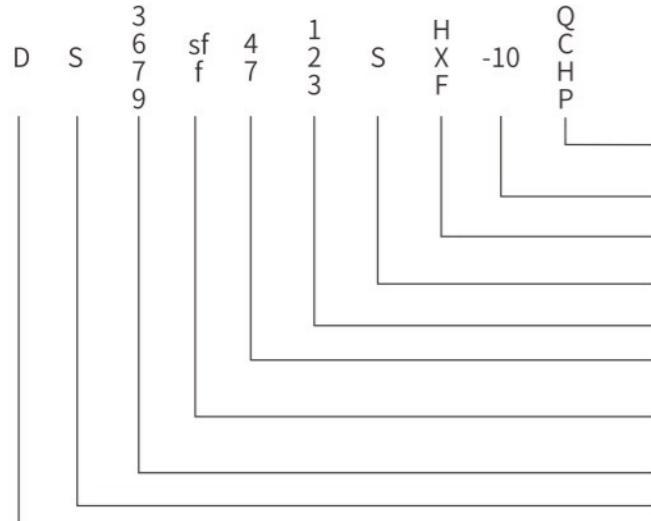


► BUTTERFLY VALVE SERIES



Flange Connected Butterfly Valve

Preparation method of butterfly valve model



Selection Instructions:

1. Applicable working conditions

- (1)Medium name
- (2)Medium temperature
- (3)Working pressure range

2. Operation Situation

- (1)Manual operation: ① Handle ② Hand wheel ③Square head
- (2)Power operation: ① Electric ② Pneumatic ③Hydraulic

3. Valve situation

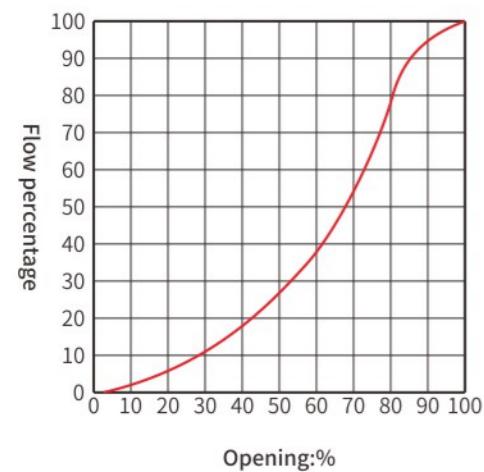
- (1)Inside nominal diameter (2) Nominal pressure
- (3)Connection method: ① Clamp type ② Flange type ③Expansible type
- (4)Installation method: ① Vertical type ② Horizontal type
- (5)Special requirements

4. Suggestions Of The Manufacturer

- (1)The valve installation position is better to be 5 times of the diameter of the pipe from the pump outlet or branch inlet.
- (2)Butterfly valve above DN1200 is better to be horizontally installed.

Butterfly Valve Flow - Opening Curve

Butterfly valve flow characteristics



Butterfly valve flow coefficient and flow resistance coefficient table

DN(mm)	C(m ²)	K	DN(mm)	C(m ²)	K	DN(mm)	C(m ²)	K
80	0.009	0.6	500	0.44	0.4	2000	9.93	0.20
100	0.014	0.6	600	0.63	0.4	2200	12.0	0.20
125	0.022	0.6	700	0.99	0.3	2400	15.5	0.17
150	0.032	0.6	800	1.30	0.3	2600	18.2	0.17
200	0.062	0.5	900	0.64	0.3	2800	23.2	0.14
250	0.98	0.5	1000	2.03	0.3	3000	26.7	0.14
300	0.142	0.5	1200	3.14	0.26			
350	0.192	0.5	1400	4.27	0.26			
400	0.281	0.4	1600	5.93	0.23			
450	0.356	0.4	1800	7.50	0.23			

Note: K- Flow resistance coefficient when the valve is fully opened $K=2\Delta p/v^2P$

C- Flow coefficient when the valve is fully opened (m^2) $C=Q/p/\Delta P$

Flange Connected Butterfly Valve

Butterfly Valve Pressure - Temperature Grade Table

PN (MPa)	Material	Working Temperature°C											
		≤20	100	150	200	250	300	350	400	425	450	475	500
0.25	Q235	0.25	0.25	0.225	0.20	0.175	0.15						
	16Mn	0.25	0.25	0.245	0.225	0.20	0.175	0.138	0.113	0.112			
	15CrMo	0.25	0.25	0.25	0.25	0.25	0.237	0.228	0.223	0.218	0.205	0.184	0.154
	1Cr18Ni9Ti	0.238	0.215	0.201	0.189	0.177	0.166	0.159	0.153	0.150	0.148	0.146	0.145
0.6	QT450-10	0.60	0.60	0.57	0.54	0.48	0.42	0.36					
	Q235	0.60	0.60	0.54	0.48	0.42	0.36						
	16Mn	0.60	0.60	0.588	0.57	0.54	0.48	0.42	0.33	0.27			
	15CrMo	0.60	0.60	0.60	0.60	0.60	0.57	0.55	0.53	0.52	0.49	0.44	0.37
	1Cr18Ni9Ti	0.57	0.52	0.48	0.45	0.42	0.40	0.38	0.36	0.35	0.35	0.35	
1.0	QT450-10	1	1.00	0.95	0.90	0.80	0.70	0.55					
	Q235	1.00	1.00	0.90	0.80	0.70	0.60						
	16Mn	1.00	1.00	0.98	0.95	0.90	0.80	0.70	0.55	0.45			
	26CrMo	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.91	0.88	0.87	0.82	0.74
	1Cr18Ni9Ti	0.95	0.86	0.81	0.76	0.71	0.66	0.63	0.61	0.60	0.59	0.58	0.58
1.6	QT450-10	1.60	1.60	1.50	1.44	1.28	1.12	0.88					
	Q235	1.60	1.60	1.44	1.28	1.12	0.96						
	16Mn	1.60	1.60	1.57	1.52	1.44	1.28	1.12	0.88	0.72			
	15CrMo	1.60	1.60	1.60	1.60	1.60	1.52	1.46	1.42	1.39	1.31	1.18	0.99
	1Cr18NI9Ti	1.52	1.31	1.29	1.21	1.13	1.06	1.01	0.98	0.96	0.94	0.93	0.962
2.5	Q235	2.50	2.50	2.25	2.00	1.75	1.50						
	25	2.50	2.50	2.45	2.38	2.25	2.00	1.75	1.38	1.13			
	16Mn	2.50	2.50	2.45	2.38	2.25	2.00	1.75	1.38	1.13			
	15CrMo	2.50	2.50	2.50	2.50	2.50	2.38	2.28	2.23	2.18	2.05	1.85	1.55
	1Cr18NI9Ti	2.38	2.15	2.01	1.89	1.77	1.66	1.57	1.53	1.50	1.48	1.46	1.45
4.0	Q235	4.00	4.00	3.60	3.20	2.80	2.40						
	25	4.00	4.00	3.92	3.80	3.60	3.20	2.80	2.20	1.80			
	16Mn	4.00	4.00	3.92	3.80	3.60	3.20	2.80	2.20	1.80			
	15CrMo	4.00	4.00	4.00	4.00	4.00	3.80	3.64	3.56	3.48	3.28	2.96	2.48
	1Cr18Ni9Ti	3.80	3.44	3.22	3.02	2.83	2.65	2.54	2.44	2.40	2.36	2.34	2.32

Note: Our butterfly valve body plates are mainly made of QT450-10 and Q235. If users choose other materials, it shall be negotiated separately.

Bi-directional Soft-sealing Flange Butterfly Valve



Introduction

Bi-directional rubber sealing butterfly valve was researched and developed by our factory in 1991. Through continuous improvement, the product performance has been in the leading position at home and abroad.

Features

1. It has bidirectional sealing function with good sealing performance, which can achieve "no leakage" at positive and negative directions. During installation, it is not subject to the restriction of medium flow direction.
2. The main material of the valve body and butterfly plate is nodular cast iron. The material of the sealing pair is stainless steel and rubber, with long service life.
3. The valve shaft adopts half-shaft structure. The butterfly plate is truss type, with large open area, small flow resistance, energy saving and energy-efficient.
4. A connecting seat is equipped between the flange and the driving part of the valve. The bolt for fixing the packing gland can be adjusted through the packing window on the connecting seat to ensure the shaft sealing.
5. The expandable part of the expandable bi-directional rubber sealing butterfly valve can stretch freely or be fixed at certain position, which can meet the use requirements for different conditions. It has the functions of butterfly valve and the expansion piece.
6. The rubber seal ring can be equipped on the valve body or the butterfly plate. It is determined by users.
7. Worm gear drive is totally closed, which can be used in water for a long time.
8. All butterfly valves of pipe network horizontally installed underground are equipped with unique synchronous display mechanism in the country, which can be used to observe the open and close status of the valve from different operation directions.

Drive Mode	Connection type	Inside nominal diameter DN(mm)	Pressure range PN(MPa)	Applicable medium	Applicable temperature°C	Material
Worm drive, electric drive, pneumatic drive, hydraulic drive	Clamp type Flange type Expansible type	100~4000	0.25~4.0	Water, oil, air and weak corrosive fluids	-10~80	Nodular cast iron, carbon steel and stainless steel
Adopted standards	GB12238-89, GB12221-2005, GB/T13927-92 GB/T9115.1 -2000, GB/T17241.6-1998, GB/T9113.1-2000					

Double-eccentric bi-directional metal sealing flange butterfly valve



Introduction

Bi-directional metal sealing butterfly valve was researched and developed by the company in 1993, which was granted with national patents (ZL93203934.0, ZL98242105.2) twice. After continuous improvement, the product performance has been in the leading position at home and abroad. It has been listed in the national patent demonstration project and high-tech industrialization project of Henan Province.

Features

1. With bi-directional sealing function, the sealing performance at positive and negative directions can meet the requirements above national standard Grade C. The installation is not limited by the flow direction of medium.
2. Long service life, the sealing surface of the product is made of 1Cr18Ni9Ti stainless acid-resistant steel, which is resistant to corrosion. Due to the adoption of the double-eccentric structure, the sealing pairs of the valve don't contact with each other in the opening and closing process. Therefore, there is no wear.
3. Wide application range, it can be used in various working conditions and in various media.
4. Energy-efficient, the valve shaft adopts half-shaft structure, and the butterfly plate is truss type, with large open area, small flow resistance and energy saving.
5. A connecting seat is equipped between the flange and the driving part of the valve. The bolt for fixing the packing gland can be adjusted through the packing window on the connecting seat to ensure the shaft sealing.
6. The expandable part of the expandable bi-directional metal sealing butterfly valve can stretch freely or be fixed at certain position, which can meet the use requirements for different conditions. It has the functions of butterfly valve and the expansion piece.
7. Worm gear drive is totally closed, which can be used in water for a long time.
8. All butterfly valves of pipe network horizontally installed underground are equipped with unique synchronous display mechanism in the country, which can be used to observe the open and close status of the valve from different operation directions.

Drive Mode	Connection type	Inside nominal diameter DN(mm)	Pressure range PN(MPa)	Applicable medium	Applicable temperature°C	Material
Worm drive, electric drive, pneumatic drive, hydraulic drive	Clamp type Flange type Expansible type	100~4000	0.25~4.0	Water, oil, air and weak corrosive fluids	-30~80 -30~200	Nodular cast iron, carbon steel and stainless steel
Adopted standards	GB12238-89, GB12221-2005, GB/T13927-92 GB/T9115.1-2000, GB/T17241.6-1998, GB/T9113.1-2000					

Triple-eccentric Metal Hard-sealing Flange Butterfly Valve

Introduction

This butterfly valve is a new generation of wear-resistant triple-eccentric metal hard-sealing butterfly valve researched and developed by the company by absorbing and understanding foreign technologies. It is suitable for pipeline systems of metallurgy, electric power, petroleum, chemical engineering, pharmaceutical, water supply and drainage at $\leq 425^{\circ}\text{C}$.

Features

1. All metal hard sealing, safe and resistant to scale brush, long service life.
2. The sealing pairs are self-compensated and have excellent sealing performance, and will not get stuck under low temperature and high temperature conditions.
3. Adopt 3D eccentric structure. There is almost no friction between the valve seat and the butterfly plate. It can be opened and closed conveniently. The closer it is, the tighter it is.
4. High temperature resistance, low temperature resistance and corrosion resistance.
5. All butterfly valves of pipe network horizontally installed underground are equipped with unique synchronous display mechanism in the country, which can be used to observe the open and close status of the valve from different operation directions. (Note: If the bi-directional synchronous display is needed by the user, please indicate it in the contract)

Main technical parameters

Nominal Pressure MPa	Strength Test MPa	Sealing Test	Suitable Temperature (°c)	Applicable Medium
1.0	1.5	1.1	-30°C~350°C -29°C~425°C	Water, steam, gas, oil, hot air, and other media with air corrosion
1.6	2.4	1.76		
2.5	3.75	2.75		
4.0	6.0	4.4		

Main Structure And Material

Valve Body Butterfly Plate	Valve Rod	Seal Ring	Padding
Cast steel, stainless steel and nodular cast iron	Stainless steel	Stainless steel	Flexible graphite

Type, Specification, Model And Material Of Main Parts Of Triple-eccentric Metal Hard-sealing Butterfly Valve

Connection Form	Material of valve body and butterfly plate substrate	Nominal pressure MPa	Product Model			Product specification		
			Worm Drive			Electric	Aboveground installation, electric	Underground installation (vertical and horizontal)
Aboveground installation			Underground vertical installation	Underground horizontal installation				
Clamp Type	Carbon steel	0.25	D373H-2.5C			D973H-2.5C	100~2000	
		0.6	D373H-6C			D973H-6C	100~2000	
		1.0	D373H-10C			D973H-10C	100~2000	
		1.6	D373H-16C			D973H-16C	100~1600	
	Nodular castiron	0.6	D373H-6Q	D3f73H-6Q	D3sf73H-6Q	D973H-6Q	100~2000	350~2000
		1.0	D373H-10Q	D3f73H-10Q	D3sf73H-10Q	D973H-10Q	100~2000	300~2000
		1.6	D373H-16Q	D3f73H-16Q	D3sf73H-16Q	D973H-16Q	100~1600	250~1600
		2.5	D373H-25C			D973H-25C	100~1600	
Flange Type	Carbon steel	0.25	D ₃ f43H-2.5C			D943H-2.5C	100~3000	
		0.6	D ₃ f43H-6C			D943H-6C	100~3000	
		1.0	D ₃ f43H-10C			D943H-10C	100~3000	
		1.6	D ₃ f43H-16C			D943H-16C	100~2000	
		2.5	D ₃ f43H-25C			D943H-25C	100~1600	
		4.0	D ₃ f43H-40C			D943H-40C	100~600	
	Nodular castiron	0.6	D ₃ f43H-6Q	D3f43H-16Q	D3sf43H-16Q	D943H-6C	100~3000	350~3000
		1.0	D ₃ f43H-10Q	D3f43H-10Q	D3sf43H-10Q	D943H-10C	100~3000	300~3000
		1.6	D ₃ f43H-16Q	D3f43H-16Q	D3sf43H-16Q	D943H-16C	100~2000	250~2000

Instructions for ordering

1. On account of that triple-eccentric metal hard-sealing butterfly valves have different temperature levels, the demander shall indicate the temperature in the order.
2. The electric triple-eccentric metal sealing butterfly valves are divided into general type and explosion-proof type. The demander shall indicate the type in the order.
3. For worm and gear drive butterfly valves, if bi-directional synchronous display is needed, the user shall indicate it in the contract.
4. If the demander uses the triple-eccentric metal hard-sealing butterfly valve beyond the existing range of operation mode, specification, dimension and material, our factory can design and manufacture separately, which must be indicated in the order contract.



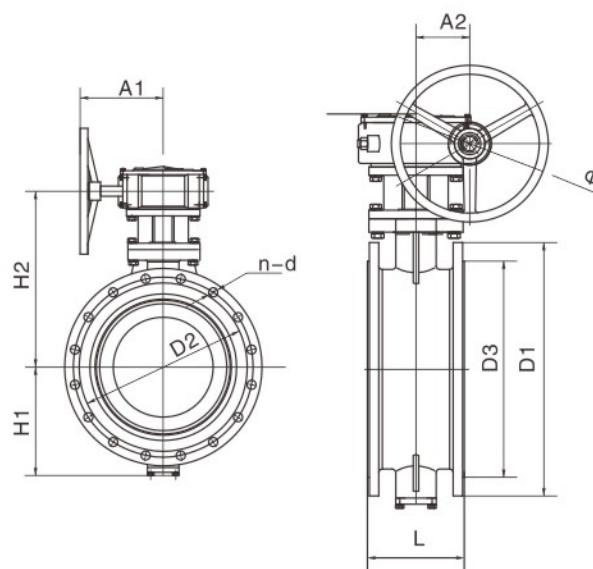
Flange Connected Butterfly Valve

Introduction

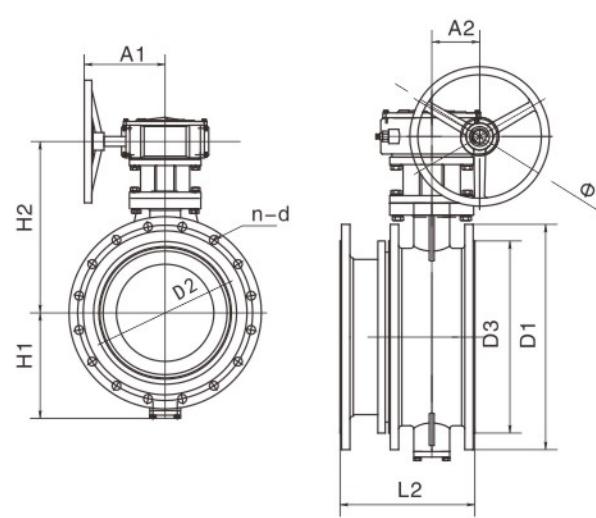
The most important thing is to select valves with correct dimension and type. The structure principle of expansion butterfly valve is especially applicable to the manufacturing of large-caliber valve. Expansion butterfly valve is not only widely used in petroleum, gas, chemical engineering, water treatment and other general industries, but also used in the cooling water system of thermal power plants.

Features

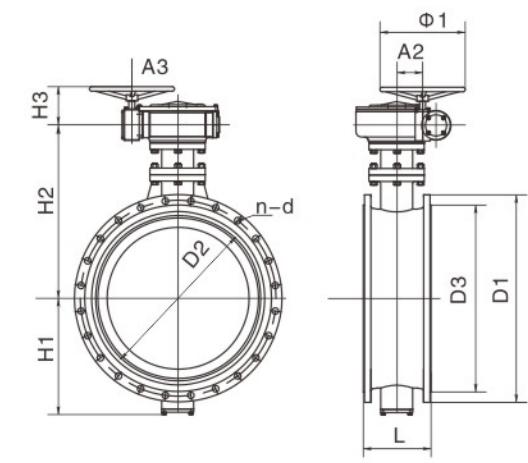
1. Small in size and light in weight, easy disassembly, installation and maintenance, it can be installed wherever needed.
2. Simple and compact structure, low operating torque, 90 degree rotation, and quick opening.
3. Flow characteristics tend to be linear, with good regulation performance.
4. The connection between the butterfly plate and the valve rod is pin free, which overcomes possible internal leakage points.
5. The sealing parts can be replaced, and is reliable, achieving bi-directional sealing.
6. The valve can be designed of flange connection and clamp connection.
7. The drive mode can be manual, electric or pneumatic.



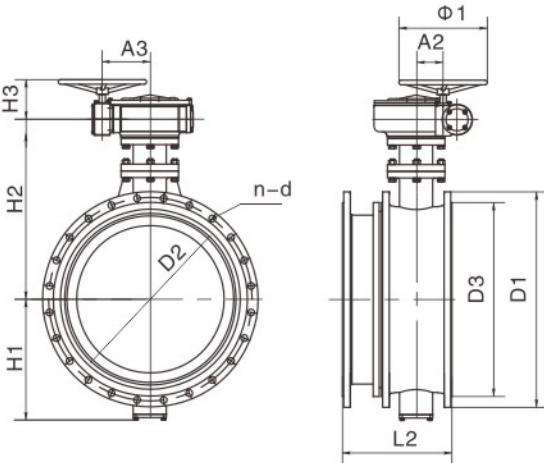
DN100-600 flange butterfly valve



DN100-600 expansion flange butterfly valve



Flange butterfly valve above Dn600



Expansion flange butterfly valve above Dn600

Flange Connected Butterfly Valve

0.25MPa

DN	D1	D2	D3	L	b Made of steel	n-d	H1	H2	H3	H4	H5	A1	A2	A3	A4	A5	Φ1	Φ2																			
																			L2	b	n-d	H1	H2	H3	H4	H5	A1	A2	A3	A4	A5	Φ1	Φ2	The number of open/close turns of worm drive butterfly valve	Weight of worm drive flange butterfly valve(kg)		
100	210	170	144	127	18	4-Φ18	125	204		240	190	125	32		126	68	120	200		5	17																
125	240	200	174	140	20	8-Φ18	140	218		255	190	125	32		126	68	120	200		5	21																
150	265	225	199	140	20	8-Φ18	150	256		285	190	155	44		126	68	180	200		8	30																
200	320	280	254	152	22	8-Φ18	185	295		325	190	155	44		126	68	180	200		8	40																
250	375	335	309	165	24	12-Φ18	205	340		380	200	195	64		209	110	240	400		10	55																
300	440	395	363	178	24	12-Φ22	245	382		425	200	195	64		209	110	240	400		10	65																
350	490	445	413	190	24	12-Φ22	280	430	220	460	200	235	94	145	250	110	320	400		12 (single level) 15 (pipe network)	95																
400	540	495	463	216	24	16-Φ22	298	470	220	500	200	235	94	145	250	110	320	400		15	105																
450	595	550	518	222	24	16-Φ22	325	520	220	570	200	235	94	145	250	110	320	400		15	130																
500	645	600	568	229	26	20-Φ22	355	550	240	600	210	275	132	196	250	140	400	500		14 (single level) 21 (pipe network)	185																
600	755	705	667	267	26	20-Φ26	405	618	240	668	210	275	132	196	250	140	400	500		21	250																
700	860	810	772	292	26	24-Φ26	460	707	240	755	210	275	132	196	250	140	400	500		21	445																
800	975	920	878	318	26	24-Φ30	520	775	270	810	210	385	185	244	250	140	500	500		21	520																
900	1075	1020	978	330	26	24-Φ30	575	840	270	875	210	385	185	244	250	140	500	500		21	570																
1000	1175	1120	1078	410	26	28-Φ30	635	900	324		350	455	233	293	555	625	600	305		21	930																
1200	1375	1320	1280	470	26	32-Φ30	755	1075	342		350	455	233	293	555	625	600	305		21	1300																
1400	1575	1520	1480	530	26	36-Φ30	870	1175	360		375	530	296	350	650	705	600	305		21	1950																
1600	1790	1730	1690	600	26	40-Φ30	965	1361	360		375	530	296	350	650	705	600	305		21	2600																
1800	1990	1930	1890	670	26	44-Φ30	1120	1550	450		405	685	410	460	765	835	720	305		21	3760																
2000	2190	2130	2090	760	26	48-Φ30	1280	1675	450		405	685	410	460	765	835	720	305		21	4450																
2200	2405	2340	2295	800	28	52-Φ33	1370	1850	355		435	355	495	370	970	970	720	460		21	5800																
2400	2605	2540	2495	900	28	56-Φ33	1540	2050	355		435	355	495	370	970	970	720	460		21	6900																
2600	2805	2740	2695	1000	28	60-Φ33	1620	2160	355		435	355	495	370	970	970	720	460		21	9900																
2800	3030	2960	2910	1100	30	64-Φ36	1700	2230	430		520	430	630	424	1250	1460	900	610		21	16500																
3000	3230	3160	3110	1200	30	68-Φ36	1800	2360	430		520	430	630	424	1250	1460	900	610		21	21000																
3200	3430	3360	3310	1050	32	72-Φ36	1980	2540	355		790	624	630	1250	1460	900	340		21	340																	
3400	3630	3560	3510	1100	34	72-Φ36	2100	2680	355		790	624	630	1250	1460	900	340																				

Flange Connected Butterfly Valve

1.0MPa

DN	D1	D2	D3	L	L2		b	n-d	H1	H2	H3	H4	H5	A1	A2	A3	A4	A5	Φ1	Φ2	The number of open/close turns of worm drive butterfly valve	Weight of worm drive flange butterfly valve(kg)	
					Standard length	Expansion amount																	
100	220	180	156	127	190	±15	22	19	8-Φ18	130	230		260	190	155	44		126	68	180	200	8	20
125	250	210	184	140	200	±15	22	19	8-Φ18	145	250		280	190	155	44		126	68	180	200	8	25
150	285	240	211	140	210	±15	24	19	8-Φ22	165	270		300	190	155	44		126	68	180	200	8	37
200	340	295	266	152	230	±15	24	20	8-Φ22	200	325		365	200	195	64		209	110	240	400	10	50
250	395	350	319	165	250	±15	26	22	12-Φ22	220	355		395	200	195	64		209	110	240	400	10	62
300	445	400	370	178	270	±15	26	25	12-Φ22	250	410	220	450	200	235	94	145	250	110	320	400	12	95
350	505	460	429	190	290	±20	26	25	16-Φ22	285	445	220	485	200	235	94	145	250	110	320	400	15	120
400	565	515	480	216	310	±20	26	25	16-Φ26	315	520	240	570	210	275	132	196	250	140	400	500	12	170
450	615	565	530	222	330	±20	28	26	20-Φ26	340	550	240	600	210	275	132	196	250	140	400	500	15	200
500	67a	620	582	229	350	±25	28	27	20-Φ26	367	580	240	630	210	275	132	196	250	140	400	500	12	230
600	780	725	682	267	390	±30	30	30	20-Φ30	435	675	270	710	210	425	185	244	250	140	500	500	12	375
700	895	840	794	292	430	±30	30	33	24-Φ30	490	735	270	770	210	425	185	244	250	140	500	500	12	490
800	1015	950	901	318	470	±35	32	35	24-Φ33	555	830	324	350	514	233	293	555	625	600	305	12	785	
900	1115	1050	1001	330	510	±35	34	38	28-Φ33	610	890	324	350	514	233	293	555	625	600	305	12	855	
1000	1230	1160	1112	410	550	±40	34	40	28-Φ36	665	1005	360	375	590	296	350	650	705	600	305	12	1400	
1200	1455	1380	1328	470	630	±40	38	45	32-Φ39	800	1125	360	375	590	296	350	650	705	600	305	12	1900	
1400	1675	1590	1530	530	710	±50	42	46	36-Φ42	970	1335	450	405	752	410	460	765	835	720	305	12	2900	
1600	1915	1820	1750	600	790	±50	46	49	40-Φ48	1065	1470	450	405	752	410	460	765	835	720	305	12	3850	
1800	2115	2020	1950	670	870	±60	50	52	44-Φ48	1190	1670	355	435	355	506	370	970	970	720	460	12	5600	
2000	2325	2230	2150	760	950	±60	54	55	48-Φ48	1330	1825	355	435	355	506	370	970	970	720	460	12	7000	
2200	2550	2440	2370	800	1000	±60	58	62	52-Φ56	1400	1990	430	520	430	615	424	1250	1460	900	610	12	9350	
2400	2760	2650	2570	900	1100	±60	62	62	56-Φ56	1655	2185	430	520	430	615	424	1250	1460	900	610	12	11450	
2600	2960	2850	2780	1000	1200	±60	65	65	60-Φ56	1730	2355	700	580	1200	690	1110	1335	1615	1200	610	12	17000	
2800	3180	3070	3000	1100	1300	±70	70	74	64-Φ56	1910	2510	700	580	1200	690	1110	1335	1615	1200	610	12	25500	
3000	3405	3290	3210	1200	1400	±75	74	78	68-Φ62	2050	2650	700	580	1200	690	1110	1335	1615	1200	610	12	32500	
3200	3610	3495	3415	1050		80	95	72-Φ62	2090	2670	580		1600	840	890	1550	1850	1200	600	1071			
3400	3815	3700	3620	1100		84	100	76-Φ62	2210	2820	580		1600	840	890	1550	1850	1200	600	1071			
3600	4020	3905	3825	1150		88	104	80-Φ62	2330	2970	580		1600	840	890	1550	1850	1200	600	1071			
3800	4260	4130	4040	1200		92	84-Φ70	2470	3150	720		1900	1050	1110	1700	2000	1500	900					
4000	4460	4330	4240	1250		95	88-Φ70	2580	3300	720		1900	1050	1110	1700	2000	1500	900					

1.The weight in the table is calculated theoretical weight, which may have certain difference with the actual weight.

2.Electric devices on which the dimension of the electric valves listed in the table is based: Part-turn ones are LQA series and 802 series of Tianjin Beifang.

Multi-turn ones are SMC series of Tianjin Errong.

Special requirements (if any) of customers shall be indicated in the contract. The boundary dimension of the electric valves in the table shall be subject to change without notice

Flange Connected Butterfly Valve

1.6MPa

DN	D1	D2</th
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Flange Connected Butterfly Valve

2.5MPa

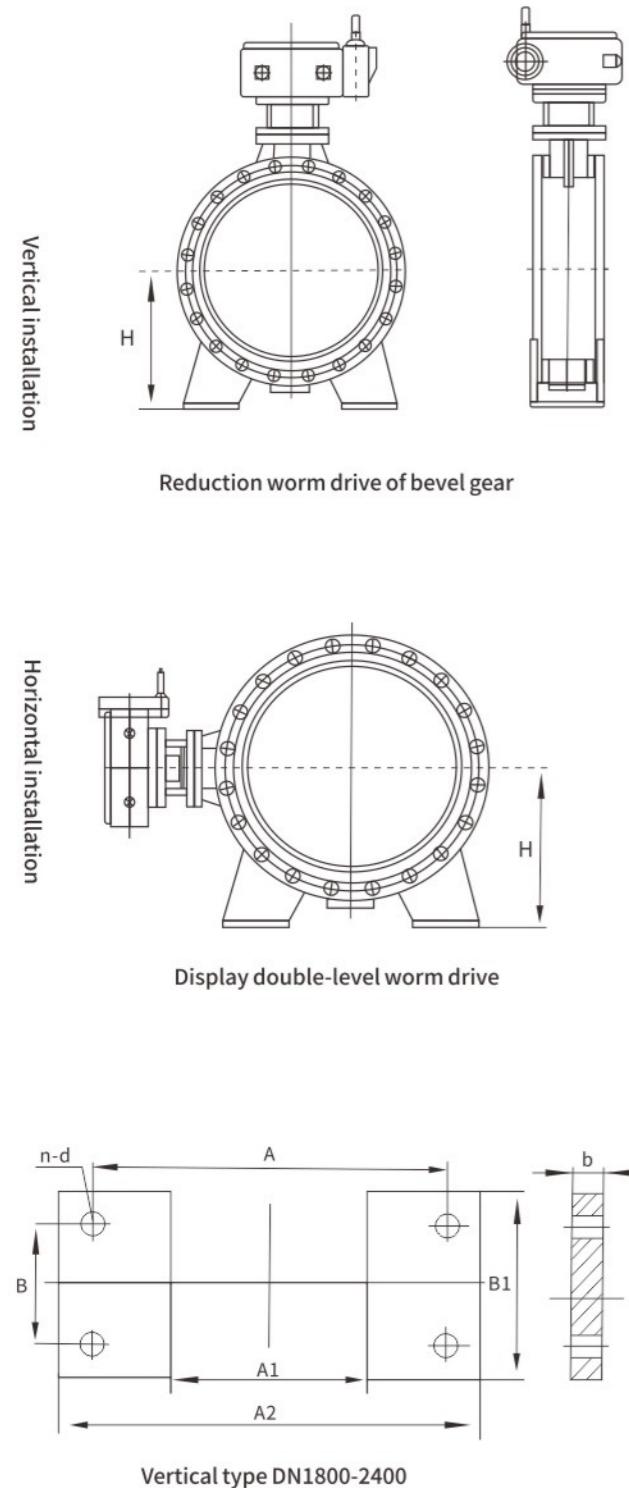
DN	D1	D2	D3	L		b	n-d	H1	H2	H3	H4	H5	A1	A2	A3	A4	A5	Φ1	Φ2	The number of open/close turns of worm drive butterfly valve	Weight of worm drive flange butterfly valve(kg)		
				Short series	Long series																		
100	235	190	156	127	190	24	19	8-Φ22	140	250		279	190	155	44		126	68	180	200	8	25	
125	270	220	184	140	200	26	19	8-Φ26	155	270		320	200	195	64		209	110	240	400	10	32	
150	300	250	211	140	210	28	20	8-Φ26	175	315		355	200	195	64		209	110	240	400		53	
200	360	310	274	152	230	30	22	12-Φ26	210	365	220	396	200	235	94	145	250	110	320	400		85	
250	425	370	330	165	250	32	25	12-Φ30	250	382	220	413	200	235	94	145	250	110	320	400	12 (single level) 15 (pipe network)	110	
300	485	430	389	178	270	34	28	16-Φ30	275	470	240	520	210	275	132	196	250	140	400	500		155	
350	555	490	448	190	290	38	30	16-Φ33	310	510	240	560	210	275	132	196	250	140	400	500	14 (single level) 21 (pipe network)	195	
400	620	550	503	216	310	40	32	16-Φ36	355	585	270	620	210	385	185	244	250	140	500	500		290	
450	670	600	548	222	330	42	35	20-Φ36	375	630	270	665	210	385	185	244	250	140	500	500	48	325	
500	730	660	609	229	350	44	37	20-Φ36	420	705	324		350	455	233	293	555	625	600	305		555	
600	845	770	720	267	390	46	42	20-Φ39	490	760	324		350	455	233	293	555	625	600	305	48	705	
700	960	875	820	292	430	46	47	24-Φ42	540	870	360		375	530	296	350	650	705	600	305		900	
800	1085	990	928	318	470	50	51	24-Φ48	635	946	360		375	530	296	350	650	705	600	305	57.6	1350	
900	1185	1090	1028	330	510	54	56	28-Φ48	730	1103	450		405	685	410	460	765	835	720	305		2040	
1000	1320	1210	1140	410	550	58	60	28-Φ56	800	1161	450		405	685	410	460	765	835	720	305	90	2530	
1200	1530	1420	1350	470	630	64		32-Φ56	870	1360	355		435	355	495	370	970	970	720	460	123	3650	
1400	1755	1640	1560	530	710	72		36-Φ62	1100	1620	430		520	430	630	424	1250	1460	900	610	5800		
1600	1975	1860	1780	600	790	78		40-Φ62	1260	1790	430		520	430	630	424	1250	1460	900	610	340	7450	
1800	2195	2070	2010	870	870	84		44-Φ70	1270	1620	430			1200	690	730	1335	1615	1200	450	450		
2000	2425	2300	2240	950	950	88		48-Φ70	1400	1790	430			1200	690	730	1335	1615	1200	450	450		

Flange Connected Butterfly Valve

4.0MPa

DN	D1	D2	D3	L	b	n-d	H1	H2	H3	H4	H5	A1	A2	A3	A4	A5	Φ1	Φ2	The number of open/close turns of worm drive butterfly valve	Weight of worm drive flange butterfly valve(kg)	
100	235	190	156	190	24	24	8-Φ22	140	250		279	190	155	44		126	68	180	200	8	27
125	270	220	184	200	26	26	8-Φ26	155	270		320	200	195	64		209	110	240	400	10	40
150	300	250	211	210	28	28	8-Φ26	175	315		355	200	195	64		209	110	240	400		60
200	375	320	284	230	34	34	12-Φ30	235	395	220	426	200	235	94	145	250	100	320	400		95
250	450	385	345	250	38	38	12-Φ33	255	405	240	455	210	275	132	196	250	140	400	500	14 (single level) 21 (pipe network)	130
300	515	450	409	270	42	42	16-Φ33	270	500	240	550	210	275	132	196	250	140	400	500		170
350	580	510	465	290	46	46	16-Φ36	305	520	270	555	210	385	185	244	250	140	500	500	48	270
400	660	585	535	310	50	50	16-Φ39	350	565	270		210	385	185	244	250	140	500	500		325
450	685	610	560	330	57	57	20-Φ39	395	645	324		350	455	233	293	555	625	600	305	48	510
500	755	670	615	350	57	57	20-Φ42	430	680												

Configuration Of Common Butterfly Valve Stand Feet



Pressure	Specification
0.25MPa	2800~4800
0.6MPa	2600~4800
1.0MPa	2000~4000
1.6MPa	1800~2600
2.5MPa	1400~2000

Pressure	Specification
0.25MPa	3200~4800
0.6MPa	3200~4800
1.0MPa	3200~4000
1.6MPa	2200~2600
2.5MPa	1800~2000

Configuration Of Common Butterfly Valve Stand Feet

According to GB12238-89 General Valve Flanges and Clamp Connection Butterfly Valves, butterfly valves below DN800 manufactured by our factory are not equipped with stand feet. For butterfly valves above DN800 (including Dn800), if stand feet are needed, the user shall indicate it in the order contract.

Attention: For pipelines with valve axial displacement or requiring valve axial displacement. It is preferable that the valves are not equipped with stand feet or are equipped with stand feet but without foundation bolt to prevent the valve from being damaged due to fixation.

Installation Dimension Of Butterfly Valve Stand Feet

DN	H					Clamp type		Flange type Expansible type		A	A1	A2	b	n-d	A	
	0.25 MPa	0.6 MPa	1.0 MPa	1.6 MPa	2.5 MPa			B	B1							
	580	580	600	600	630	130	220	160	310	760	426	836	18	4-Φ23		
800	580	580	600	600	630	130	220	160	310	760	426	836	18	4-Φ27		
900	610	630	630	640	735	130	220	160	320	920	602	1012	18	4-Φ27		
1000	680	690	700	740	805	150	280	200	380	1020	640	1140	18	4-Φ27		
1200	790	830	840	935	970	170	340	230	460	1100	632	1252	18	4-Φ27		
1400	930	930	980	1000	1180	190	370	260	520	1360	920	1520	20	4-Φ27		
1600	1040	1045	1100	1100	1340	210	430	320	590	1450	930	1630	20	4-Φ33		
1800	1180	1180	1200	1350		230	480	420	660	1560	1020	1800	20	4-Φ33		
2000	1300	1310	1370	1500		250	520	500	740	1760	1080	2000	30	4-Φ33		
2200	1400	1410	1460					620	780	1900	1360	2200	30	4-Φ33		
2400	1570	1600	1700					620	880	2160	1520	2400	30	4-Φ39		
2600	1650	1750	1810					720	992	2400	1600	2600	30	8-Φ 46	1920	
2800	1750	1850	1960					820	1092	2600	1800	2800	30	8-Φ 46	2100	
3000	1850	1980	2100					920	1192	2800	2000	3000	30	8-Φ 46	2300	
3200	1900	2000	2200					780	1030	3000	2200	3200	30	8-Φ 46	2500	
3400	2000	2100	2300					830	1080	3200	2400	3400	30	8-Φ 46	2700	
3600	2100	2200	2400					880	1130	3400	2500	3600	35	8-Φ 46	2800	
3800	2200	2300	2500					920	1180	3600	2700	3800	35	8-Φ 52	3000	
4000	2300	2400						970	1230	3800	2900	4000	35	8-Φ 52	3200	
4200	2400	2500						1020	1280	4000	3000	4200	40	8-Φ 52	3400	
4400	2500	2600						1070	1330	4200	3200	4400	40	8-Φ 52	3600	
4600	2600	2700						1120	1380	4400	3400	4600	40	8-Φ 52	3800	
4800	2700	2800						1170	1430	4600	3600	4800	40	8-Φ 52	4000	

Note: The above dimension of flange type is the dimension of valve stand feet with short structure length. If long series is needed, it shall be indicated in the contract. The installation form of butterfly valves with the caliber above DN3000mm shall be horizontal.

Clamp Butterfly Valve

Purpose And Feature

Soft-sealing butterfly valve is suitable for water supply and drainage pipelines and gas pipelines for food, medicine, chemical engineering, petroleum, electric power, textile, paper and others with the temperature $\leq 120^{\circ}\text{C}$ and nominal pressure $\leq 1.6\text{Mpa}$, playing the role of flow regulation and medium blocking. Its main features are as follows:

1. Novel and reasonable design, unique structure, light weight, and quick opening and closing;
2. Small operating torque, easy operation, labor saving and dexterity.
3. It can be installed in any location, and is easy to maintain.
4. The sealing parts can be replaced, and is reliable, achieving bi-directional sealing without leakage.
5. The sealing material is resistant to aging, corrosion and has long service life.

Main Technical Parameters

Nominal Pressure	DN	50~2000		
Inside Nominal Diameter	PN	0.6	1.0	1.6
Strength Test Pressure	Strength test	0.9	1.5	2.4
	Sealing test	0.66	1.1	1.76
	Air tightness test	0.6	0.6	0.6
Applicable Medium	Air, water, steam, gas, oil, etc.			
Drive Form	Manual drive, worm and gear drive, pneumatic drive, electric drive			

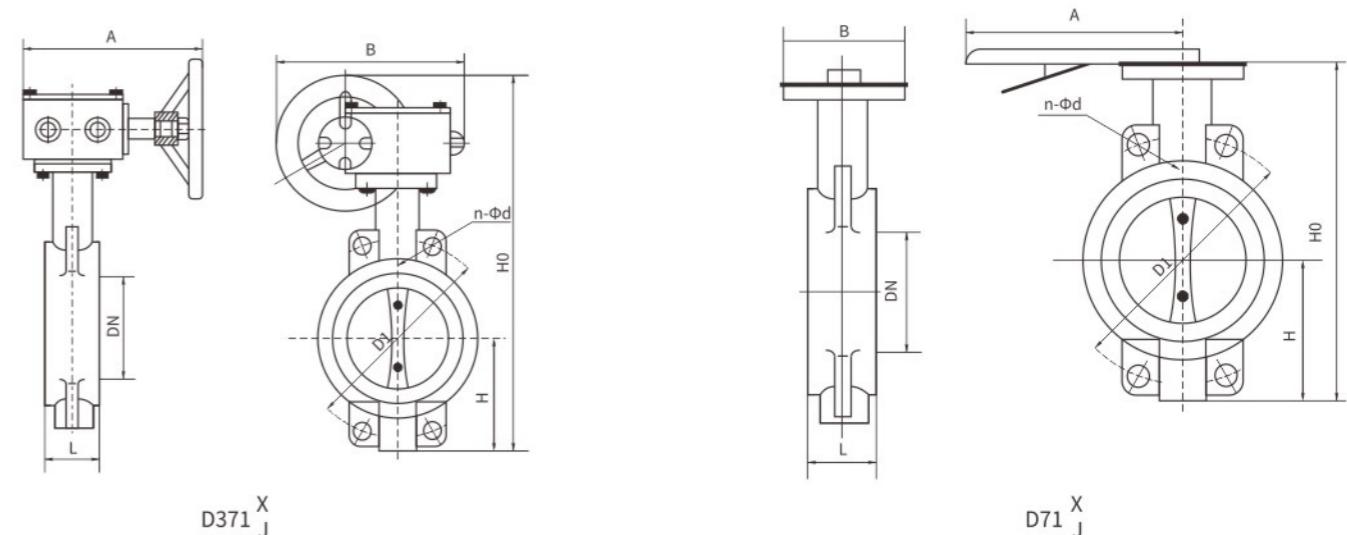
Materials Of Main Parts

Part Name	Material
Valve Body	Cast iron, cast steel, stainless steel, chromium-molybdenum steel, alloy steel
Butterfly Plate	Cast steel, alloy steel, stainless steel, chrome-molybdenum steel
Seal Ring	Rubber, Teflon, polyester
Valve Rod	2Cr13, stainless steel, chrome-molybdenum steel
Padding	Flexible graphite

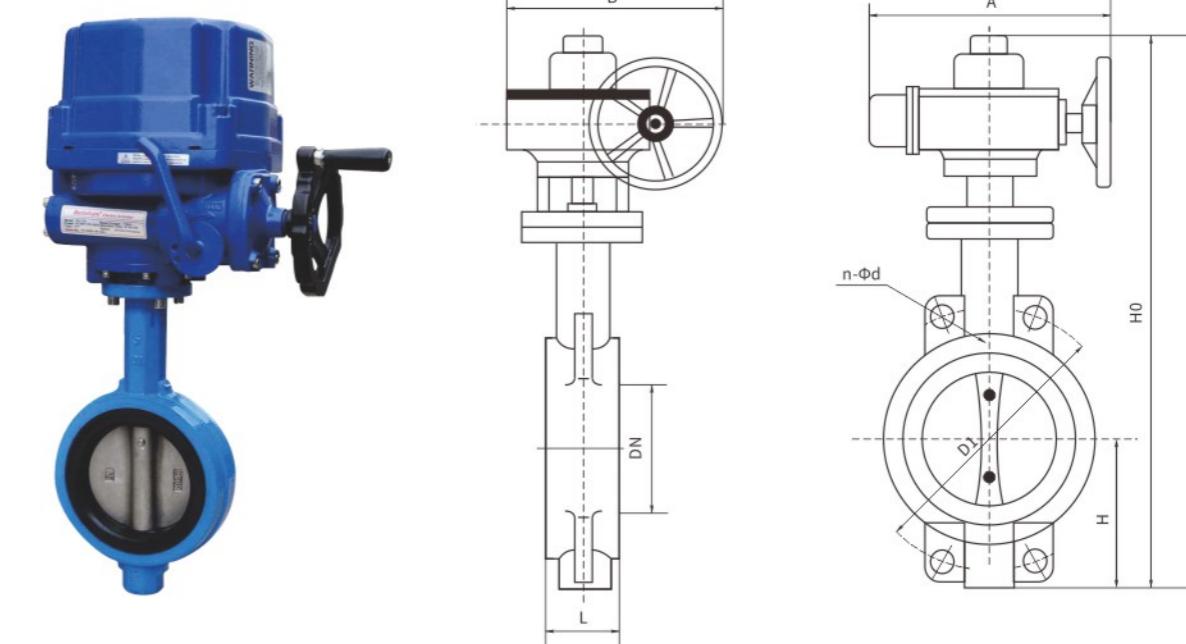
Selection And Applicable Temperature Of The Sealing Material Of The Butterfly Valve

Material type	Chloroprene rubber	Butyronitrile rubber	Ethylene Propylene rubber	Teflon	Silicone rubber	Fluoro-rubber
Code	X	J	YBX	F	GX	FJ
Maximum temperature resistance	82°C	93°C	150°C	232°C	250°C	204°C
Minimum temperature resistance	S-40°C	S-40°C	S-40°C	S-268°C	S-70°C	S-23°C
Applicable working temperature	$\leq 65^{\circ}\text{C}$	$\leq 80^{\circ}\text{C}$	$\leq 120^{\circ}\text{C}$	$\leq 200^{\circ}\text{C}$	$\leq 200^{\circ}\text{C}$	$\leq 180^{\circ}\text{C}$

Clamp Butterfly Valve



Main connection and boundary dimension of D71X



Main connection and boundary dimension of D971

Clamp Butterfly Valve

Main Connection And Boundary Dimension Of D71x

Inside Nominal Diameter Dn	Structure length (standard value)	Boundary Dimension (reference Value)				Connection Dimension (Standard Value)						
						0.6MPa		1.0MPa		1.6MPa		
mm	Inch	L	H	H0	A	B	D1	n-Φd	D1	n-Φd	D1	n-Φd
50	2	43	63	235	270	65	110	4-Φ14	125	4-Φ18	125	4-Φ18
65	2 1/2	46	70	250	270	65	130	4-Φ14	145	4-Φ18	145	4-Φ18
80	3	46	83	275	270	65	150	4-Φ18	160	8-Φ18	160	8-Φ18
100	4	52	105	318	270	65	170	4-Φ18	180	8-Φ18	180	8-Φ22
125	5	56	115	340	310	65	200	8-Φ18	210	8-Φ18	210	8-Φ26
150	6	56	137	376	310	65	225	8-Φ18	240	8-Φ22	240	8-Φ22

Main Connection And Dimension Of D371x, D671x And D971x

Inside Nominal Diameter Dn	Structure length (standard value)	Boundary Dimension (reference Value)				Connection Dimension (Standard Value)						
						0.6MPa		1.0MPa		1.6MPa		
mm	Inch	L	H	H1	A	B	D1	n-Φd	D1	n-Φd	D1	n-Φd
50	2	43	63	306	180	200	110	4-Φ14	125	4-Φ18	125	4-Φ18
65	2 1/2	46	70	321	180	200	130	4-Φ14	145	4-Φ18	145	4-Φ18
80	3	46	83	346	180	200	150	4-Φ18	160	8-Φ18	160	8-Φ18
100	4	52	105	387	180	200	170	4-Φ18	180	8-Φ18	180	8-Φ22
125	5	56	115	411	180	200	200	8-Φ18	210	8-Φ18	210	8-Φ26
150	6	56	137	447	270	280	225	8-Φ18	240	8-Φ22	240	8-Φ22
200	8	56	164	572	270	280	280	8-Φ18	295	8-Φ22	295	12-Φ22
250	10	60	206	646	270	280	335	12-Φ18	350	12-Φ22	355	12-Φ26
300	12	68	230	738	380	420	395	12-Φ22	400	12-Φ22	410	12-Φ26
350	14	78	248	761	380	420	445	12-Φ22	480	16-Φ22	470	12-Φ26
400	16	78	289	877	450	470	495	16-Φ22	515	16-Φ26	525	16-Φ30
450	18	102	320	938	480	490	550	16-Φ22	565	20-Φ26	585	20-Φ30
500	20	114	343	993	480	490	600	20-Φ22	620	20-Φ26	650	20-Φ33
600	24	127	413	1131	480	490	705	20-Φ26	725	20-Φ30	770	20-Φ36
700	28	154	478	1476	640	660	810	24-Φ26	840	24-Φ30	840	24-Φ36
800	32	165	525	1533	640	660	920	24-Φ30	950	24-Φ33	950	24-Φ39
900	36	203	585	1655	750	860	1020	24-Φ30	1050	28-Φ33	1050	28-Φ39
1000	40	216	640	1765	850	900	1120	28-Φ30	1160	28-Φ36	1170	28-Φ42
1200	48	254	755	1995	850	900	1340	32-Φ48	1380	32-Φ39	1380	32-Φ48
1400	56	279	910	2310	1000	925	1560	32-Φ36	1590	36-Φ42	1590	36-Φ48
1600	64	318	1030	2595	1000	925	1760	40-Φ36	1820	40-Φ43	1820	40-Φ55
1800	72	356	1140	2810	1100	980	1970	44-Φ39	2020	44-Φ48	2020	44-Φ55
2000	80	406	1250	3100	1100	980	2180	48-Φ42	2230	48-Φ48	2230	48-Φ60

Note: If users have special requirements, such as rubber lining of valve plate, it shall be indicated in the order.

Welded Butterfly Valve

Purpose

The butt-welded bi-directional sealing butterfly valve is mainly used in petroleum, chemical engineering, power station, metallurgy, papermaking, water heating, light industry and other fields, as a shutoff and regulation device on the pipeline.

Product Characteristics

Our butt-welded bi-directional pressure-taking butterfly valve not only adopts the conventional triple-eccentric structure, but also combines the movable seat principle of the fixed ball valve, which can guarantee the sealing performance under reverse pressure bearing more effectively, and truly achieve bi-directional pressure bearing of 100%. The valve body is welded with formed seamless steel pipe, which is more effective in solving the potential leakage of the casting. It has unique structure, novel design, convenient opening and closing and long service life.

Standard Specification

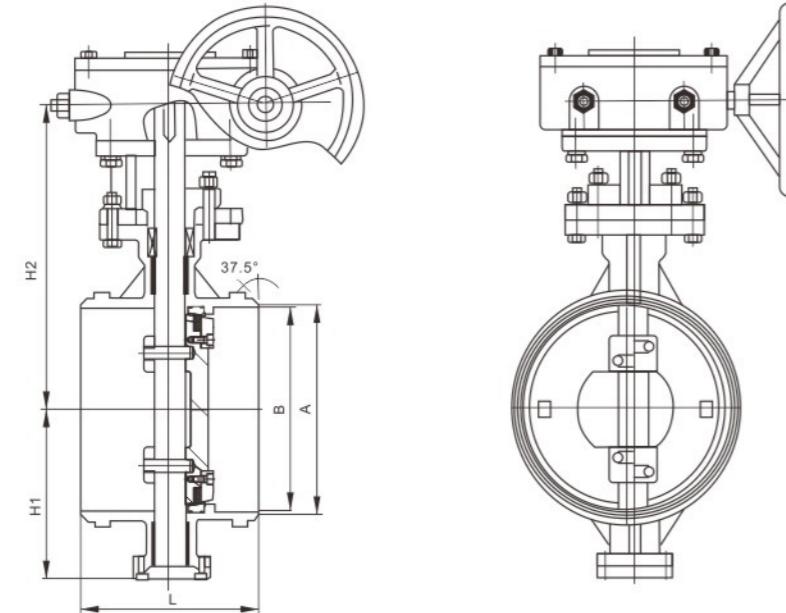
Design standard	GB/T12238
Structure length	GB/T12221
Dimension of the welding end	HG/T12224
Inspection and test	GB/T26480

Materials Of Main Components And Parts

Valve body	Q235A,304,304L,316,316L
Butterfly plate	Q235A,WCB,CF8,CF8M,316,316L
Seal ring	304,316 or 201+wear-resistant board
Valve rod	2Cr13,304,316
Padding	Flexible graphite



Welded Butterfly Valve



DN	L	H1	H2	A	B
50	150	70	240	60	49
65	170	80	250	76	63
80	180	85	260	90	78
100	190	110	280	114	102
125	200	120	300	140	128
150	210	140	320	168	154
200	230	150	370	219	203
250	250	185	400	273	255
300	270	220	430	325	305
350	290	250	455	377	354
400	310	270	500	426	398
450	330	300	540	480	456
500	350	325	590	530	502
600	390	380	660	630	591
700	430	435	720	720	695
800	470	485	790	820	797
900	510	540	850	920	899
1000	550	590	900	1022	998

Theft-Proof Butterfly Valve

1、Product Name: Theft-proof Butterfly Valve

Product Model:
FD342 (3) X (H) flange connection
FD371 (3) X (H) clamp connection
FD362 (3) X (H) butt welding connection

Product Features:

Due to the adoption of double theft prevention design, it has good theft prevention effect. The valve cannot be opened or closed without the special key. It can be installed on tap water pipelines, heating pipelines or other pipelines in the community, which can effectively avoid theft and is very convenient for management. Similarly, only the hidden clutch device is installed in the valve rod. When necessary, unscrew the bolts for fixing the hand wheel, insert the special key into the bolt hole to adjust the clutch state, and then operate the hand wheel to open or close the valve until the operation is completed, and then screw on the bolt to fix the hand wheel. The product is mysterious because it looks exactly like an ordinary valve.



2、Product Name: Special Hand Wheel (wrench) Butterfly Valve

Product Model:
FzD342(3)X(H) Flange connection
FzD371(3)X(H) Clamp connection
FzD362(3)X(H) Butt welding connection

Product Features:

The valve can only be opened and closed with a special wrench, with the features of simple operation, easy use and durability. It can prevent others from opening and closing the valve without permission. It can be installed on tap water pipelines or other pipelines.

Technical Parameters:

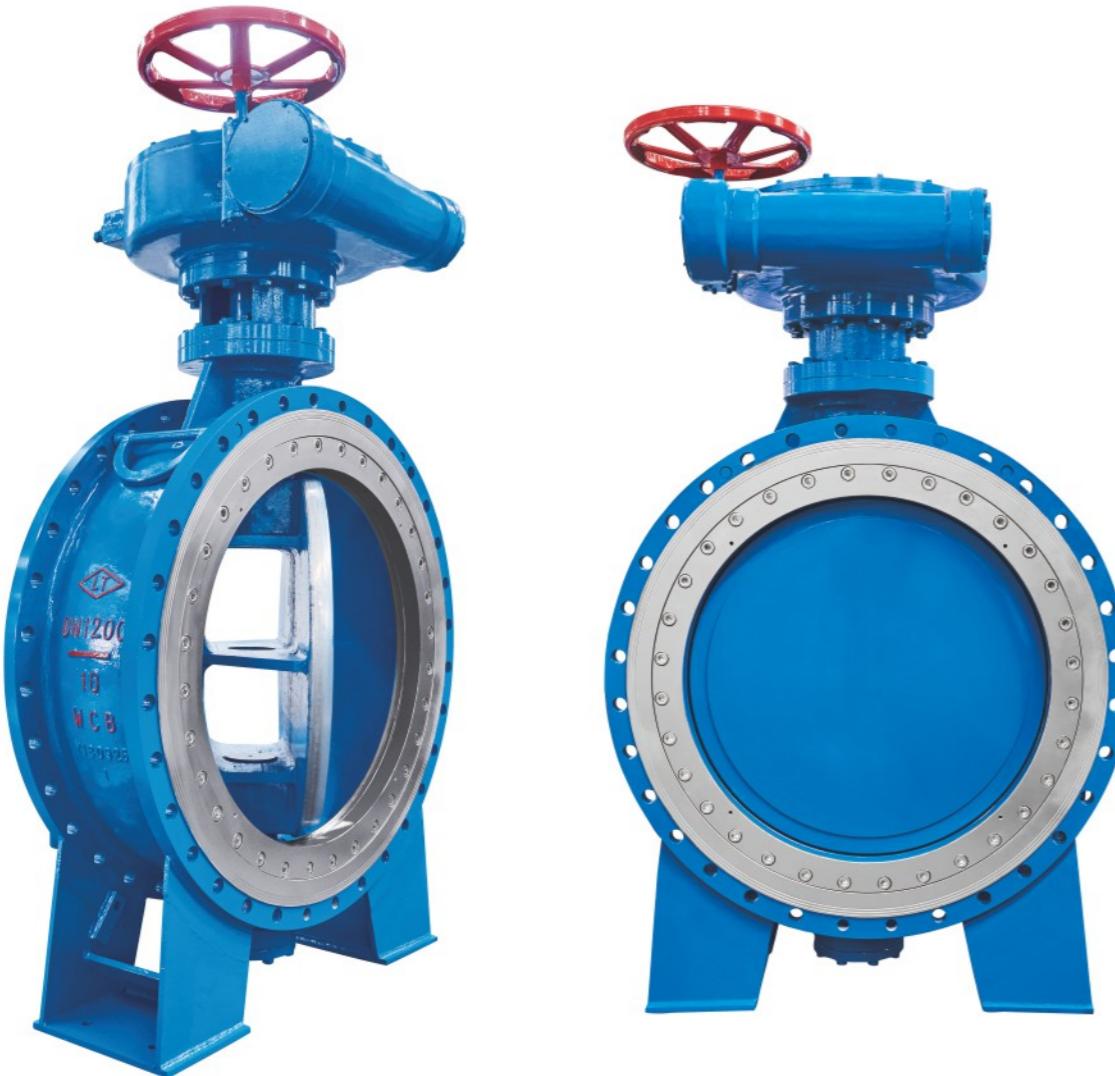
Nominal Pressure	1.0MPa(10kgf/cm ²)	1.6MPa(16kgf/cm ²)
Inside Nominal Diameter	100~3000mm	100~3000mm
Sealing Test Pressure	1.1MPa(11kgf/cm ²)	1.76MPa(17.6kgf/cm ²)
Strength Test Pressure	1.5MPa(15kgf/cm ²)	2.4MPa(24kgf/cm ²)
Applicable Temperature	≤120°C	<120°C
Applicable Medium	Water, oil, water heating and other non-corrosive liquid	Water, oil, water heating and other non-corrosive liquid
Drive Mode	Manual	Manual

We can also provide products with special technical parameters according to customers' requirements

Rotary Ball Valve (Ball-type Butterfly Valve)

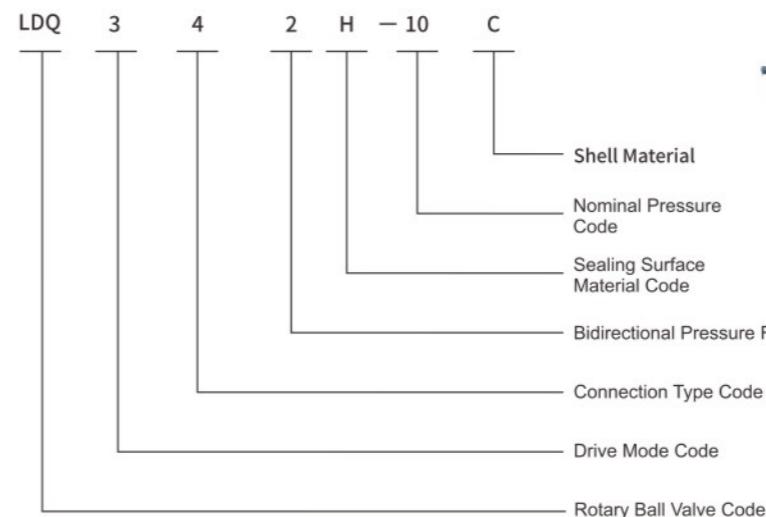
Product Overview

Most valves in the pipe network system are mainly used to cut off and adjust the media. Such valves account for a large proportion and a large amount in the whole system. It requires that the valves shall be durable and cost-effective, and shall have the function of cutting the medium in both directions. At present, globe valves, gate valves, butterfly valves and ball valves are mainly applied in the pipe network system. However, these four kinds of valves have different disadvantages. In this regard, with years of design experience combined with the superior sealing performance of the ball valve and the superior structural performance of the butterfly valve, our company has developed a bi-directional flow hard-hard rotary ball valve, which has the practical advantages of bi-directional sealing, adjustability and long service life of the ball valve, and the structural advantages of small volume and light weight of the butterfly valve. Its essence is eccentric semi-ball valve of butterfly structure. The sealing principle combines the front sealing of the fixed ball valve with the forced sealing of the eccentric butterfly valve to achieve the bidirectional cutting-off under high and low pressure.



Rotary Ball Valve (Ball-type Butterfly Valve)

Model Preparation



Drive Mode

Code		2	3	6	7	9
Drive mode	Manual	Electric-hydraulic	Worm and gear	Pneumatic	Hydraulic	Electric

Connection Type

Code	4	6	7
Connection Type	Flange	Welding	Clamp

Sealing Surface Material

Code	H	R	Y
Sealing Surface Material	Martensitic stainless steel	Austenitic stainless steel	Hard alloy

Nominal Pressure

Code	6	10	16	25	40
Nominal Pressure(MPa)	0.6	1.0	1.6	2.5	4.0

Shell Material

Code		Q	C	I	P	R
Material	Gray cast iron	Nodular cast iron	WCB	1Cr5Mo ZGCr5Mo	1Cr18Ni9Ti ZGCr18Ni9Ti	1Cr18Ni12MoTi ZGCr18Ni12MoTi

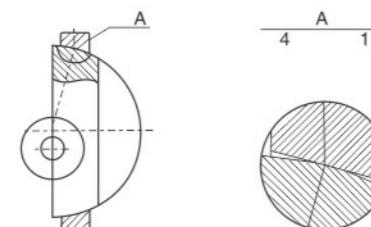
Rotary Ball Valve (Ball-type Butterfly Valve)

Main Structure

The rotary ball valve is divided into the valve (valve body, plate, shaft, seat, seal ring, etc.) in the same way as the butterfly valve structure. Among which, the two sealing surfaces of the sealing pair can be used to form hard alloy by plasma spraying, surfacing and other advanced technologies based on different hardness requirements. It can automatically align to the center (self-adaption), automatically compensate the wear by skip distance, and automatically apply an extremely high sealing specific pressure. There is no friction between the sealing pairs when they are suddenly opened or closed. When opened, the valve element projection expands and advances continuously. With short structure and small volume, valves with large, super-large and ultra-large calibers can be manufactured, which have a series of advantages of convenient transportation, installation, maintenance and repair, and reliable operation.

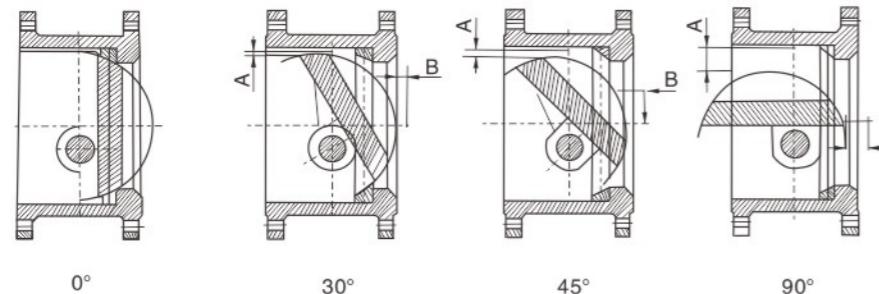
Working Principle

The sealing surface of the valve element is a cubic surface and the sealing surface of the seat is a primary conical surface. At the sealing point, the seat surface is actually a section (see figure) of the cubic surface of the valve element, so the combination is perfect. It has adaptation (automatic center positioning and coincidence) and wear compensation functions.

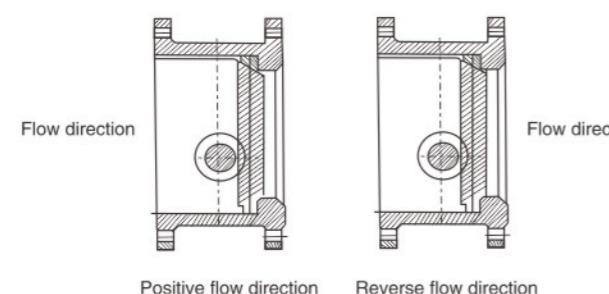


On account of that the rotation center deviates from the geometric center of the valve element, there is actual effect of that the valve element body recedes and retracts continuously when the valve element is opened and that the valve element body advances and expands continuously when the valve element is closed. The function is equivalent to the combination of semi-ball valve, gate valve, globe valve and butterfly valve. (See figure)

Variation Diagram Of Opening At Different Angles



The primary function of the bi-directional flow valve is to achieve good sealing under the positive pressure as well as under reverse pressure or when the reverse pressure is larger than the positive pressure. When the positive pressure acts, the medium pressure pushes the valve plate to move forward, make the valve rod deform, and the sealing surface of the valve plate against the sealing surface of the valve seat to transmit pressure, and push the valve seat to the valve body step to achieve good sealing. When the reverse pressure acts, the medium pressure pushes the valve plate to move backward, make the valve rod deform, and the medium pressure pushes the sealing surface of the valve seat against the sealing surface of the valve plate to transmit pressure, and push the valve seat to the ultimate deformation position of the valve rod to achieve good sealing. (See figure)



Rotary Ball Valve (Ball-type Butterfly Valve)

Product Usage

All valves of the pump outlet, pipe network system, recovery system, high-level water tank, flood-prone sewage system and anti-backflow system must be bi-directional valves. The valve is widely used in pipelines of metallurgy, mining, petrochemical, chemical engineering, electric power, environmental protection, municipal engineering and other industries and departments, playing the role of opening and closing and regulation.

Technical Performance Specification

Inside Nominal Diameter (mm)	Nominal Pressure (MPa)	Test Pressure (MPa)			Applicable Temperature (°C)	Applicable Medium
		Shell Strength Test	Positive Sealing Test	Reverse Sealing Test		
DN100~3000	0.6	0.9	0.66	0.66	未注明0~80°C 可生产0~200°C	清水、污水、 油品等
	1	1.5	1.1	1.1		
	1.6	2.4	1.76	1.76		
	2.5	3.75	2.76	2.76		
	4	6	4.4	4.4		

Main Design And Manufacturing Standards

Standard Content	Standard No.	Standard Name
Flange Standard	GB/T9113	Integral steel pipe flange
	GB/T17241.6	Integral cast iron pipe flange
Standard Of Structure Length	GB/T12221	Structure length of metal valve
Pressure Test Standard	GB/T13927	Pressure test of industrial valve
Structural Design Standard	GB/T26146	Eccentric semi-ball valve
	GB/T12238	Elastic sealing butterfly valve with flange connection and clamp connection
Standard For Materials Used	GB/T12226	Technical conditions of gray iron castings for general valves
	GB/12227	Technical conditions of nodular cast iron for general valves
	GB/T12229	Technical conditions of carbon castings for general valves
	GB/T12230	Technical conditions of stainless steel castings for general valves

Rotary Ball Valve (Ball-type Butterfly Valve)

Materials Of Main Components And Parts

Part Name	Material Name Or Code
Valve Body	Nodular cast iron, carbon steel
Valve Plate	WCB, Q235, stainless steel
Valve Rod	Stainless steel
Valve Seat	WCB, Q235, stainless steel

Flow Coefficient And Flow Resistance Coefficient

Inside Nominal Diameter	Nominal Pressure: ≤1.6MPa		Nominal Pressure: ≤2.5MPa	
	C(Kv)	K	C(Kv)	K
40	50	1.64	40	2.56
50	80	1.3	45	2.37
65	150	1.27	120	1.98
80	250	1.05	200	1.64
100	400	1.00	300	1.78
125	650	0.92	450	1.93
150	1000	0.81	800	1.26
200	1900	0.71	1500	1.14
250	3100	0.65	2500	1.00
300	4700	0.59	3600	1.00
350	6700	0.53	5400	0.82
400	9000	0.51	7000	0.84
450	11500	0.50	9500	0.73
500	14000	0.50	12000	0.69
600	21000	0.47	18000	0.64
700	30000	0.43	25000	0.61
800	41000	0.39	35000	0.53
900	53000	0.37	46000	0.50
1000	67000	0.35	58000	0.48
1200	100000	0.35	87000	0.44

Rotary Ball Valve (Ball-type Butterfly Valve)

Valve Structure Drawing And Installation Dimension

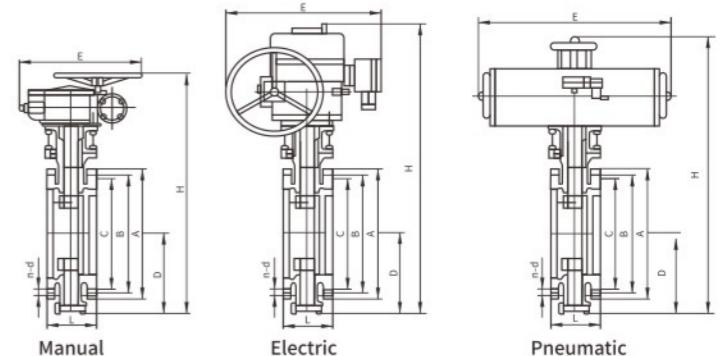


Table Of Flange Connection And Installation Dimension Of 0.6mpa Rotary Ball Valve

DN	D1	D2	D3	L	N-d	H1	E			H		
							Manual	Pneumatic	Electric	Manual	Pneumatic	Electric
50	88	110	140	108	4-Φ14	112	200	245	255	350	625	530
65	108	130	160	112	4-Φ14	115	200	245	255	370	625	530
80	124	150	190	114	4-Φ18	120	200	245	255	380	645	565
100	144	170	210	127	4-Φ18	138	200	355	255	420	675	600
125	174	200	240	140	8-Φ18	164	200	355	255	460	715	640
150	199	225	265	140	8-Φ18	175	280	355	315	55	800	705
200	254	280	320	152	8-Φ18	200	425	250	315	760	850	775
250	309	335	375	165	12-Φ18	230	425	250	315	830	925	945
300	363	395	440	178	12-Φ22	260	560	450	315	895	1035	1070
350	413	445	490	190	12-Φ22	300	560	450	315	950	1070	1140
400	463	495	540	216	16-Φ22	340	580	450	315	1190	1190	1210
450	518	550	595	222	16-Φ22	350	580	650	714	1255	1250	1335
500	568	600	645	229	20-Φ22	380	580	650	714	1305	1290	1415
600	667	705	755	267	20-Φ26	450	660	850	810	1340	1455	1605
700	772	810	860	292	24-Φ26	480	550	850	810	1520	1585	1844
800	878	920	975	318	24-Φ30	530	550	1250	810	1710	1700	2040
900	978	1020	1075	330	24-Φ30	580	550	1250	863	1810	1965	2255
1000	1078	1120	1175	410	28-Φ30	650	750	1250	863	1960	2015	2380
1200	1295	1340	1405	470	32-Φ33	760	925	1250	863	2250	250	2640
1400	1510	1560	1630	530	36-Φ36	850	925	1250	1055	2434	2550	2866
1600	1710	1760	1830	600	40-Φ36	1030	925	1250	1055	2780	2750	3156
1800	1918	1970	2045	670	44-Φ39	1230	980	1250	1183	3020	2950	3421
2000	2125	2180	2265	760	48-Φ42	1350	980	1500	1286	3270	3350	3685
2200	2340	2400	2485	800	52-Φ42	1300	—	—	—	—	—	—
2400	2540	2600	2685	850	56-Φ42	1400	—	—	—	—	—	—
2600	2740	2810	2905	900	60-Φ48	1500	—	—	—	—	—	—
2800	2960	3020	3115	950	64-Φ48	1610	—	—	—	—	—	—
3000	3160	3220	3315	1000	68-Φ48	1720	—	—	—	—	—	—

Rotary Ball Valve (Ball-type Butterfly Valve)

Table Of Flange Connection And Installation Dimension Of 1.0mpa Rotary Ball Valve

DN	D1	D2	D3	L	N-d	H1	E			H		
							Manual	Pneumatic	Electric	Manual	Pneumatic	Electric
50	99	125	165	108	4-Φ18	112	200	245	255	350	625	530
65	118	145	185	112	4-Φ18	115	200	245	255	370	625	530
80	132	160	200	114	8-Φ18	120	200	245	255	380	645	565
100	156	180	220	127	8-Φ18	138	200	355	255	420	675	600
125	184	210	250	140	8-Φ18	164	200	355	255	460	715	640
150	211	240	285	140	8-Φ22	175	280	355	315	555	800	705
200	266	295	340	152	8-Φ22	200	425	250	315	760	850	775
250	319	350	395	165	12-Φ22	230	425	250	315	830	925	945
300	370	400	445	178	12-Φ22	260	560	450	315	895	1035	1070
350	429	460	505	190	16-Φ22	300	560	450	315	950	1070	1140
400	480	515	565	216	16-Φ26	340	580	450	315	1190	1190	1210
450	530	565	615	222	20-Φ26	350	580	650	714	1255	1250	1355
500	582	620	670	229	20-Φ26	380	580	650	714	1305	1290	1415
600	682	725	780	267	20-Φ30	450	660	850	810	1340	1455	1605
700	794	840	895	292	24-Φ30	480	550	850	810	1520	1585	1844
800	901	950	1015	318	24-Φ33	530	550	1250	810	1710	1700	2040
900	1001	1050	1115	330	28-Φ33	580	550	1250	863	1810	1965	2255
1000	1112	1160	1230	410	28-Φ36	650	750	1250	863	1960	2015	2380
1200	1328	1380	1455	470	32-Φ39	760	925	1250	863	2250	2250	2640
1400	1530	1590	1675	530	36-Φ42	850	925	1250	1055	2434	2550	2866
1600	1750	1820	1915	600	40-Φ48	1030	925	1250	1055	2780	2750	3156
1800	1950	2020	2115	670	44-Φ48	1230	980	1250	1183	3020	2950	3421
2000	2150	2230	2325	760	48-Φ48	1350	980	1500	1286	3270	3350	3685
2200	2400	2440	2560	800	52-Φ56	1300	—	—	—	—	—	—
2400	2610	2650	2760	850	56-Φ56	1400	—	—	—	—	—	—
2600	2810	2850	2960	900	60-Φ56	1500	—	—	—	—	—	—
2800	3030	3070	3180	950	65-Φ56	1610	—	—	—	—	—	—
3000	3250	3290	3400	1000	68-Φ68	1720	—	—	—	—	—	—

Rotary Ball Valve (Ball-type Butterfly Valve)

Table Of Flange Connection And Installation Dimension Of 1.6mpa Rotary Ball Valve

DN	A	B	C	L	N-d	D	E			H		
							Manual	Pneumatic	Electric	Manual	Pneumatic	Electric
50	99	125	165	108	4-Φ18	112	200	245	255	350	625	530
65	118	145	185	112	4-Φ18	115	200	245	255	370	625	530
80	132	160	200	114	8-Φ18	120	200	245	255	380	645	565
100	156	180	220	127	8-Φ18	138	200	355	255	420	675	600
125	184	210	250	140	8-Φ18	164	200	355	255	460	715	640
150	211	240	285	140	8-Φ22	175	280	355	315	555	800	705
200	266	295	340	152	12-Φ22	200	425	250	315	760	850	775
250	319	355	405	165	12-Φ26	230	425	250	315	830	925	945
300	370	410	460	178	12-Φ26	260	560	450	315	895	1035	1070
350	429	470	520	190	16-Φ26	300	560	450	315	950	1070	1140
400	480	525	580	216	16-Φ30	340	580	450	315	1190	1190	1210
450	548	585	640	222	20-Φ30	350	580	650	714	1255	1250	1335
500	609	650	715	229	20-Φ33	380	580	650	714	1305	1290	1415
600	720	770	840	267	20-Φ36	450	660	850	810	1340	1455	1605
700	794	840	910	292	24-Φ36	480	550	850	810	1520	1585	1844
800	901	950	1025	318	24-Φ39	530	550	1250	810	1710	1700	2040
900	1001	1050	1125	330	28-Φ39	580	550	1250	863	1810	1965	2255
1000	1112	1170	1255	410	28-Φ42	650	750	1250	863	1960	2015	2380
1200	1328	1390	1485	470	32-Φ48	760	925	1250	863	2250	2250	2640
1400	1530	1590	1685	53	36-Φ48	850	925	1250	1055	2434	2250	2866
1600	1750	1820	1930	600	40-Φ55	1030	925	1250	1055	2780	2750	3156
1800	1950	2020	2130	670	44-Φ55	1230	980	1250	1183	3020	2950	3421
2000	2150	2230	2345	760	48-Φ60	1350	980	1500	1286	3270	3350	3685

Rotary Ball Valve (Ball-type Butterfly Valve)

Table Of Flange Connection And Installation Dimension Of 2.5mpa Rotary Ball Valve

DN	D1	D2	D3	L	N-d	H1	E			H		
							Manual	Pneumatic	Electric	Manual	Pneumatic	Electric
50	99	125	165	108	4-Φ18	112	200	245	255	350	625	530
65	118	145	185	112	8-Φ18	115	200	245	255	370	625	530
80	132	160	200	114	8-Φ18	120	200	245	255	380	645	565
100	156	190	235	127	8-Φ22	138	200	355	255	420	675	600
125	184	220	270	140	8-Φ26	164	200	355	255	460	715	640
150	211	250	300	140	8-Φ26	175	280	355	315	555	800	705
200	274	310	360	152	12-Φ26	200	425	250	315	760	850	775
250	330	370	425	165	12-Φ26	230	425	250	315	830	925	945
300	389	430	485	178	16-Φ30	260	560	450	315	895	1035	1070
350	448	490	555	190	16-Φ33	300	560	450	315	950	1070	1140
400	503	550	620	216	16-Φ36	340	580	450	315	1190	1190	1210
450	548	600	670	222	20-Φ36	350	580	650	714	1255	1250	1335
500	609	660	730	229	20-Φ36	380	580	650	714	1305	1290	1415
600	720	770	845	267	20-Φ39	450	660	850	810	1340	1455	1605
700	820	875	960	292	24-Φ42	480	550	850	810	1520	1585	1844
800	928	990	1085	318	24-Φ48	530	550	1250	810	1710	1700	2040
900	1028	1090	1185	330	28-Φ48	580	550	1250	863	1810	1965	2255
1000	1140	1210	1320	410	28-Φ55	650	750	1250	863	1960	2015	2380
1200	1350	1420	1530	470	32-Φ55	760	925	1250	863	2250	2250	2640
1400	1560	1640	1755	530	36-Φ60	850	925	1250	1055	2434	2550	2866
1600	1780	1860	1975	600	40-Φ60	1030	925	1250	1055	2780	2750	3156
1800	1985	2070	2195	670	44-Φ68	1230	980	1250	1183	3020	2950	3421
2000	2210	2300	2425	760	48-Φ68	1350	980	1500	1286	3270	3350	3685

Rotary Ball Valve (Ball-type Butterfly Valve)

Table Of Flange Connection And Installation Dimension Table Of 4.0mpa Rotary Ball Valve

DN	D1	D2	D3	L	N-d	H1	E			H		
							Manual	Pneumatic	Electric	Manual	Pneumatic	Electric
50	99	125	165	108	4-Φ18	112	200	245	255	350	625	530
65	118	145	185	112	8-Φ18	115	200	245	255	370	625	530
80	132	160	200	114	8-Φ18	120	200	245	255	380	645	565
100	156	190	235	127	8-Φ22	138	200	355	255	420	675	600
125	184	220	270	140	8-Φ26	164	200	355	255	460	715	640
150	211	250	300	140	8-Φ26	175	280	355	315	555	800	705
200	284	320	375	152	12-Φ30	200	425	250	315	760	850	775
250	345	385	450	165	12-Φ33	230	425	250	315	830	925	945
300	409	450	515	178	16-Φ3	260	560	450	315	895	1035	1070
350	465	510	580	190	13-Φ36	300	560	450	315	950	1070	1140
400	535	585	660	216	16-Φ39	340	580	450	315	1190	1190	1210
450	560	610	685	222	20-Φ39	350	580	650	714	1255	1250	1335
500	615	670	755	229	20-Φ42	380	580	650	714	1305	1290	1415
600	735	795	890	267	20-Φ48	450	660	850	810	1340	1455	1605

Rotary Ball Valve (Ball-type Butterfly Valve)

Attention Points Of Repair, Maintenance, Installation And Debugging

There shall be no hole shrinkage, elbow and bellows on the pipelines within the length of 1DN in the front and rear of the valve; if butterfly valve, hydraulic automatic valve, butterfly check valve or butterfly slow closing check valve are installed in the front and rear of this valve in a compact manner, the distance of straight pipe between two adjacent valves is not less than 1DN; When the valve plate is assembled, installed, transported, maintained, repaired or disassembled, the sealing surface shall not be touched and strict protective measures shall be taken. The valve plate shall be closed during assembly, transportation, installation and storage. If disassembly is necessary, pay attention not to damaging the shaft sleeve, and prevent the loss of cone and shaft sleeve. After assembly, installation, maintenance and repair, metal chips, dirt and impurities in the valve shall be removed, and the sealing surface of surfacing shall be wiped clean. Regardless of horizontal or vertical installation, when the flow direction cannot be determined, the large end of the plate shall face the inlet direction when the valve is opened. If the valve will not be used for a long time, the sealing surface shall be painted with grease or covered with oil paper and wax paper.

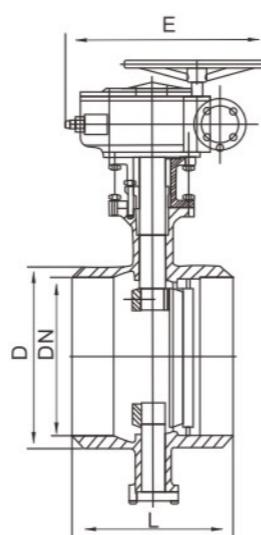
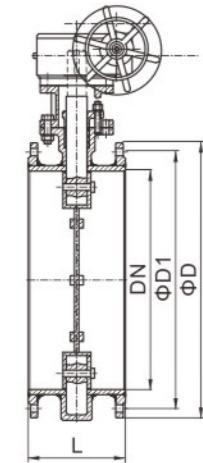
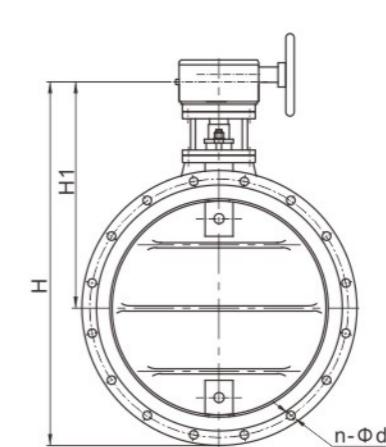


Table Of Connection And Installation Dimension Of Welded Rotary Ball Valve

Inside Nominal DiameterDN	Connection Dimension Of 0.6MPa(mm)		Connection Dimension Of 1.0MPa(mm)		Connection Dimension Of 1.6MPa(mm)	
	L	D	L	D	L	D
50	178	70	178	70	178	75
65	190	75	190	75	190	80
80	203	90	203	90	203	95
100	229	112	229	116	229	120
125	254	136	254	140	254	145
150	267	161	267	170	267	175
200	292	222	292	230	292	235
250	330	278	330	280	330	285
300	356	330	356	335	356	340
350	381	382	381	395	381	400
400	406	432	406	440	406	445
450	432	484	432	490	432	495
500	457	535	457	540	457	545
600	508	636	508	645	508	650
700	610	736	610	745	610	750
800	660	840	660	845	660	850
900	711	940	711	945	711	950
1000	811	1040	811	1045	811	1050
1200	1015	1245	1015	1250	1015	1255
1400	1080	1445	1080	1450	1080	1455
1600	1300	1660	1300	1655	1300	1665
1800	1500	1850	1500	1855	1500	1865
2000	1675	2060	1675	2055	1575	2075

Ventilation Butterfly Valve



Features And Purpose

Features and purposeThe butterfly valve shall be welded with high quality steel plate, with simple structure, light weight, easy use and maintenance. It is non-sealed, used for regulating medium flow, and applied in metallurgy, mining, cement, chemical engineering, power generation and other industries for ventilation and dust removal, environmental protection and heating ventilation.

Appearance And Connection Dimension D₉³41W-1C(DN200-DN3000)

Inside Nominal DiameterDN	D	D1	L	n-d	H	L1	L2	D0
200	320	280	140	8-Φ17.5	563	245	72	200
250	375	335	140	12-Φ17.5	616	245	72	200
300	440	395	170	12-Φ22	710	355	93	255
350	490	445	170	12-Φ22	935	355	93	255
400	540	495	190	16-Φ22	985	355	93	255
450	595	550	190	16-Φ22	1035	355	93	255
500	645	600	190	20-Φ22	1220	355	93	315
600	755	705	210	20-Φ26	1320	550	350	315
700	860	810	210	24-Φ26	1420	550	350	315
800	975	920	210	24-Φ30	1505	550	350	315
900	1075	1020	250	24-Φ30	1605	550	350	315
1000	1175	1120	250	28-Φ30	1705	550	350	315
1200	1375	1320	250	32-Φ30	1960	600	350	715
1400	1575	1520	300	36-Φ30	2195	600	350	715
1600	1790	1730	300	40-Φ30	2350	600	460	715
1800	1990	1930	300	44-Φ30	2550	600	460	715
2000	2190	2130	300	48-Φ30	2750	757	684	715
2200	2405	2340	350	52-Φ33	2950	757	684	1015
2400	2605	2540	350	56-Φ33	3750	757	738	1015
2600	2805	2740	350	60-Φ33	3950	825	738	1015
2800	3030	2960	400	64-Φ33	4150	825	840	1015
3000	3230	3160	400	68-Φ33	4490	825	840	1015

Note: 1.The above flange dimension shall be designed according to HG/T20592. For different demands, it can be customized.

2.Due to space limit, if no specifications are listed, please contact us for details.

3.The actuator can be worm gear device, pneumatic device, electric device, hydraulic control device, etc.