

BUTTERFLY VALVE SERIES 300

Mounting Flange:

ISO 5211 mounting flange accommodates direct mounting of all types of actuators, including; handles, gear operators, electric and pneumatic

O-Ring:

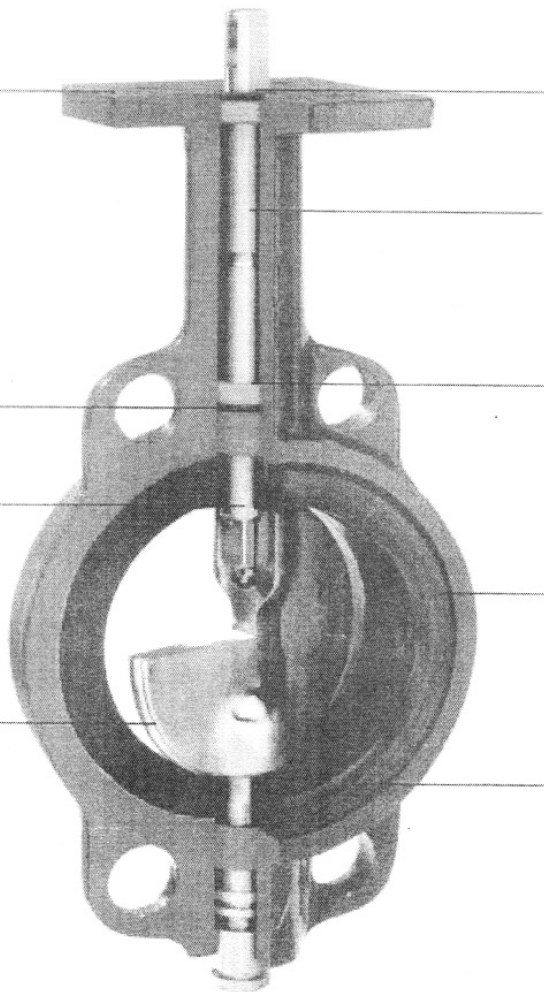
Tertiary stem seal provide further assurance against stem leakage.

Hub-seal:

Smooth finished disc flats mate with seat flats to give a highly efficient primary seal that prevents leakage into the shaft area and minimizes torque.

Disc:

Precision profile provides bubble-tight shut-off, assures minimum torque and longer seat life. Maximum flow is achieved by eliminating the "through shaft" and external disc fasteners.



Weather Seal:

O-ring seals keep dust and moisture from entering the upper stem.

Stem:

Stub shaft design allows the disc to float within the flow-way increasing cycle life.

Bushings:

Stem bushings reduce torque and isolate the stem from the valve body, preventing seizure of the stem due to corrosion in the stem journal. (4 Bushings)

Seat Face:

Seat to flange seal eliminates the need for flange gaskets.

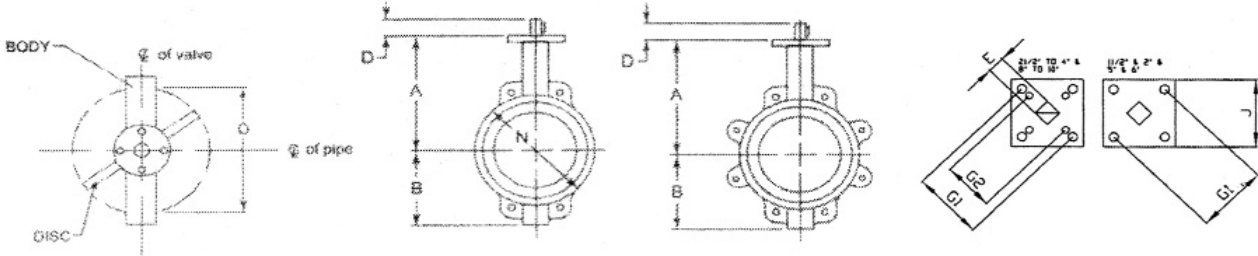
Seat:

Phenolic-backed seat non-collapsible, stretch-resistant, blow-out proof and replacable in the field.

Series 300 Butterfly Valves

Available in Sizes 2" to 12"
 Available in Wafer or Lug style body
 Wafer body features four alignment holes
 Pressure Ratings for tight shut off at temperatures up to the maximum limit of the seat material:
 2" to 12" 200 psi, 125psi for Teflon seat.
 Ideal for on - off or throttling services

Available with handles, manual gear operators and electric or pneumatic actuators
 Operator can be mounted perpendicular to the pipeline
 Designed to comply with MSS SP - 67 and API609. For exact valve measurements, see dimension table.
 Compatible with ANSI 125/150, PN10/16, BS 10 Table E



Dimensions 2" to 24"

DN	Size	A	B	C	D	E	F	G	J	KG (Lugged)	KG (Wafer)
40	1 1/2"	130	64	36	13	10X10	7	F05	70	3.00	2.50
50	2"	162	80	44.45	13	10X10	7	F05	70	3.18	2.72
65	2.5"	174.5	89	47.63	13	10X10	7 (9)	F05/F07	70	3.63	3.18
80	3"	181	95	47.63	13	10X10	7 (9)	F05/F07	70	6.35	4.54
100	4"	200	114	53.98	13	12X12	7 (9)	F05/F07	70	11.79	5.90
125	5"	212.7	127	57.15	13	14X14	9	F07	70	12.70	8.16
150	6"	225.4	139	57.15	18	14X14	9	F07	70	14.06	9.07
200	8"	260.3	175	63.5	18	17X17	9 (10)	F07/F10	95	22.23	14.51
250	10"	292	214	69.85	18	22X22	9 (10)	F07/F10	95	32.66	19.05
300	12"	336.5	242	79.38	18	22X22	9 (10)	F07/F10	95	47.63	31.75

Dimension C, face to face, is listed with elastomer in the relaxed condition. Aproximately 3mm total compression is required for proper sealing with pipe flanges.

Seat Temperature Ratings

Material	Temperature Range °F		Temperature Range °C	
	From	To	From	To
Buna-N	10	180	-12	82
Abrasive Resistant Buna-N	10	180	-12	82
Neoprene	20	200	-7	93
EPDM	-30	275	-34	135
EPDM, Food Grade	-30	225	-34	107
Hypalon	0	275	-18	135
Viton	-22	572	-30	300

Valve Seating Torques (Nm)

Valve Size	Differential Pressure				PNEUMATIC ACTUATOR		
	50 psi	100 psi	150 psi	200 psi	DOUBLE ACTING	SINGLE ACTING	ELECTRIC ACTUATOR
2"	11.30	11.98	12.54	13.22	P00	P05S	ELEEK20
2 1/2"	16.95	18.42	19.89	21.35	P05	P15S	ELEEK35
3"	23.39	24.86	26.21	27.57	P05	P15S	ELEEK35
4"	32.77	36.49	40.34	44.06	P10	P20S	ELEEK60
5"	47.79	54.35	61.01	67.56	P15	P25S	ELEEK150
6"	67.68	78.07	88.47	98.86	P20	P30S	ELEEK150
8"	119.76	133.66	147.67	161.57	P25	P40S	POA
10"	188.80	211.51	234.33	257.04	P30	P40S	POA
12"	290.15	315.79	341.55	367.20	P30	P50S	POA

All torques shown on the chart are based on test data using water @ 60°F. For torques using dry gases, multiply these numbers by 1.6. For torques involving other media, please consult sales.

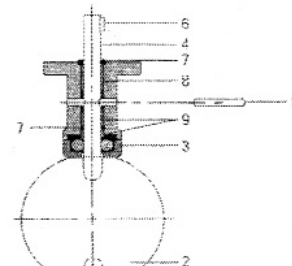
There is no safety factor included in the numbers shown on this chart. For actuating sizing, we recommend that you multiply these values by 1.2 for single valve applications, and 1.5 for 3-way ("tee") applications. Actuators shown are based on wet service and air supply of 6 bar to the actuator.

C.v. Values-Valve Sizing Coefficients (UK GPM @ 1 Δ P)

Size	20°	30°	40°	50°	60°	70°	80°	90°
2"	2	6	16	30	52	70	96	100
2 1/2"	3	8	20	39	65	94	152	162
3"	12	17	37	70	111	169	318	358
4"	25	43	83	137	225	350	585	691
5"	71	108	175	287	437	687	1124	1249
6"	137	187	300	475	683	1049	1561	1649
8"	175	250	400	650	1099	1899	3148	3223
10"	337	479	708	999	1582	2748	5079	5371
12"	458	625	999	1561	2373	4184	7744	8160

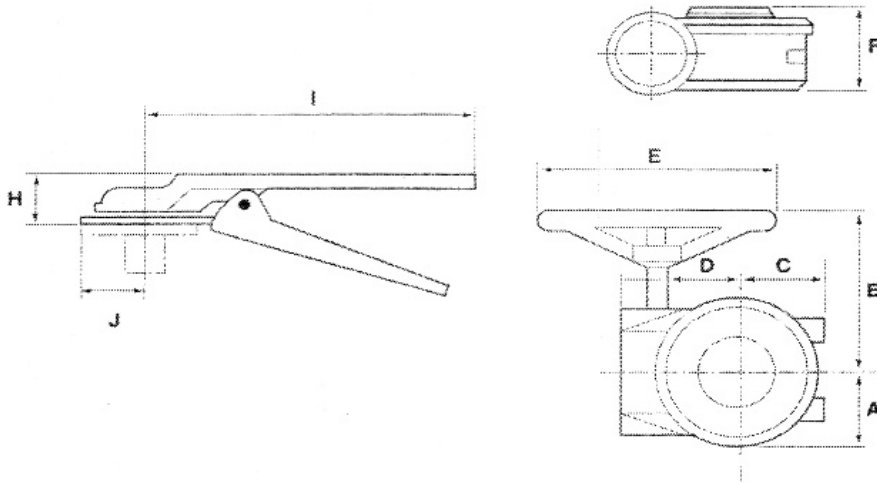
Bill of Materials 2" to 30"

Item	Description	Materials	Optional Materials
1	Body	Cast Iron	Ductile Iron, Carbon Steel, Stainless Steel, Aluminium
2	Disc	316 SS	Ductile Iron ENP plated, Aluminium Bronze, Monel, SS PFA Coated, SS PPS Coated, Nylon Coated Ductile Iron
3	Seat	Buna-N	EPDM, Neoprene (Black or White), Hypalon, Abrasive Resistant Buna-N, Viton, Food Grade EPDM, Teflon over EPDM (Max. Pressure 125psi), Silicon, Chloroprene.
4	Upper Shaft	416 SS	316 SS, Monel



SIZE	RATING (BAR)	TIME (MIN)	RATING (BAR)	TIME (MIN)
1 1/2"	24	0.25	17.6	0.25
2"	24	0.25	17.6	0.25
2 1/2"	24	1	17.6	1
3"	24	1	17.6	1
4"	24	1	17.6	1
5"	24	1	17.6	1
6"	24	1	17.6	1
8"	24	2	17.6	2
10"	24	2	17.6	2
12"	24	2	17.6	2

Manual Operators - Lever and Gear box



DIMENSIONS												
Size	DN	A	B	C	D	E	F	H	I	J	WEIGHT LEVER	WEIGHT GEAR
1 1/2"	40	52.5	156	54	74.5	152	65	32	267	50.8	0.72	5.2
2"	50	52.5	156	54	74.5	152	65	32	267	50.8	0.72	5.2
2 1/2"	65	52.5	156	54	74.5	152	65	32	267	50.8	0.72	5.2
3"	80	52.5	156	54	74.5	152	65	32	267	50.8	0.72	5.2
4"	100	77	233	77	100	300	77	32	267	50.8	0.72	12.5
5"	125	77	233	77	100	300	77	32	267	50.8	0.72	12.5
6"	150	77	233	77	100	300	77	32	267	50.8	0.72	12.5
8"	200	82	226	82	118	300	77	45	360	76.2	1.8	14.3
10"	250	82	226	82	118	300	77	45	360	76.2	1.8	14.3
12"	300	82	226	82	118	300	77	45	360	76.2	1.8	14.3

MATERIALS			
LEVER OPERATOR		GEARBOX OPERATOR	
LEVER	Malleable Cast Iron	BODY	Cast Iron
POSITION BAR	Malleable Cast Iron	GEAR	Ductile Iron
PIN	Mn Steel	WORM BAR	Carbon Steel
SPRING	Mn Steel	LEVER	Carbon Steel
BOLT & NUT	Hard Carbon Steel	WHEEL	Cast Iron
NOTCH PLATE	Zn-Plated Carbon Steel	BOLT AND NUT	Hard Carbon Steel

SERIES 300 HYDROSTATIC TEST

SHELL TEST	SEALING TEST
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