

KOFLOW

FIGURE NUMBER SYSTEM

Butterfly Valve Figure Number System



1	Size	Xxin; xx, mm					
2	Operation type	1-Bare Stem	3-Worm Gear Operated	6**-Air Operated	7 [□] -Hydraulic Operated	9-Electric Operated	Manual Operated (omit)
3	Valve Type	D-Butterfly Valve D _H Check Butterfly Valve D _K Vacuum Butterfly Valve D _{TF} -Aeration Butterfly Valve DS- Expansion Butterfly Valve					
4	Pressure	0a-PN0.25	0b-PN0.6	0-PN1.0	1-PN1.6 class150	2-PN2.5	3-class300
		4-PN4.0 class400	6-PN6.4 class600	9-class900	10-PN10.0	1a-class125	2a-class250
5	Connection Ends	RF-Raised Face	FF-Flat Face	MFM-Male and Female Face	RJ-Ring Joint	BW-Buttweld	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 LU-U-U Screw Wafer Type
6	Structure Type	1-Middle eccentric structure	2-Single eccentric structure	3-Double eccentric structure	4-Veriable eccentric structure	5-eccentric structure	
7	Basic 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- Cr13 S.S		E-18-8 S.S		R-Mo2Ti S.S	
		D-Nitriding Steel		M-Monel Alloy		Y-Hard Face	
						F- F-PTFE	
						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 bedecided 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 stricture, Body& Disc Cast Steel WCB, 13Cr face Seat.

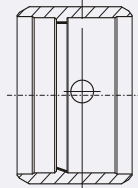
BUTTERFLY VALVE DESIGN FEATURES

Butterfly valves are used to open and close (seal type) or adjust the medium flow in pipes in the fields of food stuff, 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.



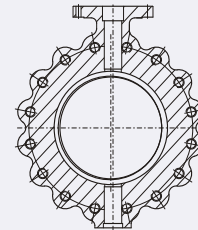
Flanged Connection



Butt-welded Connection



Wafer Connection

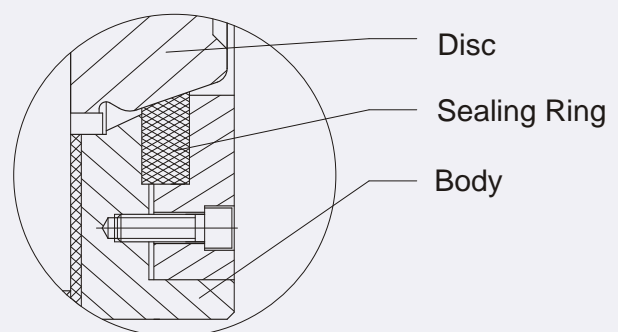
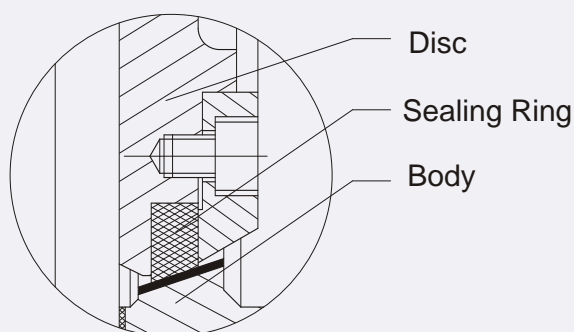


Lug Wafer Connection

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

1) Soft sealing structure (see fig. a), is applicable for single and double eccentric butterfly valves, pressure rating CLASS600. Centered sealing structure is applicable for pressure rating \leq CLASS 250. Sealing ring (PTFE) is placed on the valve body to feature the following:

- a) To effect dependable seal with no need of accessorial sealing ring or metal bracing ring.
- b) Bidirectional leakproof seal.
- c) Little maintenance and long service life.

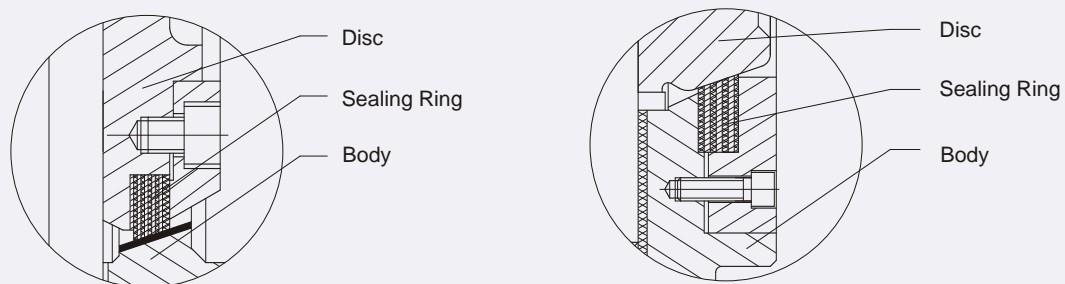


Soft Sealing Structure (fig.a)

BUTTERFLY VALVE DESIGN FEATURES

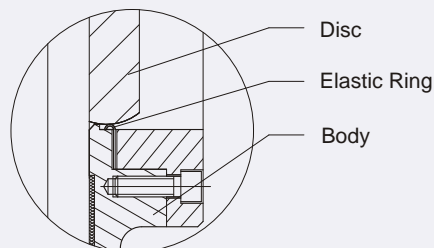
2) Multilayer Hard Seal Structure (See fig. b)

Multilayer hard seal structure is applicable for single, double and triple eccentric butterfly valves, pressure rating \leq CLASS600. 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 flexible graphite, PTFE or nonasbestos material etc. according to the actual working conditions.



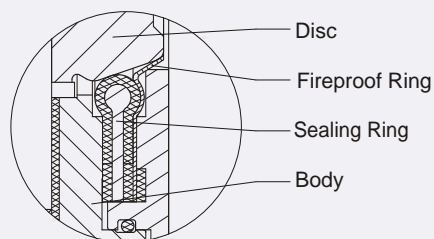
Multilayer Hard Seal Structure (fig.b)

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



Elastic Ring Hard Seal Structure (fig.c)

3、 Fireproof butterfly valves (see fig. d) 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.



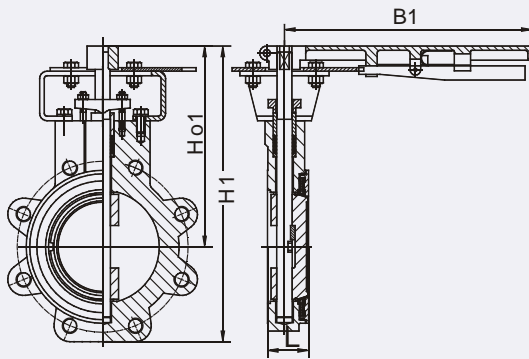
Soft Seal Fireproof Structure (fig.d)

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

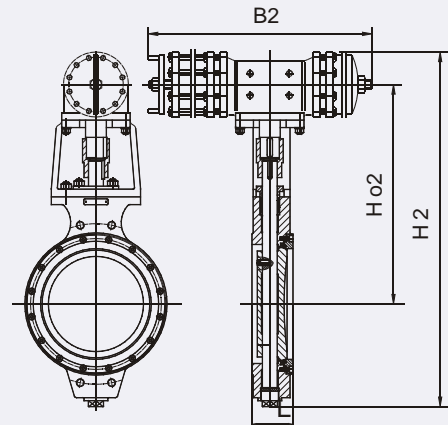
5、 Low driving moment, easy and quick operation.

SINGLE ECCENTRIC WAFER BUTTERFLY VALVE

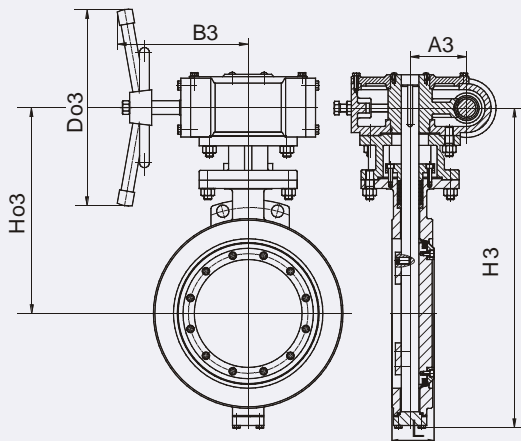
PN 0.6MPa mm



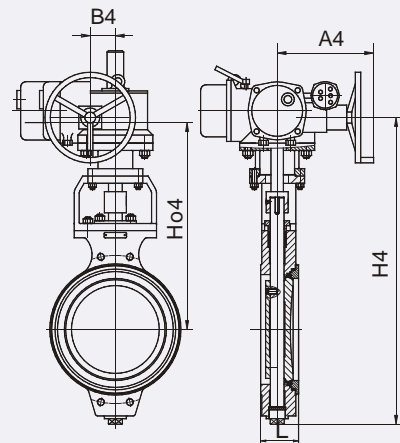
Manual Lug Wafer Butterfly Valve



Pneumatic Wafer Butterfly Valve



Worm Gear Driven Wafer Butterfly Valve



Electric Wafer Butterfly Valve

Main Outline Dimensions

PN 0.6MPa mm

DN	L	Manual			Pneumatic			Gear					Electric				Weight(kg)	
		H1	Ho1	B1	H2	Ho2	B2	H3	Ho3	B3	A3	Do3	H4	Ho4	B4	A4	WF	WL
50	43	233	160	200	-	-	-	266	143	106	50	160	-	-	-	-	4.5	5.5
65	46	275	179	230	-	-	-	290	178	140	63	180	-	-	-	-	5	7
80	49	316	198	250	-	-	-	320	185	140	63	180	320	185	178	180	6	9
100	56	341	211	270	-	-	-	342	193	140	63	240	340	198	178	180	8	11.5
125	64	362	217	300	-	-	-	378	219	140	63	240	340	205	178	180	12	17
150	70	384	235	350	-	-	-	415	245	140	63	240	415	241	178	180	13	22
200	71	-	-	-	695	325	275	470	298	170	84	300	512	263	235	370	20	39
250	76	-	-	-	750	355	275	535	328	170	84	300	570	292	235	370	30	47
300	83	-	-	-	935	475	378	606	365	200	108	400	668	340	235	370	51	68
350	92	-	-	-	1000	510	378	695	408	200	108	400	745	385	235	370	82	135
400	102	-	-	-	1145	590	378	755	446	240	128	400	827	425	235	370	115	187
450	114	-	-	-	1205	632	530	815	475	330	144	600	915	462	235	370	156	225
500	127	-	-	-	1256	665	530	905	525	370	220	600	995	500	235	370	199	260
600	154	-	-	-	1526	830	530	1050	610	370	220	600	1183	605	245	515	333	383
700	165	-	-	-	1640	903	530	1276	795	515	279	800	1460	734	245	515	462	510
800	190	-	-	-	1786	972	680	1384	837	515	279	800	1589	803	245	515	740	920
900	203	-	-	-	1917	1052	680	1505	885	515	279	800	1856	990	360	540	701	1189
1000	216	-	-	-	2600	1170	680	1620	946	570	368	600	1958	1050	360	540	786	1220
1200	254	-	-	-	-	-	-	2185	1165	570	378	600	2013	1165	360	540	907	1660

SINGLE ECCENTRIC WAFER BUTTERFLY VALVE

PN 1.0~1.6MPa

Main Outline Dimensions

PN 1.0MPa mm

DN	L	Manual			Pneumatic			Gear					Electric				Weight(kg)	
		H1	Ho1	B1	H2	Ho2	B2	H3	Ho3	B3	A3	Do3	H4	Ho4	B4	A4	WF	WL
50	43	233	160	200	-	-	-	266	143	106	50	160	-	-	-	-	4.5	5.5
65	46	275	179	230	-	-	-	290	178	140	63	180	-	-	-	-	5	7
80	49	316	198	250	-	-	-	320	185	140	63	180	320	185	178	180	6	9
100	56	341	211	270	-	-	-	342	193	140	63	240	340	198	178	180	8	11.5
125	64	362	217	300	-	-	-	378	219	140	63	240	340	205	178	180	12	17
150	70	384	235	350	-	-	-	415	245	140	63	240	415	241	178	180	13	22
200	71	-	-	-	695	325	275	470	298	170	84	300	512	263	235	370	20	39
250	76	-	-	-	750	355	275	535	328	170	84	300	570	292	235	370	30	47
300	83	-	-	-	935	475	378	606	365	200	108	400	668	340	235	370	51	68
350	92	-	-	-	1000	510	378	695	408	200	108	400	745	385	235	370	82	135
400	102	-	-	-	1145	590	378	755	446	330	144	400	827	425	235	370	115	187
450	114	-	-	-	1205	632	530	815	475	330	144	600	915	462	235	370	156	225
500	127	-	-	-	1256	665	530	905	525	370	220	600	995	500	235	370	199	260
600	154	-	-	-	1526	830	530	1050	610	370	220	600	1183	605	245	515	333	383
700	165	-	-	-	1640	903	530	1276	795	515	279	800	1460	734	245	515	462	510
800	190	-	-	-	1786	972	680	1384	837	515	279	800	1589	803	245	515	740	920
900	203	-	-	-	1917	1052	680	1505	885	515	279	800	1856	990	360	540	701	1189
1000	216	-	-	-	2600	1170	680	1620	946	570	368	600	1958	1050	360	540	786	1220
1200	254	-	-	-	-	-	-	2185	1165	570	378	600	2013	1165	360	540	907	1660

Main Outline Dimensions

PN 1.6MPa mm

DN	L	Manual			Pneumatic			Gear					Electric				Weight(kg)	
		H1	Ho1	B1	H2	Ho2	B2	H3	Ho3	B3	A3	Do3	H4	Ho4	B4	A4	WF	WL
50	43	225	160	200	-	-	-	266	143	160	106	50	-	-	-	-	4.5	5.5
65	46	250	175	230	-	-	-	290	175	160	140	63	-	-	-	-	7	7
80	49	260	190	250	-	-	-	320	185	160	140	63	513	265	178	180	9	9
100	56	295	195	270	-	-	-	342	195	160	140	63	538	282	178	180	20	11.5
125	64	330	215	300	-	-	-	365	209	300	140	63	560	295	178	180	23	17
150	70	356	225	350	-	-	-	415	243	300	140	63	605	300	178	180	29	22
200	71	-	-	-	695	327	275	510	263	400	150	84	749	321	235	370	40	39
250	76	-	-	-	750	355	275	567	295	400	150	84	803	330	235	370	50	47
300	83	-	-	-	955	472	378	665	342	600	200	108	880	365	235	370	68	68
350	92	-	-	-	1033	515	378	739	385	600	200	108	960	410	235	370	105	138
400	102	-	-	-	1185	595	530	825	430	600	240	152	1032	445	235	370	163	190
450	114	-	-	-	1270	632	530	910	469	330	144	600	1118	487	235	370	205	230
500	127	-	-	-	1335	665	530	990	500	370	220	600	1190	520	235	370	270	265
600	154	-	-	-	1642	829	680	1210	618	370	220	600	1380	625	235	370	390	437
700	165	-	-	-	1785	905	680	1475	746	515	279	800	1582	745	245	515	465	740
800	190	-	-	-	1915	970	680	1600	810	515	279	800	1713	810	245	515	570	920
900	203	-	-	-	-	-	-	1870	1000	515	279	800	1870	875	360	540	701	1189
1000	216	-	-	-	-	-	-	2000	1065	570	368	600	2000	940	360	540	800	1220
1200	254	-	-	-	-	-	-	2215	1170	570	378	600	2118	1060	360	540	922	1680

SINGLE ECCENTRIC WAFER BUTTERFLY VALVE

PN 2.5~4.0MPa

Main Outline Dimensions

PN 2.5MPa mm

DN	L	Manual			Pneumatic			Gear					Electric				Weight(kg)	
		H1	Ho1	B1	H2	Ho2	B2	H3	Ho3	B3	A3	Do3	H4	Ho4	B4	A4	WF	WL
50	43	225	160	200	-	-	-	266	143	106	50	160	-	-	-	-	6.3	6.3
65	46	250	175	230	-	-	-	290	175	140	63	160	-	-	-	-	9	9.2
80	49	260	190	250	-	-	-	513	265	63	140	160	552	265	178	180	11	11
100	56	295	195	270	-	-	-	538	282	63	140	300	585	290	178	180	25	15
125	64	330	215	300	-	-	-	560	295	63	140	300	610	305	178	180	33	17
150	70	356	225	350	-	-	-	605	300	63	140	400	765	315	178	180	47	22
200	71	-	-	-	695	327	275	749	321	84	150	400	820	304	235	370	52	39
250	76	-	-	-	750	355	275	803	330	84	150	600	910	336	235	370	65	47
300	83	-	-	-	955	472	378	880	365	108	200	600	1000	386	235	370	68	123
350	92	-	-	-	1033	515	378	960	410	108	240	600	1055	425	235	370	138	190
400	102	-	-	-	1185	595	530	1032	445	128	240	800	1108	456	235	370	190	230
450	114	-	-	-	1270	632	530	1118	487	330	144	600	1140	490	235	370	230	265
500	127	-	-	-	1335	665	530	1190	520	370	220	600	1238	552	235	370	265	390
600	154	-	-	-	1642	829	680	1380	625	370	220	600	1399	635	245	515	437	465
700	165	-	-	-	1785	905	680	1582	745	515	279	800	1611	750	360	540	570	740
800	190	-	-	-	1915	970	680	1713	810	515	279	800	1782	820	360	540	705	920
900	203	-	-	-	-	-	-	1870	875	515	279	800	1915	886	385	565	730	1189
1000	216	-	-	-	-	-	-	2000	940	570	368	600	2040	945	385	565	927	1220
1200	254	-	-	-	-	-	-	2118	1060	570	378	600	2184	1053	400	770	953	1680

Main Outline Dimensions

PN 4.0MPa mm

DN	L	Manual			Pneumatic			Gear					Electric				Weight(kg)	
		H1	Ho1	B1	H2	Ho2	B2	H3	Ho3	B3	A3	Do3	H4	Ho4	B4	A4	WF	WL
50	43	225	160	200	-	-	-	266	143	106	50	200	-	-	-	-	6.3	7.3
65	46	265	175	230	-	-	-	290	175	143	80	250	-	-	-	-	9	9.8
80	49	275	190	270	-	-	-	395	245	143	80	300	530	240	178	180	11	11.5
100	56	310	205	300	-	-	-	356	205	200	108	400	555	205	178	180	25	29
125	64	347	220	350	-	-	-	375	213	200	108	400	582	215	178	180	33	38
150	70	374	235	380	-	-	-	439	260	200	108	600	609	260	235	370	47	51
200	71	-	-	-	750	375	275	520	275	330	140	600	755	275	235	370	55	67
250	76	-	-	-	905	445	378	600	315	330	140	600	818	315	235	370	70	70
300	83	-	-	-	1085	538	503	692	365	370	220	800	912	363	245	515	135	142
350	92	-	-	-	1160	576	503	776	408	370	220	800	983	406	245	515	203	227
400	102	-	-	-	1230	609	503	864	443	370	220	800	1058	440	245	515	245	268
450	114	-	-	-	1520	765	680	1128	525	512	279	400	1135	545	360	540	283	333
500	127	-	-	-	1335	665	530	1257	664	512	279	400	1245	600	360	540	405	520
600	154	-	-	-	-	-	-	1380	625	512	279	400	1414	663	360	540	591	645
700	165	-	-	-	-	-	-	1435	712	570	368	600	-	-	-	-	723	785
800	190	-	-	-	-	-	-	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.

SINGLE ECCENTRIC WAFER BUTTERFLY VALVE

CLASS 150~300

Main Outline Dimensions

CLASS 150 mm

NPS	L	Manual			Pneumatic			Gear					Electric				Weight(kg)	
		H1	Ho1	B1	H2	Ho2	B2	H3	Ho3	B3	A3	Do3	H4	Ho4	B4	A4	WF	WL
2 "	45	262	187	180	-	-	-	287	176	106	50	160	-	-	-	-	3.7	5
2-1/2 "	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

CLASS 300 mm

DN	L	Manual			Pneumatic			Gear					Electric				Weight(kg)	
		H1	Ho1	B1	H2	Ho2	B2	H3	Ho3	B3	A3	Do3	H4	Ho4	B4	A4	WF	WL
2 "	45	262	179	230	-	-	-	287	176	106	50	160	-	-	-	-	3.6	5
2-1/2 "	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	368	275	510	263	150	84	400	745	296	235	370	23.6	36
10 "	83	-	-	-	909	442	378	567	295	150	84	400	805	325	235	370	40	52
12 "	92	-	-	-	1075	535	530	665	342	200	108	600	883	365	235	370	69.4	90
14 "	117	-	-	-	1158	572	530	739	385	200	108	600	965	408	235	370	129	147
16 "	133	-	-	-	1230	610	530	825	430	240	152	600	1033	443	235	370	152	182
18 "	149	-	-	-	1462	736	680	910	469	240	152	800	1120	485	235	370	178	234.5
20 "	159	-	-	-	1328	765	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

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