

BUTTERFLY VALVES



DESIGN FEATURES

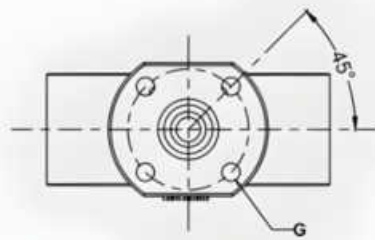
Our Size Range	NPS 1 1/2" to 12" DN 40 to 300
Temperature Range	-20°F to 250°F -29°C to 121°C
Maximum Operating Pressure	High Pressure PN16 250 psi / 17.2 bar Standard Disc PN10 175 psi / 12 bar
Body Style	One - Piece Wafer One - Piece Lug One piece investment Cast Wafer One piece investment Cast Lug
Sleeve/Seat Style	Tongue and Grooved Replaceable. The tongue and groove lock the seat in place and make the valve dead end capable.
Mounting Flange	Our design includes gear operation, pneumatic and electrical actuators mount directly to FFC resilient seated valves. No bracket are required.
Leakage Rate	Bubble tight

DESIGN STANDARDS

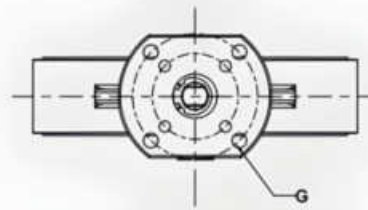
Valve Design	API 609 (Category A) IS 13095 ASME B 16.34 BS EN-593
Face-to-Face	API 609 IS 13095 ISO 5752
Seat Tightness Test	API 598 API 6D BS EN 12266-1
Top Mounting Flange	ISO 5211 ASME B16.5 Class 125/150
Flange Drilling	EN 1092-1 PN 6 10 16 JIS 10 K AS 2129 Table D & E

MATERIAL AVAILABILITY

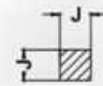
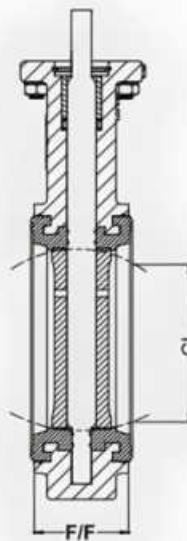
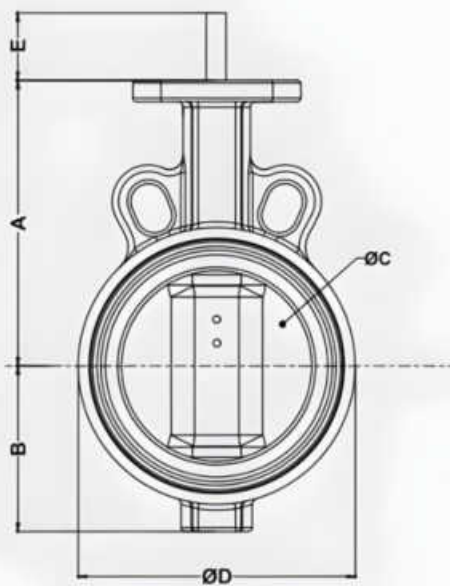
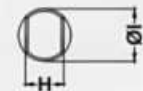
Shell	CI, SG Iron, WCB, CF8, CF3, CF8M, CF3M, Duplex, Super Duplex, Aluminum Bronze, etc.
DISC	SG Iron, SS304, SS304L, SS316, SS316L, Duplex Stainless Steel 4A, Super Duplex Stainless Steel 5A, Aluminum Bronze, etc.
SEAT	EPDM, BUNA-N(Black or White), Neoprene, Viton (FKM), etc.



FOR 2" TO 6"



FOR 8" TO 12"

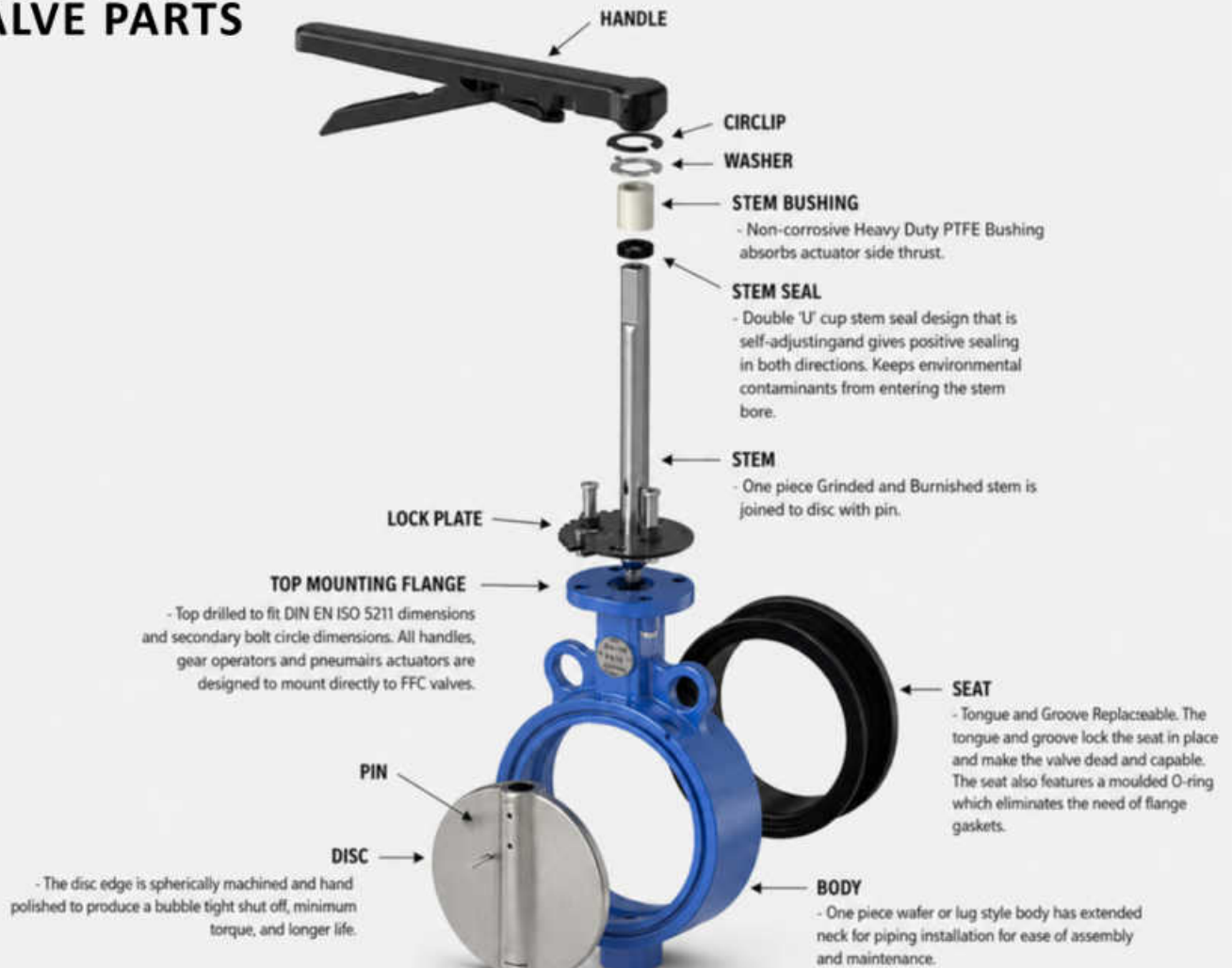


BARE SHAFT VIEW

DIMENSIONS

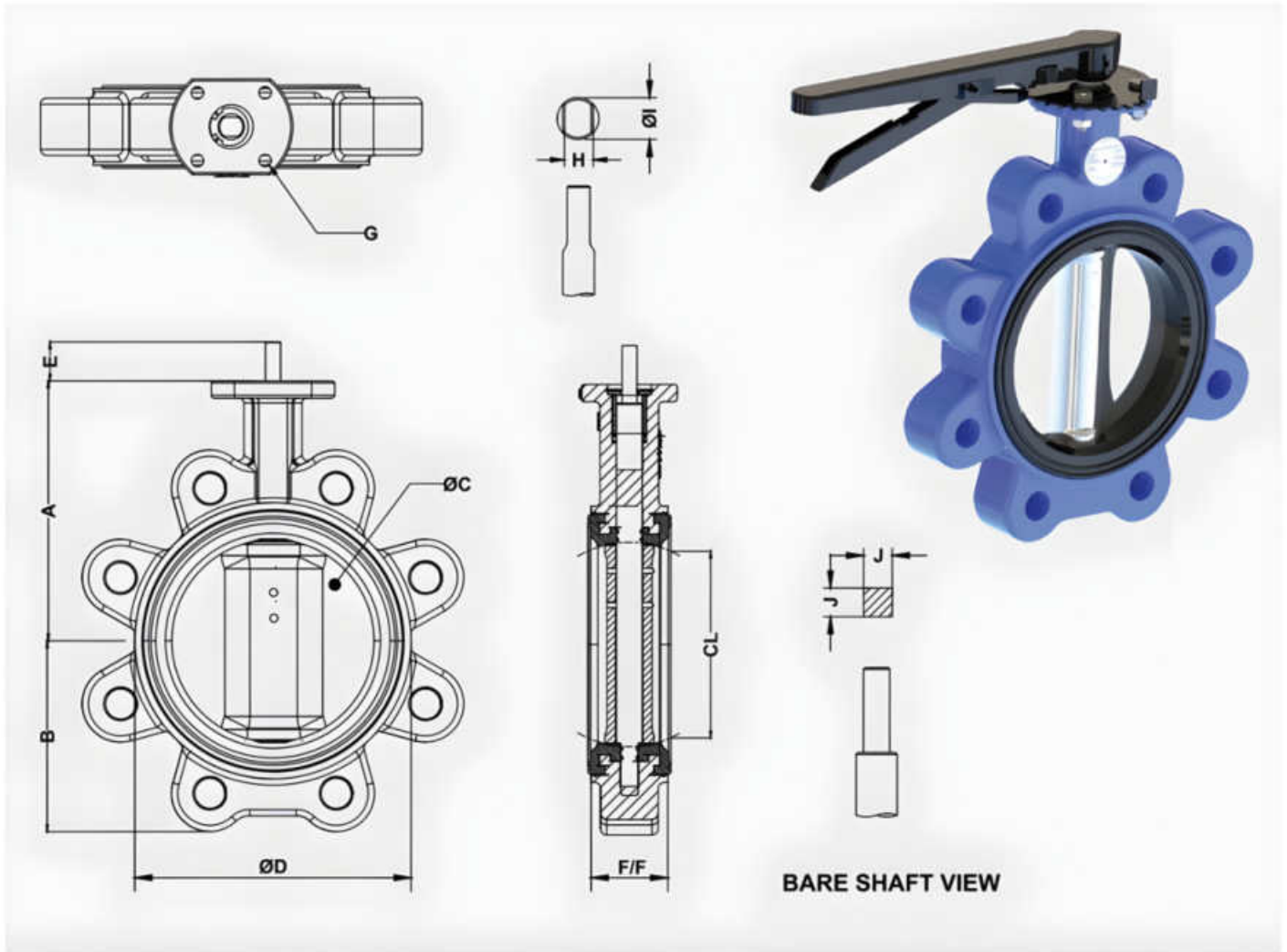
DN/NPS	F/F	A	B	C	ØD	E	Mounting Flange			Bolt Circle PCD		H	ØI	CL	SQ. FOR BARE VIEW (J X J)
MM/INCH							G	No. of Holes	Hole Dia	ISD 7005 PCD	ASME B16.5 PCD				
40/1.5"	33	86	46	41	71	30	F5	4	7.5	110	98.4	8	12	20.54	9
50/2"	43	114	58	53	93	29.5	F5	4	7.5	125	120.7	10	14	26.16	9
65/2.5"	46	110	64	65	99	29.5	F5	4	7.5	145	139.7	10	14	42.15	9
80/3"	46	128	73	80	119	29.5	F5	4	7.5	160	152.4	10	14	63.06	9
100/4"	52	154	89	104	150	28	F7	4	9	180	190.5	11	16	88	11
125/5"	56	170	104	125	171	29	F7	4	9	210	215.9	13	19	110.08	11
150/6"	56	190	120	151	204	29	F7	4	9	240	241.3	13	19	138	11
200/8"	60	214	151	199	267	30	F7/F10	4	9/11	295	298.5	16	22	187.35	14
250/10"	68	251	185	249	308	32	F10/F12	4	11/14	350	362	20	28	240.99	17
300/12"	78	289	214	299	361	32	F10/F12	4	11/14	400	431.8	22	30	289.68	22

VALVE PARTS



SEAT SELECTION GUIDE

SEAT TYPE	TEMPERATURE RANGE		CHARACTERISTICS
EPDM / WHITE EPDM	-20°F(-19°C)	250°F(121°C)	EPDM (Ethylene Propylene Diene Monomer) seats have a higher resistance to abrasion, lower compression set, and higher temperature capabilities than sulphur cured seats.
BUNA-N (BLACK OR WHITE) NBR / Nitrile	0°F(-18°C)	212°F(100°C)	BUNA-N is the commonly used name for Nitrile synthetic rubber. Nitrile is a copolymer of acrylonitrile and butadiene. BUNA-N is sometimes referred to as NBR, Nitrile, or Hycar. BUNA-N is a general-purpose seat material particularly suitable for hydrocarbon service. BUNA-N is also available in Food grade for sanitary applications
VITON (FKM)	0°F(-18°C)	392°F(200°C)	FKM has some outstanding characteristics such as improved acid, oil, and temperature resistance over other seat materials.
NEOPRENE	0°F(-18°C)	180°F(82°C)	Neoprene is an all-purpose polymer with desirable characteristics including high resiliency with low compression, resistance to vegetable and animal oil, and flame resistance. This sealing material is excellent for refrigerants, ammonia and Freon, and is principally used in pulp and (non-bleached) paper lines. Neoprene is not recommended for strong oxidizing acids, chlorinated solvents, esters, ketones, aromatic hydrocarbons or hydraulic fluids. White neoprene is generally used in sanitary applications while the black grade provides better abrasion and oil resistance.
SILICON	-40°F(-40°C)	356°F(180°C)	Silicone Rubber has good resistance to high temperature and low temperature and its chemical is stable. It is recommended for foods, strong acids and weak alkalis



DIMENSIONS

DN/NPS	A	B	C	ØD	F/F	E	Mounting Flange			Bolt Circle PCD			H	ØI	CL	SQ. FOR BARE VIEW (J X J)
MM/INCH							G	No. of Holes	Hole Dia	ISD 7005 PCD	ASME B16.5 PCD	Threads UNC-2B				
40/1.5"	86	46	41	71	33	30	F5	4	7.5	110	98.4	1/2-13	8	12	20.54	9
50/2"	114	58	53	93	43	29.5	F5	4	7.5	125	120.7	5/8-11	10	14	26.16	9
65/2.5"	110	64	65	99	46	29.5	F5	4	7.5	145	139.7	5/8-11	10	14	42.15	9
80/3"	128	73	80	119	46	29.5	F5	4	7.5	160	152.4	5/8-11	10	14	63.06	9
100/4"	154	89	104	150	52	28	F7	4	9	180	190.5	5/8-11	11	16	88	11
125/5"	170	104	125	171	56	29	F7	4	9	210	215.9	3/4-10	13	19	110.08	11
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300/12"	289	214	299	361	78	32	F10/F12	4	11/14	400	431.8	7/8-9	22	30	289.68	22

TORQUE INFORMATION

TORQUE RATING(NM) FOR Rubber Line Wafer Buttery Valve:-

VALVE	PRESSURE	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"
FULL RATED PRESSURE VALVE BAR (PSI)	3.5	7	7	13	14	28	42	56	98	157	258
	7	8	8	14	18	29	45	62	113	175	304
	10	8	8	14	18	29	46	63	117	190	323
	12	12	12	18	23	33	51	70	125	209	354
	16	17	17	22	32	44	63	105	201	306	450

Installation

The valves shall never be installed where service conditions could exceed the valve ratings concerning pressure, temperature or operating media. Failure to comply with this warning may result in personal injury or property damage.

Installation Instructions

1. Check the valve identification tag to make sure the pressure and valve materials are correct for the application.
2. Make sure the pipe line has sufficient support in order to prevent vibrations and load weight from damaging the valve.
3. Make sure pipes are aligned.
4. Make sure the pipe anges and valve sealing faces are clean from any debris.
5. Spread the anges enough to allow the butterfly valve to t with partly opened disc (5-10 degrees).



6. Fix the valve (without any gaskets) with the bolts - without tighten them - open the disc to a



7. Tighten each bolt crosswise according to below gure,

