

For Potable Water Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Full Lug Style Butterfly Valves with NSF Certification

Model BF03-121-45
and BF03-121-4G

Sizes: 2" – 12" (50 - 300mm)

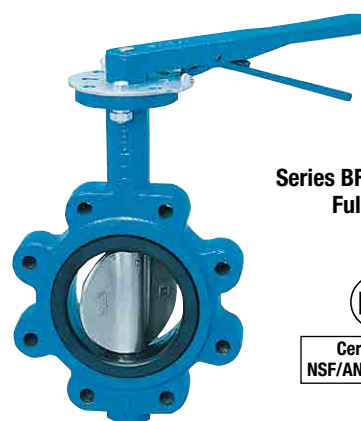
Models BF03-121-45 and BF03-121-4G full lug style butterfly valves are certified by NSF to NSF/ANSI 61 Section 8. The valves feature a FDA epoxy coated ductile iron body, aluminum bronze disc, 416SS shaft, and a NSF approved EPDM seat. The valves are designed and manufactured for use with ANSI 125 or 150 class flanges. They comply with API 609 and MSS-SP-67 and are bi-directional and provide dead-end service capability. ISO standard 5211 mounting pad and bolt hole pattern allow for actuation if required.

Features

- NSF approved EPDM seat is phenolic backed, non-collapsible, and mechanically secured to provide dead-end service to 200psi (13.8 bar).
- FDA approved epoxy coated ductile iron body designed to accept 2" (50mm) of insulation.
- One-piece 416SS shaft with diameters in accordance with AWWA C504-94 Class 75B for sizes 3" – 12" (80 - 300mm)
- Disc edge is machined and polished to assure leak tight shutoff and low operating torque.

Models

BF03-121-45-M2	2" – 8" (50 - 200mm) lever handles
BF03-121-4G-M2	6" – 12" (150 - 300mm) manual gear operator



Series BF03-121-45
Full Lug



Certified to
NSF/ANSI Std 61/8.

Specifications

Butterfly valves to be NSF approved for potable water applications with FDA approved epoxy coated ASTM A-536 ductile iron body, NSF approved EPDM seat and be fully rated for dead end and bidirectional service to 200psi. Disc material to be ASTM A-395 aluminum bronze with one piece 416 stainless steel shaft. Valve to have ISO standard 5211 mounting pad and bolt hole pattern. Valve to be Watts Series BF03-121-45 with lever handle or BF03-121-4G with gear operator.

Pressure – Temperature

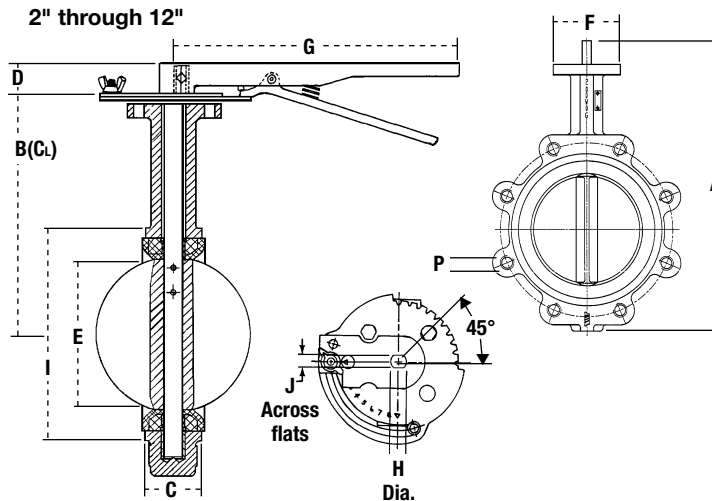
Temperature Range:	5°F – 248°F (-15°C – 120°C)
Maximum Working Pressure:	200psi (13.8 bar) WOG

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

WATTS®

Dimensions – Weights



Size	A		B		C		D		E		F		G		H		I		J	
in. mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2" 50	10 3/4	273	6 3/8	161	1 1/8	42	1 1/4	32	2 1/8	54	3 1/16	77	10 1/2	267	1/2	13	3 3/4	95	3/8	9
2 1/2" 65	11 5/8	295	6 7/8	175	1 3/4	45	1 1/4	32	2 3/16	65	3 1/16	77	10 1/2	267	1/2	13	4 1/4	108	3/8	9
3" 80	12 1/8	308	7 1/8	181	1 3/4	45	1 1/4	32	3 3/8	79	3 1/16	77	10 1/2	267	1/2	13	4 3/4	120	3/8	9
4" 100	13 3/8	346	7 7/8	200	2	52	1 1/4	32	4 1/8	105	3 3/8	92	10 1/2	267	3/4	16	6 1/8	154	3/8	10
5" 125	14 3/8	372	8 3/8	213	2 1/8	54	1 1/4	32	4 7/8	124	3 3/8	92	10 1/2	267	3/4	19	7 1/8	181	1/2	13
6" 150	15 3/8	397	8 7/8	226	2 3/8	55	1 1/4	32	6 1/8	156	3 3/8	92	10 1/2	267	3/4	19	8 3/8	208	1/2	13
8" 200	18 7/8	479	10 1/4	260	2 3/8	60	1 3/4	45	8	200	4 1/2	115	14	356	7/8	22	10 1/4	260	5/8	16
10" 250	21 1/4	540	11 1/2	292	2 5/8	66	1 3/4	45	9 7/8	251	4 1/2	115	14	N/A	1 1/8	29	12 5/8	320	3/4	19
12" 300	24 3/4	626	13 3/4	337	3	76	1 3/4	45	11 7/8	301	5 1/2	140	14	N/A	1 1/4	32	14 3/4	375	1 1/4	32

Size	Top Plate Drilling				Tapped Lug Data				Key Way	Weight†
	N	O			Bolt Circle	No. Holes	Bolt P	Q		
in. mm	in. mm	in. mm	in. mm	in. mm	in. mm			in. mm	lbs.	kgs.
2" 50	2 1/4 57	1/4 6	4 3/4 121	4	5/8"-11UNC x 1 1/4"	—	—	—	8	3.6
2 1/2" 65	2 1/4 57	1/4 6	5 1/2 140	4	5/8"-11UNC x 1 3/8"	—	—	—	10	4.5
3" 80	2 1/4 57	1/4 6	6 150	4	5/8"-11UNC x 1 3/8"	—	—	—	10	4.5
4" 100	2 3/4 70	3/8 10	7 1/2 191	8	5/8"-11UNC x 1 1/2"	—	—	—	17	7.7
5" 125	2 3/4 70	3/8 10	8 1/2 216	8	3/4"-10UNC x 1 3/4"	—	—	—	25	11.3
6" 150	2 3/4 70	3/8 10	9 1/4 241	8	3/4"-10UNC x 2"	—	—	—	27	12.2
8" 200	3 1/2 89	5/8 16	11 1/4 298	8	3/4"-10UNC x 2 1/2"	—	—	—	40	18.1
10" 250	3 1/2 89	5/8 16	14 1/4 362	12	7/8"-9UNC x 2 1/4"	—	—	—	63	28.6
12" 300	4 1/4 108	5/8 16	17 432	12	7/8"-9UNC x 2 1/4"	1/4 x 1	6 x 25	—	107	48.5

SEATING TORQUE	
Buna-N, EPDM, Viton	
Size	Normal Conditions
in. mm	WET/DRY
2" 50	134/214
2 1/2" 65	190/289
3" 80	250/387
4" 100	390/644
5" 125	600/959
6" 150	907/1,542
8" 200	1,697/2,919
10" 250	2,500/4,857
12" 300	3,300/7,071

CV RATING	
(Full Open)	
Size	CV Rating
in. mm	
2" 50	135
2 1/2" 65	220
3" 80	302
4" 100	600
5" 125	1,022
6" 150	1,579
8" 200	3,136
10" 250	5,340
12" 300	8,250

†Weights are for valves with aluminum bronze discs and 10-position lever handles.

Refer to Watts' folder F-CDBF for butterfly valve weights with gear actuators, or consult factory.

How to Order Series BF

12 - BF- 03 - 121 - 4G

Size: 2" thru 12"

Series: 03; Full Lug

Body: 1; Ductile Iron

Disc: 2; Aluminum Bronze

Shaft: 1; 416SS

Seat: 4; NSF Approved EPDM

Operator: G; Gear Operator - 6" through 12"
5; Standard handle (10-position) - 2" through 8"

Materials

Body: FDA Epoxy Coated ASTM A-536 Ductile Iron.

Bushing: Duralon (3): Teflon® - Dacron liner bonded to fiberglass - epoxy resin outer shell.

Stem O-rings: Buna-N

Disc: ASTM A-395 Ductile Iron/Electroless Nickel-plated

Shaft: 416 Stainless Steel

Seat: NSF Approved EPDM +5°F to 248°F
(-15°C to +120°C)

Note: Do not use EPDM when hydrocarbons are present.

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A Watts Water Technologies Company



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