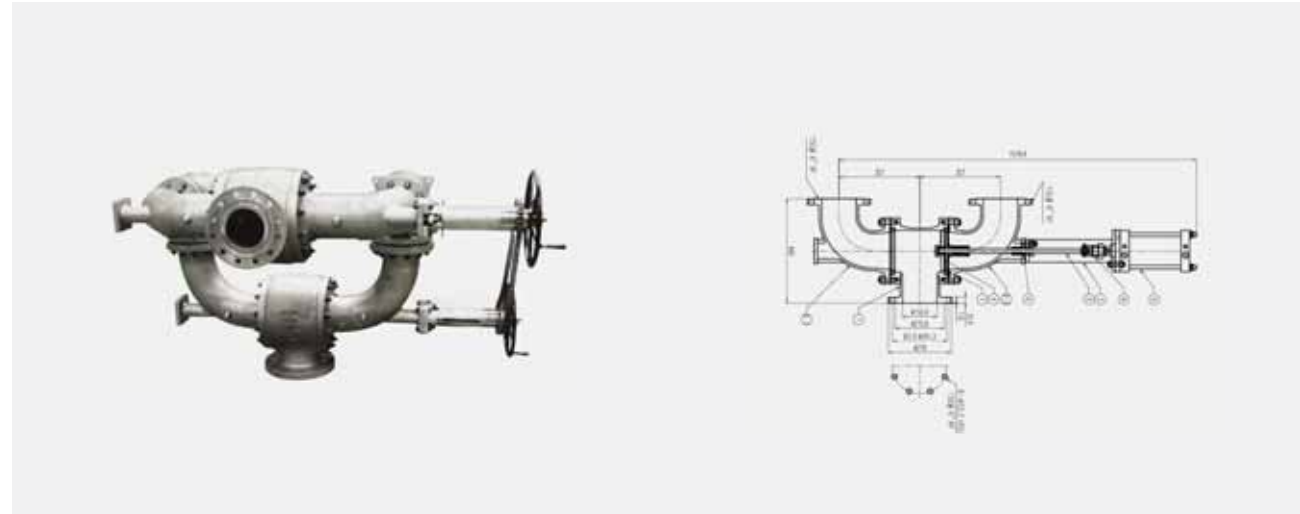
No	DESCRIPTION	MATERIAL	
		HAND WHEEL TYPE	CYLINDER TYPE
01	BODY	ASTM A351-CF8, CF8M, CF3M, ETC	
02	YOKE	304SS	
03	DISC	304SS / 316SS	
04	GLAND FLANGE	304SS	
05	DISC GLAND	304SS / 316SS	
06	HAND WHEEL NUT		
07	HAND WHEEL	ASTM A536	
08	YOKE SLEEVE	BRASS	
09	STEM	304SS / 316SS	
10	PACKING GLAND	304SS	
11	CYLINDER	-	MANUFACTURE STANDARD
12	CONNECTOR	-	304SS
13	INDICATOR	304SS	304SS
14	GASKET	P.T.F.E	
15	PACKING	P.T.F.E	

Reference Standard

No	DESCRIPTION	MATERIAL
1	BODY	CF8, CF8M, CF3, CF3M, WCB
2	SEAT	AS PERCUSTOMER'S REQUIERMENT
3	DISC	AS PERCUSTOMER'S REQUIERMENT
4	DISC DRIVE	304SS
5	DISC SPRING	316SS
6	GASKET	PTFE
7	AIR CYLINDER	ALUMINUM

SIZE	A	B	C	D	E
2	179	91.9	120.7	76	442.1
3	210	127.0	152.4	95.5	518.7
4	248	157.2	190.5	114.5	612.6
5	267	185.7	215.9	127	659.5
6	267	215.9	241.3	139.5	659.5
8	343	269.7	298.5	171.5	847.2
10	381	323.9	362.0	203	941.1
12	381	381.0	431.8	241.5	941.1
14	381	412.8	476.3	266.5	941.1
16	420	469.9	539.8	298.5	1037.4
18	420	533.4	577.9	317.5	1037.4
20	500	584.2	635.0	349.5	1235
24	500	692.2	749.3	406.5	1235
18"	89.0	438.2	533.4	577.9	635.0
20"	114.0	489.0	584.2	635.0	698.5
24"	114.0	590.8	692.2	749.3	812.8

CHANGE-OVER VALVE



Reference Standard

No	DESCRIPTION	MATERIAL
1	BODY1	A351-CF8 / CF8M / CF3M
2-1	BODY2-1	A351-CF8 / CF8M / CF3M
2-2	BODY2-1	A351-CF8 / CF8M / CF3M
3	YOKE	CARBON STEEL
4	DISK	304SS / 316 / STELLITE
5	STEM	304SS / 316
6	PACKING	PTFE
7	SEAT RING	PTFE
8	KNUCKLE	304SS
9	CYLINDER	-

Change-Over Valves

Change-over Valves are used when a plant shutdown is impossible or undesirable for process engineering or commercial reasons. With change-over valves, it is possible to switch over between parallel safety valves without interrupting operation, so as, for example, to perform maintenance work.

The design of the changeover valves ensures low pressure losses on discharge flow (3% criterion) adequate open passage in any position during the changeover process stable operation of the downstream safety valves. The combination of TOTAL changeover and safety valves has been comprehensively tested on full flow test labs.

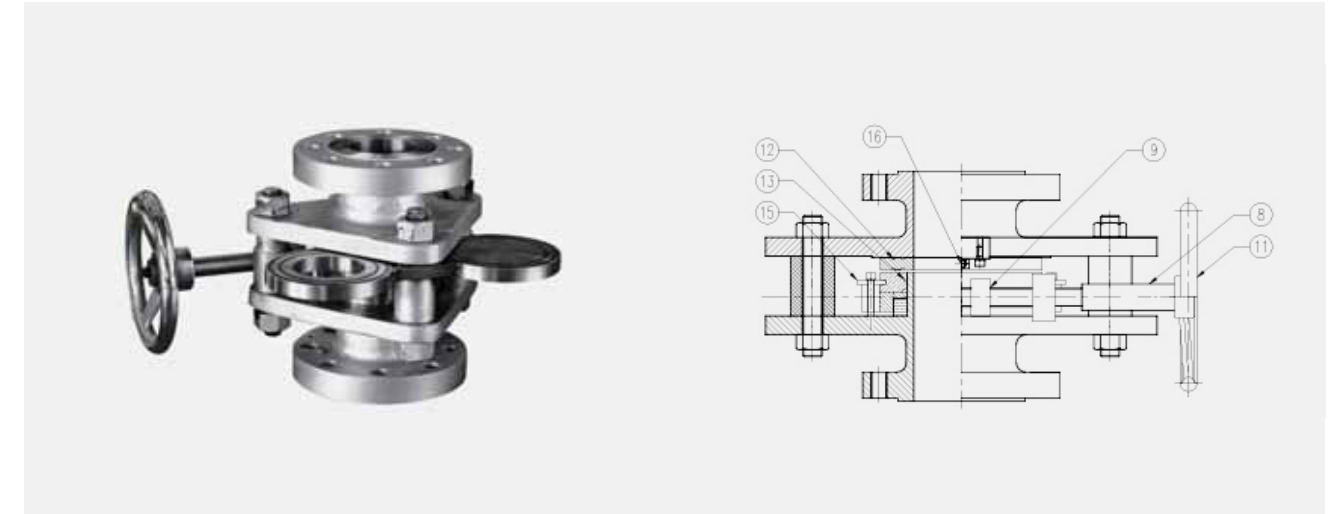
Reference Standard & Information

BASIC DESIGN : Manufacturer's standard

FACE TO FACE DIMENSIONS : Manufacturer's standard

FLANGE DIMENSIONS : ANSI B 16.5

LINE BLIND VALVE



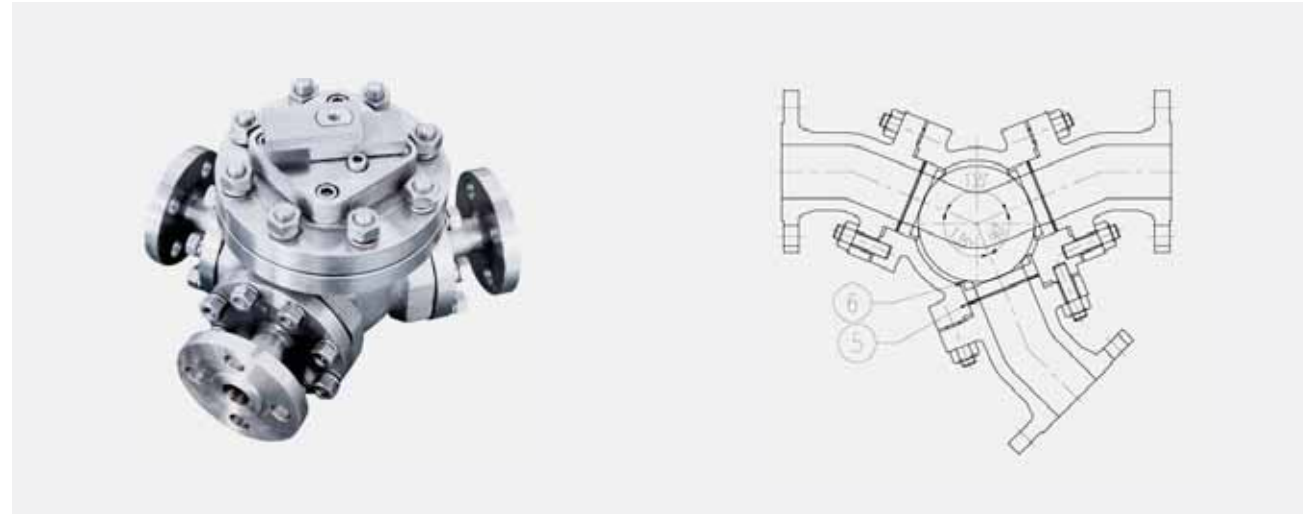
Reference Standard

No	DESCRIPTION	MATERIAL (HAND WHEEL TYPE)	
		SQUARE TYPE	TRIANGLE TYPE
01	BODY A	*316LSS	*A351-CF8
02	BODY B	*316LSS	-
03	GEAR SET	316LSS	A240-304
04	BLIND PLATE	*316LSS	*A240-304
05	PIPE	316LSS	-
06	SEAT	316LSS	A240-304
07	BLIND PLATE GUIDE	POLY ACETAL	-
08	SCREW SHAFT	304SS	A479-304
09	TRAVELING NUT	304SS	A240-304
10	END PLATE	304SS	-
11	HAND WHEEL	A536	A126-B
12	PROXIMITY SENSOR	-	-
13	O-RING	*NBR	*VITON
14	O-RING	*NBR	*VITON
15	O-RING	*NBR	-
16	SEAT GUIDE	-	A479-304
17	FIXING PIN	-	A479-304
18			

*Trim Material to be applied as customer's requisition with various option.

3-WAY BALL VALVE

STRAINER & ENGINEERING DATA



Reference Standard

	DESCRIPTION	HAND WHEEL TYPE	CYLINDER TYPE
01	*BODY	A351-CF8	A351-CF8
02	*COVER	A351-CF8	A351-CF8
03	*BALL	A351-CF8	A351-CF8
04	YOKE	A240-304	A240-304
05	SPRING		304SS
06	SEATRING	PTFE	PTFE
07	PACKING GLAND		304SS
08	PACKING		PTFE
09	BUSH		
10	INDICATOR	304SS	304SS
11	*INNER RING	A240-304	A240-304
12	CYLINDER		
13	LIMIT SWITCH		

*Trim Material to be applied as customer's requisition with various option.

GENERAL CLASSIFICATION	CASTINGS			FORGINGS		
	IS 6800	BS 2874	ASME B16.34	ASTM	ANSI	EN
Small Size	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
Medium Size	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
Large Size	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
Larger Sizes (2" to 24")	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			
	Small	Small	Small			