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BUTTERFLY VALVE → DN40-DN300 Butterfly valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10” butterfly valve are 1/9 and 1/6 of a 10” gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.

(1) Taper Pin Designed Butterfly Valve DN40-DN300

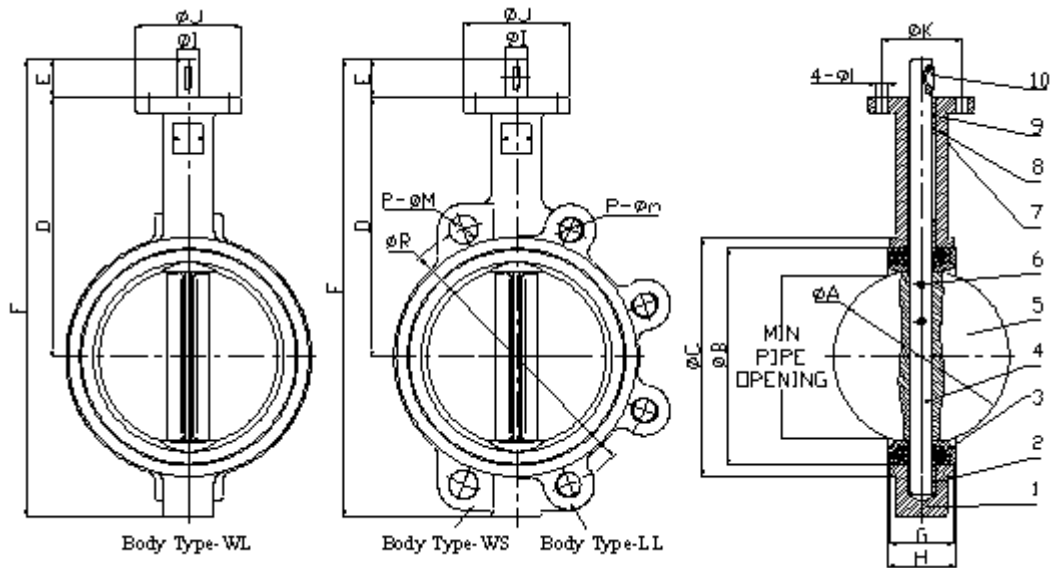


Item	Qty	Part Name
1	1	Body
2	2	Long Bushing
3	1	Seat
4	1	Stem
5	1	Disc
6	1~2	Taper pin
7	1	Nameplate
8	2	Short Bushing
9	1	“O” Ring
10	1	Key



Structure and Parts List for Taper Pin Designed Butterfly Valve DN40-DN300

Nominal Pressure:PN10/PN16/PN20



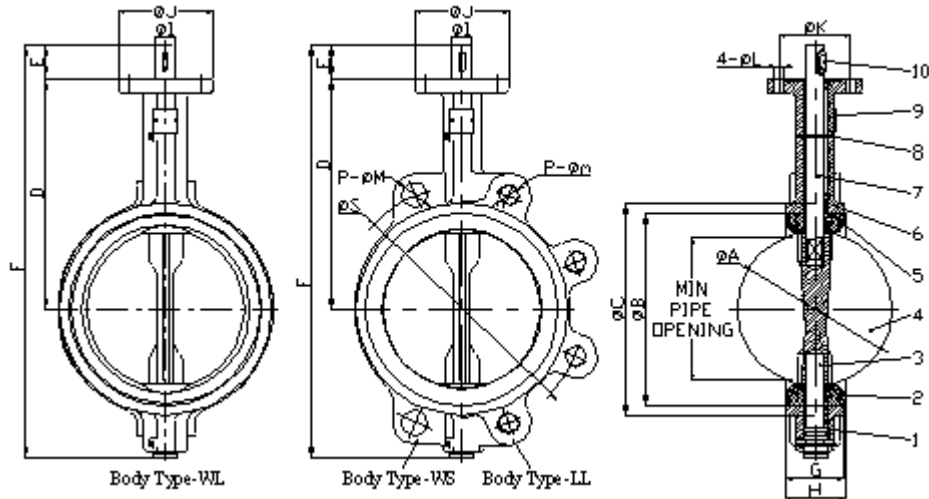
(2) Split Stem Designed Butterfly Valve DN40-DN300



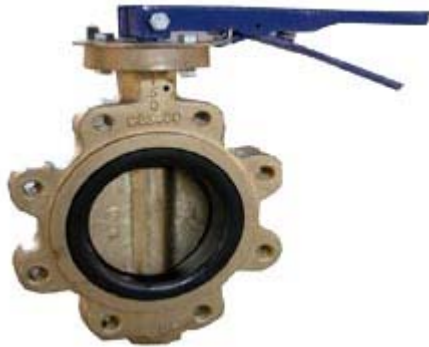
Item	Qty	Part Name
1	1	Body
2	1	Seat
3	1	Lower Stem
4	1	Disc
5	5	Short Bushing
6	3	"O" Ring
7	1	Upper Stem
8	2	Roll Pin
9	1	Nameplate
10	1	Key

Structure and Parts List for Split Stem Designed Butterfly Valve DN40-DN300

Nominal Pressure: PN10/PN16



(3) Throughout Stem without Pin Butterfly Valve DN40-DN300

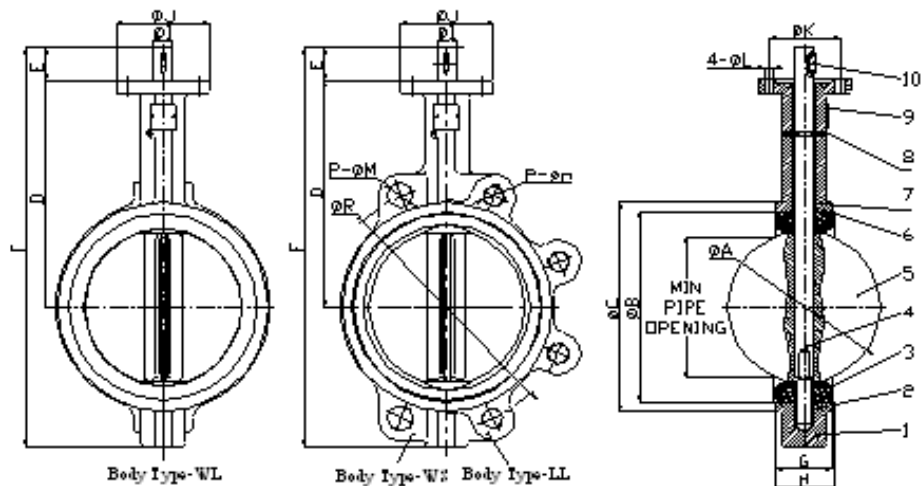


Item	Qty	Part Name
------	-----	-----------

1	1	Body
2	1	Lower Stem
3	1	Seat
4	1	Stem
5	1	Disc
6	3	Short Bushing
7	1	“O” Ring
8	1	Roll Pin
9	1	Nameplate
10	1	Key

Structure and Parts List for Throughout Stem without Pin Butterfly Valve DN40-DN300

Nominal Pressure: PN10/PN16





Body	DISC	Stem	Bushing	Seat	WorkingTemperature
Material			Material		(°C)
C. I	DI	416SS	Lubricative Bronze	NR	-20°C--+85°C
D. I	WCB	431SS	Macromolecule +PTFE	HYPALON	-18°C--+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM	-30°C--+110°C
AL-Brz	Stainless Steel			NEOPRENE	-7°C--+93°C
StainlessSteel				NBR	-12°C--+82°C
				WRR	-10°C--+50°C
				VITON	-23°C--+150°C
				HRR	-20°C--+150°C
				PTFE	+10°C--+150°C

Outline Dimensions for DN40-DN300 Butterfly Valve

Valve Size	Inch mm	A	Min.	B	C	D		E	F	
						Long Neck	Short Neck		Long Neck	Short Neck
1 1/2	40	12.5	24.0	70.0	84	150	100	32	252	212
2	50	52.9	32.3	76.3	89	161	100	32	273	212
2 1/2	65	64.5	46.1	89.0	108	175	113	32	296	234
3	80	78.8	64.4	103.9	120	181	124	32	308	251
4	100	104.0	86.3	135.0	150	200	152	32	346	298
5	125	123.3	110.6	159.0	181	213	152	32	372	311
6	150	155.6	134.8	188.4	208	226	165	32	397	336
8	200	202.5	192.4	238.1	260	260	205	45	480	425
10	250	250.5	241.7	292.4	320	292	253	45	540	495
12	300	301.6	291.8	344.1	375	337	277	45	624	564

Valve Size	Inch mm	G	H	I	J	K	L	P	m	M	R
1 1/2	40	33.0	35.0	12.6	77	50	7	4	M16	19	110
2	50	42.0	45.0	12.6	77	50	7	4	M16	19	125
2 1/2	65	44.7	47.6	12.6	77	50	7	4	M16	19	145
3	80	45.2	49.0	12.6	77	50	7	8	M16	19	160
4	100	52.1	54.7	15.8	92	70	10	8	M16	19	180



Gulf Valve CO.,Ltd

5	125	54.4	58.0	18.9	92	70	10	8	M16	19	210
6	150	55.8	58.6	18.9	92	70	10	8	M20	23	240
8	200	60.6	63.4	22.1	125	102	12	8	M20	23	295
10	250	65.6	70.0	28.5	125	102	12	12	M20	23	350
12	300	76.9	80.1	31.6	140	102	12	12	M20	23	400

Note: Dimensions for mounting flange above mentioned conform BS4504 PN10, and top mounting conform to ISO5211. When required, standards from other countries or any special requirements are also available.

Weight for DN40-DN300 Butterfly Valves

Valve Size		PN10/PN16						PN20					
		(Based on different type of body)						(Based on different type of body)					
Inch	mm	WL	WLs	WS	WSs	LL	LLs	WL	WLs	WS	WSs	LL	LLs
1	40	2.0	1.7	2.2	1.8	3.3	2.8	2.0	1.7	2.2	1.8	3.3	2.8
1/2	50	2.3	2.0	2.5	2.2	3.8	3.2	2.3	2.0	2.5	2.2	3.8	3.2
2	65	3.0	2.6	3.2	3.0	4.2	4.0	3.0	2.6	3.2	3.0	4.2	4.0
1/2	80	3.4	2.8	3.6	3.4	4.7	4.2	3.4	2.8	3.6	3.4	4.7	4.2
3	100	4.7	4.5	4.9	4.6	8.5	7.2	4.7	4.5	4.9	4.6	8.5	7.2
4	125	6.8	6.5	7.0	7.3	10.9	9.7	6.8	6.5	7.0	7.3	10.9	9.7
5	150	7.7	7.4	7.8	7.6	14.2	12.4	9.7	9.4	9.8	9.6	16.2	11.4
6	200	13.2	13.0	13.2	13.1	19.5	18.8	16.3	16.1	16.3	16.2	22.6	21.9
8	250	20.6	19.5	21.0	19.0	32.0	29.0	26.1	25.0	26.5	24.5	37.5	34.5
10	300	28.2	24.9	32.5	29.2	40.0	36.7	34.9	31.6	39.2	35.9	46.7	43.4



BUTTERFLY VALVE → DN350-DN600 Butterfly Valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10” butterfly valve are 1/9 and 1/6 of a 10” gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.

(1) Taper Pin Designed Butterfly Valve

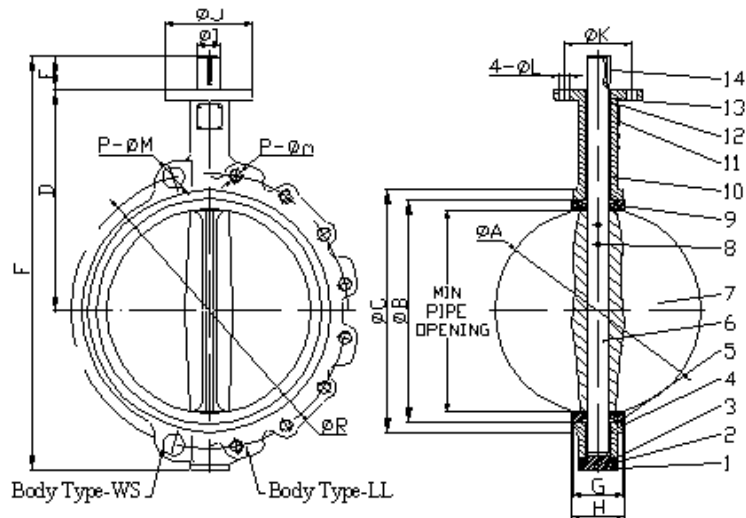


Item	Qty	Part Name
1	2~4	Screw
2	1	Bottom Cover
3	1	“O”Ring
4	1	Lower Bushing
5	1	Body
6	1	Stem
7	1	Disc
8	2	Taper Pin
9	1	Seat
10	1	Mid Bushing
11	1	Nameplate
12	2	Upper Bushing
13	1	“O”Ring
14	1	Key



Structure and Parts List for Taper Pin Designed Butterfly Valve

Nominal Pressure: PN10/PN16/PN20



(2) Split Stem Designed Butterfly Valve

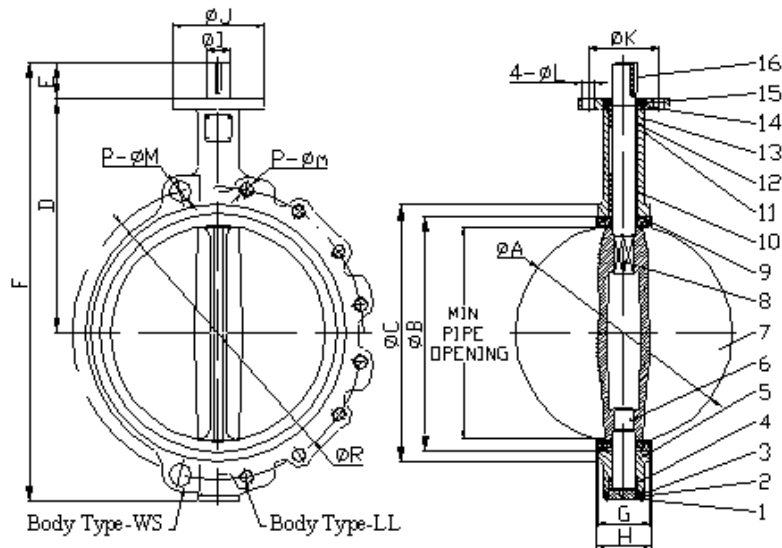


Item	Qty	Part Name
1	2~4	Screw
2	1	Bottom Cover
3	1	"O" Ring
4	1	Lower Bushing
5	1	Body
6	1	Lower Stem
7	1	Disc
8	2	Upper Stem
9	1	Seat
10	1	Mid Bushing
11	1	Nameplate
12	2	Upper Bushing
13	1	"O" Ring
14	4	Screw
15	1	Stem Retainer
16	1	Key



Structure and Parts List for Split Stem Designed Butterfly Valve

Nominal Pressure: PN10/PN16



Body	DISC	Stem	Bushing	Seat	WorkingTemperature
		Material		Material	(°C)
C.I	DI	416SS	Lubricative Bronze	NR	-20°C-+85°C
D.I	WCB	431SS	Macromolecule +PTFE	HYPALON	-18°C-+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM	-30°C-+110°C
AL-Brz	Stainless Steel			NEOPRENE	-7°C-+93°C
Stainless				NBR	-12°C-+82°C
Steel				WRR	-10°C-+50°C
				VITON	-23°C-+150°C
				HRR	-20°C-+150°C
				PTFE	+10°C-+150°C



Outline Dimensions for DN350-DN600 Butterfly Valve

Valve Size		A	Min	B	C	D	E		
Inch	mm						PN10	PN16	PN20
14	350	333.3	322.0	375.1	405	368	45.0	45.0	45.0
16	400	389.6	379.1	439.5	470	400	51.2	72.0	72.0
18	450	440.5	426.8	490.5	521	422	51.2	72.0	72.0
20	500	491.6	472.7	535.4	565	480	64.2	82.0	82.0
24	600	592.5	571.6	654.0	693	562	70.2	82.0	82.0

Valve Size		F			G	H	I		
Inch	mm	PN10	PN16	PN20			PN10	PN16	PN20
14	350	680.0	680.0	680.0	76.5	79.5	31.6	31.6	42.9
16	400	759.8	780.6	780.6	85.7	90.0	33.2	38.0	50.6
18	450	800.8	821.6	821.6	104.6	109.0	38.0	42.9	54.0
20	500	898.2	916.0	916.0	130.3	135.0	41.1	45.7	63.4
24	600	1090.9	1102.7	1102.7	151.4	156.0	50.6	54.0	75.0

Valve Size		J	K	L	P	m	M	R
Inch	mm							
14	350	140	102	12	16	M20	23	460
16	400	197	140	18	16	M24	28	515
18	450	197	140	18	20	M24	28	565
20	500	197	140	18	20	M24	28	620
24	600	276	165	22	20	M27	31	725

Note: Dimensions for mounting flange above mentioned conform BS4504 PN10, and top mounting conform to ISO5211. When required, standards from other countries or any special requirements are also available.

Weight of Butterfly Valve DN350-DN600

Valve Size		PN10		PN16		PN20	
Inch	mm	WS	LL	WS	LL	WS	LL
14	350	41.3	56.0	41.3	56.0	53.9	68.6
16	400	61.3	96.0	63.0	97.7	76.7	111.4
18	450	78.9	122.0	80.7	123.8	95.9	139.0
20	500	128.1	202.0	129.8	203.7	147.1	221.0
24	600	188.1	270.0	191.6	273.5	222.8	304.7



BUTTERFLY VALVE → DN550-DN1000 single flange butterfly valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10” butterfly valve are 1/9 and 1/6 of a 10” gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.



Item	Qty	Part Name
1	4	Hex Bolts
2	1	“O”Ring
3	1	Bottom Cover
4	1	AdjustingGesket
5	1	Ball
6	1	Body
7	1	Lower Bushing
8	1	Disc
9	1	Stem
10	2	Taper Pin
11	1	Seat
12	1	Mid Bushing
13	1	Nameplate
14	2	Upper Bushing
15	1	“O”Ring
16	1~2	Key



Valve Size		I	J	K	L	M	d	P	T	Weight
Inch	mm									Kgs.
22*	550 *	165	529.9	542.5	151.4	4	22	156	30	175
24	600	165	571.6	592.5	151.4	4	22	156	30	188
26 *	650 *	254	625.9	647.3	165.0	8	18	171	30	271
28	700	254	675.6	695.0	163.0	8	18	169	30	284
32	800	254	772.1	795.0	188.0	8	18	195	30	368
34 *	850 *	254	796.2	814.7	203.0	8	18	211	47	685
40	1000	254	940.5	965.0	216.0	8	18	224	50	864

Note: Dimensions for mounting flange above mentioned conform BS4504 PN10, and top mounting conform to ISO5211. When required, standards from other countries or any special requirements are also available. (Mounting Flange of Valve Size with ‘*’ conform JIS B2220 10K) .



BUTTERFLY VALVE → DN700-DN1200 U-SECTION BUTTERFLY VALVE

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10” butterfly valve are 1/9 and 1/6 of a 10” gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

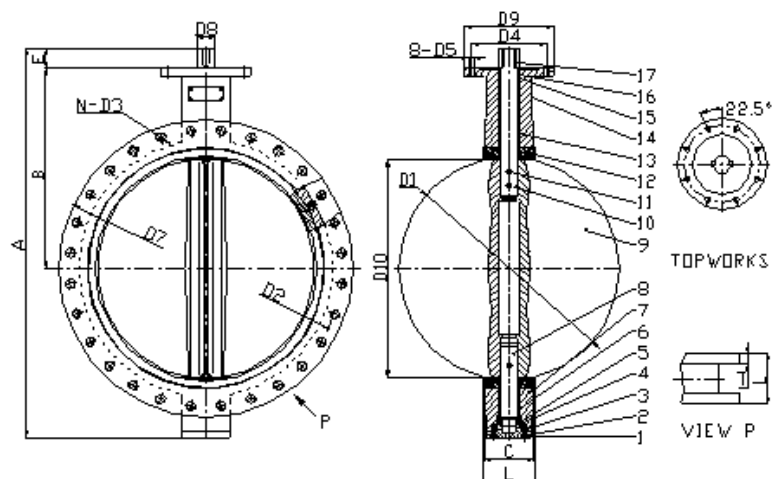
Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.

Structure and Parts List for Taper Pin Designed Butterfly Valve

Nominal Pressure: PN10



Item	Qty	Part Name
1	4	Hex-Bolt
2	1	Bottom Cover
3	1	“O”Ring
4	1	AdjustingGasket
5	1	Bearing
6	1	Lower Bushing
7	1	Body
8	1	Lower Stem
9	1	Disc
10	1	Upper Stem
11	3	Taper Pin
12	1	Seat
13	1	Mid Bushing
14	1	Nameplate
15	2	Upper Bushing
16	1	“O”Ring
17	2	Key



Note: When Mounting holes are clearance, it is called WU Type;
For tapped holes, it called LU Type.

Body	DISC	Stem	Bushing	Seat
		Material		Material WorkingTemperature
				(°C)
C.I	DI	416SS	LubricativeBronze	NR -20°C-+85°C
D.I	WCB	431SS	Macromolecule+PTFE	HYPALON -18°C-+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM -30°C-+110°C
AL-Brz	Stainless Steel			NEOPRENE -7°C-+93°C
Stainless Steel				NBR -12°C-+82°C
				WRR -10°C-+50°C
				VITON -23°C-+150°C
				HRR -20°C-+150°C
				PTFE +10°C-+150°C

Outline Dimensions and Weight for U-Section Butterfly Valve DN750-DN1200

Valve Size		D1	D2	D3	D4	D5	D7	D8	D9	D10
Inch	mm									
30	750	744	914.4	1 1/4 UNC	200	18	984	63.4	300	725.5
36	900	865	1085.8	1 1/2 UNC	200	18	1168	75.0	300	840.5
42	1050	1030	1257.3	1 1/2 UNC	200	18	1346	95.0	300	999.0
48	1200	1160	1422.4	1 1/2 UNC	230	22	1511	105.0	350	1126.6



Valve Size		C	L	A	B	E	N	T	K	Weight
Inch	mm									Kgs.
30	750	167	173	1286	660	66	28	54	18×63	367
36	900	203	211	1494	720	118	32	61	20×100	591
42	1050	251	261	1785	858	150	36	67	25×140	811
48	1200	276	286	1954.7	941	150	44	70	28×140	1823

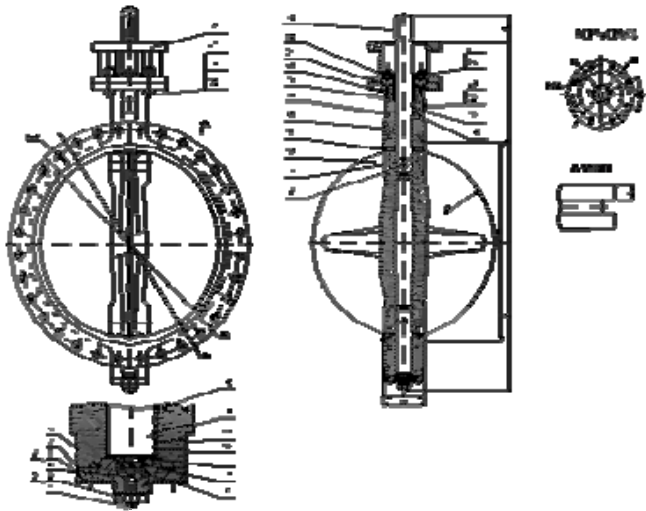
Note: Dimensions for mounting flange above mentioned conform ANSI B16.1 125PSI, and top mounting conform to ISO5211. When required, standards from other countries or any special requirements are also available.

Size: DN700-DN1200

Nominal Pressure: PN16



Item	Qty	Part Name
1	1	ADJUSTINGSCREW, STEEL
2	1	NUT,STEEL
3	1	WASHERS,STEEL
4	1	O Ring ASTM D2000(NBR)
5	4	SCREW, STEEL
6	4	WASHERS,SPRING STEEL
7	1	END COVER ASTM A536
8	1	O Ring ASTM D2000(NBR)
9	1	ROLL PIN,AISI 1566
10	1	GASKET,STEEL
11	3	GASKET,STEEL
12	4	SHORTBUSHING ASTM B584 C83600
13	2	O Ring ASTM D2000(NBR)
14	1	LOWER SHAFTASTM A276 GRADE 420
15	1	MIDDLE BUSHINGASTM B584 C83600
16	3	TAPER IN,ASTMA276 GRADE 420



Outline Dimensions and Weight for U-Section Butterfly Valve DN700-DN1200

Size		D1	D2	M	D3	D4	D5	D6	D7	D8
Inch	mm									
28	700	695	863.6	1 1/4UNC	254	18	770	927	70	300
30	750	744.4	914.4	1 1/4UNC	298	22	820	990	75	350
32	800	794.7	977.9	1 1/2UNC	298	22	900	1060	80	350
36	900	864.7	1085.8	1 1/2UNC	298	22	972	1168	90	350
42	1050	1030.7	1257.3	1 1/2UNC	356	33	1180	1346	105	415
48	1200	1160.6	1422.4	1 1/2UNC	356	33	1348	1511	120	415

Size		A	B	C	E	L	L1	N	Key	Weight
Inch	mm									
28	700	581	810	66	54	163	176	28	20*63	473
30	750	618	846	66	54	167	180	28	20*63	550
32	800	655	858	82	54	188	195	28	22*70	637
36	900	743	906	118	61	203	211	32	25*100	863
42	1050	864.1	1044	150	66	251	261	36	28*140	1217
48	1200	951	1126.7	150	70	276	286	44	32*140	1695



BUTTERFLY VALVE → DN50-DN150 Thread End Butterfly Valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

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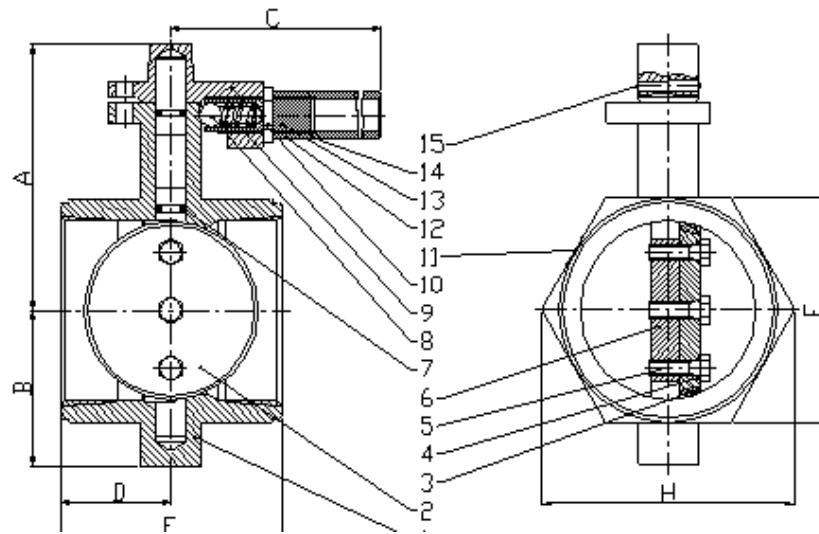


Item	Qty	Part Name
1	1	Body
2	1	Disc
3	1	Disc Seal
4	2~3	Bolt Seal
5	2~3	Hex-Bolt
6	1	Stem
7	2	Stem Seal
8	1	Location Ball
9	1	Locking Spring
10	1	Lever Joint
11	1	Nameplate
12	1	Lever screw
13	1	Lever Bar
14	1	Handle
15	1	Taper Pin



Structure and Parts List for Thread End Butterfly Valve

Nominal Pressure: PN10/16



Body	DISC	Stem	Bushing	Seat	WorkingTemperature
Material				Material	(°C)
C.I	DI	416SS	LubricativeBronze	NR	-20°C-+85°C
D.I	WCB	431SS	Macromolecule+PTFE	HYPALON	-18°C-+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM	-30°C-+110°C
AL-Brz	Stainless Steel			NEOPRENE	-7°C-+93°C
Stainless Steel				NBR	-12°C-+82°C
				WRR	-10°C-+50°C
				VITON	-23°C-+150°C
				HRR	-20°C-+150°C
				PTFE	+10°C-+150°C

Outline Dimensions and Weight for Screw End Butterfly Valve DN50-DN150

Valve Size		A	B	C	D	E	F	H	Weight
Inch	mm								Kgs.
2	50	105.41	57.15	203.2	53.98	107.95	76.20	87.88	4.8
3	80	152.91	69.85	203.2	61.72	123.70	103.12	119.13	7.1
4	100	161.04	93.73	203.2	65.02	130.05	134.87	155.70	10.1
6	150	231.24	120.65	330.2	88.90	177.80	196.85	277.33	21.8

Note: Connected screw can be manufactured according to customer's requirements.



BUTTERFLY VALVE → DN50-DN300 Groove End Butterfly Valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10” butterfly valve are 1/9 and 1/6 of a 10” gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.

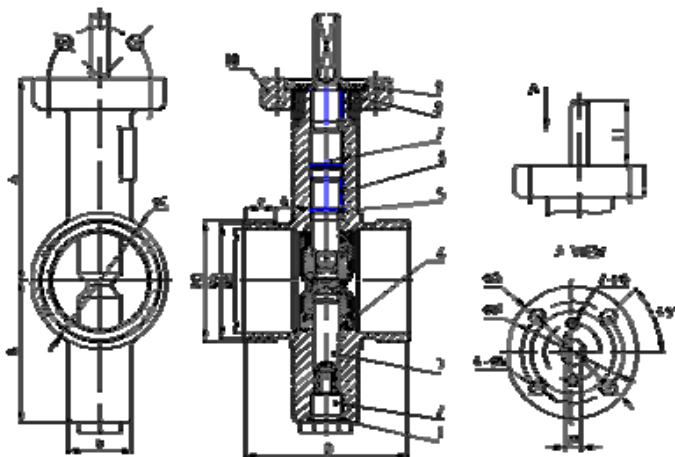


Item	Qty	Part Name
1	1	O Ring 2
2	1	screw end
3	1	lower stem
4	1	Disc
5	2	O Ring 1
6	2	Bushiing
7	1	Upper stem
8	2	Bolt
9	1	Plate
10		Body



Structure and Parts List for Groove End Butterfly Valve

Nominal Pressure: PN10/16



Body	DISC	Stem	Bushing	Seat	WorkingTemperature (°C)
Material			Material		
C.I	DI	416SS	Lubricative Bronze	NR	-20°C-+85°C
D.I	WCB	431SS	Macromolecule +PTFE	HYPALON	-18°C-+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM	-30°C-+110°C
AL-Brz	Stainless Steel			NEOPRENE	-7°C-+93°C
StainlessSteel				NBR	-12°C-+82°C
				WRR	-10°C-+50°C
				VITON	-23°C-+150°C
				HRR	-20°C-+150°C
				PTFE	+10°C-+150°C



Outline Dimensions and Weight for Groove End Butterfly Valve DN50-DN300

Valve Size		A	B	φC	D	OD	φG	φH	φN
Inch	mm								
2	50	100	70	67	82.4	60.3	65	50	7
2 1/2	65	106	75	80	96.8	73.0	65	50	7
3	80	112.5	82	97	96.8	88.9	65	50	7
4	100	135	100	123	115.85	114.3	90	70	10
5	125	148.7	119	151	147.6	141.3	90	70	10
6	150	176	130	180	147.6	168.3	90	70	10
8	200	204	162	231	133.4	219.1	125	102	12
10	250	228.1	200	284	158.8	273.1	125	102	12
12	300	266.2	224	335	163.6	323.9	140	102	12

Valve Size		L1	a	b	e	d	φ	M	Weight
Inch	mm								Kgs.
2	50	32	15.88	7.93	57.15	50.8	30	8.86	1.75
2 1/2	65	32	15.88	7.93	69.09	63.5	32	8.86	2.2
3	80	32	15.88	7.93	84.94	76.2	32	8.86	2.7
4	100	32	15.88	9.53	110.08	99.5	38	11.1	4.5
5	125	32	15.88	9.53	137.03	128.0	44	12.7	7.6
6	150	32	15.88	9.53	163.96	152.4	47	12.7	9.6
8	200	45	19.1	11.1	214.40	203.2	53	15.88	14.7
10	250	45	19.1	12.7	268.27	253.0	60	20.62	24.7
12	300	45	19.1	12.7	318.29	303.0	64	22.1	34.5

Note: The Groove Dimensions above mentioned conform ANSI/AWWA C606. Top mounting conform ISSO5211. The groove dimensions can also meet standards from other countries



BUTTERFLY VALVE → DN50-DN1200 Flange Type Butterfly valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

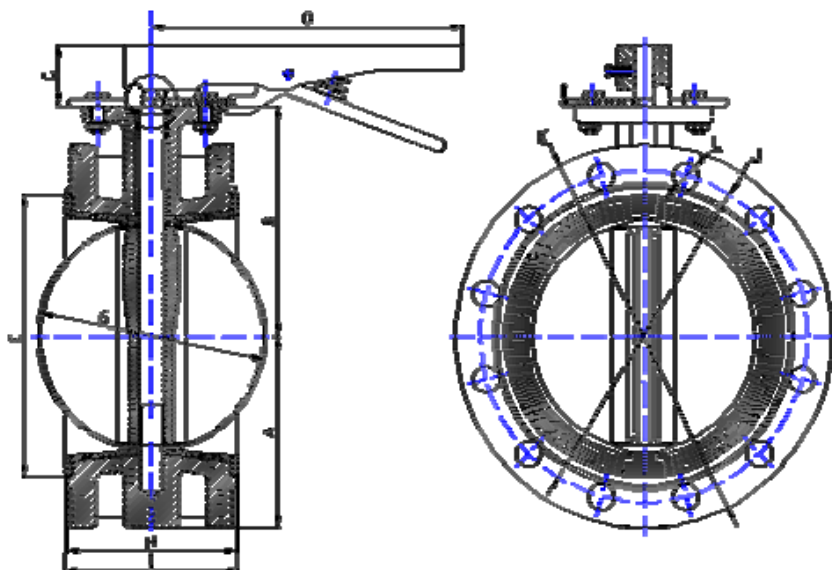
Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10" butterfly valve are 1/9 and 1/6 of a 10" gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.

Lever Flange Type Butterfly valve B-DFL-16

Size: DN50-DN300

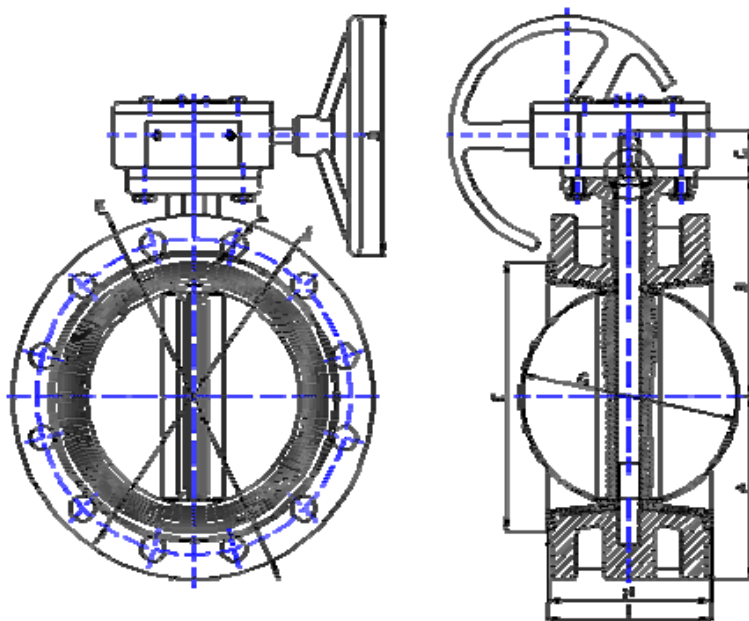
Rating:PN16





Worm Gear Box Flange Type Butterfly valve B-DFG-16

Rating:PN16



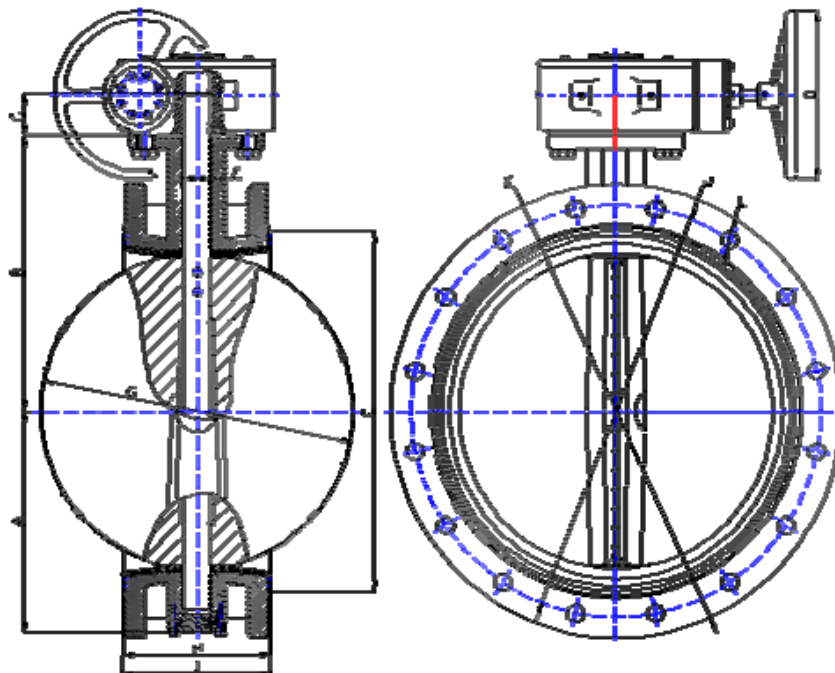
DIMENSIONS

Size	A	B	C	D	E	G	H	I	J	K	L
50mm	83	120	32	150	87	52.88	108	111	125	165	4-19
65mm	93	130	32	150	106	64.49	112	115	145	185	4-19
80mm	100	145	32	150	120	78.84	114	117	160	200	8-19
100mm	114	155	32	150	144	104.04	127	130	180	220	8-19
125mm	125	170	32	150	170	123.32	140	143	210	250	8-19
150mm	143	190	32	150	197	155.58	140	143	240	285	8-23
200mm	170	205	45	300	252	202.46	152	155	295	340	12-23
250mm	198	235	45	300	305	250.47	165	168	355	405	12-28
300mm	220	280	45	300	350	311.55	178	182	410	460	12-28

Worm Gear Box Flange Type Butterfly valve B-DFG-10

Size:DN350-DN600

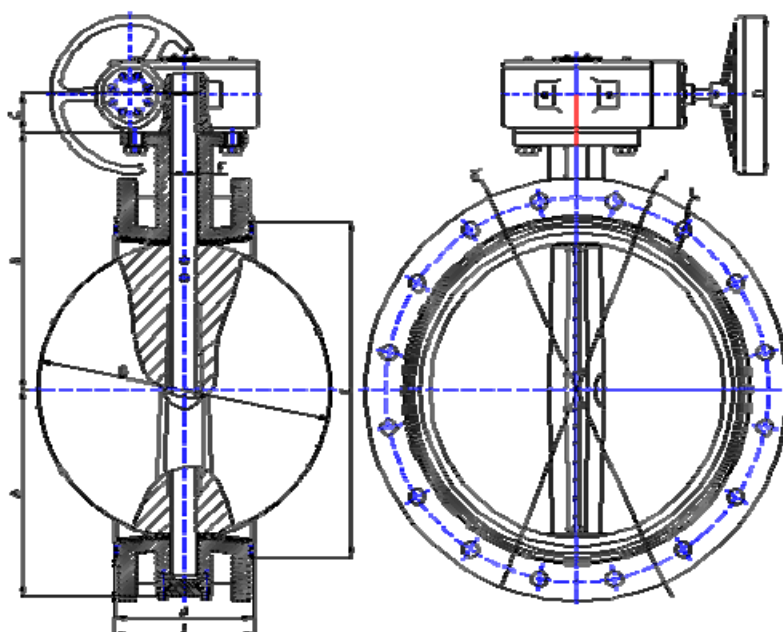
Rating: PN10



DIMENSIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L
350mm	268.5	310	45	300	415	31.60	333	190	194	470	520	16-28
400mm	296.5	340	72	300	460	37.95	390	216	221	525	580	16-31
450mm	336.5	375	72	400	510	42.86	440	222	227	585	640	20-31
500mm	364.5	430	82	400	560	45.72	492	229	234	650	715	20-34
600mm	406.5	500	82	300	660	53.98	592	267	272	770	840	20-37

Rating: PN16





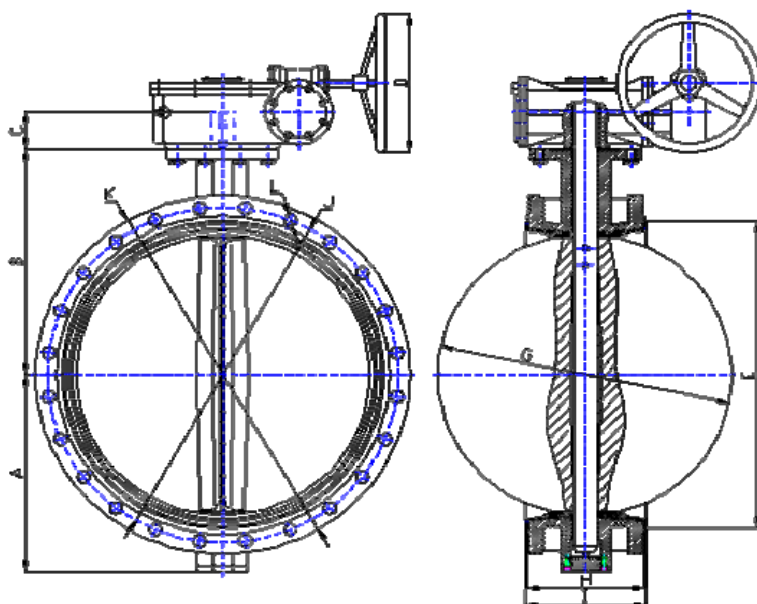
DIMENSIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L
350mm	268.5	310	45	300	415	31.60	333	190	194	470	520	16-28
400mm	296.5	340	72	300	460	37.95	390	216	221	525	580	16-31
450mm	336.5	375	72	400	510	42.86	440	222	227	585	640	20-31
500mm	364.5	430	82	400	560	45.72	492	229	234	650	715	20-34
600mm	406.5	500	82	300	660	53.98	592	267	272	770	840	20-37

Worm Gear Box Flange Type Butterfly valve B-DFG-10

Size: DN700-DN800

Rating: PN10



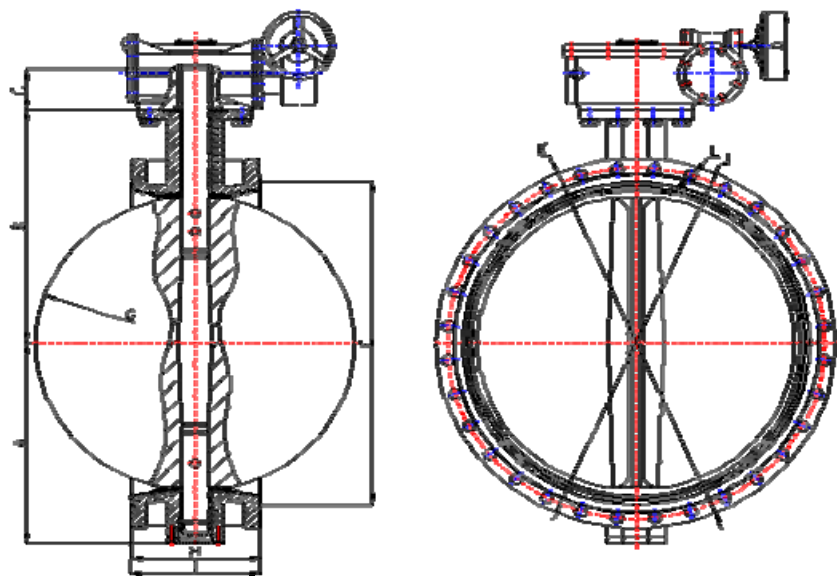
DIMENSIONS

Size	A	B	C	D	E	G	H	I	J	K	L
700mm	507	560	66	400	770	695	292	299	840	895	24-31
800mm	557	640	66	400	871	794.7	318	325	950	1015	24-34

Worm Gear Box Flange Type Butterfly valve B-DFG-10

Size: DN900-DN1200

Rating: PN10



DIMENSIONS

Size	A	B	C	D	E	G	H	I	J	K	L
900mm	596	665	118	400	972	865	330	337	1050	1115	28-34
1000mm	683	735	141	400	1080	965	410	417	1160	1230	28-37
1200mm	783	917	150	450	1270	1161	470	478	1380	1455	32-40

Body	DISC	Stem	Bushing	Seat	
	Material			Material	
				WorkingTemperature	
				(°C)	
C. I	DI	416SS	Lubricative Bronze	NR	-20°C--+85°C
D. I	WCB	431SS	Macromolecule +PTFE	HYPALON	-18°C--+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM	-30°C--+110°C
AL-Brz	Stainless Steel			NEOPRENE	-7°C--+93°C
StainlessSteel				NBR	-12°C--+82°C
				WRR	-10°C--+50°C
				VITON	-23°C--+150°C
				HRR	-20°C--+150°C
				PTFE	+10°C--+150°C



CHECK VALVE → DN50-DN800 Wafer Type Dual-Plate Check valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

Long service life with reliable seal and without frequent maintenance. Butterfly valve have flow characteristics three times better than globe valve, and about 75% of a same size gate valve. Butterfly valve can be used for on/off service and throttling, They are superior in Multi-function as compared to gate or globe valves. Butterfly valve can be widely used in chemical field due to trim options and choice of elastomeric liner .

Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10” butterfly valve are 1/9 and 1/6 of a 10” gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.

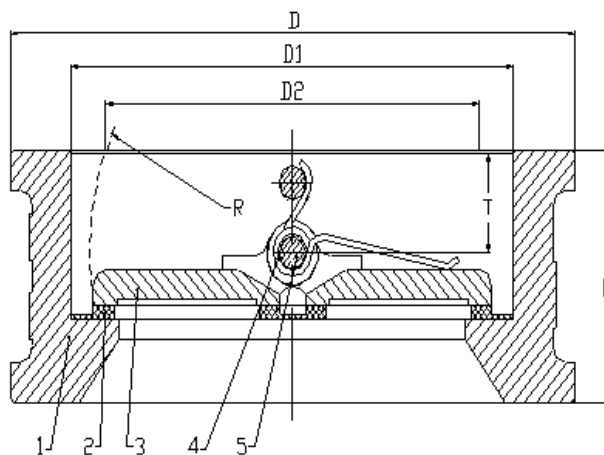


Item	Qty	Parts Name
1	1	Body
2	1	Seat
3	2	Disc
4	2	Spring
5	2	Stem



Structure and Parts List for Dual Plate Check Valve

Nominal Pressure: PN10/PN16

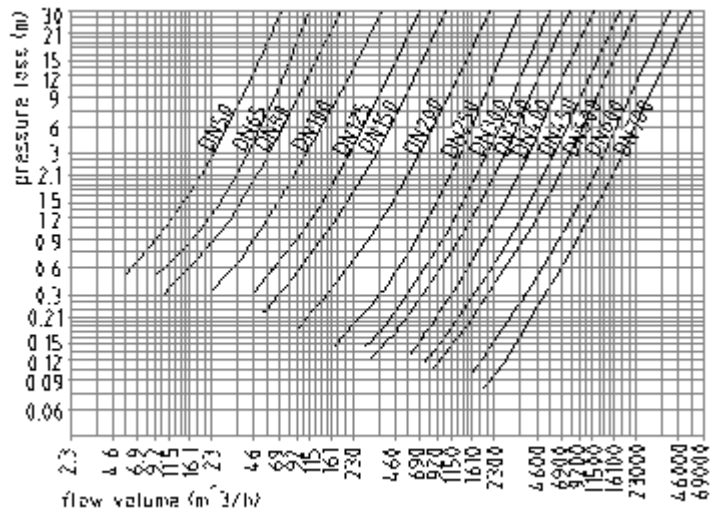


Technical Specification for Dual Plate Check Valve

Size	DN40~DN800	DN40~DN600
Pressure	1.0MPa	1.6MPa
Shell	1.1MPa	1.76MPa
Test Pressure		
Seat	1.5MPa	2.4MPa
Service	1-EPDM	-30°C~+110°C
	2-Neoplene	-7°C~+93°C
Temperature	3-NBR	-12°C~+82°C
	4-Viton	+10°C~+150°C
Service Fluid	Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.	



Pressure Loss Chart



Body	DISC	Stem	Bushing	Seat	
	Material			Material	WorkingTemperature
					(°C)
C. I	DI	416SS	Lubricative Bronze	NR	-20°C--+85°C
D. I	WCB	431SS	Macromolecule +PTFE	HYPALON	-18°C--+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM	-30°C--+110°C
AL-Brz	Stainless Steel			NEOPRENE	-7°C--+93°C
StainlessSteel				NBR	-12°C--+82°C
				WRR	-10°C--+50°C
				VITON	-23°C--+150°C
				HRR	-20°C--+150°C
				PTFE	+10°C--+150°C



Outline Dimensions and Weight for Wafer Type Dual Plate Check Valve

Size		D	D1	D2	L	R	T	Weight
inch	mm							Kgs.
2	50	107	65	43.3	43	28.8	19	1.5
2 1/2	65	127	80	60.2	46	36.1	20	2.4
3	80	142	94	66.4	64	43.4	28	3.6
4	100	162	117	90.8	64	52.8	27	5.7
5	125	192	145	116.9	70	65.7	30	7.3
6	150	218	170	144.6	76	78.6	31	9.0
8	200	273	224	198.2	89	104.4	33	17.0
10	250	328	265	233.7	114	127	50	26.0
12	300	378	310	279.05	114	146	43	37.0
14	350	438	360	327.87	127	170	45	54.9
16	400	489	410	375.88	140	195	52	78.0
18	450	555	450	414.06	152	215	58	119.0
20	500	594	505	467.83	152	241	58	122.0
24	600	700	624	569.59	178	294	73	174.0
28	700	820	720	662.75	229	345	96	219.0
32	800	930	825	762.72	241	394	99	316.0



CHECK VALVE → DN15-DN400 Wafer Type Single-Plate Check Valve

Medium Capability:

Freshwater, Sea water, Air, steam, food, medicine and kinds of oil, acid, alkali, salt.

Feature:

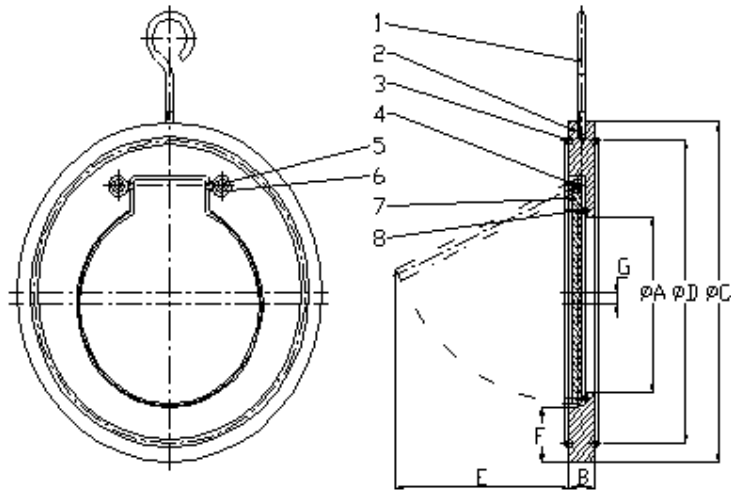
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Butterfly valve have feature of light in weight and small in size, for example, weight and size of a 10” butterfly valve are 1/9 and 1/6 of a 10” gate valve. So butterfly valve is easy to install and save cost of piping system. Butterfly valve with resilient seat design can be bubble tight as compared to metal seated gate or globe valves. Butterfly valves offer 90-degree open to close. Butterfly valve is approximate 35-40% cost of a same size gate valve. Also low installed cost than gate valve.

Properly installed butterfly valves are self cleaning and are less susceptible to failure due to trash material in pipe.



Item	Qty	Parts Name
1	1	Hook
2	1	Body
3	2	Mounting Sealing
4	1~2	Stem
5	2	Screw
6	2	Gasket
7	1	Disc
8	1	Seat



Body	DISC	Stem	Bushing	Seat	Working Temperature
		Material		Material	(°C)
C.I	DI	416SS	Lubricative Bronze	NR	-20°C-+85°C
D.I	WCB	431SS	Macromolecule+PTFE	HYPALON	-18°C-+135°C
WCB	AL-Brz	316SS	316SS+PTFE	EPDM	-30°C-+110°C
AL-Brz	Stainless Steel			NEOPRENE	-7°C-+93°C
Stainless Steel				NBR	-12°C-+82°C
				WRR	-10°C-+50°C
				VITON	-23°C-+150°C
				HRR	-20°C-+150°C
				PTFE	+10°C-+150°C



Outline Dimensions and Weight for Single Disc Check Valve DN15-DN400

Valve Size		A	B	C	D	E	F	G	Weight
inch	mm								Kgs.
1/4	15	7.5	10	53	38	8.6	19.8	0	0.2
3/4	20	10.6	11.5	63	47.5	10.3	22.5	0	0.3
1	25	14.7	12	73	55	14	25	0	0.4
1 1/4	32	18.8	12	85	63.2	19.8	27	0	0.5
1 1/2	40	20	16	94	72	28	27.5	1.5	0.9
2	50	25	16	109	86	38	30.8	3.2	1.2
2 1/2	65	38	16	129	109	46	34	3.5	1.7
3	80	46	16	144	119	56	37.5	3.5	2.1
4	100	71	16	164	146	75	32.5	6	2.7
5	125	95	16	195	173	96	34.5	8	3.8
6	150	114	19	221	197	113	37.5	8	5.8
8	200	140	28	276	255	151	49	11	13.2
10	250	188	32	331	312	195	51	12.5	21.7
12	300	216	38	386	363	229	57	20	34.9
14	350	263	38	446	416	272	67.5	16	46.6
16	400	305	45	498	467	311	69.5	19	68.8

Note: Dimensions for mounting flange for both single-disc and dual-disc check valve above mentioned conform BS4504 PN10. When required, standards from other countries or any special requirements are also available.