NVBF SERIES (WAFER)

BUTTERFLY VALVE SIZE 2” TO 24”

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NVBF butterfly valve is a high quality line of butterfly valve to meet the requirements of today’s market.

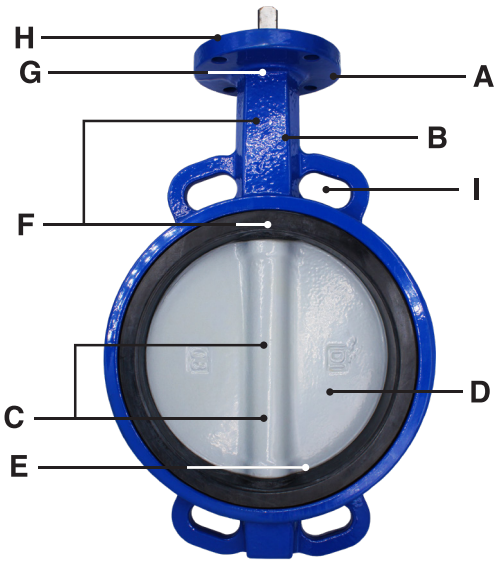
Combining years of field application experience, research and development, NENUTEC has designed many unique features in the NVBF Series not previously available.

The results are longer server life, greater reliability, ease of parts replacement and interchangeability of components.

TECHNICAL SPECIFICATION

VELOCITY LIMIT	For on-off service	Fluids: 9m/s (30 ft/sec) Gases: 54 m/s (175 ft/sec)
	Pressure Rating	For bi-direction bubble-tight shut off, disc in closed position: 50 mm - 300 mm, 16 Bar 350 mm - 600 mm, 10 Bar
	Temperature Range of Seat	EPDM: -40°C to 120°C
BODY MATERIAL	Body	Cast Iron
	Lock Pin	65Mn
	‘O’ Ring (Lower)	EPDM
	Shaft (Lower)	SS420
	Seat	EPDM
	Disc	Nylon Coated Ductile Iron
	Bushing (Long)	F4
	Shaft (Upper)	SS420
	Bushing (Short)	F4
	‘O’ Ring (Upper)	EPDM
	Bisect ring	1Cr13
	Retainer ring	65Mn

MATERIAL



ACTUATOR MOUNTING FLANGE (A)	Designed to ISO5211 for direct mounting of NENUTEC handles, gear operators and actuators both electric and pneumatic.
BODY (B)	One piece body style with polyester coating for excellent corrosion resistance. Extended neck length is easily for piping insulation.
DISC AND STEM CONNECTION (C)	Features a high strength double-D split stem design produces the close tolerance. It eliminates stem components being exposed to the line media, such as disc screws and taper pins, which commonly result in vibration failures, corrosion and leak paths.
DISC (D)	Precision machined and hand polished disc to provide a minimum torque and longer seat life.
SEAT (E)	Unique tongue and groove seat design to body retention. Providing complete isolation of flowing media from the body and making field replacement fast and simple. The seat features a molded O-ring which eliminates the use of flange gasket. The seat is designed to seal with slip-on or weld-neck flanges.
STEM BUSHING (F)	The heavy duty, non corrosive bushings support the stem and absorb side thrusts. The stem bushings are designed to lower valve seating torque and longer valve life.
STEM SEAL (G)	Stem seal is designed to self-adjusting, to prevent the external substances the stem bore and the line media from coming in contact with the stem and body.
STEM RETAINING RINGS ASSEMBLY (H)	The stem is retained by means of two stem retaining rings, retaining rings and washer. The stem retaining rings assembly prevents unintentional removal of the stem.
FLANGE LOCATING HOLES (I)	Provide quick and proper alignment during installation.

DISC AND SEAT SEAL (D & E)	The spherically machined and hand polished disc is designed to bubble-tight shut off, minimum torque, and longer seat life.

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NENUTEC

CV VALUES-VALVE SIZING COEFFICIENT

VALVE SIZE		DISC POSITION (DEGREES)								
ins	mm	90°	80°	70°	60°	50°	40°	30°	20°	10°
2	50	145	115	85	62	43	27	16	7	1
2½	65	285	225	165	108	68	43	24	11	2
3	80	466	368	270	156	97	62	35	15	2
4	100	849	708	501	277	173	110	63	27	3
5	125	1362	1135	767	424	265	168	97	43	5
6	150	1869	1557	1035	573	358	27	130	57	6
8	200	3349	2870	1881	1092	687	425	243	103	12
10	250	5484	4570	2977	1727	1087	674	386	164	19
12	300	8158	6798	4437	2589	1610	1015	561	237	27
14	350	10433	8785	5880	3350	2128	1307	748	296	34
16	400	13826	11643	7788	4438	2819	1732	991	393	45
18	450	17386	14641	10166	5793	3679	2259	1294	512	59
20	500	22562	19000	12660	7215	4581	2814	1611	638	73

EXPECTED SEATING/ UNSEATING TORQUES NM

SIZE		FULL RATE PRESSURE VALVE (BAR)			
ins	mm	3.5	7	10	16
2	50	12	12	12	14
2½	65	15	16	17	18
3	80	19	20	21	23
4	100	28	30	32	35
5	125	50	55	60	67
6	150	61	69	76	87
8	200	108	120	133	152
10	250	197	222	246	283
12	300	299	338	377	437
14	350	485	559	633	780
16	400	840	1011	1182	1524
18	450	962	1205	1448	1935
20	500	1174	1470	1767	2360

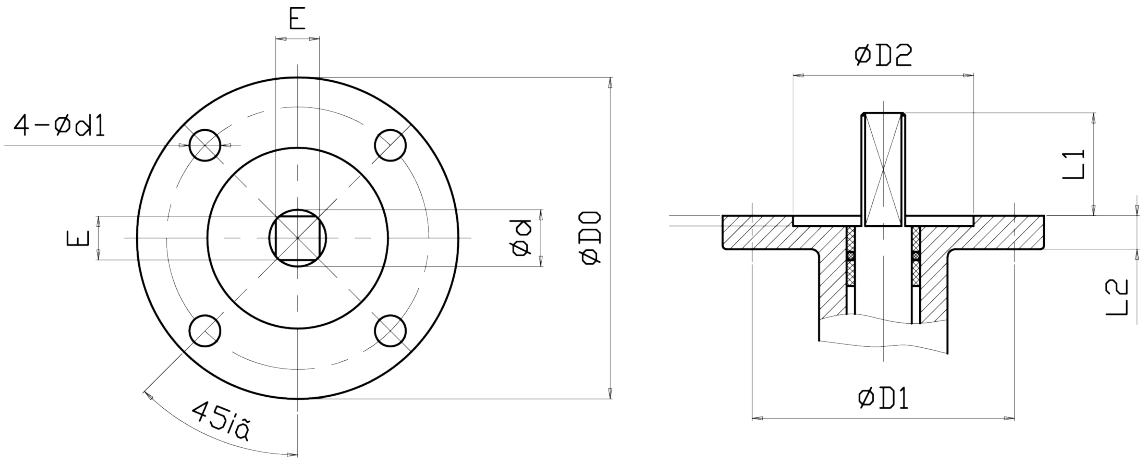
RECOMMENDED SPECIFICATIONS FOR NVBF SERIES SHALL BE:

- Polyester coated, Cast Iron, Wafer or Lug Bodies.
- With flange location holes that meet ANSI Class 125/150,DN2501, AS2129, BS4504, JISB2210 10K.
- Through-stem direct drive double «D» design requiring no disc screws or pins to connect stem to disc with no possible leak paths in disc/stem connection.
- Stem mechanically retained in body neck and no part of stem of body exposed to line media.
- Tongue-and-groove seat design with primary hub seal and a molded O-ring suitable for weld-neck and slip-on flanges. Seat totally encapsulates the body with no flange gaskets required.
- Spherically machined, hand polished disc edge and hub for minimum torque and maximum sealing capability.
- Equipped with non-corrosive bushing and self-adjusting stem seal.
- Bi-directional and tested to 110% of full rating.
- Bi-directional pressure ratings: 2" to 12" 16 Bar
  14" to 20" 10 Bar
- No field adjustment necessary to maintain optimum field performance.

WEIGHT	
ins	kg
2	2.5
2½	3.2
3	3.6
4	4.9
5	5.7
6	7.8
8	13.2
10	19
12	32.5
14	42.5
16	52.0
18	87.0
20	98.0

SIZE & DIMENSIONS

SIZE 2" - 24"



DIM. / SIZE	ØD	ØD1	ØD2	Ød	E X E	L1	L2	4-Ød1		ISO
								DIA.	POSITION	
DN40 (1.5")	65	50	35.25 $^{+0.45}_{+0.25}$	12.6±0.025	9 x 9	32	13	7	Ø0.76	F05
DN50 (2")	65	50	35.25 $^{+0.45}_{+0.25}$	12.6±0.025	9 x 9	32	13	7	Ø0.76	F05
DN65 (2.5")	65	50	35.25 $^{+0.45}_{+0.25}$	12.6±0.025	9 x 9	32	13	7	Ø0.76	F05
DN80 (3")	65	50	35.25 $^{+0.45}_{+0.25}$	12.6±0.025	11 x 11	32	13	7	Ø0.76	F05
DN100 (4")	90	70	55.25 $^{+0.45}_{+0.25}$	15.77±0.025	11 x 11	32	13	10	Ø0.76	F07
DN125 (5")	90	70	55.25 $^{+0.45}_{+0.25}$	18.92±0.025	14 x 14	32	13	10	Ø0.76	F07
DN150 (6")	90	70	55.25 $^{+0.45}_{+0.25}$	18.92±0.025	14 x 14	32	13	10	Ø0.76	F07
DN200 (8")	125	102	70.25 $^{+0.45}_{+0.25}$	22.1±0.025	17 x 17	40	13	12	Ø0.76	F10
DN250 (10")	125	102	70.25 $^{+0.45}_{+0.25}$	28.45±0.025	22 x 22	40	13	12	Ø0.76	F10
DN300 (12")	125	102	70.25 $^{+0.45}_{+0.25}$	31.6±0.051	22 x 22	40	19	12	Ø0.76	F10
DN350 (14")	125	102	70.25 $^{+0.45}_{+0.25}$	31.6±0.051	22 x 22	40	19	12	Ø0.76	F10
DN400 (16")	197	140	100.3 $^{+0.5}_{+0.3}$	33.15±0.05	27 x 27	51.2	20	18	Ø0.76	F14
DN450 (18")	197	140	100.3 $^{+0.5}_{+0.3}$	37.95±0.05	27 x 27	51.2	20	18	Ø0.76	F14
DN500 (20")	197	140	100.3 $^{+0.5}_{+0.3}$	41.12±0.05	36 x 36	64.2	20	18	Ø0.76	F14
DN600 (24")	276	165	130.3 $^{+0.5}_{+0.3}$	50.62±0.05	36 x 36	70.2	22	23	Ø0.76	F16