JSC VALVES INDUSTRIAL

CHINA JSC VALVE GROUP CO., LTD.

JSC Valve Group has become one of the largest range field service chinese companies, with a reputation for superior quality. we pride ourselves with high quality products in the commodity and specialty valve lines, as well as, timely deliveries, and competitive prices.

Butterfly Valve Series

www.jscvalves.com

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CHINA JSC VALVE GROUP CO., LTD.

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ABOUT

JSC Valve is one of the leading valve manufacturers and service company in China, It located in "Chinese Pump & Valve Town" Oubei town, Wenzhou city, Zhejiang province, China, It was set up in 1985, covers an area of 21000 square meters, where employs about 287 employees at present including 15 technical staffs, furnished with 180 sets of machine tools, JSC Valve integrates the design, production, examination, sales and service as whole for the valve industry.

Our main products are Ball valve, Butterfly valve, Forged valves and other Valves, Pipe and Fittings as well, with working pressure varying from 150Lb-2500Lb(0.1MPa-42MPa),the diameter from 1/4"-80" (DN6-DN2000), The working temperature from -196℃-680℃ strictly according to the standards of ANSI,API,DIN,BS,JIS,GOST served for the Petrochemical, Oil/Gas, Power Plant, Refining, metallurgy, ect fields. with our strict quality control to meet and exceed our customer's request and expectation.

Our products are accredited by ISO9001:2000, PED, API607, API6D, API600,Now our products have sold around worldwide include America, Europe, Southeast Asia, Middle East and Africa. Our valves brand TRIC butterfly valve and SDV ball valve, are widely approved by our customers.

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The cutting-edge machining equipment accomplishes excellent product quality.....

The advanced automatic production equipment and fine streamlined manufacturing fully display the first-class quality. Direct participation in production by technical experts guarantees the stability and reliability of products. The increasingly enhanced conception of fine products and continuous industrial fine products have brought great changes with each passing day to world's valve industry. No matter how the world is changing, our clinging spirit to keep improving will never change.

High standard quality is supported by powerful hardware systems.

JSC VALVES INDUSTRIAL

CHINA JSC VALVE GROUP CO., LTD.

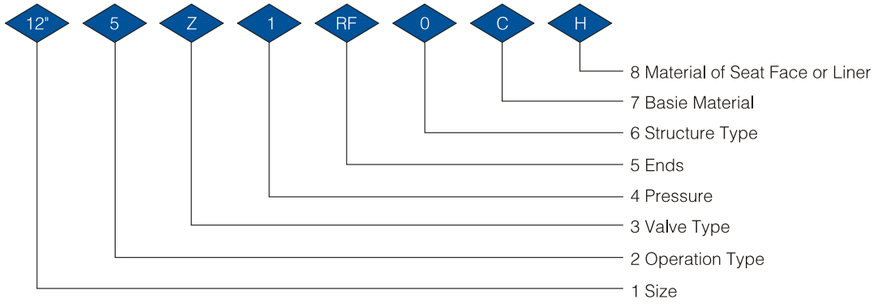
Perfect quality of Jsc products is ensured through various inspection means.....

Jsc adopts the advanced inspection and testing facilities to carry out quality control of casting blanks and final products. All castings are subject to precise appearance and size inspections according to relevant standards. The strict procedure inspection is implemented throughout the whole production process. Each valve undergoes strict inspection according to customer requirements or international standards, and is subject to final inspection before shipment. Jsc will strive to realize zero defect of valves. In short, we have the excellent quality control ability. From design and development, material purchasing, production till packaging and delivery, we strictly follow the quality control system, ensuring consistently high quality of products.

Butterfly Valve Figure Number System

1	Size	The inch series is expressed with xxin; the metric series is expressed with xx, with the unit mm omitted					
2	Operation Type	1–Bare Stem	3–Worm Gear Operated	6**–Air Operated	7□–Hydraulic Operated	9–Electric Operated	Hand Operated (omit)
3	Valve Type	D–Butterfly valve DH–Check Butterfly Valve DK–Vacuum Butterfly Valve DTF–Aeration Butterfly Valve Ds–Flexible Butterfly Valve					
4	Pressure	0a–PN6	0b–PN2.5	0–PN10	1–PN16 Class150	2–PN25	3–Class300
		4–PN40 Class400	6–PN64 Class600	9–Class900	10–PN100	1a–Class125	2a–Class250
5	Ends	RF–Raised Face	FF–Flat Face	MFM–Male and Female Face	RJ–Ring Joint	BW–Butt–weld	WS–Wafe with 4 lugs WL–Wafe with no lug WF–Single Reinforcement Wafer Type WU–Unthreaded Hole Wafer Type LL–Full Lug Screw Wafer Type LU–U–U Screw Wafer Type
6	Structure Type	1–Middle Eccentric Structure	2–Single Eccentric Structure	3–Double Eccentric Structure	4–Variable Eccentric Structure		5–Three Eccentric Structure
7	Basie Material	C–WCB	C–C5	C6–WC6	C9–WC9	BL–LCB	CL–LCC
		8–CF8	8M–CF8M	3–CF3	3M–CF3M	ML–MONEL	H–IRON
8	*Material of Seat Face or Liner	H–Cr13S.S		E–18–8S.S	R–Mo2Ti S.S		F–PTFE
		D–Nitriding Steel		M–Monel Alloy	Y–Hard Face		X–Rubber

Note: 1. Use "W" to express seat sealing surface material which is processed directly by valve body.
2. When the materials of sealing surface are different, use low hardness material symbol to express.
3. Special requirements not shown, should be indicated in the purchase order.
4. The models listed in the sample book have no reference to pressure, sizes and valve material symbols, they are to be decided by users.
5. **6S Spring Return, 6A Air Operated Control.
6. B–Pressure Retaining Type, Q–Full Pressure Type, S–Locked Type.
7. PN < 0.25MPa, Omit Pressure.



For Example

6"–3D1RF5CH

Butterfly valve, 6", Worm Gear Operated, ANSI Class150, RF Flange Ends, Triple eccentric stricture, Body & Disc Cast Steel WCB, 13Cr face Seat.

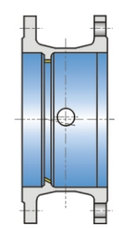
150–3D1RF5CH

Butterfly valve, DN150 PN16, Worm Gear Operated, ANSI Class150, RF Flange Ends, Triple eccentric structure, Body & Disc Cast Steel WCB, 13Cr face Seat.

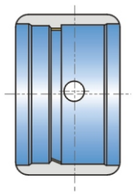
Butterfly Valve Design Features

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

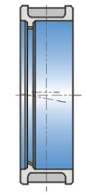
1. Simple structure, small sizes, light weight and low installation dimensions. According to the types of body connection, they are basically classified to wafer type (including lug wafer type), flanged and welded.



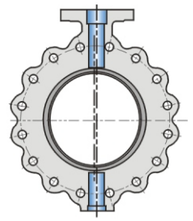
Flanged Connection



Butt–welded Connection



Wafer Connection



Lug Wafer Connection

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

(1) Soft sealing structure (see fig. right), is applicable for single and double eccentric butterfly valves, pressure rating ≤CLASS 600. Centred sealing structure is applicable for pressure ating≤CLASS 250. Sealing ring (PTFE) is placed on the valve body to feature the following.

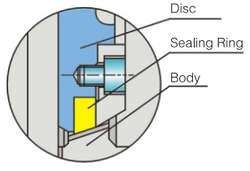
a. To effect dependable sea with no need of accessorial sealing ring or metal bracing ring.

b. Bidirectional leakproof seal.

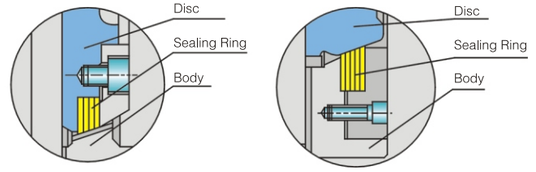
c. Little maintenance and long service lift.

(2) Multilayer Hard Seal Structure (See fig. right)

Multilayer hard seal structure is applicable for single, double and triple eccentric butterfly valves, pressure rating≤CLASS 600. And, triple eccentric butterfly valve can maintain two–way leak–tightness. Multilayer sealing ring is composite of stainless steel and nonmetal material. The nonmetal material can be flex–ible graphite, PTFE or non asbestos material etc. according to the actual working conditions.



Soft Sealing Structure(Fig.a)



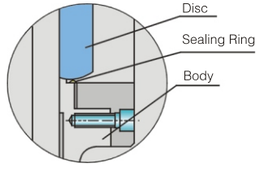
Multilayer Hard Seal Structure(Fig b)

3) Elastic ring hard seal structure (see fig. right) is of the structure of J–type metal sealing ring. It is applicable for single and double eccentric butterfly valves, pressure rating ≤ CLASS 300, Prov–ided with fireproof structure to adapt to conditions with great temperature changes, it is featured by outstanding seal. long service life and easy workmanship.

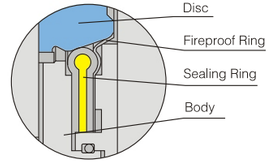
3. Fireproof butterfly valves (see fig. Right) can stop the expansion of fire. Once the sealing seat of butterfly valve is on fire, the stainless Steel sealing ring will act to make butterfly valve immediately sealed.

4. When butterfly valve is fully opened, flow resistance is low. When partially opened, it may carry out sensitive flow control.

5. Low driving moment, easy and quick operation.



Elastic Ring Hard Seal Structure(Fig c)

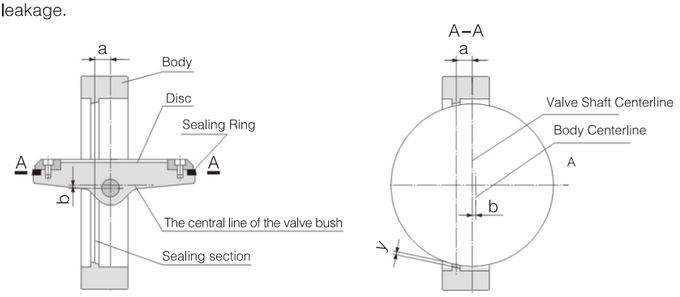


Soft Seal Fireproof Structure(Fig d)

Sealing Principle of Double Eccentric Seal Butterfly Valve

The rotation center of disc (namely the center of valve shaft) and the centerline of body form up a 'b' eccentric on the base of single eccentric butterfly valve, making the sealing face of disc disengaged from seat sealing face more quickly than single eccentric seal butterfly valves during the process of open and close. Once disc turns to 8° ~ 12° , the disc sealing face will be completely disengaged from the seat sealing face. Once fully opened, a gap 'Y' will be formed up between the two sealing faces. This type of butterfly valves are designed to have greatly lowered the mechanical wear and extrusion deformation between the two sealing faces, making the sealing performance of butterfly valve much better.

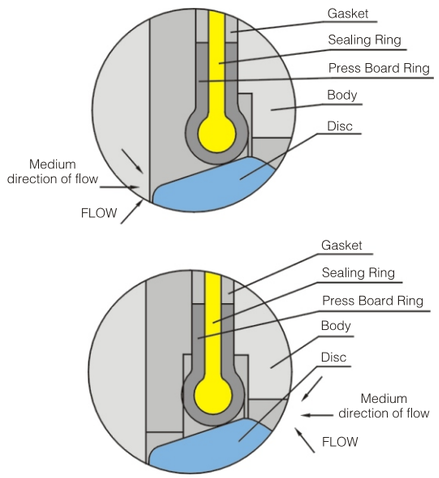
The characteristic of this structure is to make stem axis not only deviated from the center of disc, but also the center of the body. The effect of double eccentric is that, when valve has been opened, disc can be quickly disengaged from seat, thus to greatly eliminate the unnecessary excessive extrusion and scratch between the disc and seat, reduce opening resistance, lower the abrasion and improve the service life of seat. As scratch has been greatly lowered, metal seat can be used for double eccentric butterfly valve, so that butterfly valves are able to be used in high temperature fields. However, as its seal is positioned sealing construction, i.e. the sealing faces disc and seat is lineal contact, disc extruding seat to produce elastic deformation, thus to effect the sealing performance. This has high requirement on close position, especially for those with metal seat, and is given poor pressure endurance. This is why butterfly valves are, conventionally, not resistant to high temperature and leakage.



Sealing Structure of Double Eccentric Seal Butterfly Valve

Principle of Seat Sealing

1. Disc closed, medium enters from the upstream of seat. Under the force of medium, sealing ring will get close to the sealing face of disc, and the elasticity and deformation of sealing ring will function to guarantee the sealing performance.
2. Disc closed, medium enters from the downstream of seat. Under the extrusion of press board ring. sealing will overcome the acting force of medium and get close to the sealing face of disc. thus to guarantee the sealing performance.

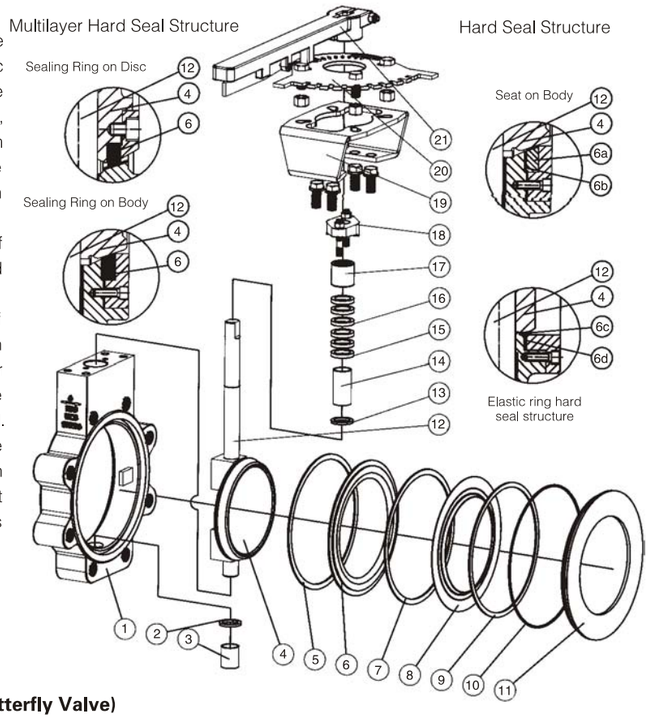


High performance butterfly valve (Wafe)

Generally, high performance butterfly valves are single eccentric or double eccentric. As to double eccentric structure, valve shaft is designed deviated from the centerline of sealing face to form up the first eccentric, and slightly deviated from the centerline of pipe to form up the second eccentric. The eccentrics are to make seat disengaged from sealing ring to lower the friction when disc is opened to approximately 20° .

Soft seal seat, made of TFE, PTFE or RTFE, fireproof construction conforming to API607 fire test, provided with sealing property in case of fire.

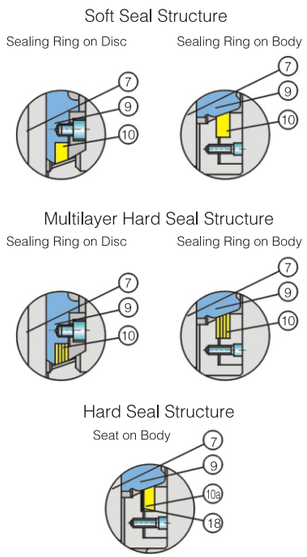
Hard seal structure is provided with intrinsical fireproof property, Two–way leak–proof seal. Seat replaced with no need to take off disc and stem. The upper and lower stems provided with low–friction sleeves to lower the frictional force of stem when valve is opened or closed. Double eccentric structure to lower the abrasion at the upper and lower ends of seal in case of frequent open and close, The interface between valve and drive unit conforms to ISO5211. Product qua–lity is under rigorous control according to ISO9001.

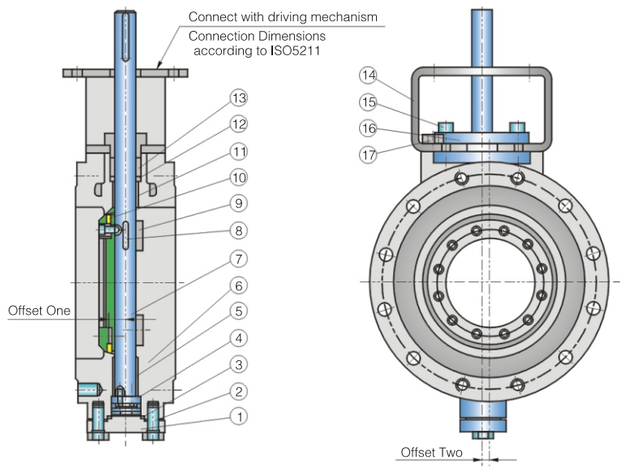


Materials List(High Performance Fire–safe Butterfly Valve)

No.	Part Name	Materials	Optional Materials
1	Body	Cast Steel	SS, Monel
2	Spacer	SS	SS, Monel
3	Bushing	PTFE+Bronze	Luberized Bronze
4	Disc	Cast Steel	SS, Monel
5	Gasket	Graphite	Graphite
6	Seal Ring	PTFE/PTFE+SS	SS+Graphite
6a	Seat	Carbon Steel+13Cr	SS, Monel
6b	Gasket	Graphite	Graphite
6c	Seal Ring	SS	–
6d	Gasket	Graphite	Graphite
7	Gasket	Graphite	Graphite
8	Metalseat tongue	SS	–
9	Gasket	Graphite	Graphite
10	Retainer	NBR	FPM
11	Retainer Flange	Carbon Steel	SS, Monel
12	Stem	SS	316, Monel
13	Spacer	SS	SS, Monel
14	Bushing	PTFE+Bronze	Luberized Bronze
15	Packing Seat	SS	SS, Monel
16	Packing	Graphite	PTFE
17	Gland	Carbon Steel	SS
18	Packing Bushing	SS	SS
19	Yoke	Carbon Steel	–
20	Limit Disc	Carbon Steel	SS
21	Lever	Carbon Steel	–

Flange Double Eccentric Butterfly Valve

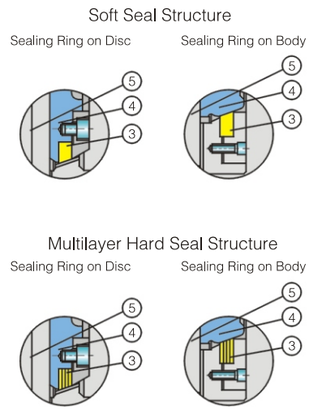


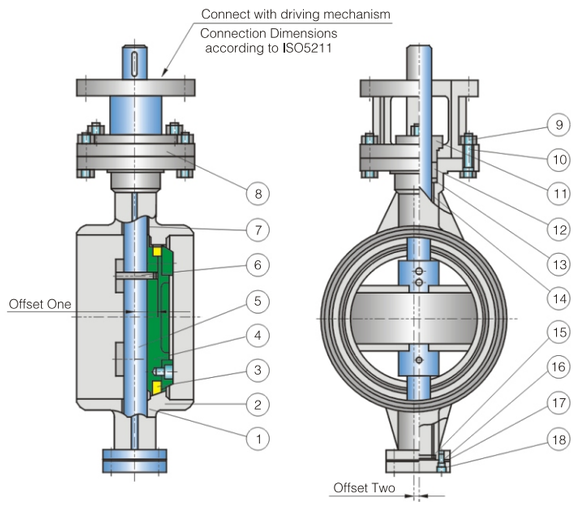


Materials List(Flange Butterfly Valve)

No.	Part Name	Materials	Optional Materials
1	Cover	Carbon Steel	SS, Monel
2	Bolt	Alloy Steel	SS, Monel
3	Gasket	Graphite	Graphite
4	Spacer	SS	SS, Monel
5	Bushing	PTFE+Bronze	Luberized Bronze
6	Body	Cast Steel	SS, Monel
7	Stem	SS	316, Monel
8	Key	SS	SS, Monel
9	Disc	Cast Steel	SS, Monel
10	Seal Ring	PTFE+SS	NBR/SS+Graphite
10a	Seat	Carbon Steel+13Cr	SS, Monel
11	Bushing	PTFE+Bronze	Luberized Bronze
12	Packing Seat	SS	SS, Monel
13	Packing	Graphite	PTFE
14	Yoke	Carbon Steel	–
15	Bolt	Alloy Steel	SS, Monel
16	Gland	Carbon Steel	SS
17	Bolt	Alloy Steel	SS, Monel
18	Gasket	Graphite	Graphite

Welding Butterfly Valve





Materials List(Welding Butterfly Valve)

No.	Part Name	Materials	Optional Materials
1	Bushing	PTFE+Bronze	Luberized Bronze
2	Body	cast Steel	SS, Monel
3	Seal Ring	PTFE+SS	NBR/SS+Graphite
4	Disc	Cast Steel	SS, Monel
5	Stem	SS	316, Monel
6	Pin	SS	SS, Monel
7	Bushing	PTFE+Bronze	Luberized Bronze
8	Yoke	Carbon Steel	–
9	Nut	Carbon Steel	Alloy Steel, SS
10	Bolt	Alloy Steel	SS, Monel
11	Gland	Carbon Steel	SS
12	Packing	Graphite	PTFE
13	Packing Seat	SS	SS, Monel
14	Bushing	PTFE+Bronze	Luberized Bronze
15	Half Ring	SS	316, Monel
16	Bolt	Alloy Steel	SS, Monel
17	Gasket	Graphite	Graphite
18	Cover	Carbon Steel	SS

Expansion Butterfly Valve

Expansion butterfly valve integrates the functions of both flanged butterfly valve and pipe expansion unit, performed not only to throttle, but also to eliminate the internal force produced by temperature difference, namely the effect of expansion, It is used to adjust and cut off the flow of all non corrosive gas, liquid and semiliquid, as well as solid particle pipes and containers in the industries of electric power, metallurgy, petroleum, chemical, coal gas, heat supply, hydro power, papermaking, textile, medicine, foodstuff, water supply and drainage, energy sources and etc. Mounted randomly at any positions regardless of the types of medium and the direction of flow, it can also be used to adjust the space between the two flanges upon the installation of valve.

Features of Expansion Butterfly Valve

1. Original design and distinctive structure.
2. Small sizes and light weight.
3. Labor–saving operation and quick open–close.
4. Adjustable and replaceable seal, dependable sealing, low fluid resistance, and energy conservation.

Installation Instructions of Expansion Butterfly Valve

1. Before installation, expansion butterfly valve shall be kept horizontally fiat, and away from impact.
2. The structural length of expansion butterfly valve is kept at the minimum upon going out of factory. To install, pull it to mounting length (namely designed length).
3. In case of the space between pipes exceeds the length of expansion valve, adjust the space between pipes and never pull the expansion valve by force, as it may damage the valve.
4. Expansion butterfly valve may be mounted at any position for the purpose of temperature compensation. After pipe has been mounted, put brackets at the two ends along with the pipe axial line, thus to prevent the expansion pipe of the valve from being pulled out(Fig. 1). The bearing force of brackets is calculated as the formula below. Never take the brackets off in service.

$$F > \frac{\pi}{4} PS \cdot DN^2 \cdot (kgf)$$

Test: PS–Test pressure of pipeline, DN–Diameter of pipeline

5. When expansion butterfly valve is not used for temperature compensation, but used only for convenience of replacement and repair, it can be limited by bolts that are symmetrically fastened to closely clamp the expansion butterfly valve, thus to prevent expansion pipe from being pulled out (Fig.2), as it may damage the expansion butterfly valve, pipeline or constructions. The diameter of bolts may be that of flange bolts. The bolt strength, bearing test pressure and pipeline tension may be calculated according to the formula above. Never take the limit bolts off is service. (Bolts are supplied otherwise).
6. Don't dismantle the expansion butterfly valve on the pipe construction site.
7. This butterfly valve is precisely machined and closely mated, and shouldn't be repeatedly pulled or pressed at random. Upon installation, the pipes at the two ends of expansion valve shall be kept concentric, and the two flange faces on pipeline shall be parallel.
8. Flange fixing bolts shall be symmetrically fastened, never fasten on single side by force.
9. Expansion pipe is mounted behind valve.
10. The expansion part of valve cannot be mounted at the corner or end of pipeline.

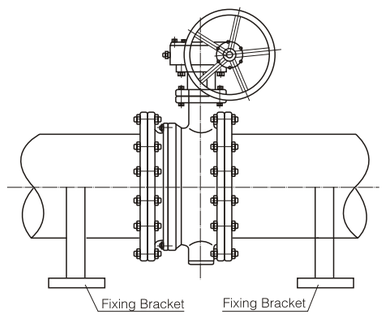


Fig 1

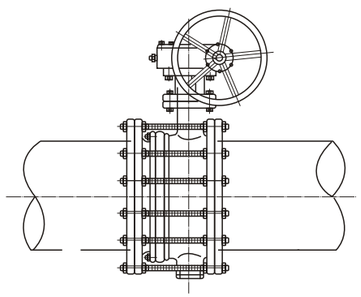


Fig 2

Double Eccentric Butterfly Valve Torques (NM)

High Performance Fire–safe Butterfly Valve Torques (NM)

Size		Pressure									
DN(mm)	NPS	100PSI	150PSI	200PSI	285PSI	400PSI	600PSI	740PSI	1000PSI	1200PSI	1480PSI
50	2"	–	–	–	–	–	–	–	–	–	–
65	2 1/2"	–	–	–	–	–	–	–	–	–	–
80	3"	67	–	87	107	116	134	147	179	215	256
100	4"	71	–	92	113	130	167	198	258	302	371
125	5"	130	–	169	228	–	–	–	–	–	–
150	6"	198	–	297	424	453	511	559	606	698	856
200	8"	463	–	531	593	680	870	1039	1314	1621	1909
250	10"	610	–	815	1037	1129	1297	1424	2271	2700	3175
300	12"	936	–	1328	1780	1907	2121	2288	3576	4221	5011
350	14"	1644	–	1743	1829	2754	3841	4604	5566	6335	7048
400	16"	1896	–	2145	2306	4576	6489	7828	9457	10767	11976
450	18"	2813	–	3017	3220	5491	7813	9439	11411	12993	14451
500	20"	3603	–	3888	4180	7698	11025	13355	16157	18383	20450
600	24"	5722	–	6168	6547	11784	16948	20495	24766	28190	31365
700	28"	6542	8022	–	–	–	–	–	–	–	–
750	30"	11570	10813	12349	13118	25376	37002	45137	–	–	–
800	32"	–	–	–	–	–	–	–	–	–	–
900	36"	16213	15139	17422	18292	–	–	–	–	–	–
1000	40"	–	–	–	–	–	–	–	–	–	–
1050	42"	18869	23727	–	–	–	–	–	–	–	–
1200	48"	33251	34121	36505	38618	–	–	–	–	–	–
1350	54"	–	39375	–	–	–	–	–	–	–	–

PTFE Seat Butterfly Valve Torques (NM)

Size		Pressure								
DN(mm)	NPS	100PSI	200PSI	285PSI	300PSI	400PSI	600PSI	740PSI	1200PSI	1480PSI
50	2"	–	–	37	–	–	–	–	–	–
65	2 1/2"	31	39	46	47	55	71	82	95	142
80	3"	43	54	64	66	77	100	115	133	199
100	4"	83	111	134	138	166	222	261	305	333
125	5"	125	167	202	208	250	333	391	458	700
150	6"	188	250	304	313	375	500	588	687	778
200	8"	363	476	572	589	702	929	1087	1268	1409
250	10"	602	806	980	1010	1215	1623	1909	2236	2862
300	12"	910	1250	1538	1589	1929	2609	3084	3628	4579
350	14"	1052	1411	1715	1767	2127	2844	3346	4824	5357
400	16"	1317	1758	2133	2199	2640	3522	4139	8202	9124
450	18"	1817	2488	3058	3159	3830	5172	6111	9893	11005
500	20"	2501	3346	4064	4191	5037	6726	7910	13999	15569
600	24"	3496	4698	5719	5900	7102	9505	11188	21467	23885
700	28"	–	–	–	–	–	–	–	–	–
750	30"	4949	6678	8021	9169	12451	18157	22156	–	–
800	32"	–	–	–	–	–	–	–	–	–
900	36"	5982	8406	10151	–	–	–	–	–	–
1000	40"	–	–	–	–	–	–	–	–	–
1050	42"	9525	12609	16698	–	–	–	–	–	–
1200	48"	14914	20506	25260	–	–	–	–	–	–

Flow Coefficients (Cv Values)

Flow coefficient is and index to measure the flow capacity of valve. The more the flow coefficient is, the less the pressure loss upon fluid flowing through the valve. The values of flow coefficient differ from the sizes, types and structures of valves. Valve of different types and specifications should be separately tested to make certain of its value of flow coefficient. for valves of the same structure, the value of flow coefficient differs according to the directions of fluid through the valves. This difference is usually caused by the difference in pressure recovery. The table below is the flow coefficient of double eccentric butterfly valve, used for reference to choose valve flow coefficient. Cv means the American gallons of +60° F(+16℃) water flowing through the valve per minute under 1pound/inhc2(0.006894757Mpa) pressure drop.

High Performance Butterfly Valve Flow Coefficients

Degree Open		10℃	20℃	30℃	40℃	50℃	60℃	70℃	80℃	90℃
Size	Pressure									
2"	150	1.5	6	14	25	39	56	76	99	102
	300	1.4	6	13	24	36	52	71	95	100
	600	1.4	5	13	23	35	51	70	90	93
2 1/2"	150	2.2	9	21	37	56	80	110	142	146
	300	2.1	8	19	34	52	75	102	136	143
	600	2.0	8	19	33	51	73	100	130	133
3"	150	3.4	14	32	57	87	125	171	221	228
	300	3.2	13	30	53	81	117	159	212	223
	600	3.1	12	29	52	79	114	156	202	208
4"	150	6.8	27	63	114	171	248	338	437	451
	300	6.2	25	58	104	157	228	310	414	435
	600	5.8	23	54	98	147	213	290	375	387
5"	150	10.8	43	100	180	271	392	535	692	714
	300	9.8	40	92	165	248	361	491	655	688
6"	150	16.5	66	154	278	419	607	827	1070	1103
	300	14.9	60	139	250	377	546	744	992	1041
	600	14.7	59	137	247	372	538	734	950	979
8"	150	30.9	124	289	520	784	1135	1584	2002	2064
	300	27.3	109	255	459	692	1001	1365	1820	1911
	600	26.8	107	250	451	679	983	1341	1734	1788
10"	150	52.8	211	492	886	1336	1934	2638	3411	3517
	300	45.6	183	426	767	1156	1673	2282	3042	3194
	600	41.2	165	384	692	1044	1511	2060	2665	2747
12"	150	72.6	290	677	1219	1838	2660	3628	4690	4837
	300	63.3	253	590	1063	1602	2319	3163	4217	4428
	600	58.4	233	545	981	1479	2140	2918	3774	3891
14"	150	90	392	914	1646	2481	3592	4989	6530	6857
	300	81	326	760	1368	2063	2986	4072	5430	5702
	600	73	292	682	1228	1838	2680	3655	4727	4873
16"	150	132	531	1230	2229	3361	4865	6634	8845	9287
	300	109	435	1015	1827	2755	3988	5438	7850	8243
	600	96	385	899	1619	2423	3533	4818	6231	6424
18"	150	171	684	1596	3873	4332	6270	8550	11270	11400
	300	139	555	1295	2331	3515	5088	6938	9250	9712
20"	150	207	828	1932	3478	5244	7590	10350	13800	14420
	300	158	630	1470	2646	3990	5775	7875	10150	10658
24"	150	315	1260	2940	5292	7890	11550	15750	21000	22050
	300	242	966	2254	4057	6118	8855	12075	16100	16205
30"	150	491	1965	4585	8253	12445	18012	24563	32750	34388
	300	404	1614	3766	6779	10222	14795	20175	26900	28245
36"	150	707	2830	6602	11884	17920	25938	35370	45745	47160
42"	150	963	3851	8987	16176	24392	35304	48143	62264	64190
48"	150	1258	5030	11738	21128	31859	46111	62881	81324	83840

Butterfly Valve Flow Coefficients(Sealing Ring on The Disc)

Size		PN0.25	PN0.6	PN1.0	PN1.6	PN2.5	PN4.0	Class150
DN	NPS							
80	3"	–	–	–	291	291	–	291
100	4"	–	–	–	413	413	–	413
125	5"	–	–	–	903	903	–	903
150	6"	–	–	–	1150	1120	–	1020
200	8"	–	–	–	2640	1830	1660	1830
250	10"	–	–	–	4110	3710	2570	3710
300	12"	–	–	–	7030	5620	3710	5620
350	14"	–	–	–	9620	7460	5250	7460
400	16"	–	16100	14000	12500	9730	7300	9730
450	18"	–	20900	18700	15800	12300	9430	12300
500	20"	–	26600	24100	19500	15200	11600	15200
600	24"	–	38300	34700	28200	21900	16700	21900
700	28"	53500	52100	47300	38400	29800	24100	29800
750	30"	61400	59800	54300	44000	34200	27600	34200
800	32"	69800	68000	61800	50100	39000	32300	39000
900	36"	91000	86100	78300	64400	49700	–	49700
1000	40"	119000	106000	96500	79400	68300	–	68300
1100	44	150000	129000	117000	–	–	–	–
1200	"48"	178000	153000	139000	–	–	–	–
1300	52"	209000	179000	163000	–	–	–	–
1400	56"	242000	208000	190000	–	–	–	–
1500	60"	278000	239000	218000	–	–	–	–
1600	64"	317000	271000	247000	–	–	–	–
1800	72"	401000	344000	328000	–	–	–	–
2000	80"	495000	449000	414000	–	–	–	–
2200	88"	621000	560000	515000	–	–	–	–
2400	96"	739000	689000	628000	–	–	–	–
2600	104"	868000	837000	–	–	–	–	–
2800	112"	1010000	970000	–	–	–	–	–
3000	120"	1210000	1110000	–	–	–	–	–
3200	128"	1370000	–	–	–	–	–	–
3400	136"	1540000	–	–	–	–	–	–
3600	144"	1810000	–	–	–	–	–	–
3800	152"	2010000	–	–	–	–	–	–
4000	160"	2230000	–	–	–	–	–	–

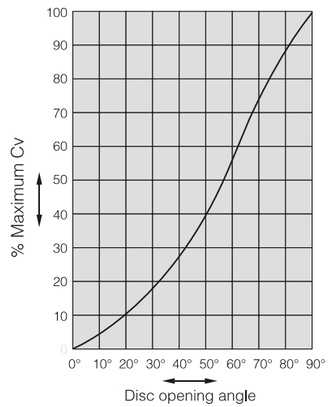
Note: 1. The butterfly valve with flow coefficient in the table above is soft seal structure, with sealing ring mounted on the disc.
2. DN≥400, two–piece structure of valve shaft.

Multilayer Hard Seal Butterfly Valve Flow Coefficients(Sealing Ring on The Disc)

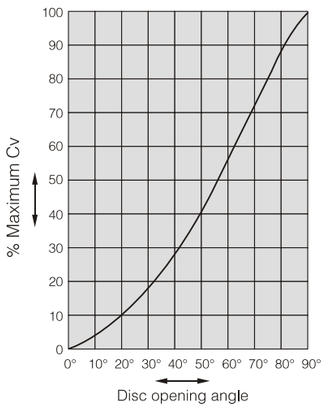
Size		PN0.25	PN0.6	PN1.0	PN1.6	PN2.5
DN	NPS					
150	6"	–	739	739	536	454
200	8"	–	1860	1440	1100	1040
250	10"	–	2930	2350	2350	1840
300	12"	–	5070	4390	3730	2880
350	14"	8390	7040	6250	5640	4040
400	16"	11100	10400	8560	7410	5700
450	18"	14900	13300	11600	9490	7420
500	20"	18500	16600	14600	11900	9300
600	24"	29100	26000	22100	17300	13500
700	28"	39800	36000	30300	24000	20100
750	30"	46700	41400	34900	27700	23400
800	32"	55600	47600	40000	31700	26700
900	36"	70400	61200	52200	42400	35300
1000	40"	88800	75900	64700	52700	46600
1100	44	108000	92100	78400	67700	58700
1200	"48"	129000	112000	97500	83300	77300
1300	52"	153000	132000	116000	99300	–
1400	56"	186000	153000	139000	–	–
1500	60"	221000	178000	161000	–	–
1600	64"	253000	206000	194000	–	–
1800	72"	321000	266000	–	–	–
2000	80"	398000	353000	–	–	–
2200	88"	501000	435000	–	–	–
2400	96"	599000	–	–	–	–
2600	104"	718000	–	–	–	–
2800	112"	838000	–	–	–	–
3000	120"	963000	–	–	–	–

Note: 1. The butterfly valve with flow coefficient in the table above is multilayer hard seal structure, with sealing ring mounted on the disc.
2. One–piece stem.

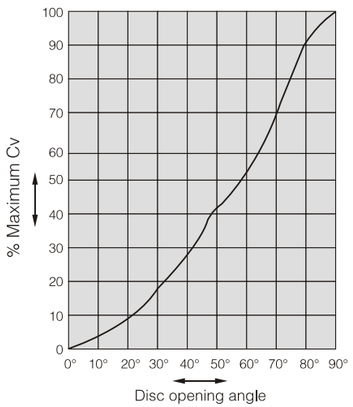
Butterfly Typical Characteristic Curve



Typical Characteristic Curve of High Performance Butterfly Valve



Typical Characteristic Curve of Double Eccentric Soft Butterfly Valve



Typical Characteristic Curve of Double Eccentric Hard Butterfly Valve

For sizes and classes not shown, please contact our Sales Department

Double Eccentric Butterfly Valve Product Line

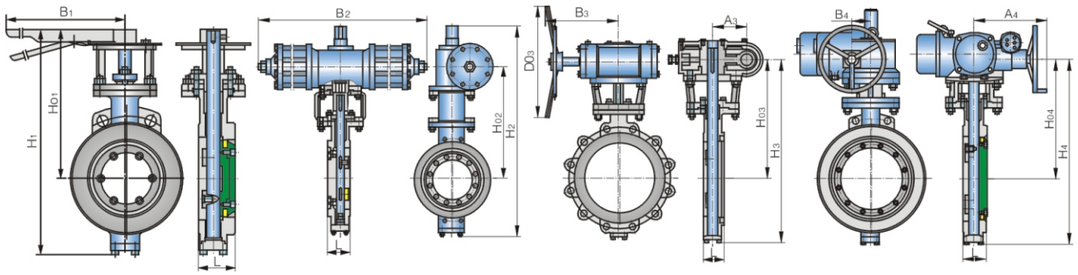
Size (mm)		Pressure								
DN	NPS	PN0.25MPa	PN0.6MPa	PN1.0MPa	PN1.6MPa	PN2.5MPa	PN4.0MPa	Class150	Class300	Class600
50	2"	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆
65	2 1/2"	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆
80	3"	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆
100	4"	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆
125	5"	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	△/★/☆	△/★/☆
150	6"	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	●/△/★/☆	△/★/☆	△/★/☆
200	8"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
250	10"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
300	12"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
350	14"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–
400	16"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–
450	18"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–
500	20"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–
600	24"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–
700	28"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	★/☆	★/☆	–	–
750	30"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	★/☆	★/☆	–	–
800	32"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	★/☆	★/☆	–	–
900	36"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	★/☆	–	–
1000	40"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	★/☆	–	–
1050	42"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	★/☆	–	–
1100	44"	★/☆	★/☆	★/☆	★/☆	★/☆	–	★/☆	–	–
1200	48"	★/☆	★/☆	★/☆	★/☆	★/☆	–	★/☆	–	–
1300	52"	★/☆	★/☆	★/☆	★/☆	–	–	★/☆	–	–
1400	56"	★/☆	★/☆	★/☆	★/☆	–	–	★/☆	–	–
1500	60"	★/☆	★/☆	★/☆	★/☆	–	–	–	–	–
1600	64"	★/☆	★/☆	★/☆	★/☆	–	–	–	–	–
1800	72"	★/☆	★/☆	★/☆	–	–	–	–	–	–
2000	80"	★/☆	★/☆	★/☆	–	–	–	–	–	–
2200	88"	★/☆	★/☆	★/☆	–	–	–	–	–	–
2400	96"	★/☆	★/☆	★/☆	–	–	–	–	–	–
2600	104"	★/☆	★/☆	–	–	–	–	–	–	–
2800	112"	★/☆	★/☆	–	–	–	–	–	–	–
3000	120"	★/☆	★/☆	–	–	–	–	–	–	–
3200	128"	★/☆	–	–	–	–	–	–	–	–
3400	136"	★/☆	–	–	–	–	–	–	–	–
3600	144"	★/☆	–	–	–	–	–	–	–	–
3800	152"	★/☆	–	–	–	–	–	–	–	–
4000	160"	★/☆	–	–	–	–	–	–	–	–

Note: ●stands for handle operated valves; ☆stands for gearbox operated valves; △stands for air operated valves; ★stands for electrically operated valves; / stands for no option of this. Those not covered in the table can be custom made to users' requirements.

Technical Specification

Design Standard		GB/T12238/EN593/DIN/GOST						API609、 MSS SP–67		
Pressure–Temperature Rating		GB/T12224/DIN/GOST						API609		
Face–Face		GB/T12221						API609		
Flange Ends		GB/T9113、DIN3202、EN1092、GOST12815						ASME B16.1/B16.5/B16.47/BS4504		
Inspection & Test		JB/T9092、 GB/T13927、DIN3230、EN598						API598		
Nominal Pressure (MPa)		0.25	0.6	1.0	1.6	2.5	4.0	Class150	Class300	Class600
Test Pressure (MPa)	Shell Test	0.375	0.9	1.5	2.4	3.75	6.0	2.93	7.58	15.0
	High Pressure Seal Test	0.275	0.66	1.1	1.76	2.75	4.4	2.07	5.52	11.03
	Low Pressure Seal Test	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Applicable Temperature		–196℃~550℃ Different raw material for different work temperature								
Applicable Medium		Water, oil, gas and other causticity medium (Different raw material for different medium)								

Double Eccentric Wafe Butterfly Valve



Manual Wafer Butterfly Valve | Electric Wafer Butterfly Valve | Worm Gear Driven Lug Wafer Butterfly Valve | Pneumatic Wafer Butterfly Valve

Main Outline Dimensions and Weight

PN0.6MPa mm

DN	L		Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
50	43	43	233	160	200	–	–	–	266	143	106	50	160	–	–	–	–	4.5	5.5
65	46	46	275	179	230	–	–	–	290	178	140	63	180	–	–	–	–	5	7
80	49	64	316	198	250	–	–	–	320	185	140	63	180	320	185	178	180	6	9
100	56	64	341	211	270	–	–	–	342	193	140	63	240	340	198	178	180	8	11.5
125	64	70	362	217	300	–	–	–	378	219	140	63	240	340	205	178	180	12	17
150	70	76	384	235	350	–	–	–	415	245	140	63	240	415	241	178	180	13	22
200	71	84	–	–	–	695	325	275	470	298	170	84	300	512	263	235	370	20	39
250	76	114	–	–	–	750	355	275	535	328	170	84	300	570	292	235	370	30	47
300	83	114	–	–	–	935	475	378	606	365	200	108	400	668	340	235	370	51	68
350	92	127	–	–	–	1000	510	378	695	408	200	108	400	745	385	235	370	82	135
400	102	140	–	–	–	1145	590	378	755	446	240	128	400	827	425	235	370	115	187
450	114	152	–	–	–	1205	632	530	815	475	330	152	600	915	462	235	370	156	225
500	127	152	–	–	–	1256	665	530	905	525	370	168	600	995	500	235	370	199	260
600	154	178	–	–	–	1526	830	530	1050	610	370	320	600	1183	605	245	515	333	383
700	165	229	–	–	–	1640	903	530	1276	795	515	237	800	1460	734	245	515	462	510
800	190	241	–	–	–	1786	972	680	1384	837	515	237	800	1589	803	245	515	535	650
900	203	241	–	–	–	1917	1052	680	1505	885	515	237	800	1856	990	360	540	701	1189
1000	216	300	–	–	–	2600	1170	680	1620	946	570	785	600	1958	1050	360	540	786	1220
1200	254	360	–	–	–	–	–	–	2185	1165	570	785	600	2013	1165	360	540	907	1660

Main Outline Dimensions and Weight

PN1.0MPa mm

DN	L		Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
50	43	43	233	160	200	–	–	–	266	143	106	50	160	–	–	–	–	4.5	5.5
65	46	46	275	179	230	–	–	–	290	178	140	63	180	–	–	–	–	5	7
80	49	64	316	198	250	–	–	–	320	185	140	63	180	320	185	178	180	6	9
100	56	64	341	211	270	–	–	–	342	193	140	63	240	340	198	178	180	8	11.5
125	64	70	362	217	300	–	–	–	378	219	140	63	240	340	205	178	180	12	17
150	70	76	384	235	350	–	–	–	415	245	140	63	240	415	241	178	180	13	22
200	71	84	–	–	–	695	325	275	470	298	170	84	300	512	263	235	370	20	39
250	76	114	–	–	–	750	355	275	535	328	170	84	300	570	292	235	370	30	47
300	83	114	–	–	–	935	475	378	606	365	200	108	400	668	340	235	370	51	68
350	92	127	–	–	–	1000	510	378	695	408	200	108	400	745	385	235	370	82	135
400	102	140	–	–	–	1145	590	378	755	446	240	128	400	827	425	235	370	115	187
450	114	152	–	–	–	1205	632	530	815	475	330	152	600	915	462	235	370	156	225
500	127	152	–	–	–	1256	665	530	905	525	370	168	600	995	500	235	370	199	260
600	154	178	–	–	–	1526	830	530	1050	610	370	320	600	1183	605	245	515	333	383
700	165	229	–	–	–	1640	903	530	1276	795	515	279	800	1460	734	245	515	462	510
800	190	241	–	–	–	1786	972	680	1384	837	515	279	800	1589	803	245	515	535	650
900	203	241	–	–	–	1917	1052	680	1505	885	515	279	800	1856	990	360	540	701	1189
1000	216	300	–	–	–	2600	1170	680	1620	946	570	368	600	1958	1050	360	540	786	1220
1200	254	360	–	–	–	–	–	–	2185	1165	570	378	600	2013	1165	360	540	907	1660

PN1.6MPa mm

DN	L		Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
50	43	43	225	160	200	–	–	–	266	143	160	50	106	–	–	–	–	4.5	5.5
65	46	46	250	175	230	–	–	–	290	175	160	63	140	–	–	–	–	7	7
80	49	64	260	190	250	–	–	–	320	185	160	63	140	513	265	178	180	9	9
100	56	64	295	195	270	–	–	–	342	195	160	63	140	538	282	178	180	20	11.5
125	64	70	330	215	300	–	–	–	365	209	300	63	140	560	295	178	180	23	17
150	70	76	356	225	350	–	–	–	415	243	300	63	140	605	300	178	180	29	22
200	71	84	–	–	–	695	327	275	510	263	400	84	150	749	321	235	370	40	39
250	76	114	–	–	–	750	355	275	567	295	400	84	150	803	330	235	370	50	47
300	83	114	–	–	–	955	472	378	665	342	600	108	200	880	365	235	370	68	68
350	92	127	–	–	–	1033	515	378	739	385	600	108	200	960	410	235	370	105	138
400	102	140	–	–	–	1185	595	530	825	430	600	152	240	1032	445	235	370	163	190
450	114	152	–	–	–	1270	632	530	910	469	330	600	144	1118	487	235	370	205	230
500	127	152	–	–	–	1335	665	530	990	500	370	600	220	1190	520	235	370	270	265
600	154	178	–	–	–	1642	829	680	1210	618	370	600	220	1380	625	235	370	390	437
700	165	229	–	–	–	1785	905	680	1475	746	515	800	279	1582	745	245	515	465	740
800	190	241	–	–	–	1915	970	680	1600	810	515	800	279	1713	810	245	515	570	920
900	203	241	–	–	–	–	–	–	1870	1000	515	800	279	1870	875	360	540	701	1189
1000	216	300	–	–	–	–	–	–	2000	1065	570	600	368	2000	940	360	540	800	1220
1200	254	360	–	–	–	–	–	–	2215	1170	570	600	378	2118	1060	360	540	922	1680

Main Outline Dimensions and Weight

PN2.5MPa mm

DN	L		Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
50	43	43	225	160	200	–	–	–	266	143	160	50	106	–	–	–	–	6.3	6.3
65	46	46	250	175	230	–	–	–	290	175	160	63	140	–	–	–	–	9	9.2
80	49	64	260	190	250	–	–	–	513	265	160	63	140	552	265	178	180	11	11
100	56	64	295	195	270	–	–	–	538	282	160	63	140	585	290	178	180	25	15
125	64	70	330	215	300	–	–	–	560	295	300	63	140	610	305	178	180	33	17
150	70	76	356	225	350	–	–	–	605	300	300	63	140	765	315	178	180	47	22
200	71	89	–	–	–	695	327	275	749	321	400	84	150	810	304	235	370	52	39
250	76	114	–	–	–	750	355	275	803	330	400	84	150	910	336	235	370	65	47
300	83	114	–	–	–	955	472	378	880	365	600	108	200	1000	386	235	370	110	123
350	92	127	–	–	–	1033	515	378	960	410	600	108	200	1055	425	235	370	138	190
400	102	140	–	–	–	1185	595	530	1032	445	600	152	240	1108	456	235	370	190	230
450	114	152	–	–	–	1270	632	530	1118	487	330	600	144	1140	490	235	370	230	265
500	127	152	–	–	–	1335	665	530	1190	520	370	600	220	1238	552	235	370	265	390
600	154	178	–	–	–	1642	829	680	1380	625	370	600	220	1399	635	245	515	437	465
700	165	229	–	–	–	1785	905	680	1582	745	515	800	279	1611	750	360	540	470	740
800	190	241	–	–	–	1915	970	680	1713	810	515	800	279	1782	820	360	540	705	920
900	203	241	–	–	–	–	–	–	1870	875	515	800	279	1915	886	385	565	730	1189
1000	216	300	–	–	–	–	–	–	2000	940	570	600	368	2040	945	385	565	927	1220
1200	254	362	–	–	–	–	–	–	2118	1060	570	600	378	2184	1053	400	770	953	1680

PN4.0MPa mm

DN	L		Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
50	43	43	225	160	200	–	–	–	266	143	106	50	200	–	–	–	–	6.3	7.3
65	46	46	265	175	230	–	–	–	290	175	143	80	250	–	–	–	–	9	9.8
80	49	64	275	190	270	–	–	–	395	245	143	80	300	530	240	178	180	11	11.5
100	56	64	310	205	300	–	–	–	356	205	200	108	400	555	205	178	180	25	29
125	64	70	347	220	350	–	–	–	375	213	200	108	400	582	215	178	180	33	38
150	70	76	374	235	380	–	–	–	439	260	200	108	600	609	260	235	370	47	51
200	71	84	–	–	–	750	375	275	520	275	330	140	600	755	275	235	370	55	67
250	76	114	–	–	–	905	445	378	600	315	330	140	600	818	315	235	370	70	70
300	83	114	–	–	–	1085	538	503	692	365	370	220	800	912	363	245	515	135	142
350	92	127	–	–	–	1160	576	503	776	408	370	220	800	983	406	245	515	203	227
400	102	140	–	–	–	1230	609	503	864	443	370	220	800	1058	440	245	515	245	268
450	114	152	–	–	–	1520	765	680	1128	525	512	279	400	1135	545	360	540	283	333
500	127	152	–	–	–	1335	665	530	1257	664	512	279	400	1245	600	360	540	405	520
600	154	229	–	–	–	–	–	–	1380	625	512	279	400	1414	663	360	540	591	645
700	165	241	–	–	–	–	–	–	1435	712	570	368	600	–	–	–	–	723	785
800	190	241	–	–	–	–	–	–	1518	782	570	368	600	–	–	–	–	846	935

Note: The weight in the table is that without drive unit. WF is wafer butterfly valve, and WL is lug wafer butterfly valve.

Double Eccentric Butterfly Valve

Main Outline Dimensions and Weight

Class150 mm

NPS	L	Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
		H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
2	45	262	187	180	–	–	–	287	176	106	50	160	–	–	–	–	3.7	5
2½"	48	267	193	200	–	–	–	294	179	140	63	160	–	–	–	–	4.3	5.6
3"	49	295	218	250	–	–	–	320	185	140	63	160	513	263	178	180	5	6
4"	54	329	239	270	–	–	–	342	195	140	63	160	535	282	178	180	7.7	11
5"	57	369	261	300	–	–	–	365	209	140	63	300	563	293	178	180	9.1	13.6
6"	58	398	275	350	–	–	–	415	243	140	63	300	602	322	178	180	13.6	15.9
8"	64	–	–	–	690	323	275	510	263	150	84	400	745	296	235	370	20	21.8
10"	71	–	–	–	750	355	275	567	295	150	84	400	805	325	235	370	32	41
12"	81	–	–	–	955	475	378	665	342	200	108	600	883	365	235	370	50	57.6
14"	92	–	–	–	1032	513	378	739	385	200	108	600	965	408	235	370	61	83
16"	102	–	–	–	1182	598	530	825	430	240	152	600	1033	443	235	370	83	113
18"	114	–	–	–	1265	635	530	910	469	240	152	800	1120	485	235	370	106	138
20"	127	–	–	–	1335	667	530	990	500	300	168	800	1186	518	235	370	145	188
24"	154	–	–	–	1642	830	680	1210	618	320	192	800	1380	625	235	370	229	318
30"	167	–	–	–	1823	1245	680	1453	875	512	279	400	1583	1005	245	515	420	513
36"	184	–	–	–	2145	1329	860	1775	939	512	279	400	1905	1089	245	515	739	857
42"	222	–	–	–	2360	1456	860	1980	1086	512	279	400	2120	1216	360	540	1123	1225
48"	254	–	–	–	2535	1564	1080	2165	1194	570	368	600	2235	1324	360	540	1277	1399

Class300 mm

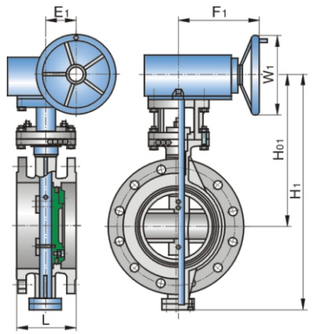
NPS	L	Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
		H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
2	45	262	179	230	–		–	287	176	106	50	160	–	–	–	–	3.6	5
2½"	48	269	193	260	–		–	294	179	140	63	160	–	–	–	–	4.2	5.5
3"	49	293	198	290	–		–	320	185	140	63	160	513	263	178	180	5.4	7.7
4"	54	310	203	320	–		–	342	195	140	63	160	535	282	178	180	7.7	10.9
5"	57	352	225	350	–		–	365	209	140	63	300	563	293	178	180	9.1	13.6
6"	59	380	235	380	–		–	415	243	140	63	300	602	322	178	180	13.6	22.2
8"	73	–	–	–	750		275	510	263	150	84	400	745	296	235	370	23.6	36
10"	83	–	–	–	909		378	567	295	150	84	400	805	325	235	370	40	52
12"	92	–	–	–	1075		530	665	342	200	108	600	883	365	235	370	69.4	90
14"	117	–	–	–	1158		530	739	385	200	108	600	965	408	235	370	129	147
16"	133	–	–	–	1230		530	825	430	240	152	600	1033	443	235	370	152	182
18"	149	–	–	–	1462		680	910	469	240	152	800	1120	485	235	370	178	234.5
20"	159	–	–	–	1328		680	990	500	300	168	800	1186	518	235	370	231	333
24"	181	–	–	–	–		–	1210	618	320	192	800	1380	625	235	370	332	463

Class600 mm

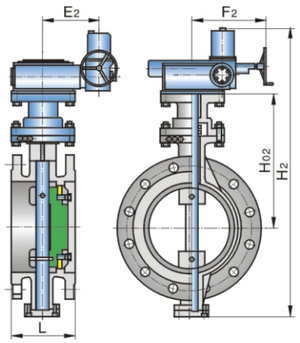
NPS	L	Manual			Pneumatic			Worm gear actuation					Electric				Weight (kg)	
		H1	H01	B1	H2	H02	B2	H3	H03	B3	A3	D03	H4	H04	B4	A4	WF	WL
2	45	262	179	230	–	–	–	287	176	106	50	160	–	–	–	–	5	5.9
2½"	48	269	193	260	–	–	–	294	179	140	63	160	–	–	–	–	5	5.9
3"	64	293	198	290	–	–	–	320	185	140	63	160	513	263	178	180	5.9	8.2
4"	64	310	203	320	–	–	–	342	195	140	63	160	535	282	178	180	13.6	23.6
5"	70	352	225	350	–	–	–	365	209	140	63	300	563	293	178	180	27	40
6"	78	380	235	380	–	–	–	415	243	140	63	300	602	322	178	180	32	51
8"	102	–	–	–	750	368	275	510	263	150	84	400	745	296	235	370	54	90
10"	117	–	–	–	909	442	378	567	295	150	84	400	805	325	235	370	77	105.7
12"	140	–	–	–	1075	535	530	665	342	200	108	600	883	365	235	370	111	172
14"	155	–	–	–	1158	572	530	739	385	200	108	600	965	408	235	370	200	286
16"	178	–	–	–	1230	610	530	825	430	240	152	600	1033	443	235	370	286	381

Note: The weight in the table is that without drive unit. WF is wafer butterfly valve, and WL is lug wafer butterfly valve.

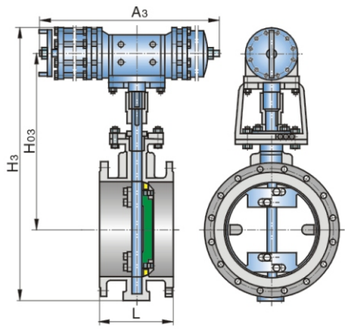
Dual–eccentric Flange Type Cast Structure Butterfly Valve



Worm Gear Flanged Butterfly Valve



Electric Flanged Butterfly Valve



Pneumatic Flanged Butterfly Valve

Main Outline Dimensions and Weight

PN0.6MPa mm

DN	L*	Worm gear actuation					Electric				Pneumatic			Weight(kg)		
		H1	Ho1	E1	F1	W1	H2	Ho2	E2	F2	H3	Ho3	A3	Worm gear	Electric	Pneumatic
50	108	267	172	63	140	180	–	–	–	–	–	–	–	12	42	–
65	112	290	180	63	140	180	–	–	–	–	–	–	–	13	47	–
80	114	320	190	63	140	180	320	185	178	180	–	–	–	14	50	–
100	127	342	198	63	140	240	340	198	178	180	–	–	–	17	60	–
125	140	380	223	63	140	240	380	223	178	180	–	–	–	27	80	–
150	140	415	246	63	140	300	415	241	178	180	–	–	–	29	110	–
200	152	470	298	84	170	300	512	263	235	370	695	325	275	45	130	–
250	165	535	328	84	170	400	570	292	235	370	750	355	275	69	170	–
300	178	606	365	108	200	400	668	340	235	370	935	475	378	86	200	–
350	190	695	408	108	200	400	745	385	235	370	1000	510	378	122	280	–
400	216	755	446	128	240	600	827	425	235	370	1145	590	378	141	320	–
450	222	815	475	152	240	600	915	462	235	370	1205	632	530	191	395	–
500	229	905	525	168	300	600	995	500	235	370	1256	665	530	260	500	–
600	267	1050	610	320	192	350	1183	605	245	515	1526	830	530	380	600	–
700	292	1276	795	237	192	350	1460	734	245	515	1640	903	530	450	800	–
800	318	1384	837	237	168	350	1589	803	245	515	1786	972	680	650	890	–
900	330	1500	885	237	168	450	1856	990	360	540	1917	1052	680	830	1040	–
1000	410	1620	946	785	330	450	1958	1050	360	540	2600	1170	680	1050	1400	–
1200	470	2185	1165	785	330	450	2013	1165	360	540	–	–	–	1400	1850	–
1400	530	2315	1310	785	330	450	2186	1312	360	540	–	–	–	1900	2664	–
1600	600	2675	1440	865	330	600	2531	1438	385	565	–	–	–	2900	3450	–
1800	670	2920	1580	865	550	600	2795	1580	385	565	–	–	–	4000	4450	–
2000	950	3170	1725	865	550	600	3055	1726	300	770	–	–	–	5300	5900	–
2200	1000	3415	1845	865	650	600	3269	1824	520	817	–	–	–	–	6700	–
2400	1110	3670	1972	865	650	600	3524	1959	520	817	–	–	–	–	7500	–
2600	1190	3830	2100	865	650	600	3765	2080	450	973	–	–	–	–	–	–
2800	1270	4100	2235	865	850	600	4025	2210	450	973	–	–	–	–	–	–
3000	1350	4380	2370	865	850	600	4278	2390	450	973	–	–	–	–	–	–

Note: *Structural length of valves in the table: DN < 2000, to ISO5752 13 series; DN ≥ 2000, to ISO5752 14 series.

Main Outline Dimensions and Weight

PN1.0MPa mm

DN	L*	Worm gear actuation					Electric				Pneumatic			Weight(kg)		
		H1	Ho1	E1	F1	W1	H2	Ho2	E2	F2	H3	Ho3	A3	Worm gear	Electric	Pneumatic
50	108	267	172	63	140	180	–	–	–	–	–	–	–	12	42	–
65	112	290	178	63	140	180	–	–	–	–	–	–	–	13	47	–
80	114	325	185	63	140	180	320	185	180	178	–	–	–	14	50	–
100	127	345	193	63	140	240	340	198	180	178	–	–	–	17	60	–
125	140	380	219	63	140	240	382	220	180	178	–	–	–	27	80	–
150	140	415	245	63	140	240	415	241	180	178	–	–	–	29	110	–
200	152	470	298	84	170	300	512	263	370	235	740	367	275	45	130	–
250	165	535	328	84	170	300	570	292	370	235	900	443	378	69	190	–
300	178	606	365	108	200	400	668	340	370	235	990	493	378	86	210	–
350	190	695	408	108	200	400	745	385	370	235	1155	575	378	122	310	–
400	216	755	446	128	240	400	827	425	370	235	1205	600	530	141	380	–
450	222	815	475	152	240	600	915	462	370	235	1290	643	530	191	460	–
500	229	905	525	168	300	600	995	500	370	235	1395	705	530	260	580	–
600	267	1050	610	320	192	600	1183	605	515	245	1665	838	530	380	690	–
700	292	1276	795	237	192	350	1460	734	515	245	1882	942	680	450	850	–
800	318	1384	837	237	168	350	1589	803	515	245	2093	1066	680	650	1000	–
900	330	1500	885	237	168	350	1856	990	540	360	–	–	–	830	1220	–
1000	410	1620	946	785	330	450	1958	1050	540	360	–	–	–	1050	1600	–
1200	470	2185	1165	785	330	450	2013	1165	540	360	–	–	–	1400	2150	–
1400	530	2315	1310	785	330	450	2186	1312	540	360	–	–	–	1900	2610	–
1600	600	2675	1440	785	330	450	2531	1438	565	385	–	–	–	2900	3450	–
1800	670	2920	1580	865	550	600	2795	1580	565	385	–	–	–	4000	4900	–
2000	950	3170	1725	865	550	600	3055	1726	770	300	–	–	–	5300	5900	–
2200	1000	3340	1935	440	650	800	3365	1980	973	450	–	–	–	–	8368	–
2400	1110	3625	2110	440	650	800	3655	2140	973	450	–	–	–	–	11792	–

PN1.6MPa mm

DN	L*	Worm gear actuation					Electric				Pneumatic			Weight(kg)		
		H1	Ho1	E1	F1	W1	H2	Ho2	E2	F2	H3	Ho3	A3	Worm gear	Electric	Pneumatic
50	108	267	172	63	140	180	–	–	–	–	–	–	–	–	–	–
65	112	290	175	63	140	1160	–	–	–	–	–	–	–	–	–	–
80	114	320	185	63	140	160	513	265	180	178	–	–	–	–	–	–
100	127	342	195	63	140	160	538	282	180	178	–	–	–	–	–	–
125	140	365	209	63	140	300	560	295	180	178	–	–	–	–	–	–
150	140	415	243	63	140	300	605	300	180	178	–	–	–	45	105	–
200	152	510	263	84	150	400	749	321	370	235	695	327	275	60	135	–
250	165	567	295	84	150	400	803	330	370	235	750	355	275	75	150	–
300	178	665	342	108	200	600	880	365	370	235	955	472	378	110	260	–
350	190	739	385	108	200	600	960	410	370	235	1033	515	378	160	325	–
400	216	825	430	152	240	600	1032	445	370	235	1185	595	530	210	405	–
450	222	910	469	152	240	800	1118	487	370	235	1270	632	530	241	490	–
500	229	990	500	168	300	800	1190	520	370	235	1335	665	530	350	700	–
600	267	1210	618	192	320	800	1380	625	370	235	1642	829	680	510	855	–
700	292	1475	746	238	237	400	1582	745	515	245	1785	905	680	730	1150	–
800	318	1600	810	238	237	400	1713	810	515	245	1915	970	680	1030	1370	–
900	330	1870	1000	330	785	400	1870	875	540	360	–	–	–	1240	1610	–
1000	410	2000	1065	430	785	600	2000	940	540	360	–	–	–	1560	1920	–
1200	470	2215	1170	430	785	600	2118	1060	540	360	–	–	–	2260	2510	–
1400	530	2430	1319	550	865	800	2328	1325	565	385	–	–	–	2610	3000	–
1600	600	2700	1443	550	865	800	2550	1450	565	385	–	–	–	3050	4700	–
1800	670	2938	1595	650	865	800	2816	1598	770	300	–	–	–	5725	6500	–
2000	950	3210	1743	650	865	800	3065	1743	794	684	–	–	–	8040	8700	–

Note: *Structural length of valves in the table: DN < 2000, to ISO5752 13 series; DN ≥ 2000, to ISO5752 14 series.

Main Outline Dimensions and Weight

PN2.5MPa mm

DN	L*	Worm gear actuation					Electric				Pneumatic			Weight(kg)		
		H_1	H_{O1}	E_1	F_1	W_1	H_2	H_{O2}	E_2	F_2	H_3	H_{O3}	A_3	Worm gear	Electric	Pneumatic
50	108	278	178	63	140	180	–	–	–	–	–	–	–	–	–	–
65	112	305	182	63	140	160	–	–	–	–	–	–	–	–	–	–
80	114	320	185	63	140	160	552	265	180	178	–	–	–	–	–	–
100	127	350	200	63	140	300	585	290	180	178	–	–	–	–	82	–
125	140	375	210	63	140	300	610	305	180	178	–	–	–	–	105	–
150	140	425	245	63	140	400	765	315	180	178	–	–	–	–	120	–
200	152	526	270	84	150	400	820	304	370	235	740	367	275	64	135	–
250	165	590	302	84	150	600	910	336	370	235	890	443	378	81	195	–
300	178	695	360	108	200	600	1000	386	370	235	985	495	378	144	250	–
350	190	789	420	108	240	600	1055	425	370	235	1155	575	530	173	280	–
400	216	848	435	128	240	800	1108	456	370	235	1206	603	530	272	340	–
450	222	943	475	152	300	800	1140	490	370	235	1284	643	530	322	390	–
500	229	1079	550	168	320	800	1238	552	370	235	1390	705	535	370	490	–
600	267	1352	675	192	237	400	1399	635	515	245	1660	835	680	571	570	–
700	292	1495	759	685	237	400	1611	750	540	360	–	–	–	808	780	–
800	318	1640	835	685	237	400	1782	820	540	360	–	–	–	940	960	–
900	330	1765	886	730	785	600	1915	886	565	385	–	–	–	1300	1350	–
1000	410	1885	945	730	785	600	2040	945	565	385	–	–	–	1720	1880	–
1200	470	2100	1055	850	865	800	2184	1053	770	300	–	–	–	–	2180	–
1400	530	2325	1163	850	865	800	2375	1164	794	684	–	–	–	–	3200	–

PN4.0MPa mm

DN	L*	Worm gear actuation					Electric				Pneumatic			Weight(kg)		
		H_1	H_{O1}	E_1	F_1	W_1	H_2	H_{O2}	E_2	F_2	H_3	H_{O3}	A_3	Worm gear	Electric	Pneumatic
50	108	320	185	63	140	160	–	–	–	–	–	–	–	–	–	–
65	112	350	200	63	140	300	–	–	–	–	–	–	–	–	–	–
80	114	395	245	63	140	300	530	240	180	178	–	–	–	–	–	–
100	127	356	205	63	140	400	555	205	180	178	–	–	–	26	76	–
125	140	375	213	63	140	400	582	215	180	178	–	–	–	43	100	–
150	140	439	260	84	150	600	609	260	370	235	–	–	–	64	160	–
200	152	520	275	84	150	600	755	275	370	235	750	375	275	74	225	–
250	165	600	315	108	200	600	818	315	370	235	905	445	378	119	338	–
300	178	692	365	108	200	800	912	363	515	245	1085	538	503	165	399	–
350	190	776	408	152	240	800	983	406	515	245	1160	576	503	259	553	–
400	216	864	443	168	300	800	1058	440	515	245	1230	609	503	325	644	–
450	222	925	525	237	368	400	1111	571	515	245	1375	665	680	366	885	–
500	229	1128	571	237	368	400	1245	600	540	360	1520	765	680	444	1149	–
600	267	1257	664	237	368	400	1336	663	540	360	–	–	–	–	–	–
700	292	1450	880	410	550	600	1414	796	730	410	–	–	–	–	–	–
800	318	1555	905	410	550	600	1451	851	730	410	–	–	–	–	–	–

Note: *Structural length to ISO5752 13 series.

Main Outline Dimensions and Weight

Class150 mm

NPS	L*	Worm gear actuation					Electric				Pneumatic			Weight(kg)		
		H_1	H_{O1}	E_1	F_1	W_1	H_2	H_{O2}	E_2	F_2	H_3	H_{O3}	A_3	Worm gear	Electric	Pneumatic
3"	180	320	185	63	140	160	513	263	180	178	–	–	–	20	63	–
4"	190	342	195	63	140	160	535	282	180	178	–	–	–	23	68	–
5"	200	365	209	63	140	300	563	293	180	178	–	–	–	38	75	–
6"	210	415	243	63	140	300	602	322	180	178	–	–	–	49	80	–
8"	230	510	263	84	150	400	745	296	370	235	690	323	275	64	105	115
10"	250	567	295	84	150	400	805	325	370	235	750	355	275	81	150	210
12"	270	665	342	108	200	600	883	365	370	235	955	475	378	144	175	250
14"	290	739	385	108	200	600	965	408	370	235	1032	513	378	172	245	330
16"	310	825	430	152	240	600	1033	443	370	235	1182	598	530	272	330	400
18"	330	910	469	152	240	800	1120	485	370	235	1265	635	530	322	420	480
20"	350	990	500	168	300	800	1186	518	370	235	1335	667	530	370	510	560
24"	390	1210	618	192	320	800	1380	625	370	235	1642	830	680	571	745	770
26"	410	1341	701	238	437	400	1541	687	515	245	1711	859	680	600	785	845
28"	430	1475	746	238	437	400	1587	745	515	245	1782	910	680	831	1000	950
30"	450	1572	815	238	437	400	1650	777	515	245	1856	942	680	907	1160	1020
32"	470	1600	874	238	437	400	1717	810	515	245	1920	975	680	1190	1570	1100
34"	490	1728	899	368	550	400	1874	872	540	360	–	–	–	1299	1700	–
36"	510	1823	937	368	550	600	1870	875	540	360	–	–	–	1463	1820	–
40"	550	1900	965	368	550	600	2030	965	540	360	–	–	–	2112	2250	–
42"	570	1963	1092	430	785	600	2052	987	540	360	–	–	–	2217	2275	–
44"	590	2199	1148	430	785	600	2078	1022	540	360	–	–	–	2485	2720	–
46"	610	2210	1178	430	785	600	2127	1065	540	360	–	–	–	2558	2600	–
48"	630	2275	1213	430	785	600	2188	1100	540	360	–	–	–	2992	3030	–
52"	670	2390	1257	430	785	600	2214	1150	565	385	–	–	–	4080	4100	–
54"	690	2406	1319	550	865	800	2270	1260	565	385	–	–	–	4275	4300	–
56"	710	2430	1355	550	865	800	2328	1325	565	385	–	–	–	4470	4490	–
60"	750	2563	1562	550	865	800	2530	1515	565	385	–	–	–	5080	5130	–

Note: *Structural length to ISO5752 14 series.

Main Outline Dimensions and Weight

Class300 mm

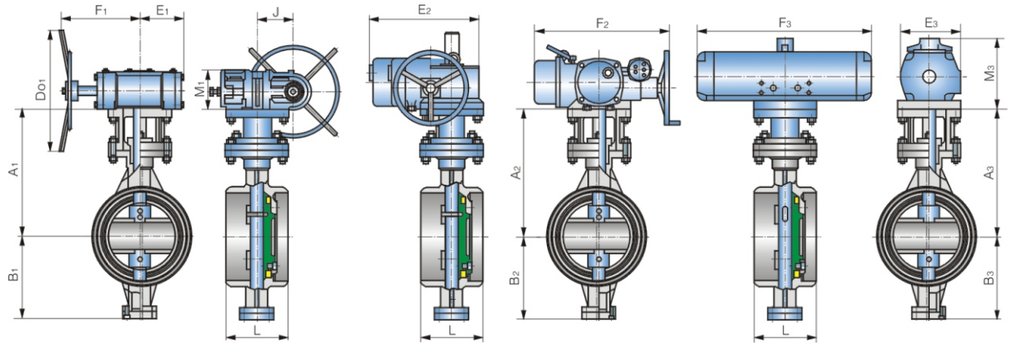
NPS	L*	Worm gear actuation				Electric				Pneumatic			Weight(kg)		
		H1	Ho1	E1	F1	H2	Ho2	E2	F2	H3	Ho3	A3	Worm gear	Electric	Pneumatic
3"	180	395	241	63	63	530	242	180	178	–	–	–	29	64	–
4"	190	355	205	63	63	552	204	180	178	–	–	–	39	76	–
5"	200	378	215	63	63	580	214	180	178	–	–	–	48	87	–
6"	210	430	260	84	84	610	259	180	178	–	–	–	54	100	–
8"	230	523	273	84	84	755	310	370	235	750	368	275	84	160	–
10"	250	600	315	108	108	816	340	370	235	909	442	378	118	225	–
12"	270	693	362	108	108	912	390	370	235	1075	535	530	170	338	–
14"	290	772	405	152	152	980	425	370	235	1158	572	530	231	399	–
16"	310	862	440	168	168	1057	460	370	235	1230	610	530	299	553	–
18"	330	960	525	192	192	1140	525	370	235	1462	736	680	390	644	–
20"	350	1158	603	237	237	1243	556	515	245	1328	765	680	499	885	–
24"	390	1320	693	237	237	1420	653	817	351	–	–	–	726	1149	–
26"	410	1447	875	269	269	1642	800	817	351	–	–	–	900	–	–
28"	430	1538	959	351	351	1812	904	817	351	–	–	–	1360	–	–
30"	450	1607	1095	351	351	1906	963	817	351	–	–	–	1429	–	–
32"	470	1721	1129	351	351	2021	1054	817	351	–	–	–	1757	–	–
34"	490	1790	1162	351	351	2089	1087	817	351	–	–	–	2000	–	–
36"	510	1862	1261	429	429	2327	1161	973	440	–	–	–	2223	–	–
40"	550	1986	1342	429	429	2451	1242	973	440	–	–	–	2531	–	–
42"	570	2100	1385	429	429	2515	1285	973	440	–	–	–	2781	–	–
44"	590	2175	1436	429	429	2565	1311	973	440	–	–	–	2979	–	–
46"	610	2219	1506	429	429	2609	1331	973	440	–	–	–	3116	–	–
48"	630	2303	1570	399	399	2697	1374	973	440	–	–	–	3602	–	–

Class600 mm

NPS	L*	Worm gear actuation				Electric				Pneumatic			Weight(kg)		
		H1	Ho1	E1	F1	H2	Ho2	E2	F2	H3	Ho3	A3	Worm gear	Electric	Pneumatic
3"	180	500	250	63	63	606	295	180	178	–	–	–	82	79	–
4"	190	595	340	63	63	650	358	180	178	–	–	–	125	96	–
5"	200	680	395	108	108	695	371	180	178	–	–	–	165	154	–
6"	210	730	423	152	152	713	387	180	178	–	–	–	191	172	–
8"	230	855	445	168	168	1055	417	370	235	–	–	–	247	248	–
10"	250	1002	536	192	192	1172	465	370	235	–	–	–	413	308	–
12"	270	1150	614	237	237	1392	546	515	245	–	–	–	576	467	–
14"	290	1200	674	237	237	1475	579	515	245	–	–	–	664	585	–
16"	310	1345	823	237	237	1557	643	540	360	–	–	–	971	807	–
18"	330	1397	841	269	269	1625	673	540	360	–	–	–	1117	1003	–
20"	350	1430	978	350	350	1679	701	540	360	–	–	–	1639	1139	–
24"	390	1582	1069	350	350	1834	775	540	360	–	–	–	2082	1767	–

Note: *Structural length to ISO5752 14 series.

Double Eccentric Welding Butterfly Valve



Worm Gear Butt–welded Butterfly Valve | Electric Butt–welded Butterfly Valve | Pneumatic Butt–wdlded Butterfly Valve

Main Outline Dimensions and Weight

PN0.6MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A1	B1	M1	E1	F1	J	Do1	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
80	180	203	125	75	90	205	83	200	203	125	475	505	203	125	93	282	110	27	42	29.5
100	190	208	130	75	90	205	83	200	208	130	475	505	208	130	93	282	110	34	46	36
125	200	218	140	75	90	205	83	200	218	140	475	505	218	140	115	344	140	41	48	46
150	210	285	155	95	90	205	83	200	285	155	475	505	285	155	115	344	140	43	53	51
200	230	320	180	95	90	205	83	200	320	180	475	505	320	180	150	450	187	81	84	80
250	250	349	220	95	90	205	83	200	349	220	475	505	349	220	290	762	270	102	124	122
300	270	398	250	115	90	205	83	200	398	250	475	505	398	250	290	762	270	132	138	142
350	290	417	275	115	90	205	83	250	417	275	475	505	417	275	330	900	305	164	176	192
400	310	455	315	134	90	205	83	250	455	315	475	505	455	315	370	1084	350	193	183	270
450	330	480	340	134	90	205	83	250	480	340	475	505	480	340	370	1084	350	238	270	310
500	350	512	375	159	120	265	141	250	512	375	566	505	512	375	405	1182	390	302	315	414
600	390	562	425	159	120	265	141	250	562	425	566	545	562	425	405	1182	390	415	421	484
700	430	636	490	163	185	250	115	315	636	490	615	545	636	490	500	1442	470	660	615	725
800	470	706	550	163	185	250	115	315	706	550	615	545	706	550	630	1865	500	780	705	825
900	510	756	600	185	185	250	115	315	756	600	820	520	756	600	–	–	–	820	825	–
1000	550	816	650	185	245	400	145	315	816	650	820	545	816	650	–	–	–	1265	1285	–
1200	630	944	775	220	310	460	191	400	944	775	945	545	944	775	–	–	–	1590	1655	–
1400	710	1084	895	220	310	460	191	400	1084	895	945	545	1084	895	–	–	–	2185	2255	–
1600	790	1204	1025	220	410	555	270	400	1204	1025	1140	545	1204	1025	–	–	–	3210	3330	–
1800	870	1395	1095	320	520	640	351	400	1395	1095	1337	545	1395	1095	–	–	–	4090	4350	–
2000	950	1449	1195	320	520	640	351	400	1449	1195	1337	545	1449	1195	–	–	–	5610	5680	–
2200	1000	1569	1325	320	520	640	351	400	1569	1325	1337	545	1569	1325	–	–	–	6410	6630	–
2400	1100	1704	1445	320	520	640	351	400	1704	1445	1377	715	1704	1445	–	–	–	7810	8255	–
2600	1190	1824	1565	335	450	785	440	630	1824	1565	1443	715	1824	1565	–	–	–	9450	9550	–
2800	1270	1944	1685	335	450	785	440	630	1944	1685	1443	845	1944	1685	–	–	–	10800	11030	–
3000	1350	2074	1815	335	450	785	440	630	2074	1815	1443	845	2074	1815	–	–	–	12200	12880	–

Note: Structural length to ISO5752 14 series.

Main Outline Dimensions and Weight

PN1.0MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{O1}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
80	180	203	125	75	90	205	83	200	203	125	475	505	203	125	93	282	110	–	–	–
100	190	208	130	75	90	205	83	200	208	130	475	505	208	130	93	282	110	–	–	–
125	200	218	140	75	90	205	83	200	218	140	475	505	218	140	115	344	140	–	–	–
150	210	285	155	95	90	205	83	200	285	155	475	505	285	155	115	344	140	58	73	–
200	230	320	180	95	90	205	83	200	320	180	475	505	320	180	150	450	187	76	91	–
250	250	349	220	95	90	205	83	200	349	220	475	505	349	220	290	762	270	115	130	–
300	270	398	250	115	90	205	83	200	398	250	475	505	398	250	290	762	270	145	165	–
350	290	417	275	115	90	205	83	250	417	275	475	505	417	275	330	900	305	185	205	–
400	310	455	315	134	90	205	83	250	455	315	566	505	455	315	370	1084	350	245	265	–
450	330	480	340	134	90	205	83	250	480	340	566	545	480	340	370	1084	350	315	335	–
500	350	512	375	159	120	265	141	250	512	375	615	545	512	375	405	1182	390	375	395	–
600	390	562	425	159	120	265	141	250	562	425	615	545	562	425	405	1182	390	510	530	–
700	430	636	490	163	185	250	115	315	636	490	820	520	636	490	500	1442	470	770	790	–
800	470	706	550	163	185	250	115	315	706	550	820	545	706	550	630	1865	500	1070	1090	–
900	510	756	600	185	185	250	115	315	756	600	945	545	756	600	–	–	–	1435	1455	–
1000	550	816	650	185	245	400	145	315	816	650	945	545	816	650	–	–	–	1745	1755	–
1200	630	944	775	220	310	460	191	400	944	775	1140	545	944	775	–	–	–	2725	2745	–
1400	710	1084	895	220	310	460	191	400	1084	895	1337	545	1084	895	–	–	–	3510	3550	–
1600	790	1204	1025	220	410	555	270	400	1204	1025	1337	545	1204	1025	–	–	–	4470	4510	–
1800	870	1395	1095	320	520	640	351	400	1395	1095	1337	545	1395	1095	–	–	–	4945	–	–
2000	950	1449	1195	320	520	640	351	400	1449	1195	1377	715	1449	1195	–	–	–	6230	–	–
2200	1000	1569	1325	320	520	640	351	400	1569	1325	1443	715	1569	1325	–	–	–	–	–	–
2400	1100	1704	1445	320	520	640	351	400	1704	1445	1443	845	1704	1445	–	–	–	–	–	–

PN1.6MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{O1}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
80	180	203	125	115	90	205	83	200	203	125	475	505	203	125	115	344	140	27	45	–
100	190	208	130	115	90	205	83	200	208	130	475	505	208	130	115	344	140	34	57	–
125	200	218	140	115	90	205	83	200	218	140	475	505	218	140	150	450	187	41	63	–
150	210	285	155	115	90	205	83	200	285	155	475	505	285	155	290	762	270	43	71	–
200	230	320	180	115	90	205	83	200	320	180	475	505	309	180	290	762	270	81	83	–
250	250	349	220	134	90	205	83	250	349	220	475	505	343	220	330	900	305	102	126	–
300	270	398	250	134	90	205	83	250	398	245	475	505	368	245	370	1084	350	132	151	–
350	290	417	275	159	120	265	141	250	417	275	566	505	401	275	370	1084	350	164	195	–
400	310	455	315	159	120	265	141	250	455	300	566	545	443	300	405	1182	390	193	273	–
450	330	480	340	163	185	250	115	315	480	340	615	545	469	340	405	1182	390	238	290	–
500	350	512	375	163	185	250	115	315	512	375	615	507	501	375	500	1442	470	302	414	–
600	390	562	425	185	245	400	145	315	562	440	820	545	606	440	630	1865	500	457	545	–
700	430	636	490	185	245	400	145	315	636	500	820	545	–	–	–	–	–	810	825	–
800	470	706	550	220	310	460	191	400	706	550	945	545	–	–	–	–	–	1093	1005	–
900	510	756	600	220	310	460	191	400	756	625	945	545	–	–	–	–	–	1410	1560	–
1000	550	816	650	255	410	555	270	400	816	690	1140	545	–	–	–	–	–	1870	1910	–
1200	630	944	775	255	410	555	270	400	944	795	1140	545	–	–	–	–	–	2082	2450	–
1400	710	1084	895	320	520	640	351	400	1084	945	1337	545	–	–	–	–	–	2850	3250	–
1600	790	1204	1025	320	520	640	440	630	1204	1065	1423	720	–	–	–	–	–	4235	4400	–
1800	870	1395	1095	335	520	785	440	630	1395	1095	1423	720	–	–	–	–	–	5346	5670	–
2000	950	1449	1195	335	520	785	440	630	1449	1195	1423	720	–	–	–	–	–	7328	7565	–
2200	1000	1569	1325	335	450	785	440	630	1569	1325	1423	720	–	–	–	–	–	–	–	–
2400	1100	1704	1445	335	450	785	440	630	1704	1445	1423	720	–	–	–	–	–	–	–	–

Note: Structural length to ISO5752 14 series.

Main Outline Dimensions and Weight

PN2.5MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{O1}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
80	180	203	125	115	90	205	83	200	203	125	475	505	203	125	150	450	187	20	54	–
100	190	208	130	115	90	205	83	200	208	130	475	505	208	130	290	762	270	23	55	–
125	200	218	140	115	90	205	83	200	218	140	475	505	218	140	290	762	270	38	64	–
150	210	285	155	115	90	205	83	200	285	155	475	505	285	155	330	900	305	65	71	–
200	230	317	195	134	90	205	83	250	317	195	475	505	317	195	370	1084	350	85	96	–
250	250	360	220	134	90	205	83	250	360	220	475	505	360	220	370	1084	350	135	145	–
300	270	395	250	159	120	265	141	250	395	250	566	505	395	250	405	1182	390	175	167	–
350	290	419	290	159	120	265	141	250	419	290	566	545	419	290	405	1182	390	195	220	–
400	310	468	325	163	185	250	115	315	468	325	615	545	468	325	500	1442	470	295	278	–
450	330	476	350	163	185	250	115	315	476	350	615	545	476	350	630	1865	500	350	380	–
500	350	556	390	185	245	400	145	315	556	390	820	545	556	390	–	–	–	510	496	–
600	390	644	450	185	245	400	145	315	644	450	820	545	644	450	–	–	–	625	705	–
700	430	684	500	220	310	460	191	400	684	500	945	545	684	500	–	–	–	925	1000	–
800	470	774	590	255	410	460	270	400	774	590	1140	545	774	590	–	–	–	1260	1190	–
900	510	844	645	255	410	555	270	400	844	645	1140	545	844	645	–	–	–	1790	1670	–
1000	550	894	695	255	410	555	270	400	894	695	1140	545	894	695	–	–	–	1940	2180	–
1200	630	1049	845	320	520	640	351	400	1049	845	1337	545	1049	845	–	–	–	2810	2980	–

PN4.0MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{O1}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
80	180	203	125	115	90	205	83	200	203	125	475	505	203	125	150	450	187	23	–	–
100	190	208	130	115	90	205	83	200	208	130	475	505	208	130	290	762	270	26	–	–
125	200	218	140	115	90	205	83	200	218	140	475	505	218	140	290	762	270	43	–	–
150	210	285	155	115	90	205	83	200	285	155	475	505	285	155	330	900	305	64	–	–
200	230	318	195	134	90	205	83	250	318	195	475	505	318	195	370	1084	350	74	116	–
250	250	353	225	159	120	265	141	250	353	225	566	505	353	225	370	1084	350	115	215	–
300	270	396	265	159	120	265	141	250	396	265	566	545	396	265	405	1182	390	165	263	–
350	290	426	300	162	185	250	115	315	426	300	615	545	426	300	405	1182	390	259	297	–
400	310	461	340	163	185	250	115	315	461	340	615	545	461	340	500	1442	470	325	477	–
450	330	486	365	185	245	400	145	315	486	365	820	545	486	365	630	1865	500	366	524	–
500	350	584	400	185	245	400	145	315	584	400	820	545	584	400	–	–	–	444	585	–
600	390	644	475	220	310	460	191	400	644	475	945	545	644	475	–	–	–	720	1000	–
700	430	724	540	255	410	555	270	400	724	540	1140	545	724	540	–	–	–	1250	1410	–
800	470	794	595	255	410	555	270	400	794	595	1140	545	794	595	–	–	–	1950	2110	–

Note: Structural length to ISO5752 14 series.

Main Outline Dimensions and Weight

Class150 mm

NPS	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A1	B1	M1	E1	F1	J	Do1	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
3"	180	295	135	115	84	198	84	200	295	135	513	467	295	135	115	344	140	48	55	–
4"	190	305	155	115	84	198	84	200	305	155	513	467	305	155	115	344	140	53	58	–
5"	200	322	167	115	84	198	84	200	322	167	513	467	322	167	126	390	175	58	63	–
6"	210	366	170	115	94	211	84	250	366	170	525	475	366	170	150	450	187	65	65	–
8"	230	396	198	134	117	267	145	250	396	198	580	470	396	198	280	762	270	90	85	–
10"	250	429	231	134	175	254	114	315	429	231	635	560	429	231	330	900	305	135	120	–
12"	270	483	269	159	175	254	114	315	483	269	705	560	483	269	405	1182	385	160	156	–
14"	290	498	297	159	239	404	145	315	498	297	765	615	498	297	405	1182	385	230	212	–
16"	310	579	333	163	239	404	145	315	579	333	825	615	579	333	405	1182	385	310	295	–
18"	330	630	366	163	239	404	191	315	630	366	875	820	630	366	445	1292	410	400	370	–
20"	350	655	394	163	300	465	191	400	655	394	930	820	655	394	445	1292	410	490	460	–
24"	390	744	452	185	300	465	191	400	744	452	1040	820	744	452	500	1442	465	710	640	–
26"	410	762	462	185	300	465	191	400	762	462	1100	820	762	462	500	1442	465	–	–	–
28"	430	790	511	185	300	465	191	400	790	511	1155	945	790	511	630	1865	500	980	1000	–
30"	450	815	536	220	300	559	269	400	815	536	1225	945	815	536	630	1865	500	1140	1160	–
32"	470	875	577	220	300	559	269	400	874	577	1275	945	874	577	630	1865	500	1550	1570	–
36"	510	899	602	255	300	559	269	400	899	602	1375	1145	899	602	–	–	–	1800	1820	–
40"	550	1064	696	255	300	559	269	400	1064	696	1490	1145	1064	696	–	–	–	2230	2250	–
42"	570	1092	721	255	300	559	335	400	1092	721	1550	1335	1092	721	–	–	–	2460	2456	–
44"	590	1148	731	255	300	572	335	400	1148	731	1600	1335	1148	731	–	–	–	2700	2720	–
46"	610	1179	762	320	300	572	335	400	1179	762	1655	1335	1179	762	–	–	–	–	–	–
48"	630	1270	800	320	300	572	335	400	1270	800	1715	1370	1270	800	–	–	–	3010	3030	–
52"	670	1314	850	320	425	572	365	500	1314	850	1835	1370	1314	850	–	–	–	4080	4100	–
54"	690	1355	870	320	425	635	365	500	1355	870	1920	1425	1355	870	–	–	–	–	–	–
56"	710	1384	895	320	425	635	365	500	1384	895	2005	1425	1384	895	–	–	–	4470	4490	–
60"	750	1504	1025	355	425	635	365	500	1504	1025	2115	1425	1504	1025	–	–	–	5080	5130	–

Note: Structural length to ISO5752 14 series.

Main Outline Dimensions and Weight

Class300 mm

NPS	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A1	B1	M1	E1	F1	J	Do1	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
3"	180	295	132	114	84	198	84	200	295	132	467	513	295	132	126	390	175	51	–	–
4"	190	358	150	114	84	198	84	200	358	150	467	513	358	150	150	450	187	66	–	–
5"	200	365	167	168	117	267	145	250	365	167	467	513	365	167	280	762	270	87	–	–
6"	210	389	188	163	175	254	114	315	389	188	564	523	389	188	330	900	305	110	–	–
8"	230	417	221	163	175	254	114	315	417	221	615	544	417	221	405	1182	385	198	–	–
10"	250	465	252	185	239	404	145	315	465	252	615	544	465	252	405	1182	385	227	–	–
12"	270	546	290	185	239	404	145	315	546	290	823	513	546	290	405	1182	385	386	–	–
14"	290	579	318	221	300	465	191	400	579	318	823	513	579	318	445	1292	410	429	–	–
16"	310	642	368	221	300	465	191	400	642	368	945	513	642	368	445	1292	410	624	–	–
18"	330	673	396	221	300	465	191	400	673	396	945	544	673	396	500	1442	465	745	–	–
20"	350	701	422	254	300	559	269	400	701	422	945	544	701	422	500	1442	465	856	–	–
24"	390	775	495	254	399	559	269	400	775	495	945	544	775	495	630	1865	500	1321	–	–
26"	410	800	518	305	399	648	269	400	800	518	945	544	800	518	630	1865	500	1400	–	–
28"	430	904	559	305	510	648	351	400	904	559	1158	826	904	559	630	1865	500	1980	–	–
30"	450	963	594	305	510	648	351	400	963	594	1158	826	963	594	–	–	–	2217	–	–
32"	470	1054	617	305	510	648	351	400	1054	617	1158	826	1054	617	–	–	–	2548	–	–
34"	490	1087	653	305	510	648	351	400	1087	653	1158	826	1087	653	–	–	–	2895	–	–
36"	510	1161	676	368	615	805	429	630	1161	676	1420	1039	1161	676	–	–	–	3568	–	–
40"	550	1242	719	368	615	805	429	630	1242	719	1420	1039	1242	719	–	–	–	3640	–	–
42"	570	1285	739	368	615	805	429	630	1285	739	1420	1039	1285	739	–	–	–	4028	–	–
44"	590	1310	764	368	615	805	429	630	1310	764	1420	1039	1310	764	–	–	–	4398	–	–
46"	610	1331	787	368	615	805	429	630	1331	787	1420	1039	1331	787	–	–	–	5004	–	–
48"	630	1374	833	434	765	965	399	630	1374	833	1730	1039	1374	833	–	–	–	5318	–	–

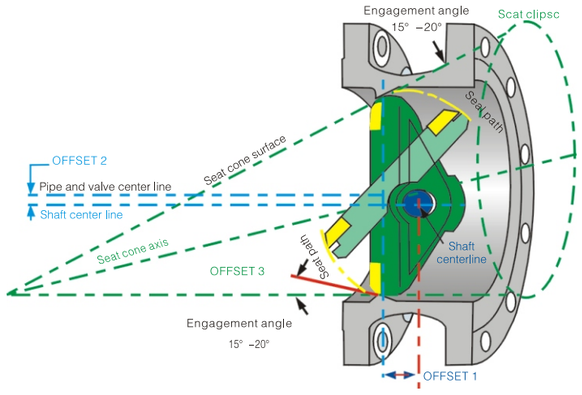
Class600 mm

NPS	L	Worm gear actuation							Electric				Pneumatic					Weight(kg)		
		A1	B1	M1	E1	F1	J	Do1	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
3"	180	343	127	135	94	211	81	250	343	127	564	523	343	127	330	900	305	75	–	–
4"	190	371	160	170	152	267	145	250	371	160	615	544	371	160	405	1182	385	117	–	–
5"	200	388	178	163	175	254	114	315	388	178	615	544	388	178	405	1182	385	154	–	–
6"	210	401	196	163	175	254	114	315	401	196	823	513	401	196	405	1182	385	186	–	–
8"	230	447	221	163	175	254	114	315	447	221	823	513	447	221	445	1292	410	235	–	–
10"	250	544	290	185	239	404	145	400	544	290	945	513	544	290	445	1292	410	398	–	–
12"	270	610	307	220	300	465	191	400	610	307	945	544	610	307	500	1442	465	554	–	–
14"	290	640	330	220	300	465	191	400	640	330	945	544	640	330	500	1442	465	654	–	–
16"	310	701	391	254	400	559	269	400	701	391	945	544	701	391	630	1865	500	935	–	–
18"	330	716	406	254	400	559	269	400	716	406	945	544	716	406	630	1865	500	1085	–	–
20"	350	828	452	305	510	645	351	400	828	452	1158	826	828	452	630	1865	500	1610	–	–
24"	390	920	513	305	510	645	351	400	920	513	1158	826	920	513	–	–	–	1998	–	–

Note: Structural length to ISO5752 14 series.

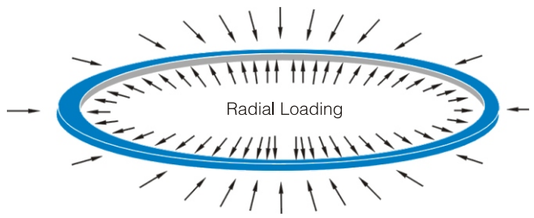
Design Characteristics of Triple Eccentric Butterfly Valve

The Triple Eccentric Geometry



The first eccentric, shaft deviated from the centerline of sealing face.
The second eccentric, shaft deviated from the centerline of pipe and valve.
The third eccentric, the distinctive included angle between oblique taper angle of eccentric seat and centerline of pipe, thus making the seat completely disengaged from the sealing ring during the whole process of open and close. This structure not only uses cam effect, but also eliminates the possibility of abrasion and leakage.

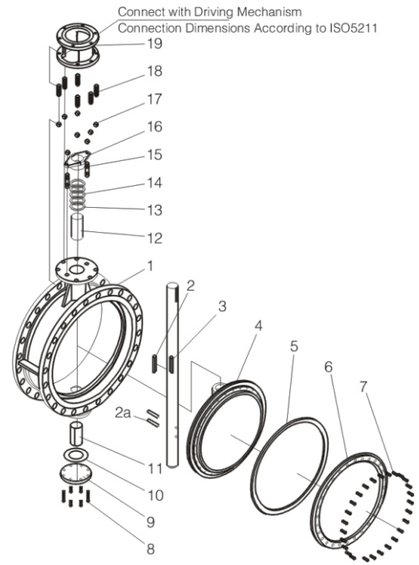
The zero leakage of our triple eccentric butterfly valve is implemented by the composite stainless steel sealing ring mounted on the disc. Zero leakage is implemented by the elastic sealing ring mounted on the disc. The elasticity of sealing ring (see fig.) is produced by its radial compression and flexibility. The contact surface between the sealing ring and seat is an oblique cone. The contact angle between them gives slight 'wedge effect', making the sealing ring producing flexibility and radial compression. The even contact between the seat and sealing ring, and the elasticity of sealing ring makes the load on the seat even, thus to perform closest cutoff by the lowest torque. The elasticity produced by the torque makes the valve closely cut off, regardless of the flow direction or pressure of medium.

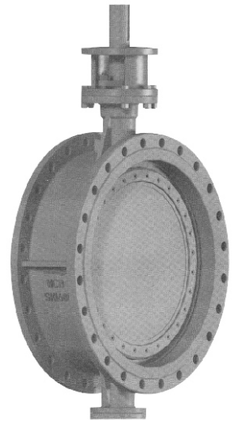


Characteristic

- Elastic property of composite metal sealing ring to perform zero leakage.
- Torque seal to ensure persistent two–way zero leakage.
- The design of right–angled rotation with zero friction is implemented by the distinctive triple eccentric principle. It eliminates the friction between the seat and sealing ring in 90° rotation.
- STL one–piece hard–surface seat may adapt to many working conditions, which is featured by long service life and easy maintenance.
- One–piece cast (sheet welded) body, face–to–face dimensions conforming to ISO5752, ASME B16.10 and API609, replacement to high performance butterfly valves and other types of valves, easy and flexible installation.
- Intrinsical fireproof property thanks to allmetal structure and leak–tight performance.
- Anti–blowout stem for high dependability, completely conforming to API609.
- The valve position indicator on the stem and the flange mounted at the top are in favor of the indication of disc position.
- The stem of triple eccentric butterfly valve is a shaft, stem and disc are connected by key or pin–key combination.

Triple Eccentric Butterfly Valve Structural Drawing





Materials List (Triple Eccentric Butterfly Valve)

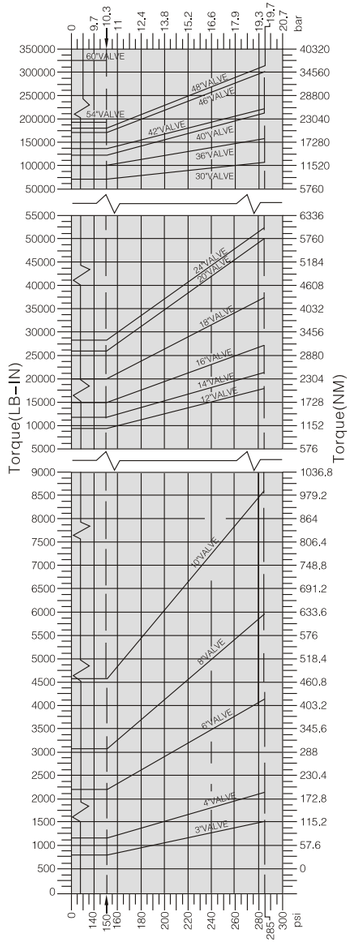
No.	Part Name	Materials	Optional Materials
1	Body	Cast Steel	SS, Monel
2	Key	SS	SS, Monel
2a	Pin	SS	Monel
3	Stem	SS	316, Monel
4	Disc	Cast Steel	SS, Monel
5	Seal Ring	PTFE+SS	SS+Graphite
6	Retainer Flange	Carbon Steel	SS, Monel
7	Bolt	B7	SS
8	Bolt	B7	SS
9	Cover	Carbon Steel	SS, Monel
10	Gasket	Graphite	Graphite
11	Bushing	PTFE+Bronze	Graphite
12	Bushing	PTFE+Bronze	Luberized Bronze
13	Packing Seat	SS	Luberized Bronze
14	Packing	Graphite	SS, Monel
15	Bolt	B7	PTFE
16	Packing Bushing	SS	SS
17	Nut	2H	SS
18	Bolt	B7	SS
19	Yoke	Carbon Steel	–

Type of Body Connection

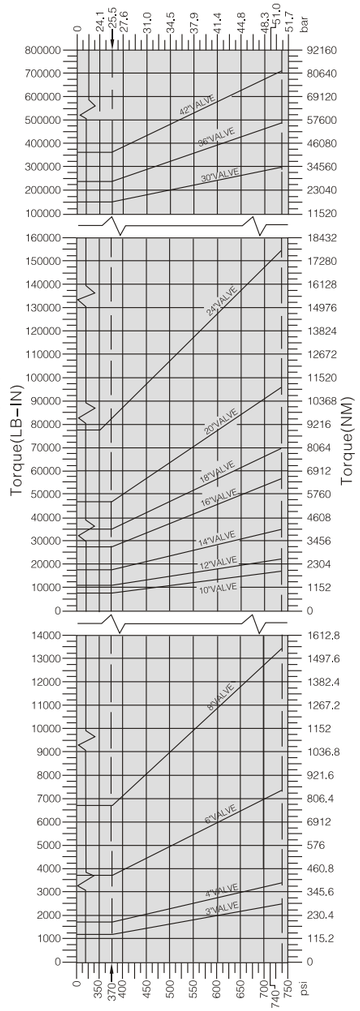
The connection between triple eccentric butterfly valve body and pipe can be double flanged, wafer and lug wafer.

Reference Moment Diagram of Triple Eccentric Butterfly Valve

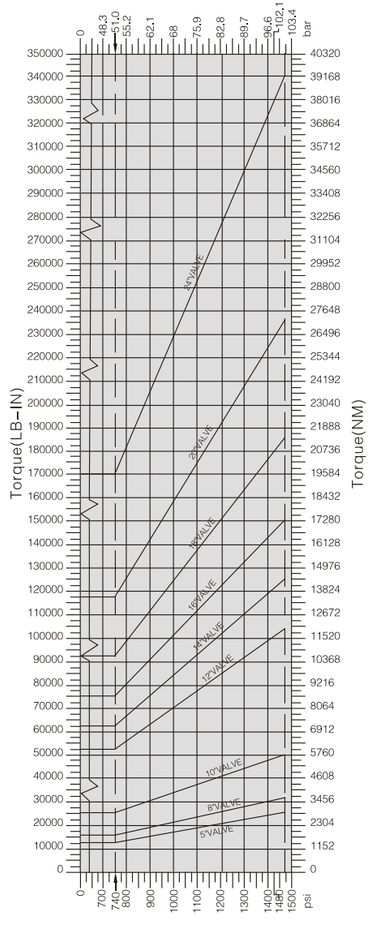
The following graphic torque is used for reference to choose the actuators of ANSI valves. According to the property of medium, trims and open–close frequency of valve shall be considered as extra factors.



Class150



Class300



Class600

Triple Eccentric Butterfly Valve Torques (NM)

Size		Pressure								
DN	NPS	PN0.6MPa	PN1.0MPa	PN1.6MPa	PN2.5MPa	PN4.0MPa	PN6.3MPa	285PSI	740PSI	1480PSI
50	2"	–	–	37	–	–	–	–	–	–
65	2½"	29	35	60	82	106	142	69	123	213
80	3"	34	57	81	102	148	290	174	271	460
100	4"	61	102	141	180	259	526	250	395	834
125	5"	104	165	228	289	412	641	283	548	979
150	6"	178	250	450	564	790	1060	473	825	2938
200	8"	201	400	601	800	1201	1567	674	1503	3616
250	10"	353	518	956	1250	1862	2697	983	1887	5649
300	12"	635	992	1352	1711	2428	3149	2022	2508	11863
350	14"	819	1623	2234	2844	4067	4855	2520	4158	14123
400	16"	1047	1944	2842	3738	5533	6473	3175	6271	17061
450	18"	1451	2451	3452	4412	6454	–	4239	7864	21015
500	20"	2043	3285	4527	5769	8253	–	5531	10361	26551
600	24"	2779	5548	6018	9495	13443	–	6011	17559	38415
700	28"	–	–	6890	–	–	–	–	–	–
750	30"	3230	6723	7700	16552	–	–	12654	33105	–
800	32"	–	–	8760	–	–	–	–	–	–
900	36"	5275	8474	9750	26438	–	–	18078	52877	–
1000	40"	6915	11717	13560	–	–	–	24179	–	–
1050	42"	8135	15253	16270	40110	34000	–	24857	80219	–
1200	48"	12540	20563	22360	38900	41900	–	36155	–	–
1350	54"	18300	21806	29977	–	–	–	–	–	–
1400	56"	24650	–	34900	–	–	–	–	–	–
1500	60"	26440	36155	43397	–	–	–	–	–	–
1600	64"	40850	–	48600	–	–	–	–	–	–
1800	72"	–	–	–	–	–	–	–	–	–
2000	80"	–	–	–	–	–	–	–	–	–
2200	88"	–	–	–	–	–	–	–	–	–
2400	96"	–	–	–	–	–	–	–	–	–
2600	104"	–	–	–	–	–	–	–	–	–
2800	112"	–	–	–	–	–	–	–	–	–
3000	120"	–	–	–	–	–	–	–	–	–

Flow Coefficients (Cv Values)

Flow coefficient is an index to measure the flow capacity of a valve. A higher value of flow coefficient means less pressure loss of fluid passing through the valve. The value of flow coefficient varies according to the dimensions, type and structure of valve. Valves of different types and specifications shall be tested separately to make sure of their values of flow coefficient. Regarding valves of the same structure, flow coefficient varies according to the flow direction of fluid through the valve. Generally, these differences are caused by different pressure recoveries.

The table below is the flow coefficient of double eccentric butterfly valve. used for reference to choose valve flow coefficient. 'Cv' stands for the American gallons flowing through the valve per minute under 1 pound/inch^2 (0.006894757MPa) pressure drop +60° F(+16℃) water.

Cv Values

Size		Pressure								
DN	NPS	PN0.6MPa	PN1.0MPa	PN1.6MPa	PN2.5MPa	PN4.0MPa	PN6.3MPa	Class150	Class300	Class600
50	2"	100	100	100	93	93	52	93	93	52
65	21/2"	133	133	133	133	133	78	133	133	78
80	3"	165	165	165	120	120	120	188	188	120
100	4"	400	400	400	230	230	230	343	343	228
125	5"	510	510	510	400	400	400	400	400	346
150	6"	1050	1050	1050	660	660	660	930	868	744
200	8"	2200	2200	2200	1500	1500	1500	1812	1678	1450
250	10"	3300	3300	3300	2400	2400	2400	2750	2500	2125
300	12"	5100	5100	5100	3600	3600	3600	3900	3510	2730
350	14"	5800	5800	5800	5500	5500	5500	5515	4942	4217
400	16"	9287	9287	9287	7600	7600	7600	8440	7596	6487
450	18"	11400	11400	11400	10300	10300	10300	11285	10394	8874
500	20"	14000	14000	14000	13000	13000	13000	14092	12965	11071
600	24"	21600	21600	21600	20200	20200	20200	20587	18962	16188
700	28"	30000	30000	30000	–	–	–	–	–	–
750	30"	34000	34000	34000	28245	28245	28245	33700	29600	–
800	32"	41000	41000	41000	–	–	–	–	–	–
900	36"	55500	55500	55500	47160	47160	47160	50470	42700	–
1000	40"	80000	80000	80000	–	–	–	64000	–	–
1050	42"	–	–	–	64190	64190	64190	71100	58100	–
1200	48"	–	–	–	83840	83840	83840	95740	–	–
1350	54"	–	–	–	–	–	–	120750	–	–
1400	56"	–	–	–	–	–	–	–	–	–
1500	60"	–	–	–	–	–	–	147000	–	–

Triple Eccentric Butterfly Valve Product Line

Size		Pressure								
DN	NPS	PN0.6MPa	PN1.0MPa	PN1.6MPa	PN2.5MPa	PN4.0MPa	PN6.3MPa	Class150	Class300	Class600
50	2"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
65	21/2"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
80	3"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
100	4"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
125	5"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
150	6"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
200	8"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
250	10"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
300	12"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
350	14"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
400	16"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
450	18"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
500	20"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
600	24"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆	△/★/☆
700	28"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
750	30"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
800	32"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
900	36"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
1000	40"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
1050	42"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
1200	48"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
1400	56"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
1500	60"	△/★/☆	△/★/☆	△/★/☆	△/★/☆	–	–	△/★/☆	–	–
1600	64"	△/★/☆	△/★/☆	△/★/☆	–	–	–	–	–	–
1800	72"	△/★/☆	△/★/☆	△/★/☆	–	–	–	–	–	–
2000	80"	△/★/☆	△/★/☆	△/★/☆	–	–	–	–	–	–
2200	88"	△/★/☆	–	–	–	–	–	–	–	–
2400	96"	△/★/☆	–	–	–	–	–	–	–	–
2600	104"	△/★/☆	–	–	–	–	–	–	–	–
2800	112"	△/★/☆	–	–	–	–	–	–	–	–
3000	120"	△/★/☆	–	–	–	–	–	–	–	–

Note: ●stands for handle operated valves; ☆stands for gearbox operated valves; △stands for air operated valves; ★stands for electrically operated valves; / stands for no option of this. Those not covered in the table can be custom made to users' requirements.

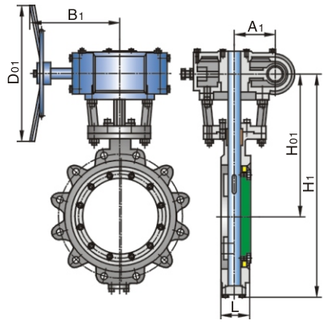
Technical Specification

Design Standard		GB/T12238/EN593/DIN/GOST					API609		
Pressure–Temperature Rating		GB/T12224/DIN/GOST					API609、ASME B16.34		
Face–Face		GB/T12221					API609、ISO5752、ASME B16.10		
Flange Ends		GB/T9113、DIN3202、EN1092、GOST12815					ASME B16.5\B16.47		
Inspection & Test		JB/T9092、GB/T13927、DIN3230、EN598					API598		
Nominal Pressure (MPa)		1.0	1.6	2.5	4.0	6.3	Class150	Class300	Class600
Test Pressure (MPa)	Shell Test	1.5	2.4	3.75	6.0	9.45	2.93	7.58	15.0
	High Pressure Seal Test	1.1	1.76	2.75	4.4	6.93	2.07	5.52	11.03
	Low Pressure Seal Test	0.6							
Applicable Temperature		–46℃~550℃ Different raw material for different work temperature							
Applicable Medium		Water, oil, gas and other causticity medium (Different raw material for different medium)							

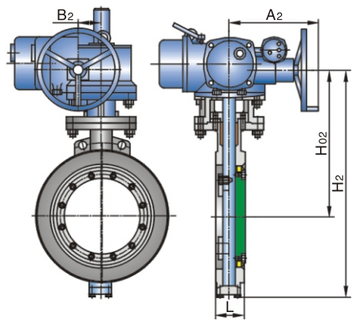
Note: The experimental value of pressure in the table is subject to the pressure and temperature rating of WCB.

Triple Eccentric Butterfly Valve

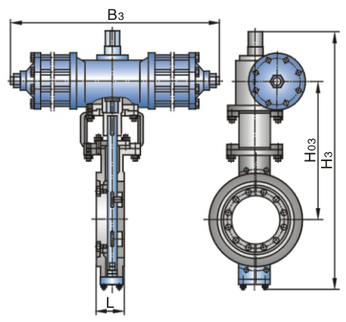
Triple Eccentric Wafe Butterfly Valve



Worm Gear Lug Wafer Butterfly Valve



Electric Wafer Butterfly Valve



Pneumatic Wafer Butterfly Valve

Main Outline Dimensions and Weight

PN0.6MPa mm

DN	L		Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
50	43	43	–	–	–	266	143	106	50	160	–	–	–	–	4.5	5.5
65	46	46	–	–	–	290	178	140	63	180	–	–	–	–	5	7
80	49	64	–	–	–	320	185	140	63	180	320	185	178	180	9	9
100	56	64	–	–	–	342	193	140	63	240	340	198	178	180	11	14
125	64	70	–	–	–	378	219	140	63	240	340	205	178	180	–	–
150	70	76	–	–	–	415	246	140	63	240	415	241	178	180	17	20
200	71	89	695	325	275	470	298	170	84	300	512	263	235	370	25	31
250	76	114	750	355	275	535	328	170	84	300	570	292	235	370	40	48
300	83	114	935	475	378	606	365	200	108	400	668	340	235	370	61	79
350	92	127	1000	510	378	695	408	200	108	400	745	385	235	370	82	107
400	102	140	1145	590	378	755	446	240	128	400	827	425	235	370	122	150
450	114	152	1205	632	530	815	475	330	152	600	915	462	235	370	150	183
500	127	152	1256	665	530	905	525	370	168	600	995	500	235	370	204	254
600	154	178	1526	830	530	1050	610	370	320	600	1183	605	245	515	300	398
700	165	229	1640	903	530	1276	795	515	237	800	1460	734	245	515	462	–
800	190	241	1786	972	680	1384	837	515	237	800	1589	803	245	515	570	–
900	203	241	1917	1052	680	1500	885	515	237	800	1856	990	360	540	762	771
1000	216	300	2600	1170	680	1620	946	570	785	600	1958	1050	360	540	975	1179
1200	254	360	–	–	–	2185	1165	570	785	600	2013	1165	360	540	1678	1927

Main Outline Dimensions and Weight

PN1.0MPa mm

DN	L		Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
50	43	43	–	–	–	266	143	106	50	160	–	–	–	–	4.5	5.5
65	46	46	–	–	–	290	178	140	63	180	–	–	–	–	5	7
80	49	64	–	–	–	320	185	140	63	180	320	185	178	180	9	9
100	56	64	–	–	–	342	193	140	63	240	340	198	178	180	11	14
125	64	70	–	–	–	378	219	140	63	240	340	205	178	180	–	–
150	70	76	–	–	–	415	245	140	63	240	415	241	178	180	17	20
200	71	89	695	325	275	470	298	170	84	300	512	263	235	370	25	31
250	76	114	750	355	275	535	328	170	84	300	570	292	235	370	40	48
300	83	114	935	475	378	606	365	200	108	400	668	340	235	370	61	79
350	92	127	1000	510	378	695	408	200	108	400	745	385	235	370	82	107
400	102	140	1145	590	378	755	446	330	144	400	827	425	235	370	122	150
450	114	152	1205	632	530	815	475	330	144	600	915	462	235	370	150	183
500	127	152	1256	665	530	905	525	370	220	600	995	500	235	370	204	254
600	154	178	1526	830	530	1050	610	370	220	600	1183	605	245	515	300	398
700	165	229	1640	903	530	1276	795	515	279	800	1460	734	245	515	462	–
800	190	241	1786	972	680	1384	837	515	279	800	1589	803	245	515	570	–
900	203	241	1917	1052	680	1505	885	515	279	800	1856	990	360	540	762	771
1000	216	300	2600	1170	680	1620	946	570	368	600	1958	1050	360	540	975	1179
1200	254	360	–	–	–	2185	1165	570	378	600	2013	1165	360	540	1678	1927

PN1.6MPa mm

DN	L		Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
50	43	43	–	–	–	266	143	106	50	160	–	–	–	–	4.5	5.5
65	46	46	–	–	–	290	175	140	63	160	–	–	–	–	7	7
80	49	64	–	–	–	320	185	140	63	160	513	265	178	180	9	9
100	56	64	–	–	–	342	195	140	63	160	538	282	178	180	20	11.5
125	64	70	–	–	–	365	209	140	63	300	560	295	178	180	23	17
150	70	76	–	–	–	415	243	140	63	300	605	300	178	180	29	22
200	71	89	695	327	275	510	263	150	84	400	749	321	235	370	40	39
250	76	114	750	355	275	567	295	150	84	400	803	330	235	370	50	47
300	83	114	955	472	378	665	342	200	108	600	880	365	235	370	68	68
350	92	127	1033	515	378	739	385	200	108	600	960	410	235	370	105	138
400	102	140	1185	595	530	825	430	240	152	600	1032	445	235	370	163	190
450	114	152	1270	632	530	910	469	144	600	330	1118	487	235	370	205	230
500	127	152	1335	665	530	990	500	220	600	370	1190	520	235	370	270	265
600	154	178	1642	829	680	1210	618	220	600	370	1380	625	235	370	390	437
700	165	229	1785	905	680	1475	746	279	800	515	1582	745	245	515	465	740
800	190	241	1915	970	680	1600	810	279	800	515	1713	810	245	515	570	920
900	203	241	–	–	–	1870	1000	279	800	515	1870	875	360	540	701	1189
1000	216	300	–	–	–	2000	1065	368	600	570	2000	940	360	540	800	1220
1200	254	360	–	–	–	2215	1170	368	600	570	2118	1060	360	540	922	1680

Main Outline Dimensions and Weight

PN2.5MPa mm

DN	L		Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
50	43	43	–	–	–	266	143	106	50	160	–	–	–	–	6.3	6.3
65	46	46	–	–	–	290	175	140	63	160	–	–	–	–	9	9.2
80	49	64	–	–	–	513	265	140	63	160	552	265	178	180	11	11
100	56	64	–	–	–	538	282	140	63	300	585	290	178	180	25	15
125	64	70	–	–	–	560	295	140	63	300	610	305	178	180	33	17
150	70	76	–	–	–	605	300	140	63	400	765	315	178	180	47	22
200	71	89	695	327	275	749	321	170	84	400	820	304	235	370	52	39
250	76	114	750	355	275	803	330	170	84	600	910	336	235	370	65	47
300	83	114	955	472	378	880	365	200	108	600	1000	386	235	370	110	123
350	92	127	1033	515	378	960	410	200	108	600	1055	425	235	370	138	190
400	102	140	1185	595	530	1032	445	240	144	800	1108	456	235	370	190	230
450	114	152	1270	632	530	1118	487	330	144	600	1140	490	235	370	230	265
500	127	152	1335	665	530	1190	520	370	220	600	1238	552	235	370	265	390
600	154	178	1642	829	680	1380	625	370	220	600	1399	635	245	515	437	465
700	165	229	1785	905	680	1582	745	515	279	800	1611	750	360	540	470	740
800	190	241	1915	970	680	1713	810	515	279	800	1782	820	360	540	705	920
900	203	241	–	–	–	1870	875	515	279	800	1915	886	385	565	730	1189
1000	216	300	–	–	–	2000	940	570	368	600	2040	945	385	565	927	1220
1200	254	360	–	–	–	2118	1060	570	378	600	2184	1053	400	770	953	1680

PN4.0MPa mm

DN	L		Pneumatic			Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
80	49	64	–	–	–	395	245	143	80	300	530	240	178	180	11	11.5
100	56	64	–	–	–	356	205	200	108	400	555	205	178	180	25	29
125	64	70	–	–	–	375	213	200	108	400	582	215	178	180	33	38
150	70	76	–	–	–	439	260	200	108	600	609	260	235	370	47	51
200	71	89	750	375	275	520	275	330	140	600	755	275	235	370	55	67
250	76	114	905	445	378	600	315	330	140	600	818	315	235	370	70	70
300	83	114	1085	538	503	692	365	370	220	800	912	363	245	515	135	142
350	92	127	1160	576	503	776	408	370	220	800	983	406	245	515	203	227
400	102	140	1230	609	503	864	443	370	220	800	1058	440	245	515	245	268
450	114	152	1520	765	680	1128	525	512	279	400	1135	545	360	540	283	333
500	127	152	1335	665	530	1257	664	512	279	400	1245	600	360	540	405	520
600	154	178	–	–	–	1380	625	512	279	400	1414	663	360	540	591	645
700	165	229	–	–	–	1435	712	570	368	600	–	–	–	–	723	785
800	190	241	–	–	–	1518	782	570	368	600	–	–	–	–	846	935

Main Outline Dimensions and Weight

PN6.3MPa mm

DN	L		Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
80	49	64	388	192	63	140	400	543	242	178	180	11	11.5
100	56	64	395	205	63	140	400	578	204	178	180	25	29
125	64	70	420	225	84	150	600	607	214	178	180	33	38
150	70	76	498	265	108	200	600	659	259	235	370	47	56
200	71	89	540	292	152	240	600	795	285	235	370	70	94
250	76	114	638	328	168	300	800	885	325	235	370	103	141
300	83	114	725	372	192	320	800	1050	375	245	515	149	201
350	92	127	800	418	237	168	800	825	415	245	515	243	333
400	102	140	890	450	237	168	400	1205	452	245	515	318	401
450	114	152	1024	542	237	168	400	1335	545	360	540	431	575
500	127	152	1158	624	237	168	400	1470	625	360	540	472	708
600	154	178	1580	678	237	168	400	1582	675	360	540	825	1061

PN10.0MPa mm

DN	L		Worm gear actuation					Electric				Weight (kg)	
	Series 1	Series 2	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
80	49	64	388	192	63	140	400	608	108	178	180	11	11.5
100	56	64	395	205	63	140	400	648	108	178	180	25	29
125	64	70	420	225	84	150	600	692	120	178	180	33	38
150	70	76	498	265	108	200	600	740	135	235	370	47	56
200	71	89	540	292	152	240	600	1058	445	235	370	70	94
250	76	114	638	328	168	300	800	1175	536	235	370	103	141
300	83	114	725	372	192	320	800	1390	615	245	515	149	201
350	92	127	800	418	237	168	800	1475	675	245	515	243	333
400	102	140	890	450	237	168	400	1705	820	245	515	318	401
450	114	152	1024	542	237	168	400	1765	886	360	540	431	575
500	127	152	1158	624	237	168	400	1806	946	360	540	472	708
600	154	178	1580	678	237	168	400	1918	998	360	540	825	1061

Note: The weight in the table is that without drive unit. WF is wafer butterfly valve, and WL is lug wafer butterfly valve.

Main Outline Dimensions and Weight

Class150 mm

NPS	L	Pneumatic			Worm gear actuation					Electric				Weight (kg)	
		H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
3"	49	–	–	–	320	185	140	63	160	513	263	178	180	9	9
4"	54	–	–	–	342	195	140	63	160	535	282	178	180	11	14
5"	57	–	–	–	365	209	140	63	300	563	293	178	180	15	18
6"	58	–	–	–	415	243	140	63	300	602	322	178	180	17	20
8"	64	690	323	275	510	263	150	84	400	745	296	235	370	25	31
10"	71	750	355	275	567	295	150	84	400	805	325	235	370	40	49
12"	81	955	475	378	665	342	200	108	600	883	365	235	370	61	79
14"	92	1032	513	378	739	385	200	108	600	965	408	235	370	82	107
16"	102	1182	598	530	825	430	240	152	600	1033	443	235	370	123	150
18"	114	1265	635	530	910	469	240	152	800	1120	485	235	370	150	182
20"	127	1335	667	530	990	500	300	168	800	1186	518	235	370	204	253
24"	154	1642	830	680	1210	618	320	192	800	1380	625	235	370	300	398
30"	167	1823	1245	680	1453	875	512	279	400	1583	1005	245	515	454	490
36"	184	2145	1329	860	1775	939	512	279	400	1905	1089	245	515	762	771
40"	217	2235	1488	860	1857	1005	512	279	400	2010	1110	360	540	975	1179
42"	222	2360	1456	860	1980	1086	512	279	400	2120	1216	360	540	1234	1338
46"	254	2445	1505	1080	2070	1110	570	368	600	2175	1260	360	540	1451	1724
48"	254	2535	1564	1080	2165	1194	570	368	600	2235	1324	360	540	1678	1928
54"	305	–	–	–	2382	1477	630	425	800	2412	1503	445	628	2223	2631
60"	333	–	–	–	2684	1617	630	425	800	2699	1687	445	628	2903	3447

Class300 mm

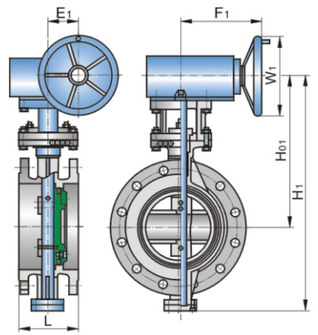
NPS	L	Pneumatic			Worm gear actuation					Electric				Weight (kg)	
		H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
3"	49	–	–	–	320	185	140	63	160	513	263	178	180	13.5	15.5
4"	54	–	–	–	342	195	140	63	160	535	282	178	180	18	21
5"	57	–	–	–	365	209	140	63	300	563	293	178	180	24	28
6"	59	–	–	–	415	243	140	63	300	602	322	178	180	28	34
8"	73	750	368	275	510	263	150	84	400	745	296	235	370	49	60
10"	83	909	442	378	567	295	150	84	400	805	325	235	370	68	88
12"	92	1075	535	530	665	342	200	108	600	883	365	235	370	109	117
14"	117	1158	572	530	739	385	200	108	600	965	408	235	370	186	207
16"	133	1230	610	530	825	430	240	152	600	1033	443	235	370	264	308
18"	149	1462	736	680	910	469	240	152	800	1120	485	235	370	297	408
20"	159	1328	765	680	990	500	300	168	800	1186	518	235	370	363	468
24"	181	–	–	–	1210	618	320	192	800	1380	625	235	370	454	748
30"	254	–	–	–	1937	1180	512	279	600	1516	716	360	540	816	1338
36"	305	–	–	–	2198	1298	570	368	600	1669	794	360	540	1429	2154
42"	324	–	–	–	2318	1358	570	368	600	1914	914	360	540	2155	2427

Class600 mm

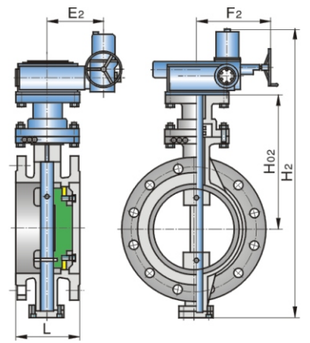
NPS	L	Pneumatic			Worm gear actuation					Electric				Weight (kg)	
		H_3	H_{03}	B_3	H_1	H_{01}	B_1	A_1	D_{01}	H_2	H_{02}	B_2	A_2	WF	WL
6"	78	–	–	–	415	243	140	63	300	602	322	178	180	45	56
8"	102	750	368	275	510	263	150	84	400	745	296	235	370	70	94
10"	117	909	442	378	567	295	150	84	400	805	325	235	370	103	141
12"	140	1075	535	530	665	342	200	108	600	883	365	235	370	149	201
14"	155	1158	572	530	739	385	200	108	600	965	408	235	370	243	333
16"	178	1230	610	530	825	430	240	152	600	1033	443	235	370	318	401
18"	200	–	–	–	910	469	240	152	800	1120	485	235	370	431	575
20"	216	–	–	–	990	500	300	168	800	1186	518	235	370	472	708
24"	232	–	–	–	1210	618	320	192	800	1380	625	235	370	826	1061

Note: The weight in the table is that without drive unit. WF is wafer butterfly valve, and WL is lug wafer butterfly valve.

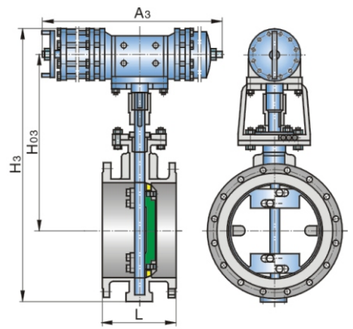
Triple Eccentric Flange Butterfly Valve



Worm Gear Flanged Butterfly Valve



Electric Flanged Butterfly Valve



Pneumalic Flanged Butterfly Valve

Main Outline Dimensions and Weight

PN0.6MPa mm

DN	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
50	108	293	218	32	130	160	316	195	156	126	–	–	–	12
65	112	313	228	32	130	160	336	205	156	126	–	–	–	13
80	114	333	238	32	130	180	353	215	156	126	–	–	–	15
100	127	345	255	50	150	180	380	220	168	126	–	–	–	17
125	140	370	270	50	150	200	413	235	168	126	–	–	–	27
150	140	425	305	62	150	200	466	275	250	126	–	–	–	29
200	152	488	362	62	150	350	554	310	250	175	695	325	275	45
250	165	575	410	80	160	350	630	365	250	175	750	355	275	69
300	178	642	444	80	160	400	693	400	290	268	935	475	378	86
350	190	731	492	94	185	400	771	460	290	268	1000	510	378	122
400	216	786	522	94	185	600	837	490	290	268	1145	590	378	129
450	222	844	552	94	185	600	892	520	290	268	1205	632	530	200
500	229	945	606	132	232	600	973	590	290	268	1256	665	530	235
600	267	1060	666	132	232	800	1098	650	410	460	1526	830	530	291
700	292	1222	726	185	295	800	1252	750	410	460	1640	903	530	382
800	318	1340	862	185	295	400	1376	810	305	610	1786	972	680	480
900	330	1391	915	234	354	400	1417	905	305	610	1917	1052	680	627
1000	410	1596	1020	234	354	400	1575	960	385	650	2015	1210	1770	886
1200	470	1861	1075	296	354	400	1734	1115	385	650	2235	1360	1770	1197
1400	530	2066	1235	296	426	600	1908	1220	535	745	2476	1476	1890	1736
1600	600	2397	1355	410	426	600	2121	1410	535	745	2601	1599	1960	2527
1800	670	2674	1600	410	550	600	2512	1515	660	820	–	–	–	3311
2000	950	2901	1725	506	550	600	2857	1710	660	820	–	–	–	4102
2200	1000	3119	1970	506	666	800	3124	1820	825	920	–	–	–	5047
2400	1110	3324	2080	506	666	800	3375	1925	825	920	–	–	–	6377
2600	1190	3780	2351	568	762	800	3830	2100	825	920	–	–	–	7000
2800	1270	3933	2425	568	762	800	4100	2235	825	920	–	–	–	8120
3000	1350	4380	2600	568	762	800	4410	2370	825	920	–	–	–	9520

Note: Structural length of valves in the table: DN < 2000, to ISO5752 13 series; DN ≥ 2000, to ISO5752 14 series.

Main Outline Dimensions and Weight

PN1.0MPa mm

DN	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
50	108	295	195	32	125	160	316	218	156	126	–	–	–	12
65	112	313	205	32	125	180	336	228	156	126	–	–	–	13
80	114	330	215	32	125	180	353	238	156	126	–	–	–	15
100	127	350	225	32	150	200	380	255	168	126	–	–	–	17
125	140	408	265	44	160	200	413	270	168	126	–	–	–	27
150	140	446	285	44	160	350	466	305	250	126	–	–	–	29
200	152	527	345	64	170	350	554	362	250	175	740	367	275	45
250	165	595	375	64	170	400	630	410	250	175	900	443	378	69
300	178	679	430	64	190	400	693	444	290	268	990	493	378	86
350	190	744	465	94	190	600	771	492	290	268	1155	575	378	122
400	216	855	540	94	190	600	837	522	290	268	1205	600	530	150
450	222	910	570	132	230	600	892	552	290	268	1290	643	530	214
500	229	972	605	132	230	800	973	606	290	268	1395	705	530	263
600	267	1137	705	185	275	800	1098	666	410	460	1665	838	530	333
700	292	1255	765	185	275	400	1252	762	410	460	1882	942	680	473
800	318	1425	870	234	320	400	1575	1020	305	610	2093	1066	680	655
900	330	1531	925	234	320	400	1734	1075	305	610	2175	1210	1480	844
1000	410	1708	1035	296	370	400	1908	1235	385	650	2245	1275	1560	1078
1200	470	1941	1155	296	370	600	2121	1355	385	650	2375	1385	1830	1729
1400	530	2263	1350	410	475	600	2512	1600	535	745	2530	1510	1890	2247
1600	600	2507	1475	410	475	600	2857	1725	535	745	2779	1639	1960	3059
1800	670	2824	1670	506	570	600	3124	1970	660	820	–	–	–	3717
2000	950	3075	1780	506	570	800	3375	2080	660	820	–	–	–	4480
2200	1000	3481	2051	636	660	800	3780	2351	825	920	–	–	–	5880
2400	1110	3705	2125	636	660	800	3933	2425	825	920	–	–	–	7140

Note: Structural length of valves in the table: DN < 2000, to ISO5752 13 series; DN ≥ 2000, to ISO5752 14 series.

Main Outline Dimensions and Weight

PN1.6MPa mm

DN	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
50	108	290	175	32	125	160	316	218	156	126	–	–	–	19
65	112	295	195	63	140	180	336	228	156	126	–	–	–	22
80	114	320	185	63	140	180	513	265	178	180	–	–	–	32
100	127	342	195	63	140	200	538	282	178	180	–	–	–	36
125	140	365	209	63	140	200	560	295	178	180	–	–	–	39
150	140	415	243	63	140	350	605	300	178	180	–	–	–	43
200	152	510	263	84	150	350	749	321	235	370	695	327	275	57
250	165	567	295	84	150	400	803	330	235	370	750	355	275	88
300	178	665	342	108	200	400	880	365	235	370	955	472	378	109
350	190	739	385	108	200	600	960	410	235	370	1033	515	378	144
400	216	825	430	152	240	600	1032	445	235	370	1185	595	530	200
450	222	910	469	152	240	600	1118	487	235	370	1270	632	530	238
500	229	990	500	168	300	800	1190	520	235	370	1335	665	530	326
600	267	1210	618	192	320	800	1380	625	235	370	1642	829	530	466
700	292	1475	746	338	237	400	1582	745	245	515	1785	905	680	592
800	318	1600	810	338	237	400	1713	810	245	515	1915	970	680	917
900	330	1870	1000	530	785	400	1870	875	360	540	1964	1239	140	1078
1000	410	2000	1065	530	785	400	2000	940	360	540	2096	1306	1770	1393
1200	470	2215	1170	530	785	600	2118	1060	360	540	2333	1418	1830	1855
1400	530	2430	1319	650	865	600	2328	1325	385	565	2591	1546	1890	2457
1600	600	2700	1443	650	865	600	2550	1450	385	565	2908	1738	2210	3360
1800	670	2938	1595	650	865	600	2816	1598	300	770	–	–	–	–
2000	950	3210	1743	650	865	800	3065	1743	684	794	–	–	–	–
2200	1000	3481	2051	636	660	800	3780	2351	825	920	–	–	–	–
2400	1110	3705	2125	636	660	800	3933	2425	825	920	–	–	–	–

Note: Structural length of valves in the table: DN < 2000, to ISO5752 13 series; DN ≥ 2000, to ISO5752 14 series.

Main Outline Dimensions and Weight

PN2.5MPa mm

DN	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
50	108	290	175	63	140	180	316	218	156	126	–	–	–	19
65	112	295	195	63	140	200	336	228	156	126	–	–	–	22
80	114	320	185	63	140	200	552	265	178	180	–	–	–	32
100	127	350	200	63	140	350	585	290	178	180	–	–	–	36
125	140	375	210	63	140	350	610	305	178	180	–	–	–	39
150	140	425	245	84	150	400	765	315	178	180	–	–	–	42
200	152	526	270	84	150	400	820	304	235	370	740	367	275	67
250	165	590	302	108	200	600	910	336	235	370	890	443	378	98
300	178	695	360	108	200	600	1000	386	235	370	985	495	378	116
350	190	789	420	152	240	600	1055	425	235	370	1155	575	530	175
400	216	848	435	152	240	800	1108	456	235	370	1206	603	530	228
450	222	943	475	168	300	800	1140	490	235	370	1284	643	530	312
500	229	1079	550	192	320	400	1238	552	235	370	1390	705	535	354
600	267	1352	675	338	237	400	1399	635	245	515	1660	835	680	515
700	292	1495	759	338	237	400	1611	750	360	540	–	–	–	686
800	318	1640	835	530	785	400	1782	820	360	540	–	–	–	1155
900	330	1765	886	530	785	600	1915	886	385	565	–	–	–	1337
1000	410	1885	945	530	785	600	2040	945	385	565	–	–	–	1617
1200	470	2100	1055	650	865	600	2184	1053	300	770	–	–	–	2247
1400	530	2325	1163	650	865	600	2375	1164	684	794	–	–	–	–

PN4.0MPa mm

DN	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
50	108	350	238	63	140	350	354	238	178	180	625	513	250	–
65	112	370	255	84	150	400	389	255	178	180	625	510	250	–
80	114	380	260	84	150	400	530	260	235	370	645	525	250	–
100	127	420	298	108	200	600	555	298	235	370	675	537	250	–
125	140	460	325	108	200	600	582	325	235	370	715	551	450	–
150	140	555	380	152	240	600	609	350	235	370	800	625	450	–
200	152	760	460	152	240	800	755	385	235	370	850	650	450	84
250	165	830	587	168	300	800	818	437	235	370	925	682	450	158
300	178	895	645	192	320	400	912	485	235	370	1035	785	650	200
350	190	950	670	338	237	400	983	580	245	515	1070	790	650	235
400	216	1190	810	338	237	400	1058	600	360	540	1190	840	650	382
450	222	1225	850	338	237	400	1245	610	360	540	–	–	–	427
500	229	1285	857	530	785	600	1325	660	385	565	–	–	–	511
600	267	1357	885	530	785	600	1414	710	385	565	–	–	–	826

Note: Structural length of valves in the table: DN < 2000, to ISO5752 13 series; DN ≥ 2000, to ISO5752 14 series.

Main Outline Dimensions and Weight

PN6.3MPa mm

DN	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
80	180	388	263	84	150	400	530	260	235	370	645	525	250	29
100	190	435	302	108	200	600	555	298	235	370	675	537	250	39
125	200	467	329	108	200	600	582	325	235	370	715	551	450	46
150	210	565	388	152	240	600	609	350	235	370	800	625	450	54
200	230	768	469	152	240	800	755	385	235	370	850	650	450	84
250	250	839	602	168	300	800	818	437	235	370	925	682	450	109
300	270	906	649	192	320	400	912	485	235	370	1035	785	650	157
350	290	959	679	338	237	400	983	580	245	515	1070	790	650	214
400	310	1205	816	338	237	400	1058	600	360	540	1190	840	650	276
450	330	1245	858	338	237	400	1245	610	360	540	–	–	–	360
500	350	1305	867	530	785	600	1325	660	385	565	–	–	–	460
600	390	1365	895	530	785	600	1414	710	385	565	–	–	–	670

PN10.0MPa mm

DN	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
80	180	388	263	84	150	400	530	260	235	370	645	525	250	32
100	190	435	302	108	200	600	555	298	235	370	675	537	250	43
125	200	467	329	108	200	600	582	325	235	370	715	551	450	51
150	210	565	388	152	240	600	609	350	235	370	800	625	450	59
200	230	768	469	152	240	800	755	385	235	370	850	650	450	82
250	250	839	602	168	300	800	818	437	235	370	925	682	450	120
300	270	906	649	192	320	400	912	485	235	370	1035	785	650	172
350	290	959	679	338	237	400	983	580	245	515	1070	790	650	235
400	310	1205	816	338	237	400	1058	600	360	540	1190	840	650	305
450	330	1245	858	338	237	400	1245	610	360	540	–	–	–	396
500	350	1305	867	530	785	600	1325	660	385	565	–	–	–	506
600	390	1365	895	530	785	600	1414	710	385	565	–	–	–	737

Class150 mm

NPS	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	
3"	114	472	350	50	203	203	513	263	180	178	–	–	–	15.4
4"	127	520	386	60	191	203	535	282	180	178	–	–	–	23
5"	140	580	395	60	215	250	563	293	180	178	–	–	–	29
6"	140	653	475	67	289	305	602	322	180	178	–	–	–	33
8"	152	773	565	67	308	460	745	296	370	235	690	323	275	50
10"	165	880	640	86	346	460	805	325	370	235	750	355	275	73
12"	178	989	711	111	403	610	883	365	370	235	955	475	378	108
14"	190	1044	760	60	601	356	965	408	370	235	1032	513	378	143
16"	216	1142	826	60	605	457	1033	443	370	235	1182	598	530	186
18"	222	1228	887	60	652	610	1120	485	370	235	1265	635	530	234
20"	229	1337	959	60	805	762	1186	518	370	235	1335	667	530	277
24"	267	1554	1109	103	763	762	1380	625	370	235	1642	830	680	408
28"	292	1456	956	245	400	315	1587	745	515	245	1711	859	680	653
30"	308	1541	991	310	460	400	1650	777	515	245	1782	910	680	816
32"	318	1611	1036	310	460	400	1717	810	515	245	1856	942	680	914
36"	330	1743	1103	410	480	400	1870	875	540	360	1920	975	680	1157
40"	410	1868	1173	410	480	400	2030	965	540	360	–	–	–	1610
44"	450	1968	1223	410	480	400	2078	1022	540	360	–	–	–	2160
48"	470	2145	1320	520	640	400	2188	1100	540	360	–	–	–	2359
52"	490	2300	1405	520	640	400	2214	1150	565	385	–	–	–	2720
56"	530	2440	1475	520	640	400	2328	1325	565	385	–	–	–	3353
60"	570	2594	1559	450	785	630	2530	1515	565	385	–	–	–	3629

Note: Structural length of valves in the table: DN < 2000, to ISO5752 13 series; DN ≥ 2000, to ISO5752 14 series.

Main Outline Dimensions and Weight

Class300 mm

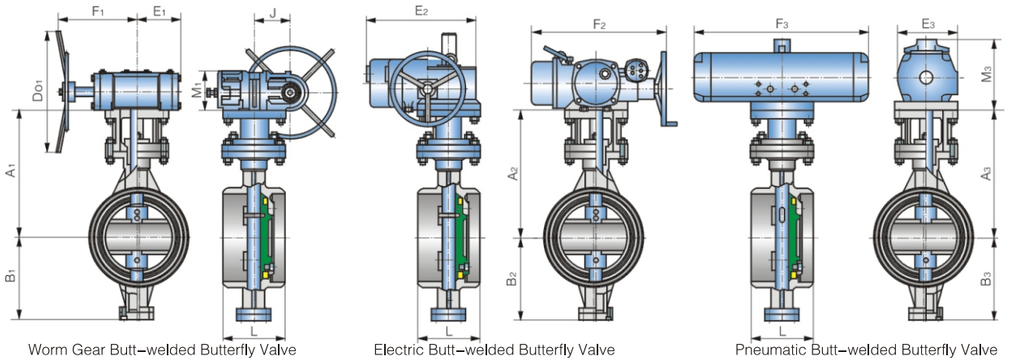
NPS	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)		
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	Worm gear	Electric	Pneumatic
2"	108	365	237	35	169	152	407	237	180	178	–	–	–	19	27	–
3"	114	378	253	73	229	152	530	253	180	178	–	–	–	29	43	–
4"	127	421	274	73	229	305	552	274	180	178	–	–	–	39	51	–
5"	140	482	312	73	229	305	580	312	180	178	–	–	–	48	58	–
6"	140	543	351	108	254	305	610	351	180	178	–	–	–	54	67	–
8"	152	628	392	108	254	305	755	392	370	235	750	368	275	84	107	–
10"	165	855	480	133	305	610	816	480	370	235	909	442	378	118	150	–
12"	178	812	515	133	305	610	912	515	370	235	1075	535	530	170	225	–
14"	191	885	555	194	356	610	980	555	370	235	1158	572	530	231	266	–
16"	216	951	590	194	356	356	1057	590	370	235	1230	610	530	299	369	–
18"	225	1106	636	194	356	356	1140	636	370	235	1462	736	680	390	429	–
20"	229	1308	685	194	356	356	1243	685	515	245	1328	765	680	499	590	–
24"	267	1445	934	165	686	686	1420	934	817	351	–	–	–	726	766	–
28"	292	1495	1039	165	686	686	1812	1039	817	351	–	–	–	1360	–	–
30"	292	1535	1060	165	686	686	1906	1060	817	351	–	–	–	1429	–	–
32"	318	1575	1120	165	686	686	2021	1120	817	351	–	–	–	1757	–	–
36"	330	1605	1190	165	686	686	2327	1190	973	440	–	–	–	2223	–	–
40"	410	1755	1234	165	686	686	2451	1234	973	440	–	–	–	2531	–	–
42"	430	2100	1385	429	805	903	2515	1385	973	440	–	–	–	2781	–	–
44"	450	2175	1436	429	805	903	2565	1436	973	440	–	–	–	2979	–	–
48"	470	2303	1570	399	965	903	2697	1570	973	440	–	–	–	3602	–	–

Class600 mm

NPS	L	Worm gear actuation					Electric				Pneumatic			Weight (kg)		
		H_1	H_{01}	E_1	F_1	W_1	H_2	H_{02}	E_2	F_2	H_3	H_{03}	A_3	Worm gear	Electric	Pneumatic
3"	180	541	414	63	140	250	606	295	180	178	–	–	–	82	79	–
4"	190	607	447	63	140	250	650	358	180	178	–	–	–	125	96	–
5"	200	680	395	108	200	250	695	371	180	178	–	–	–	165	154	–
6"	210	686	490	152	240	315	743	387	180	178	–	–	–	191	172	–
8"	230	757	536	168	300	315	1055	417	370	235	–	–	–	247	248	–
10"	250	867	641	192	320	315	1172	465	370	235	–	–	–	413	308	–
12"	270	1034	727	237	368	400	1392	546	515	245	–	–	–	576	467	–
14"	290	1087	757	237	368	400	1475	579	515	245	–	–	–	664	585	–
16"	310	1216	825	237	368	400	1557	643	540	360	–	–	–	971	807	–
18"	330	1240	840	269	559	400	1625	673	540	360	–	–	–	1117	1003	–
20"	350	1330	978	350	645	400	1679	701	540	360	–	–	–	1639	1139	–
24"	390	1583	1070	350	645	400	1834	775	540	360	–	–	–	2082	1767	–

Note: Structural length of valves in the table: 300Lb, to ISO5752 13 series; 600Lb, to ISO5752 14 series.

Triple Eccentric Welding Butterfly Valve



Worm Gear Butt-welded Butterfly Valve | Electric Butt-welded Butterfly Valve | Pneumatic Butt-welded Butterfly Valve

Main Outline Dimensions and Weight

PN0.6MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{01}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
80	180	203	125	75	90	205	83	200	203	125	475	505	203	125	93	282	110	27	42	29.5
100	190	208	130	75	90	205	83	200	208	130	475	505	208	130	93	282	110	34	46	36
125	200	218	140	75	90	205	83	200	218	140	475	505	218	140	115	344	140	41	48	46
150	210	285	155	95	90	205	83	200	285	155	475	505	285	155	115	344	140	43	53	51
200	230	320	180	95	90	205	83	200	320	180	475	505	320	180	150	450	187	81	84	80
250	250	349	220	95	90	205	83	200	349	220	475	505	349	220	290	762	270	102	124	122
300	270	398	250	115	90	205	83	200	398	250	475	505	398	250	290	762	270	132	138	142
350	290	417	275	115	90	205	83	250	417	275	475	505	417	275	330	900	305	164	176	192
400	310	455	315	134	90	205	83	250	455	315	475	505	455	315	370	1084	350	193	183	270
450	330	480	340	134	90	205	83	250	480	340	475	505	480	340	370	1084	350	238	270	310
500	350	512	375	159	120	265	141	250	512	375	566	505	512	375	405	1182	390	302	315	414
600	390	562	425	159	120	265	141	250	562	425	566	545	562	425	405	1182	390	415	421	484
700	430	636	490	163	185	250	115	315	636	490	615	545	636	490	500	1442	470	660	615	725
800	470	706	550	163	185	250	115	315	706	550	615	545	706	550	630	1865	500	780	705	825
900	510	756	600	185	185	250	115	315	756	600	820	520	756	600	–	–	–	820	825	–
1000	550	816	650	185	245	400	145	315	816	650	820	545	816	650	–	–	–	1265	1285	–
1200	630	944	775	220	310	460	191	400	944	775	945	545	944	775	–	–	–	1590	1655	–
1400	710	1084	895	220	310	460	191	400	1084	895	945	545	1084	895	–	–	–	2185	2255	–
1600	790	1204	1025	220	410	555	270	400	1204	1025	1140	545	1204	1025	–	–	–	3210	3330	–
1800	870	1395	1095	320	520	640	351	400	1395	1095	1337	545	1395	1095	–	–	–	4090	4350	–
2000	950	1449	1195	320	520	640	351	400	1449	1195	1337	545	1449	1195	–	–	–	5610	5680	–
2200	1000	1569	1325	320	520	640	351	400	1569	1325	1337	545	1569	1325	–	–	–	6410	6630	–
2400	1100	1704	1445	320	520	640	351	400	1704	1445	1377	715	1704	1445	–	–	–	7810	8255	–
2600	1190	1824	1565	335	450	785	440	630	1824	1565	1443	715	1824	1565	–	–	–	9450	9550	–
2800	1270	1944	1685	335	450	785	440	630	1944	1685	1443	845	1944	1685	–	–	–	10800	11030	–
3000	1350	2074	1818	335	450	785	440	630	2074	1815	1443	845	2074	1815	–	–	–	12200	12880	–

Note: 1. The structural length of valve to ISO5752 14 series.
2. Welding groove to GB/T12224 specifications.

Main Outline Dimensions and Weight

PN1.0MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A1	B1	M1	E1	F1	J	D01	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
80	180	203	125	75	90	205	83	200	203	125	475	505	203	125	93	282	110	–	–	–
100	190	208	130	75	90	205	83	200	208	130	475	505	208	130	93	282	110	–	–	–
125	200	218	140	75	90	205	83	200	218	140	475	505	218	140	115	344	140	–	–	–
150	210	285	155	95	90	205	83	200	285	155	475	505	285	155	115	344	140	58	73	–
200	230	320	180	95	90	205	83	200	320	180	475	505	320	180	150	450	187	76	91	–
250	250	349	220	95	90	205	83	200	349	220	475	505	349	220	290	762	270	115	130	–
300	270	398	250	115	90	205	83	200	398	250	475	505	398	250	290	762	270	145	165	–
350	290	417	275	115	90	205	83	250	417	275	475	505	417	275	330	900	305	185	205	–
400	310	455	315	134	90	205	83	250	455	315	566	505	455	315	370	1084	350	245	265	–
450	330	480	340	134	90	205	83	250	480	340	566	545	480	340	370	1084	350	315	335	–
500	350	512	375	159	120	265	141	250	512	375	615	545	512	375	405	1182	390	375	395	–
600	390	562	425	159	120	265	141	250	562	425	615	545	562	425	405	1182	390	510	530	–
700	430	636	490	163	185	250	115	315	636	490	820	520	636	490	500	1442	470	770	790	–
800	470	706	550	163	185	250	115	315	706	550	820	545	706	550	630	1865	500	1070	1090	–
900	510	756	600	185	185	250	115	315	756	600	945	545	756	600	–	–	–	1435	1455	–
1000	550	816	650	185	245	400	145	315	816	650	945	545	816	650	–	–	–	1745	1755	–
1200	630	944	775	220	310	460	191	400	944	775	1140	545	944	775	–	–	–	2725	2745	–
1400	710	1084	895	220	310	460	191	400	1084	895	1337	545	1084	895	–	–	–	3510	3550	–
1600	790	1204	1025	220	410	555	270	400	1204	1025	1337	545	1204	1025	–	–	–	4470	4510	–
1800	870	1395	1095	320	520	640	351	400	1395	1095	1337	545	1395	1095	–	–	–	4945	–	–
2000	950	1449	1195	320	520	640	351	400	1449	1195	1377	715	1449	1195	–	–	–	6230	–	–
2200	1000	1569	1325	320	520	640	351	400	1569	1325	1443	715	1569	1325	–	–	–	–	–	–
2400	1100	1704	1445	320	520	640	351	400	1704	1445	1443	845	1704	1445	–	–	–	–	–	–

PN1.6MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A1	B1	M1	E1	F1	J	D01	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
80	180	203	125	115	90	205	83	200	203	125	475	505	203	125	115	344	140	27	45	–
100	190	208	130	115	90	205	83	200	208	130	475	505	208	130	115	344	140	34	57	–
125	200	218	140	115	90	205	83	200	218	140	475	505	218	140	150	450	187	41	63	–
150	210	285	155	115	90	205	83	200	285	155	475	505	285	155	290	762	270	43	71	–
200	230	309	180	115	90	205	83	200	309	180	475	505	309	180	290	762	270	81	83	–
250	250	343	220	134	90	205	83	250	343	220	475	505	343	220	330	900	305	102	126	–
300	270	368	245	134	90	205	83	250	368	245	475	505	368	245	370	1084	350	132	151	–
350	290	401	275	159	120	265	141	250	401	275	566	505	401	275	370	1084	350	164	195	–
400	310	443	300	159	120	265	141	250	443	300	566	545	443	300	405	1182	390	193	273	–
450	330	469	340	163	185	250	115	315	469	340	615	545	469	340	405	1182	390	238	290	–
500	350	501	375	163	185	250	115	315	501	375	615	507	501	375	500	1442	470	302	414	–
600	390	606	440	185	245	400	145	315	606	440	820	545	606	440	630	1865	500	457	545	–
700	430	684	500	185	245	400	145	315	684	500	820	545	–	–	–	–	–	810	825	–
800	470	734	550	220	310	460	191	400	734	550	945	545	–	–	–	–	–	1093	1005	–
900	510	794	625	220	310	460	191	400	794	625	945	545	–	–	–	–	–	1410	1560	–
1000	550	874	690	255	410	555	270	400	874	690	1140	545	–	–	–	–	–	1870	1910	–
1200	630	1049	795	255	410	555	270	400	1049	795	1140	545	–	–	–	–	–	2082	2450	–
1400	710	1204	945	320	520	640	351	400	1204	945	1337	545	–	–	–	–	–	2850	3250	–
1600	790	1324	1065	320	520	640	440	630	1395	1065	1423	720	–	–	–	–	–	4235	4400	–
1800	870	1395	1095	335	520	785	440	630	1449	1095	1423	720	–	–	–	–	–	5346	5670	–
2000	950	1449	1195	335	520	785	440	630	1569	1195	1423	720	–	–	–	–	–	7328	7565	–
2200	1000	1569	1325	335	450	785	440	630	1704	1325	1423	720	–	–	–	–	–	–	–	–
2400	1100	1704	1445	335	450	785	440	630		1445	1423	720	–	–	–	–	–	–	–	–

Note: 1. The structural length of valve to ISO5752 14 series.
2. Welding groove to GB/T12224 specifications.

Main Outline Dimensions and Weight

PN2.5MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A1	B1	M1	E1	F1	J	D01	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
80	180	203	125	115	90	205	83	200	203	125	475	505	203	125	150	450	187	38	54	–
100	190	208	130	115	90	205	83	200	208	130	475	505	208	130	290	762	270	40	55	–
125	200	218	140	115	90	205	83	200	218	140	475	505	218	140	290	762	270	60	64	–
150	210	285	155	115	90	205	83	200	285	155	475	505	285	155	330	900	305	65	71	–
200	230	317	195	134	90	205	83	250	317	195	475	505	317	195	370	1084	350	85	96	–
250	250	360	220	134	90	205	83	250	360	220	475	505	360	220	370	1084	350	135	145	–
300	270	395	250	159	120	265	141	250	395	250	566	505	395	250	405	1182	390	175	167	–
350	290	419	290	159	120	265	141	250	419	290	566	545	419	290	405	1182	390	195	220	–
400	310	468	325	163	185	250	115	315	468	325	615	545	468	325	500	1442	470	295	278	–
450	330	476	350	163	185	250	115	315	476	350	615	545	476	350	630	1865	500	350	380	–
500	350	556	390	185	245	400	145	315	556	390	820	545	556	390	–	–	–	510	496	–
600	390	644	450	185	245	400	145	315	644	450	820	545	644	450	–	–	–	625	705	–
700	430	684	500	220	310	460	191	400	684	500	945	545	684	500	–	–	–	925	1000	–
800	470	774	590	255	410	460	270	400	774	590	1140	545	774	590	–	–	–	1260	1190	–
900	510	844	645	255	410	555	270	400	844	645	1140	545	844	645	–	–	–	1790	1670	–
1000	550	894	695	255	410	555	270	400	894	695	1140	545	894	695	–	–	–	1940	2180	–
1200	630	1049	845	320	520	640	351	400	1049	845	1337	545	1049	845	–	–	–	2810	2980	–

PN4.0MPa mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A1	B1	M1	E1	F1	J	D01	A2	B2	E2	F2	A3	B3	E3	F3	M3	Worm gear	Electric	Pneumatic
80	180	203	125	115	90	205	83	200	203	125	475	505	203	125	150	450	187	39	–	–
100	190	208	130	115	90	205	83	200	208	130	475	505	208	130	290	762	270	50	–	–
125	200	218	140	115	90	205	83	200	218	140	475	505	218	140	290	762	270	75	–	–
150	210	285	155	115	90	205	83	200	285	155	475	505	285	155	330	900	305	100	–	–
200	230	318	195	134	90	205	83	250	318	195	475	505	318	195	370	1084	350	135	116	–
250	250	353	225	159	120	265	141	250	353	225	566	505	353	225	370	1084	350	190	215	–
300	270	396	265	159	120	265	141	250	396	265	566	545	396	265	405	1182	390	240	263	–
350	290	426	300	162	185	250	115	315	426	300	615	545	426	300	405	1182	390	320	297	–
400	310	461	340	163	185	250	115	315	461	340	615	545	461	340	500	1442	470	450	477	–
450	330	486	365	185	245	400	145	315	486	365	820	545	486	365	630	1865	500	500	524	–
500	350	584	400	185	245	400	145	315	584	400	820	545	584	400	–	–	–	560	585	–
600	390	644	475	220	310	460	191	400	644	475	945	545	644	475	–	–	–	720	1000	–
700	430	724	540	255	410	555	270	400	724	540	1140	545	724	540	–	–	–	1250	1410	–
800	470	794	595	255	410	555	270	400	794	595	1140	545	794	595	–	–	–	1950	2110	–

Note: 1. The structural length of valve to ISO5752 14 series.
2. Welding groove to GB/T12224 specifications.

Main Outline Dimensions and Weight

Class150 mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{01}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
3"	114	295	135	115	84	198	84	200	295	135	513	467	295	135	115	344	140	32	37	–
4"	127	305	155	115	84	198	84	200	305	155	513	467	305	155	115	344	140	35	39	–
5"	140	322	167	115	84	198	84	200	322	167	513	467	322	167	126	390	175	39	42	–
6"	140	366	170	115	94	211	84	250	366	170	525	475	366	170	150	450	187	43	43	–
8"	152	396	198	134	117	267	145	250	396	198	580	470	396	198	280	762	270	60	57	–
10"	165	429	231	134	175	254	114	315	429	231	635	560	429	231	330	900	305	90	80	–
12"	178	483	269	159	175	254	114	315	483	269	705	560	483	269	405	1182	385	107	104	–
14"	190	498	297	159	239	404	145	315	498	297	765	615	498	297	405	1182	385	153	141	–
16"	216	579	333	163	239	404	145	315	579	333	825	615	579	333	405	1182	385	207	197	–
18"	222	630	366	163	239	404	191	315	630	366	875	820	630	366	445	1292	410	267	247	–
20"	229	655	394	163	300	465	191	400	655	394	930	820	655	394	445	1292	410	327	307	–
24"	267	744	452	185	300	465	191	400	744	452	1040	820	744	452	500	1442	465	473	427	–
28"	292	790	511	185	300	465	191	400	790	511	1155	945	790	511	630	1865	500	653	667	–
30"	308	815	536	220	300	559	269	400	815	536	1225	945	815	536	630	1865	500	760	773	–
32"	318	874	577	220	300	559	269	400	874	577	1275	945	874	577	630	1865	500	1033	1047	–
36"	330	899	602	255	300	559	269	400	899	602	1375	1145	899	602	–	–	–	1200	1213	–
40"	410	1064	696	255	300	559	269	400	1064	696	1490	1145	1064	696	–	–	–	1487	1500	–
42"	430	1092	721	255	300	559	335	400	1092	721	1550	1335	1092	721	–	–	–	1640	1637	–
44"	450	1148	731	255	300	572	335	400	1148	731	1600	1335	1148	731	–	–	–	1800	1813	–
48"	470	1270	800	320	300	572	335	400	1270	800	1715	1370	1270	800	–	–	–	2007	2020	–
52"	490	1314	850	320	425	635	365	500	1314	850	1835	1370	1314	850	–	–	–	2720	2733	–
56"	530	1384	895	320	425	635	365	500	1384	895	2005	1425	1384	895	–	–	–	2980	2993	–
60"	570	1504	1025	355	425	635	365	500	1504	1025	2115	1425	1504	1025	–	–	–	3387	3420	–

Note: 1. The structural length of valve to ISO5752 14 series.
2. Welding groove to ASME B16.34 specifications.

Main Outline Dimensions and Weight

Class300 mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{01}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
3"	114	295	132	114	84	198	84	200	295	132	467	513	295	132	126	390	175	34	–	–
4"	127	358	150	114	84	198	84	200	358	150	467	513	358	150	150	450	187	44	–	–
5"	140	365	167	168	117	267	145	250	365	167	467	513	365	167	280	762	270	58	–	–
6"	140	389	188	163	175	254	114	315	389	188	564	523	389	188	330	900	305	73	–	–
8"	152	417	221	163	175	254	114	315	417	221	615	544	417	221	405	1182	385	132	–	–
10"	165	465	252	185	239	404	145	315	465	252	615	544	465	252	405	1182	385	151	–	–
12"	178	546	290	185	239	404	145	315	546	290	823	513	546	290	405	1182	385	257	–	–
14"	191	579	318	221	300	465	191	400	579	318	823	513	579	318	445	1292	410	286	–	–
16"	216	642	368	221	300	465	191	400	642	368	945	513	642	368	445	1292	410	416	–	–
18"	225	673	396	221	300	465	191	400	673	396	945	544	673	396	500	1442	465	497	–	–
20"	229	701	422	254	300	559	269	400	701	422	945	544	701	422	500	1442	465	571	–	–
24"	267	775	495	254	399	559	269	400	775	495	945	544	775	495	630	1865	500	881	–	–
28"	292	904	559	305	510	648	351	400	904	559	1158	826	904	559	630	1865	500	1320	–	–
30"	292	963	594	305	510	648	351	400	963	594	1158	826	963	594	–	–	–	1478	–	–
32"	318	1054	617	305	510	648	351	400	1054	617	1158	826	1054	617	–	–	–	1699	–	–
36"	330	1161	676	368	615	805	429	630	1161	676	1420	1039	1161	676	–	–	–	2379	–	–
40"	410	1242	719	368	615	805	429	630	1242	719	1420	1039	1242	719	–	–	–	2427	–	–
42"	430	1285	739	368	615	805	429	630	1285	739	1420	1039	1285	739	–	–	–	2685	–	–
44"	450	1310	764	368	615	805	429	630	1310	764	1420	1039	1310	764	–	–	–	2932	–	–
48"	470	1374	833	434	765	965	399	630	1374	833	1730	1069	1374	833	–	–	–	3545	–	–

Class600 mm

DN	L	Worm gear actuation							Electric				Pneumatic					Weight (kg)		
		A_1	B_1	M_1	E_1	F_1	J	D_{01}	A_2	B_2	E_2	F_2	A_3	B_3	E_3	F_3	M_3	Worm gear	Electric	Pneumatic
3"	180	343	127	135	94	211	81	250	343	127	564	523	343	127	330	900	305	75	–	–
4"	190	371	160	170	152	267	145	250	371	160	615	544	371	160	405	1182	385	117	–	–
5"	200	388	178	163	175	254	114	315	388	178	615	544	388	178	405	1182	385	154	–	–
6"	210	401	196	163	175	254	114	315	401	196	823	513	401	196	405	1182	385	186	–	–
8"	230	447	221	163	175	254	114	315	447	221	823	513	447	221	445	1292	410	235	–	–
10"	250	544	290	185	239	404	145	315	544	290	945	513	544	290	445	1292	410	398	–	–
12"	270	610	307	220	300	465	191	400	610	307	945	544	610	307	500	1442	465	554	–	–
14"	290	640	330	220	300	465	191	400	640	330	945	544	640	330	500	1442	465	654	–	–
16"	310	701	391	254	400	559	269	400	701	391	945	544	701	391	630	1865	500	935	–	–
18"	330	716	406	254	400	559	269	400	716	406	945	544	716	406	630	1865	500	1085	–	–
20"	350	828	452	305	510	645	351	400	828	452	1158	826	828	452	630	1865	500	1610	–	–
24"	390	920	513	305	510	645	351	400	920	513	1158	826	920	513	–	–	–	1998	–	–

Note: 1. Structural length of valve in the table: 300Lb, to ISO5752 13 series; 600Lb, to ISO5752 14 series.
2. Welding groove to ASME B16.34 specifications.