

PREM CHEM BUTTERFLY VALVES

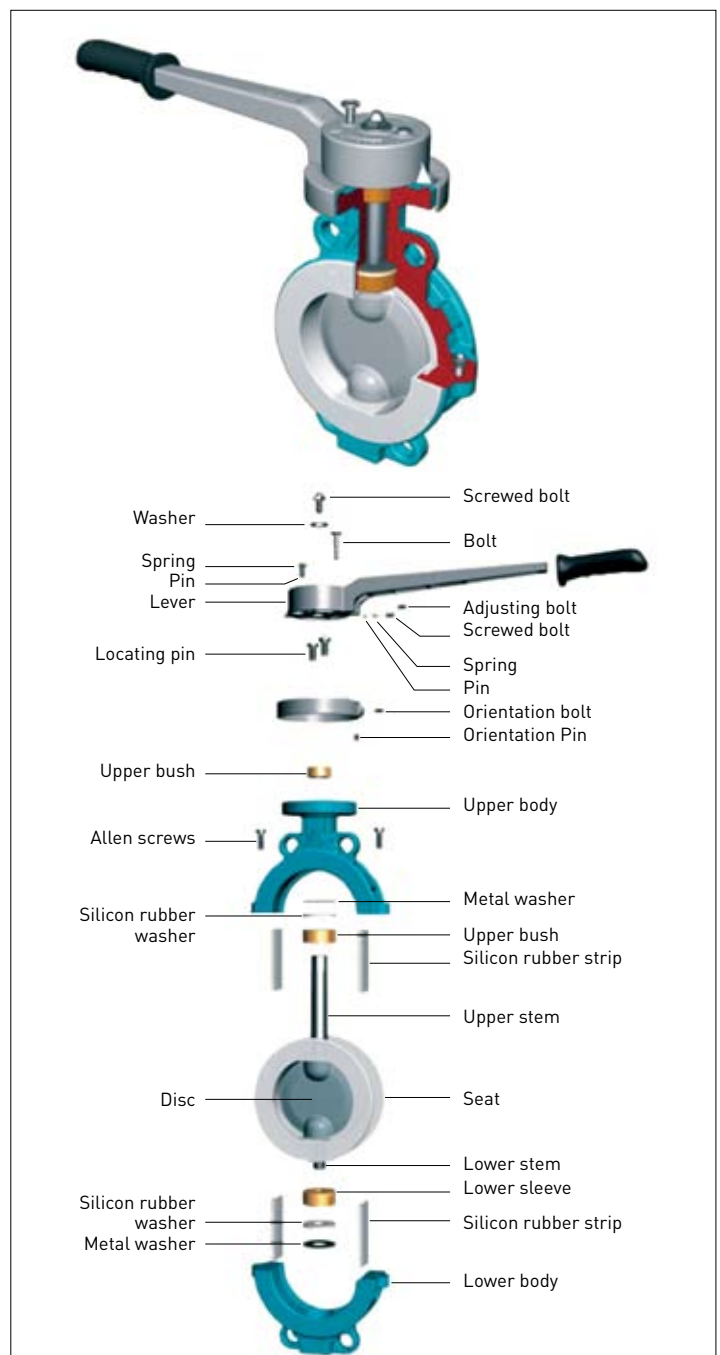


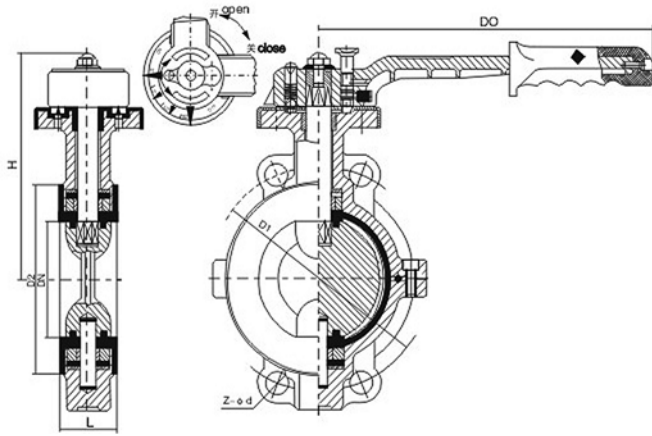
DESIGN STANDARDS:
GB12238, API609,
MSS SP-67, MSS SP-68

Butterfly valves have become very popular because of compactness, weight and ease of operation. The other benefit of Butterfly valves is that the flow curve is reasonably linear so that they can be used for modulating control as long as differential pressure is limited. Good design Butterfly valves also seal off with zero leakage.

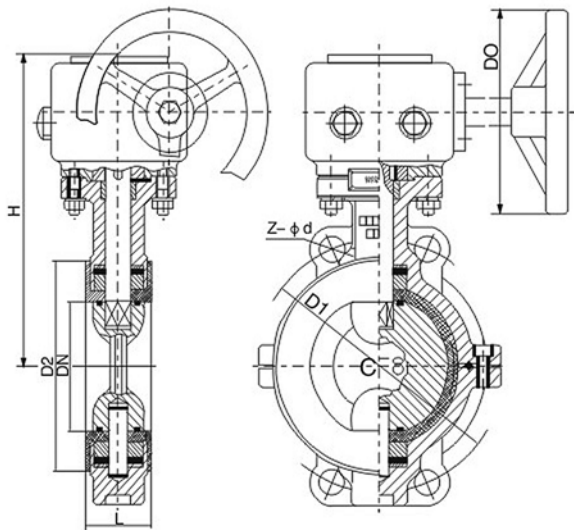
CHARACTERISTICS OF THE PREMACHEM RANGE OF FLUOROPLASTIC LINED BUTTERFLY VALVES:

- The basic type is the Concentric design with either fully lined body and disc or fully lined body and Stainless Steel disc.
- Butterfly valves are available in wafer or double flanged pattern
- The seal design on the stem has been developed over many years and ensures no leak path past the stem. This is achieved by means of an o-ring, metal washer and flexible carbon washer.
- The Teflon lining has a Silicon rubber backing strip to enable zero leakage between the disc and liner.
- The design is bi-directional with equal sealing ability in either flow direction.
- Standard Concentric designs have pressure ratings of 0.6 Mpa, 1.0 Mpa and 1.6 Mpa.
- A flanged Eccentric design is available for higher pressure ratings of ANSI class 150 (2.0 Mpa) and class 300 (5.0 Mpa).
- Available with Lever, Worm gear operator, Pneumatic or Electric actuator.

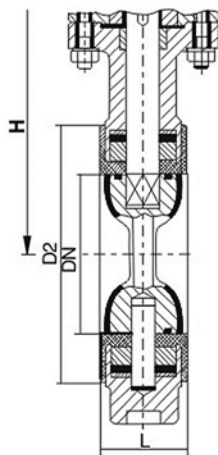




1. D_A71F/P, F₄, F₄₆
Wafer type lever operated butterfly valve



2. D_A371F/P, F₄, F₄₆
Wafer type gear operated butterfly valve



3. D_A371F₄₆
Wafer type gear operated butterfly valve

Standard

Design	GB 12238 Concentric
Face to Face	GB 12221 Short length series
Flange dimension	JB78/JB79 or according to requirement
Test	GB/T 13927
Symbol	GB 12220
Supply	GB/T 12252

Wafer type butterfly valve

- a. DA71F46 Fully lined type
Fully lined body/fully lined disc/disc and stem is a whole;
- b. DA71F4 fully lined type
Fully lined body/fully lined disc/combined stem and disc
- c. DA71F/P Semi lined type
Fully lined body/unlined SS disc/combined stem and disc

Basic type

Lever operated	D _A 71F/P (Semi lined)	Gear operated	D _A 371F/P (Semi lined)
	D _A 71F ₃ (Fully lined)		D _A 371F ₃ (Fully lined)
	D _A 71F ₄ (Fully lined)		D _A 371F ₄ (Fully lined)
	D _A 71F ₄₆ (Fully lined)		D _A 71F ₄₆ (Fully lined)
Pneumatic	D _A 671F/P (Semi lined)	Electric	D _A 971F/P (Semi lined)
	D _A 671F ₃ (Fully lined)		D _A 971F ₃ (Fully lined)
	D _A 671F ₄ (Fully lined)		D _A 971F ₄ (Fully lined)
	D _A 671F ₄₆ (Fully lined)		D _A 971F ₄₆ (Fully lined)



Main Parts Material Specifications

Table A1

No.	Name	Grey Cast Iron	Cast Steel	Stainless Steel		Low Carbon Stainless Steel	
		Z	C	P	R	P _L	R _L
1	Body	HT250	WCB	CF8	CF8M	CF3	CF3M
2	Disc	WCB	35	CF8	CF8M	CF3	CF3M
3	Stem	1Cr13	2Cr13	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti	00Cr18Ni10	00Cr17Ni14Mo2
4	Lining/seat	PTFE(F ₄) PCTFE(F ₃) FEP(F ₄₆) PFA(F ₄) PO					
5	O-ring	FPM (Viton)			FPM (Viton)		
6	Elastic strip	SiR (Silicon rubber)			Sir (Silicon rubber)		
7	Regulate location seat	0Cr18Ni9	0Cr18Ni9	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti	00Cr18Ni10	00Cr17Ni14Mo2
8	Bolt	35	35	1Cr17Ni2	1Cr17Ni2	1Cr18Ni9Ti	1Cr18Ni9Ti
9	Nut	45	45	0Cr18Ni9	0Cr18Ni9	0Cr18Ni9	0Cr18Ni9
10	Lever	ZL101 (Cast aluminium)					

Dimensions and weights

Table B1

Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
		PN0.6 (MPa)									
40	1½	33	130	100	80	3	16	4-ø14	160	140	2.5
50	2	43	140	110	90	3	16	4-ø14	200	145	3.5
65	2½	46	160	130	110	3	16	4-ø14	250	155	4.5
80	3	46	185	150	125	3	18	4-ø18	250	165	6
100	4	52	205	170	145	3	18	4-ø18	250	180	7.5
125	5	56	235	200	175	3	20	8-ø18	300	203	11
150	6	56	260	225	200	3	20	8-ø18	300	225	16
200	8	60	315	280	255	3	22	8-ø18	200	270	48
250	10	68	370	335	310	3	24	12-ø18	200	315	60
300	12	78	435	395	362	4	24	12-ø23	240	348	75
350	14	78	485	445	412	4	26	12-ø23	240	415	82
400	16	102	535	495	462	4	28	16-ø23	280	460	123
450	18	114	590	550	518	4	28	16-ø23	280	500	150
500	20	127	640	600	568	4	30	16-ø23	320	530	180
600	24	154	755	705	670	5	30	20-ø25	320	610	225
700	28	165	860	810	775	5	32	24-ø25	360	675	315
800	32	190	975	920	880	5	34	24-ø30	360	805	385
900	36	203	1075	1020	980	5	36	24-ø30	380	995	420
1000	40	216	1175	1120	1080	5	36	28-ø30	400	1170	620
1200	48	254	1400	1340	1295	5	40	32-ø34	400	1295	788

Flange size: D, D₁, D₂, Z-ød, f, b are standard parameter

Dimensions and weights

Table B2

Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	DO	H	W(kg)
40	1½	33	145	110	85	3	18	4-ø18	160	140	3
50	2	43	160	125	100	3	20	4-ø18	200	145	4
65	2½	46	180	145	120	3	20	4-ø18	250	155	6
80	3	46	195	160	135	3	22	4/8-ø18	250	165	8
100	4	52	215	180	155	3	22	8-ø18	300	180	12
125	5	56	245	210	185	3	24	8-ø18	300	203	18
150	6	56	280	240	210	3	24	8-ø23	200	225	28
200	8	60	225	295	265	3	26	8-ø23	200	275	56
250	10	68	390	350	320	3	28	12-ø23	240	315	72
300	12	78	440	400	368	4	28	12-ø23	240	348	88
350	14	78	500	460	428	4	30	16-ø23	240	415	120
400	16	102	656	515	482	4	32	16-ø25	280	460	145
450	18	114	615	565	532	4	32	20-ø25	280	500	165
500	20	127	670	620	585	4	34	20-ø25	320	530	195
600	24	154	780	725	685	5	36	20-ø30	320	610	268
700	28	165	895	840	800	5	40	24-ø30	360	675	320
800	32	190	1010	950	905	5	44	24-ø34	360	805	395
900	36	203	1110	1050	1005	5	46	28-ø34	380	995	450
1000	40	216	1220	1160	1115	5	50	28-ø34	400	1170	680
1200	48	254	1450	1380	1325	5	56	32-ø41	400	1295	825

Dimensions and weights

Table B3

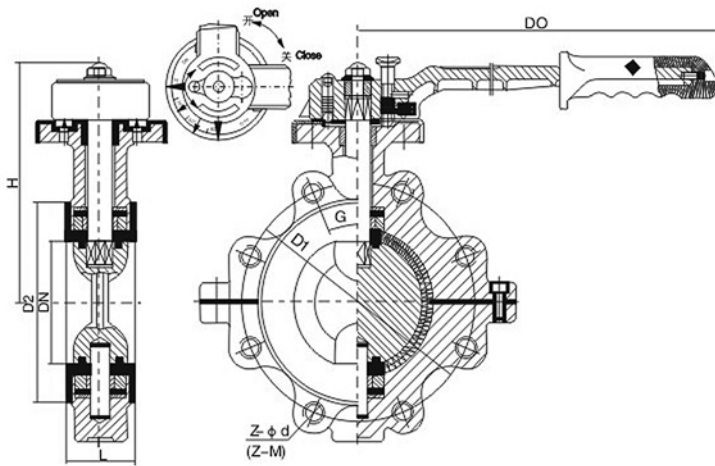
Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
40	1½	33	145	110	85	3	18	4-ø18	200	145	4
50	2	43	160	125	100	3	20	4-ø18	200	150	5
65	2½	46	180	145	120	3	20	4-ø18	250	160	7
80	3	46	195	160	135	3	22	4-ø18	250	170	10
100	4	52	215	180	155	3	24	8-ø18	300	185	14
125	5	56	245	210	185	3	26	8-ø18	300	210	22
150	6	56	280	240	210	3	28	8-ø23	200	230	32
200	8	60	335	295	265	3	30	12-ø23	240	285	66
250	10	68	405	355	320	3	32	12-ø25	240	325	80
300	12	78	460	410	375	4	34	12-ø25	280	360	94
350	14	78	520	470	435	4	38	16-ø25	280	430	125
400	16	102	580	525	485	4	40	16-ø30	320	475	150
450	18	114	640	585	545	4	44	20-ø30	320	525	172
500	20	127	705	650	608	4	46	20-ø34	320	565	225
600	24	154	840	770	718	5	54	20-ø41	360	620	290
700	28	165	910	840	788	5	54	24-ø41	360	686	330
800	32	190	1020	950	898	5	54	24-ø41	380	815	425
900	36	203	1120	1050	998	5	54	28-ø41	400	1010	495
1000	40	216	1255	1170	1110	5	60	28-ø48	400	1185	710

Flange size: D, D₁, D₂, Z-ød, f, b are standard parameter. When flange to PN1.0MPa, DN80, JB78, screw hole Z=4, t other parameter z=8



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4. $D_B 71F/P, F_4, F_{46}$
Lug wafer type lever operated butterfly valve

Standard

Design	API 609 Concentric
Face to Face	API 609 (A)
Flange dimension	ANSIB 16.5 (NPS≤24) API 605 (NPS≤24)
Test	API 598
Symbol	MSS SP-25
Supply	API 609

Wafer type butterfly valve (middle line)

Design to API STD standard structure:

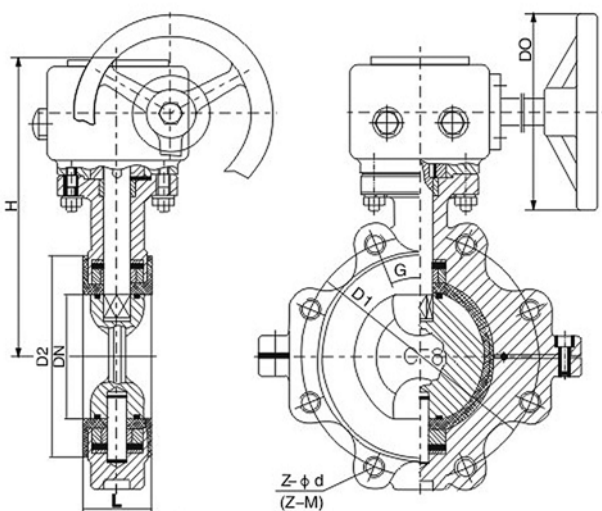
- a. $D_B 71F_{46}$ Fully lined type
Fully lined body/fully lined disc/one piece disc and stem
- b. $D_B 71F_4$ fully lined type
Fully lined body/fully lined disc/one piece disc and stem
- c. $D_B 71F/P$ Semi lined type
Fully lined body/unlined SS disc/one piece disc and stem

Basic type

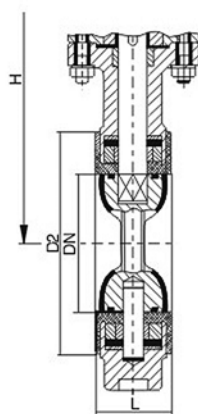
Pressure (pound) ANSI 150lb

Size (inch) NPS 2~48

Lever operated	$D_B 71F/P$ (Semi lined)	Gear operated	$D_B 371F/P$ (Semi lined)
	$D_B 71F_3$ (Fully lined)		$D_B 371F_3$ (Fully lined)
	$D_B 71F_4$ (Fully lined)		$D_B 371F_4$ (Fully lined)
	$D_B 71F_{46}$ (Fully lined)		$D_B 71F_{46}$ (Fully lined)
Pneumatic	$D_B 671F/P$ (Semi lined)	Electric	$D_B 971F/P$ (Semi lined)
	$D_B 671F_3$ (Fully lined)		$D_B 971F_3$ (Fully lined)
	$D_B 671F_4$ (Fully lined)		$D_B 971F_4$ (Fully lined)
	$D_B 671F_{46}$ (Fully lined)		$D_B 971F_{46}$ (Fully lined)



5. $D_B 371F/P, F_4, F_{46}$
Lug wafer type gear operated butterfly valve



6. $D_B 371F_{46}$
Lug wafer type gear operated butterfly valve



Main Parts Material Specifications

Table A2

No.	Name	Grey Cast Iron	Cast Steel	Stainless Steel		Low Carbon Stainless Steel	
		Z	C	P	R	PL	RL
1	Body	A126 C.135A	A216 WCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Disc	A216 WCB	A105	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
3	Stem	A182 F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
4	Lining/seat	PTFE(F ₄) PCTFE(F ₃) FEP(F ₄₆) PFA(F ₄) PO					
5	O-ring	FPM (Viton)			FPM (Viton)		
6	Elastic strip	SiR (Silicon rubber)			SiR (Silicon rubber)		
7	Stem location plate	A182 F304	A182 F316	A182 F304	A182 F316	A182 F304L	A182 F316L
8	Bolt	A193 B7	A193 B7	A193 B8M	A193 B8M	A193 B8M	A193 B8M
9	Nut	A194 2H	A194 2H	A194 8	A194 8	A194 8	A194 8
10	Lever	ZL101 (Cast aluminium)					

Dimensions and weights

Table B4

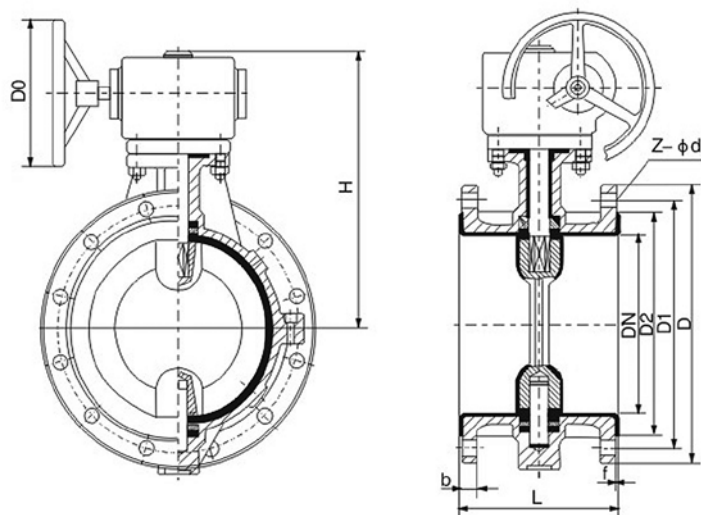
Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
		PN0.6 (MPa)									
50	2	43	152	120.5	92	2	16	4-ø19	200	150	5
65	2½	46	178	139.5	105	2	18	4-ø19	250	160	7
80	3	46	190	152.5	127	2	19	4-ø19	250	170	10
100	4	52	229	190.5	157	2	24	8-ø19	300	185	14
125	5	56	254	216	186	2	24	8-ø22	300	210	22
150	6	56	279	241.5	216	2	26	8-ø22	200*	230	32
200	8	60	343	298.5	270	2	29	8-ø22	240*	285	66
250	10	68	406	362	324	2	31	12-ø25	240*	325	80
300	12	78	483	432	381	2	32	12-ø25	280*	360	94
350	14	78	533	476	413	2	35	12-ø29	280*	430	125
400	16	102	597	540	470	2	37	16-ø29	320*	475	150
450	18	114	635	578	533	2	40	16-ø32	320*	525	172
500	20	127	699	635	584	2	43	20-ø32	360*	565	225
600	24	154	813	749.5	692	2	48	20-ø35	360*	630	290
800	32	190	941	900	864	2	46.5	48-ø22	400*	750	380
900	36	200	1057	1009.7	972	2	53	44-ø26	400*	805	405
1000	40	216	1175	1121	1080	2	56	44-ø29.5		980	450
1200	48	276	1392	1335	1289	2	65	44-ø32	500*	1170	695

Flange size: D, D₁, D₂, Z-ød, f, b are standard parameter. When flange to PN1.0MPa, DN80, JB78, screw hole Z=4, t other parameter z=8



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7. D_A341F/P, F₄, F₄₆
Flange type gear operated butterfly valve

Standard

Design	API 609 Concentric
Face to Face	API 609 (A)
Flange dimension	ANSIB 16.5 (NPS≤24) API 605 (NPS≤24)
Test	API 598
Symbol	MSS SP-25
Supply	API 609

Basic type

Pressure (pound) ANSI 150lb
Size (inch) NPS 2~48

Lever operated	D _A 41F/P (Semi lined)	Gear operated	D _A 341F/P (Semi lined)
	D _A 41F ₃ (Fully lined)		D _A 341F ₃ (Fully lined)
	D _A 41F ₄₆ (Fully lined)		D _A 341F ₄₆ (Fully lined)
Pneumatic	D _A 641F/P (Semi lined)	Electric	D _A 941F/P (Semi lined)
	D _A 641F ₃ (Fully lined)		D _A 941F ₃ (Fully lined)
	D _A 641F ₄₆ (Fully lined)		D _A 941F ₄₆ (Fully lined)

Flange type butterfly valve (middle line)

- a. D_A41F/P Semi lined type
Fully lined body/SS disc and stem (unlined) connected by bolt.
- b. D_A41F₄ fully lined type
Fully lined body/fully lined one piece disc and stem.

Main Parts Material Specifications Table A2

No.	Name	Grey Cast Iron	Cast Steel	Stainless Steel		Low Carbon Stainless Steel	
		Z	C	P	R	P _L	R _L
1	Body	HT250	WCB	CF8	CF8M	CF3	CF3M
2	Stem/Pin	1Cr13	2Cr13	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti	00Cr18Ni10	00Cr17Ni14Mo2
3	Lining/seat	PTFE(F ₄) PCTFE(F ₃) FEP(F ₄₆) PFA(F ₄) PO					
4	Disc/Gland	WCB	35	CF8	CF8M	CF3	CF3M
5	Bracket	WCB (Cast Steel)			CF8 (Stainless Steel)		
6	Packing	PTFE (F ₄)		PTFE (F ₄)		PTFE (F ₄)	
7	Bolt	35	35	1Cr17Ni2	1Cr17Ni2	1Cr18Ni9Ti	1Cr18Ni9Ti
8	Nut	45	45	0Cr18Ni9	0Cr18Ni9	0Cr18Ni9	0Cr18Ni9



Dimensions and weights

Table B5

Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
40	1½	106	130	100	80	3	16	4-ø14	160	140	10
50	2	108	140	110	90	3	16	4-ø14	200	160	12
65	2½	112	160	130	110	3	16	4-ø14	250	160	13
80	3	114	185	150	125	3	18	4-ø14	250	170	14
100	4	127	205	170	145	3	18	4-ø18	300	180	16
125	5	140	235	200	175	3	20	8-ø18	300	275	18
150	6	140	260	225	200	3	20	8-ø18	200	295	38
200	8	152	315	280	255	3	22	8-ø18	200	320	74
250	10	165	370	335	310	3	24	12-ø18	240	385	105
300	12	178	435	395	362	4	24	12-ø23	240	390	142
350	14	190	485	445	412	4	26	12-ø23	240	460	179
400	16	216	535	495	462	4	28	16-ø23	280	510	220
450	18	222	590	550	518	4	28	16-ø23	280	540	268
500	20	229	640	600	568	4	30	16-ø23	320	570	378
600	24	267	755	705	670	5	30	20-ø25	320	660	608
700	28	292	860	810	775	5	32	24-ø25	360	710	1050
800	32	318	975	920	880	5	34	24-ø30	360	780	1320
900	36	330	1075	1020	980	5	36	24-ø30	380	885	1795
1000	40	410	1175	1120	1080	5	36	28-ø30	400	990	1900
1200	48	470	1400	1340	1295	5	40	32-ø34	400	1170	2110

Dimensions and weights

Table B6

Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
40	1½	106	145	110	85	3	18	4-ø18	160	140	10
50	2	108	160	125	100	3	20	184-ø18	200	160	12
65	2½	112	180	145	120	3	20	184-ø18	250	165	13
80	3	114	195	160	135	3	22	4/8-ø18	250	170	14
100	4	127	215	180	155	3	22	8-ø18	300	180	16
125	5	140	245	210	185	3	24	8-ø18	300	275	18
150	6	140	280	240	210	3	24	8-ø23	200	295	38
200	8	152	335	295	265	3	26	8-ø23	200	320	74
250	10	165	390	350	320	3	28	12-ø23	240	385	105
300	12	178	440	400	368	4	28	12-ø23	240	390	142
350	14	190	500	460	428	4	30	16-ø23	240	460	179
400	16	216	565	515	482	4	32	16-ø25	280	510	220
450	18	222	615	565	532	4	32	20-ø25	280	540	268
500	20	229	670	620	585	4	34	20-ø25	320	570	378
600	24	267	780	725	685	5	36	20-ø30	320	660	608
700	28	292	895	840	800	5	40	24-ø30	360	710	1050
800	32	318	1010	950	905	5	44	24-ø34	360	780	1320
900	36	330	1110	1050	1005	5	46	28-ø34	380	885	1795
1000	40	410	1220	1160	1115	5	50	28-ø34	400	990	1900
1200	48	470	1450	1380	1325	5	56	32-ø41	400	1200	2150



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Dimensions and weights

Table B7

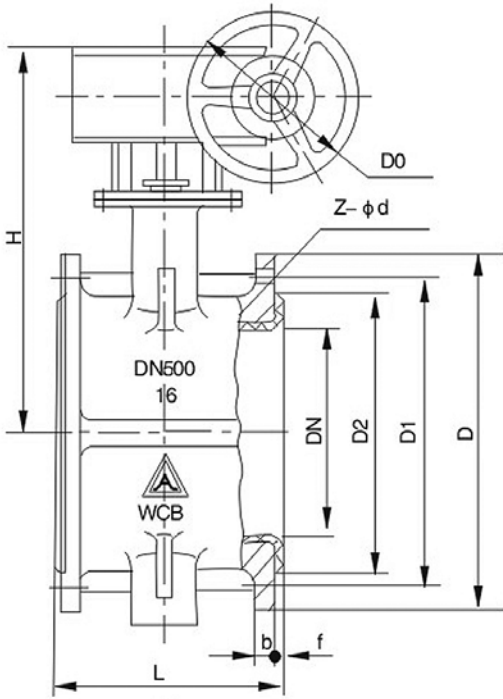
Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
		PN1.6 (MPa)									
40	1½	106	145	110	85	3	18	4-ø18	160	140	10
50	2	108	160	125	100	3	20	4-ø18	200	160	12
65	2½	112	180	145	120	3	20	4-ø18	250	165	13
80	3	114	195	160	135	3	22	8-ø18	260	170	14
100	4	127	215	180	155	3	24	8-ø18	300	180	16
125	5	140	245	210	185	3	26	8-ø18	300	275	18
150	6	140	280	240	210	3	28	8-ø23	200	195	42
200	8	152	335	295	265	3	30	12-ø23	200	320	78
250	10	165	405	355	320	3	32	12-ø25	240	385	120
300	12	178	460	410	375	4	34	12-ø25	240	390	145
350	14	190	520	470	435	4	38	16-ø25	240	460	202
400	16	216	580	525	485	4	40	16-ø30	280	510	235
450	18	222	640	585	545	4	44	20-ø30	280	540	368
500	20	229	705	650	608	4	46	20-ø34	320	570	420
600	24	267	840	770	718	5	54	20-ø41	320	660	750
700	28	292	910	840	788	5	54	24-ø41	360	710	1028
800	32	318	1020	950	898	5	54	24-ø41	380	780	1690
900	36	330	1120	1050	998	5	54	28-ø41	400	885	1815
1000	40	410	1255	1170	1110	5	60	28-ø48	500	990	2050

Dimensions and weights

Table B8

Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
		PN2.5 (MPa)									
40	1½	106	145	110	85	3	20	4-ø18	200	140	11
50	2	108	160	125	100	3	22	4-ø18	200	160	13
65	2½	112	180	145	120	3	24	8-ø18	250	165	14
80	3	114	195	160	135	3	26	8-ø18	250	170	16
100	4	127	230	190	160	3	30	8-ø23	300	180	18
125	5	140	270	220	188	3	32	8-ø25	300	275	20
150	6	140	300	250	218	3	32	8-ø25	240	295	48
200	8	152	360	310	278	3	36	12-ø25	240	320	88
250	10	165	425	370	332	3	40	12-ø30	280	385	145
300	12	178	485	430	390	4	42	16-ø30	280	390	157
350	14	190	550	490	448	4	44	16-ø34	320	460	222
400	16	216	610	550	505	4	48	16-ø34	320	510	353
450	18	222	660	600	555	4	52	20-ø34	360	540	405
500	20	229	730	660	610	4	56	20-ø41	360	570	448
600	24	267	840	770	718	5	56	20-ø41	380	660	795





8. D_B341F/P, F₄, F₄₆
Flange type G.O. butterfly valve

Standard

Design	MSS SP-67 Concentric
Face to Face	MSS SP-67 ANSI B 16.10 (Short series)
Flange dimension	ANSI B 16.5 (NPS≤24) API 605 (NPS>24)
Test	API 598
Symbol	MSS SP-25
Supply	MSS SP-67

Basic type

Pressure (pound) ANSI 150lb-300lb

Size (inch) NPS 3-48

Lever operated	D _B 41F/P (Semi lined)	Gear operated	D _B 341F/P (Semi lined)
	D _B 41F ₃ (Fully lined)		D _B 341F ₃ (Fully lined)
	D _B 41F ₄₆ (Fully lined)		D _B 341F ₄₆ (Fully lined)
Pneumatic	D _B 641F/P (Semi lined)	Electric	D _B 941F/P (Semi lined)
	D _B 641F ₃ (Fully lined)		D _B 941F ₃ (Fully lined)
	D _B 641F ₄₆ (Fully lined)		D _B 941F ₄₆ (Fully lined)

Flange type butterfly valve (middle line)

Design to MSSSP standard structure:

- a. D_B41F/P Semi lined type
Fully lined body / unlined SS disc / combined stem and disc by pin.
- b. D_B41F₃, F₄₆ fully lined type
Fully lined body/fully lined disc / one piece disc and stem.

Main Parts Material Specifications Table A4

No.	Name	Grey Cast Iron	Cast Steel	Stainless Steel		Low Carbon Stainless Steel	
		Z	C	P	R	P _L	R _L
1	Body	A126 C.135A	A216 WCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Stem/Pin	A182 F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
3	Lining/seat	PTFE(F ₄) PCTFE(F ₃) FEP(F ₄₆) PFA(F ₄) PO					
4	Butterfly valve/Gland	A216 WCB	A105	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
5	Bracket	WCB (Cast Steel)			CF8 Stainless Steel		
6	Packing	PTFE (F ₄)		PTFE (F ₄)		PTFE (F ₄)	
7	Bolt	A193 B7	A193 B7	A193 B8M	A193 B8M	A193 B8M	A193 B8M
8	Nut	A194 2H	A194 2H	A194 8	A194 8	A194 8	A194 8



Dimensions and weights

Table B9

Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
		Class 150lb									
80	3	127	190	152.5	127	2	19	4-ø19	250	170	14
100	4	127	229	190.5	157	2	24	8-ø19	300	180	16
125	5	127	254	216	186	2	24	8-ø22	300	275	18
150	6	127	249	241.5	216	2	26	8-ø22	200*	295	42
200	8	152.4	343	298.5	270	2	29	8-ø22	200*	320	78
250	10	203.2	406	362	324	2	31	12-ø25	240*	385	120
300	12	203.2	483	432	381	2	32	12-ø25	240*	390	145
350	14	203.2	533	476	413	2	35	12-ø29	280*	460	202
400	16	203.2	597	540	470	2	37	16-ø29	280*	510	235
450	18	203.2	635	578	533	2	40	16-ø32	320*	540	368
500	20	203.2	699	635	584	2	43	20-ø32	320*	570	420
600	24	203.2	813	749.5	692	2	48	20-ø35	360*	660	750
800	32	304.8	941	900	864	2	48	48-ø22	370*	750	980
900	36	304.8	1057	1009.7	972	2	53	44-ø26	380*	780	1700
1000	40	304.8	1175	1121	1080	2	56	44-ø29	400*	820	1780
1200	48	381	1392	1335	1289	2	65	44-ø32	400*	990	2060

Dimensions and weights

Table B10

Size		Standard							Reference		
Dn (mm)	NPS (inch)	L	D	D ₁	D ₂	f	b	Z-ød	Do	H	W(kg)
		Class 300lb									
80	3	127	210	168.5	127	2	29	8-ø22	250	170	16
100	4	127	254	200	157	2	32	8-ø22	300	180	18
125	5	127	279	235	186	2	35	8-ø22	300	275	20
150	6	127	318	270	216	2	37	12-ø22	200*	295	48
200	8	152.4	381	330	270	2	42	12-ø25	200*	320	88
250	10	203.2	445	387.5	324	2	48	16-ø29	240*	385	145
300	12	203.2	521	451	381	2	51	16-ø32	240*	390	157
350	14	203.2	584	514.5	413	2	54	20-ø32	280*	460	222
400	16	203.2	648	571.5	470	2	58	20-ø35	280*	510	353
450	18	203.2	711	628.5	533	2	61	24-ø35	320*	540	405
500	20	203.2	775	686	584	2	64	24-ø35	320*	570	450
600	24	203.2	914	813	692	2	70	24-ø41	360*	660	765
800	32	304.8	1054	978	902	2	103	32-ø41	370*	750	1500
900	36	304.8	1172	1089	1010	2	103	32-ø44	380*	780	1750

When NPS≤24, Flange size per ANSI B16.5, NPS≥24, to API605

