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STOCKHAM - Butterfly Valves

CRANE®

Energy Flow Solutions

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Cross Reference for Commonly Used Valves

STOCKHAM LG / LD SERIES	CENTER LINE 200 SERIES	NIBCO LD / WD SERIES	NIBCO N200/150 SERIES	MILWAUKEE	HAMMOND 6000 SERIES	MUELLER 51/52 SERIES	BRAY 30/31 SERIES	WATTS BF/DBF SERIES	DEMCO NEC SERIES	DEZURIK BRS SERIES	GRINNELL SERIES 1000
LG702DS3B	CS02131X	LD3110-0	N200246	ML122B	6201-00	52ANI30	11010-622	BF03-111-2-0	521531-9	L1NBRCIDIS4	LC-1100-3
LG712DS3B	CS021312	LD3110-3	N200246LH	ML222B	6201-01	52ANI31	11010-622-X	BF03-111-2-5	521531-1	L1NBRCIDIS4LT	LC-1101-3
LG722DS3B	CS021315	LD3110-5	N200246GO	ML322B	6201-03	52ANI35	11010-622-X	BF03-111-2G	521531-213X2	L1NBRCIDIS4MG	LC-1102-3
LG702DS3E	CS02135X	LD3010-0	N200236	ML122E	6200-00	52ANI60	11010-118	BF03-111-1-0	521535-9	L1EPDMCIDIS4	LC-1200-3
LG712DS3E	CS021352	LD3010-3	N200236LH	ML222E	6200-01	52ANI61	11010-118-X	BF03-111-1-5	521535-1	L1EPDMCIDIS4LT	LC-1201-3
LG722DS3E	CS021355	LD3010-5	N200236GO	ML322E	6200-03	52ANI65	11010-118-X	BF03-111-1-G	521535-213X2	L1EPDMCIDIS4MG	LC-1202-3
LG712BS3B	CS061312	LD2100-0	N200245	ML123B	6210-00	52ANK30	11010-113	BF03-121-1-0	521431-9	L1NBRCIBZS4	LC-1180-3
LG722BS3B	CS061315	LD2100-3	N200245LH	ML223B	6210-01	52ANK31	11010-113-X	BF03-121-1-5	521431-1	L1NBRCIBZS4LT	LC-1181-3
LG721BS3B	C2661315	LD2100-5	N200245GO	ML323B	6210-03	52ANK35	11010-113-X	BF03-121-1-G	521431-213X2	L1NBRCIBZS4MG	LC-1182-3
LG712BS3E	CS061352	LD2000-0	N200235	CL123E	6211-00	52ANK60	11010-112	BF03-121-1-0	521435-9	L1EPDMCIBZS4	LC-1280-3
LG722BS3E	CS061355	LD2000-3	N200235LH	CL223E	6211-03	52ANK61	11010-112-X	BF03-121-1-5	521435-1	L1EPDMCIBZS4LT	LC-1281-3
LG721BS3E	C2661355	LD2000-5	N200235GO	CL323E	6211-05	52ANK65	11010-112-X	BF03-121-1G	521435-213X2	L1EPDMCIBZS4MG	LC-1282-3
LG712SS2B	CS044312	LD3122-0	NA	ML124B	6220-00	52AHH30	11010-125	BF03-131-2-0	522231-9	L1NBRCIS2	NA
LG722SS2B	CS044315	LD3122-3	NA	ML224B	6220-01	52AHH31	11010-125-X	BF03-131-2-5	522231-1	L1NBRCIS2LT	NA
LG721SS2B	C2644315	LD3122-5	NA	ML324B	6221-03	52AHH35	11010-125-X	BF03-131-2G	522231-213X2	L1NBRCIS2MG	NA
LG712SS2E	CS044352	LD3022-0	NA	ML124E	6221-00	52AHH60	11010-124	BF03-131-1-0	522235-9	L1EPDMCIS2	NA
LG722SS2E	CS044355	LD3022-3	NA	ML224E	6221-01	52AHH61	11010-124-X	BF03-131-1-5	522235-1	L1EPDMCIS2LT	NA
LG721SS2E	C2644355	LD3022-5	NA	ML324E	6221-03	52AHH65	11010-124-X	BF03-131-1G	522235-213X2	L1EPDMCIS2MG	NA
LG512DS3B	AS021312	WD3100-0	N200146	MW122B	6100-00	51ANI30	11010-622	BF04-111-2-0	121531-9	W1NBRCIDIS4	WC-1100-3
LG522DS3B	AS021315	WD3100-3	N200146LH	MW222B	6100-01	51ANI31	11010-622-X	BF04-111-2-5	121531-1	W1NBRCIDIS4LT	WC-1101-3
LG521DS3B	A2651315	WD3100-5	N200146GO	MW322B	6100-03	51ANI35	11010-622-X	BF04-111-2G	121531-213X2	W1NBRCIDIS4MG	WC-1102-3
LG512DS3E	AS021352	WD3000-0	N200136	MW122E	6101-00	51ANI60	11010-118	BF04-111-1-0	121535-9	W1EPDMCIDIS4	WC-1200-3
LG522DS3E	AS021355	WD3000-3	N200136LH	MW222E	6101-01	51ANI61	11010-118-X	BF04-111-1-5	121535-1	W1EPDMCIDIS4LT	WC-1201-3
LG521DS3E	A2651355	WD3000-5	N200136GO	MW322E	6010-03	51ANI65	11010-118-X	BF04-111-1-G	121535-213X2	W1EPDMCIDIS4MG	WC-1202-3
LG512BS3B	AS061312	WD2100-0	N200145	MW123B	6110-00	51ANK30	11010-113	BF04-121-2-0	121431-9	W1NBRCIBZS4	WC-1180-3
LG522BS3B	AS061315	WD2100-3	N200145LH	MW223B	6110-01	51ANK31	11010-113-X	BF04-121-2-5	121431-1	W1NBRCIBZS4LT	WC-1181-3
LG521BS3B	A2661315	WD2100-5	N200145GO	MW323B	6110-03	51ANK35	11010-113-X	BF04-121-2-G	121431-213X2	W1NBRCIBZS4MG	WC-1182-3
LG512BS3E	AS061352	WD2000-0	N200135	CW123E	6111-00	51ANK60	11010-112	BF04-121-1-0	121435-9	W1EPDMCIBZS4	WC-1280-3
LG522BS3E	AS061355	WD2000-3	N200135LH	CW223E	6111-01	51ANK61	11010-112-X	BF04-121-1-5	121435-1	W1EPDMCIBZS4LT	WC-1281-3
LG521BS3E	A2661355	WD2000-5	N200135GO	CW323E	6111-03	51ANK65	11010-112-X	BF04-121-1G	121435-213X2	W1EPDMCIBZS4MG	WC-1282-3
LG512SS2B	AS044312	WD3122-0	NA	MW124B	6120-00	51AHH30	11010-125	BF04-131-2-0	122231-9	W1NBRCIS2	NA
LG522SS2B	AS044315	WD3122-3	NA	MW224B	6120-01	51AHH31	11010-125-X	BF04-131-2-5	122231-1	W1NBRCIS2LT	NA
LG521SS3B	A2644315	WD3122-5	NA	MW324B	6120-03	51AHH35	11010-125-X	BF04-131-2-G	122231-213X2	W1NBRCIS2MG	NA
LG512SS2E	AS044352	WD3022-0	NA	MW124E	6121-00	51AHH60	11010-124	BF04-131-1-0	122235-9	W1EPDMCIS2	NA
LG522SS2E	AS044355	WD3022-3	NA	MW224E	6121-01	51AHH61	11010-124-X	BF04-131-1-5	122235-1	W1EPDMCIS2LT	NA
LG521SS3E	A2644355	WD3022-5	NA	MW324E	6121-03	51AHH65	11010-124-X	BF04-131-1G	122235-213X2	W1EPDMCIS2MG	NA

NA = Not Available

General Information

Many years of valve experience have been incorporated into the design and production of Stockham butterfly valves. The simplicity of design, ease of installation and low installed cost are just some of the reasons for such wide acceptance of these valves. The same quality that is built into all Stockham valves ensures the user that our butterfly valves will continue to be proven performers.

QUALITY MANAGEMENT Stockham is committed to a philosophy of total quality management. It begins with design, assuring compliance with relevant MSS and ASME standards, and it extends to materials and services to satisfy our customers' needs.

MATERIALS Standard body materials for butterfly valves include cast iron, ductile iron and carbon steel. Body and trim materials are produced to conform to the chemical and physical requirements of the American Society for Testing and Materials (ASTM). Valve materials and ASTM specifications are shown on each product page.

RATED WORKING PRESSURE The maximum cold working pressure for all cast iron butterfly valves is 200 psi for sizes 2" – 12", and 150 psi on sizes 14" – 36".

DESIGN: RESILIENT, CARTRIDGE-TYPE SLEEVE, WAFER AND LUG, SIZE 20"

BODY Available in wafer and lug types, with extended necks to accommodate 2" of insulation. Face-to-face dimensions meet MSS SP-67 and API 609. Bodies are epoxy coated as standard through 12".

Lug body valves are recommended for lines where bi-directional dead-end service is required for removal of downstream piping for equipment maintenance purposes. In such cases, our standard lug style valves and our M-Series contractor valves provide this capability.

STEM A one-piece stem design is standard. Standard material is Type 416 stainless steel, with Type 316 stainless available.

Stem bushings are furnished on all valves to provide longer life with lower torques.

DISC Discs are precision machined to assure tight shutoff.

Standard disc materials are ductile iron (nickel plated), aluminum bronze, and CF8M (Type 316 stainless steel).

SLEEVE Standard iron valves have a cartridge-type, replaceable sleeve. The seating material is a resilient elastomer integrally molded to a rigid phenolic backing ring which forms a non-collapsible seat sleeve. Sleeves extend past body faces to provide seal against mating flanges. "M-Series" valves utilize a molded-in liner which allows these valves to be used for bi-directional dead-end service. Other valves have cartridge-type replacement sleeves. High performance valves do not utilize cartridge seating technology, refer to page 27.

Temperature ranges for sleeve materials in continuous service are:

Buna-N (Nitrile Rubber)	20° - 180°F
EPDM (Nordel)	20° - 250°F
Viton®	20° - 250°F

NOTE: Soft seated valves are not recommended for steam service.

OPERATION

Levers are available on all valve sizes through 12". Manual gear operators may be supplied on all sizes. Operating torque requirements on valves 8" and larger suggest the use of gear operators. See page 20 for further information about lever handles and gears.

Stockham butterfly valves are also available with pneumatic or electric actuators. For more information, see page 21.

MARKING Each valve is supplied with a nameplate to identify the figure number and pressure rating of the valve.

TESTING Each valve is individually tested with a shell test and seat test in conformance with MSS SP-67:

Shell—1.50 x Body CWP	
Seat -	Type I - Tight shutoff requirements at rated pressure at ambient temperature

PACKAGING

Valves are packaged in pallet box containers or on pallets, adequately protected for shipment. M-Series valves are boxed through 6" size, with handles detached.

WEIGHTS AND DIMENSIONS

Dimensions and weights shown in this catalog are for estimating purposes only and are subject to change without notice. It is our intent to maintain basic dimensional requirements of accepted standards.

Viton® is a registered trademark of DuPont Performance Elastomers L.L.C.

Resilient Seated Butterfly Valves



Reliability You Need

Features:

- Complete Size Range: 2"-48"
- Suitable for both Gaseous and Liquid Service
- Positive Shut-Off Bi-Directionally
- PTFE Bushing Standard
- Locking Handle Standard 2"-12"
- End of Line Service Standard on Lug Style
- Ease of Automation
- Field Repairable
 - 2"-12" Phenolic Backed Seat*
 - 14"-30" Aluminum Backed Seat

Typical Applications:

- HVAC
- Chemical/Petrochemical Processing
- Food and Beverage
- Power and Utilities
- Pulp and Paper

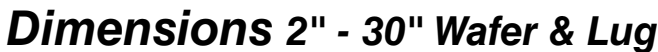
*2-12" low temperature Viton® has aluminum backed seats.

Resilient Seated Butterfly Valves Figure Number System

Valve Body	Body Material	Body Type	Type Operation	Pressure Rating	Disc Material	Stem Material	Sleeve Material	Style
L-Butterfly	G-Cast Iron	5-Wafer	0-Bare Stem	1-150	B-Aluminum Bronze	S2-Type 316 Stainless Steel	B-Buna-N	M-Contractor Series with molded seats
	D-Ductile Iron	7-Lug, DES* or Double Flanged	1-Lever	2-200	D-Ductile Iron, Nickel Plated (2" - 12" Only)	S3-Type 416 Stainless Steel	E-EPT (EPDM)	
			2-Gear	3-285	S-Type 316 Stainless Steel		AB-Abrasion Resistant Buna-N	
			3-Air Actuator				V-Viton®	
			4-Electric Actuator					
		*Dead End Service	5-Lever with Memory Stop					
			7-Gear with Memory Stop				FDA APPROVED	
			8-Gear with Chainwheel				FE-EPT	
			9-Buried Gear with Drive Nut				FB-Buna-N	
			10-Buried Gear					

NOTES:

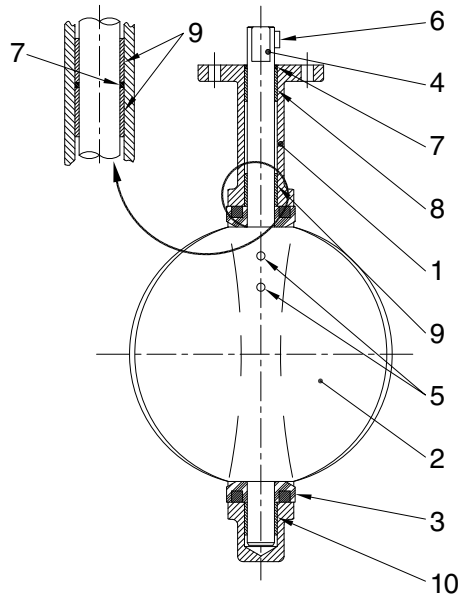
Please consult price sheet and catalog for items listed. You may not build figure numbers to specify all possible combinations listed above.
For High Performance BFV figure numbers refer to page 25.



L1 and M1 refer to Lug style valves, L2 and M2 refer to Wafer Style. "C" dimension is listed with elastomer in the relaxed condition. Approximately 1/8" total compression is required for proper sealing with pipe flanges. Valves are designed for installation between ASME B16.1 Class 125 (Iron) and B16.5 Class 150 (Steel) flanges. Gaskets are not needed, and should not be used since the seat face seals against the mating flange. If the valve is to be installed in between any other flanges, consult your Stockham agent or the factory for additional information. Stockham recommends that a blind flange be used on end of line applications. "O" dimension is the valve clearance dimension.

Figure LD-722

200 CWP • Lug Body • Handwheel Gear Operated



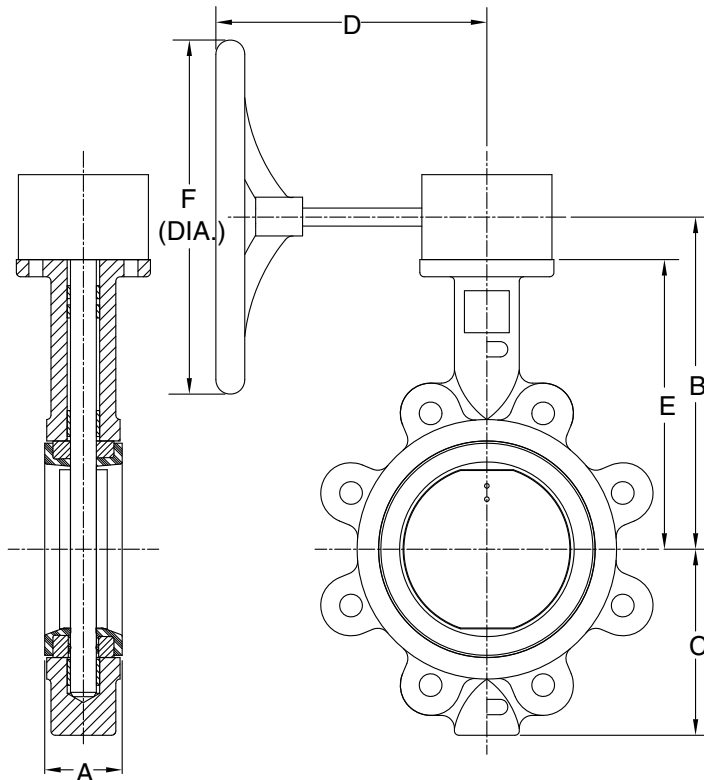
Materials of Construction

No.	Description	Material	ASTM Spec.
1	Body - Epoxy Coated	Ductile Iron	A-536 Gr. 65-45-12
2	Disc	Ductile Iron Stainless Steel Aluminum Bronze	A-536 Gr. 65-45-12 A-351 Gr. CF8M B-148 Alloy C95400
*3	Seat	Buna-N EPDM, Viton®	
4	Shaft	316 Stainless Steel 416 Stainless Steel	A-276 Type 316 A-582 Type 416
*5	Taper Pin	300 Series Stainless	
6	Key	Carbon Steel	A-575 AISI 1018
*7	O-Ring	Buna-N	
8	Bushing	PTFE	
9	Bushing	PTFE	
10	Bushing	PTFE	

* Recommended spare parts.

Notes:

1. Line flange dimensions comply with ASME B16.5.
2. MSS SP-67 Type I.
3. Order parts by item number, valve size and figure number.



Dimensions and Weights

Size	Wt.	A*	B	C	D	E	F
2	21 (9.54)	1.75 (44)	8.00 (203)	3.19 (81)	6.00 (152)	6.38 (162)	12.00 (305)
2½	22 (9.99)	1.88 (48)	8.50 (216)	3.50 (89)	6.00 (152)	6.88 (175)	12.00 (305)
3	28 (12.71)	1.88 (48)	8.75 (222)	3.75 (95)	6.00 (152)	7.12 (181)	12.00 (305)
4	40 (18.15)	2.13 (54)	9.50 (241)	4.50 (114)	9.00 (229)	7.88 (200)	12.00 (305)
5	42 (19.06)	2.25 (57)	10.00 (254)	5.00 (127)	9.00 (229)	8.38 (213)	12.00 (305)
6	45 (20.42)	2.31 (59)	10.50 (267)	5.50 (140)	9.00 (229)	8.88 (226)	12.00 (305)
8	67 (30.41)	2.50 (64)	11.75 (298)	6.88 (174)	9.00 (229)	10.25 (260)	12.00 (305)
10	90 (40.84)	2.75 (70)	13.00 (330)	8.00 (203)	9.00 (229)	11.50 (292)	12.00 (305)
12	123 (55.81)	3.12 (79)	14.75 (375)	9.13 (244)	9.00 (229)	13.25 (337)	12.00 (305)

Inches (millimeters) - Pounds (kilograms)

*A dimension is listed with elastomer in relaxed condition.