

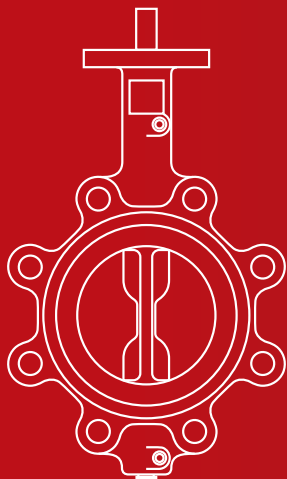


# INSTALLATION, OPERATION, & MAINTENANCE GUIDE

## RESILIENT SEATED BUTTERFLY VALVES

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Ductile Iron, Lug & Wafer Style



**MODELS**  
BFV-LUG  
BFV-WAFER



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## **IMPORTANT**

For safe and proper operation, please read the enclosed installation, operation, and maintenance instructions prior to using any Jomar Valve product. Save this document for reference.

Only qualified personnel should undertake the procedures outlined in this document. Jomar Valve, its agents, representatives, and employees assume no liability for the use of these procedures. These procedures are offered as suggestions only.

Note that failure to follow the enclosed instructions may damage the product and/or void any applicable warranties.

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## Resilient Seated Butterfly Valves

Lug & Wafer Style, Epoxy-Coated Ductile Iron Body, Stainless Steel Disc

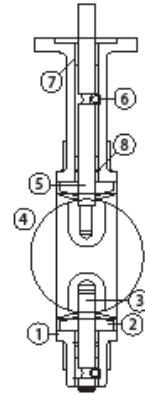
**Models:** BFV-Lug, BFV-Wafer



BFV-Lug



BFV-Wafer



### INSTALLATION

1. Make sure the valve is in the closed position.
2. Spread the flanges apart far enough to allow the valve to slip between the flanges.
3. Center the valve between the flanges.
4. Allow the flanges to return to their un-spread state.
5. Place and hand-tighten all flange bolts.
6. Check for free movement of the disc by slowly opening the valve. If there is no obstruction encountered, leave the valve in the open position and tighten all flange bolts.
7. Keep the flange faces parallel while tightening the bolts/studs in a star pattern.
8. Once tightening is complete, check the valve and make sure that it can fully open and close.

### OPERATION

Rotate the valve handle in the direction indicated for open or close.

### MAINTENANCE

No regular maintenance is required and replacement components are not offered by Jomar Valve.

### MATERIALS

| No. | Part             | Material                    |
|-----|------------------|-----------------------------|
| 1   | Body             | Ductile Iron - Epoxy Coated |
| 2   | Seat             | Varies                      |
| 3   | Lower Shaft*     | 410 Stainless Steel         |
| 4   | Disc             | CF8M Stainless Steel        |
| 5   | Upper Shaft      | 410 Stainless Steel         |
| 6   | Locating Pin (2) | Carbon Steel                |
| 7   | Bushing (3)      | PTFE                        |
| 8   | O-Ring (2)       | EPDM                        |

\*Note: 2" - 12" only, 14" - 36" are pin through shaft style

### VALVE DISASSEMBLY

1. Open the valve fully once removed from the piping system.
2. Remove the handle/actuator.
3. Remove the locating pins (6).
4. Pull out the upper shaft (5).
5. Pull out the bottom shaft (3).
6. Remove the disc (4) from the liner, but do not damage the disc.
7. Remove liner.
8. Remove the bushings (7) and O-Rings (8) by tapping with a blunt instrument (if applicable).
9. Inspect all components for wear and replace as required.

### VALVE ASSEMBLY

1. Clean all reusable parts.
2. Tap the bushings and O-Rings carefully (if applicable).
3. To facilitate assembly, apply a lubricant that is compatible with elastomers.
4. Press the liner into the body evenly.
5. Insert disc (4) into the liner in the open position. Make sure that the broached end of the disc is at the upper shaft side of the body.
6. Using a general purpose lubricant, coat the upper shaft (5) and install in the body.
7. Install the lower shaft (9).
8. Install the locating pins (6) into both shafts.
9. Install the operator.
10. Open and close the valve several times to check the assembly.
11. Follow installation instructions to reinstall the valve.



Consider seat material compatibility when selecting 1 of 4 seat options:

EPDM, PTFE, BUNA, VITON®

Material compatibility can be found at the link below:  
<https://www.jomarvalve.com/docs/res-mc.pdf>

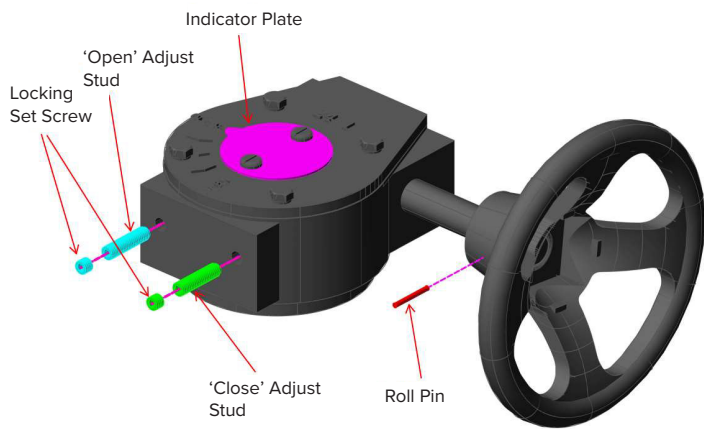
Verify that the seat material selected is rated for the temperature and pressure of the application per the table below:

SEAT TEMPERATURE RANGES

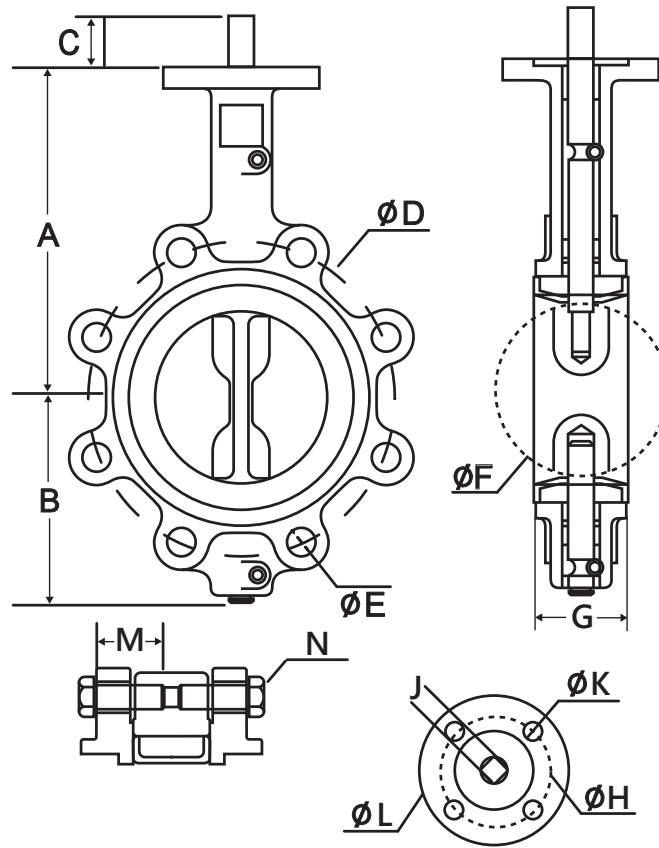
|                                                | Size      | Buna-N      | EPDM         | Viton®      | PTFE         |
|------------------------------------------------|-----------|-------------|--------------|-------------|--------------|
| Temperature Range (°F)                         | 2" - 36"  | 10° to 180° | -31° to 248° | 10° to 275° | -22° to 248° |
| Inline Service (PSIG)                          | 2" - 6"   | 250         | 250          | 250         | 200          |
|                                                | 8" - 12"  | 250         | 250          | 145         | 145          |
|                                                | 14" - 36" | 250         | 250          | 145         | 145          |
| Dead End Service w/ Down Stream Flange (PSIG)  | 2" - 6"   | 250         | 250          | 250         | 100          |
|                                                | 8" - 12"  | 250         | 250          | 145         | 100          |
| Dead End Service w/o Down Stream Flange (PSIG) | 2" - 12"  | 100         | 100          | 100         | 50           |

\*Wafer butterfly valves cannot be used for dead-end service.

For information on adjusting a gear operator, refer to the IO&M link below:  
<https://www.jomarvalve.com/docs/iom-bfv-gearop.pdf>



## Lug Style

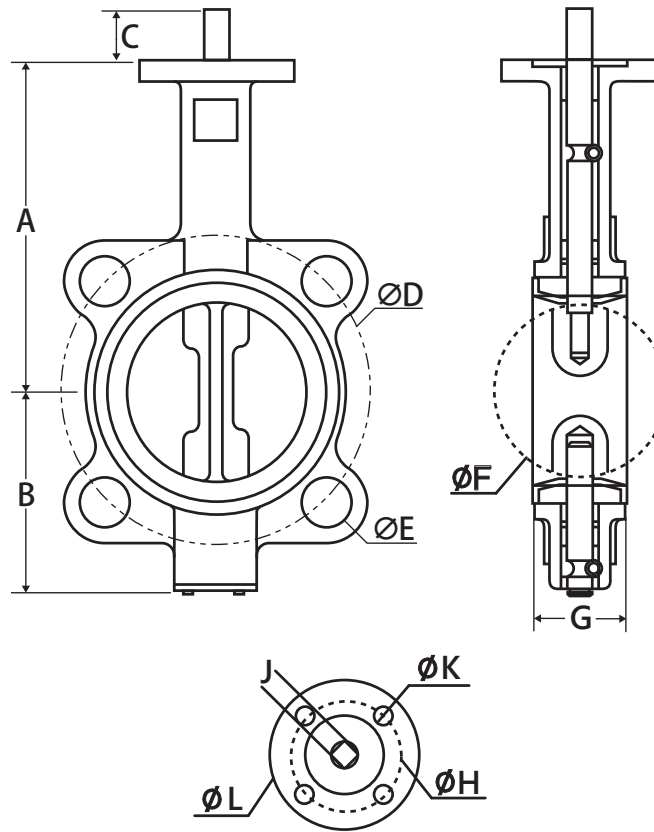


### DIMENSIONS

| Part No     | Size   | A     | B     | C    | D     | E           | F     | G    | H     | J    | K        | L     | M    | N          | Weight  | 90° C <sub>v</sub> | ISO Type |
|-------------|--------|-------|-------|------|-------|-------------|-------|------|-------|------|----------|-------|------|------------|---------|--------------------|----------|
| 600-02DS_L  | 2"     | 6.34  | 3.46  | 1.26 | 4.74  | 4 : 5/8"    | 2.07  | 1.65 | 1.97  | 0.35 | 4 : 0.28 | 3.03  | 1.50 | 5/8-11UNC  | 9.7     | 135                | F05      |
| 600-212DS_L | 2-1/2" | 6.89  | 3.82  | 1.26 | 5.50  | 4 : 5/8"    | 2.54  | 1.77 | 1.97  | 0.35 | 4 : 0.28 | 3.03  | 1.50 | 5/8-11UNC  | 11.02   | 220                | F05      |
| 600-03DS_L  | 3"     | 7.13  | 4.06  | 1.26 | 6.00  | 4 : 5/8"    | 3.10  | 1.77 | 1.97  | 0.35 | 4 : 0.28 | 3.03  | 1.50 | 5/8-11UNC  | 12.13   | 302                | F05      |
| 600-04DS_L  | 4"     | 7.87  | 4.80  | 1.26 | 7.50  | 8 : 5/8"    | 4.09  | 2.03 | 2.76  | 0.43 | 4 : 0.35 | 3.54  | 1.75 | 5/8-11UNC  | 18.3    | 600                | F07      |
| 600-05DS_L  | 5"     | 8.39  | 5.31  | 1.26 | 8.50  | 8 : 3/4"    | 4.85  | 2.17 | 2.76  | 0.55 | 4 : 0.35 | 3.54  | 1.75 | 3/4-10UNC  | 24.14   | 1022               | F07      |
| 600-06DS_L  | 6"     | 8.90  | 5.79  | 1.26 | 9.51  | 8 : 3/4"    | 6.13  | 2.17 | 2.76  | 0.55 | 4 : 0.35 | 3.54  | 2.00 | 3/4-10UNC  | 26.14   | 1579               | F07      |
| 600-08DS_B  | 8"     | 10.24 | 7.20  | 1.61 | 11.75 | 8 : 3/4"    | 7.97  | 2.36 | 4.02  | 0.67 | 4 : 0.47 | 4.92  | 2.00 | 3/4-10UNC  | 41.6    | 3136               | F10      |
| 600-10DS_G  | 10"    | 11.50 | 7.99  | 1.61 | 14.25 | 12 : 7/8"   | 9.86  | 2.64 | 4.02  | 0.87 | 4 : 0.47 | 4.92  | 2.25 | 7/8-9UNC   | 77.16   | 5340               | F10      |
| 600-12DS_G  | 12"    | 13.27 | 9.53  | 1.61 | 17.01 | 12 : 7/8"   | 11.87 | 2.97 | 4.02  | 0.87 | 4 : 0.47 | 5.51  | 2.50 | 7/8-9UNC   | 111.55  | 8250               | F10      |
| 600-14DS_G  | 14"    | 14.49 | 10.71 | 1.77 | 18.74 | 12 : 1"     | 13.12 | 2.97 | 4.02  | 0.87 | 4 : 0.47 | 5.51  | 2.50 | 1-8UNC     | 154.32  | 11917              | F10      |
| 600-16DS_G  | 16"    | 15.75 | 13.11 | 2.02 | 21.26 | 16 : 1"     | 15.34 | 4.02 | 5.51  | 1.06 | 4 : 0.71 | 6.89  | 3.00 | 1-8UNC     | 264.55  | 16388              | F14      |
| 600-18DS_G  | 18"    | 16.54 | 14.33 | 2.02 | 22.76 | 16 : 1-1/8" | 17.34 | 4.49 | 5.51  | 1.06 | 4 : 0.71 | 6.89  | 3.50 | 1-1/8-7UNC | 326.28  | 21705              | F14      |
| 600-20DS_G  | 20"    | 18.90 | 15.31 | 2.53 | 25.00 | 20 : 1-1/8" | 19.35 | 5.00 | 5.51  | 1.42 | 4 : 0.71 | 6.89  | 4.00 | 1-1/8-7UNC | 473.99  | 27908              | F14      |
| 600-24DS_G  | 24"    | 22.13 | 17.83 | 2.76 | 29.51 | 20 : 1-1/4" | 23.33 | 5.94 | 6.50  | 1.42 | 4 : 0.91 | 10.88 | 4.50 | 1-1/4-7UNC | 650.36  | 43116              | F16      |
| 600-30DS_G  | 30"    | 25.98 | 21.23 | 2.76 | 35.98 | 28 : 1-1/4" | 29.3  | 6.57 | 10.00 | 1.77 | 8 : 0.71 | 11.81 | 4.70 | 1-1/4-7UNC | 939.17  | 58875              | F25      |
| 600-36DS_G  | 36"    | 28.35 | 25.84 | 2.76 | 42.76 | 32 : 1-1/2" | 34.04 | 7.99 | 10.00 | 2.17 | 8 : 0.71 | 11.81 | 6.30 | 1-1/2-6UNC | 1604.96 | 86375              | F25      |

\*U-type Butterfly Valve, dimensions and drawings available upon request.

## Wafer Style



### DIMENSIONS

| Part No     | Size   | A     | B     | C    | D     | E         | F     | G    | H     | J    | K        | L     | Weight  | ISO Type |
|-------------|--------|-------|-------|------|-------|-----------|-------|------|-------|------|----------|-------|---------|----------|
| 900-02DS_L  | 2"     | 6.34  | 3.46  | 1.26 | 4.74  | 4 : 0.75  | 2.07  | 1.65 | 1.97  | 0.35 | 4 : 0.28 | 3.03  | 5.51    | F05      |
| 900-212DS_L | 2-1/2" | 6.89  | 3.82  | 1.26 | 5.50  | 4 : 0.75  | 2.54  | 1.77 | 1.97  | 0.35 | 4 : 0.28 | 3.03  | 7.05    | F05      |
| 900-03DS_L  | 3"     | 7.13  | 4.06  | 1.26 | 6.00  | 4 : 0.75  | 3.10  | 1.77 | 1.97  | 0.35 | 4 : 0.28 | 3.03  | 8.38    | F05      |
| 900-04DS_L  | 4"     | 7.87  | 4.80  | 1.26 | 7.50  | 8 : 0.75  | 4.09  | 2.03 | 2.76  | 0.43 | 4 : 0.35 | 3.54  | 10.80   | F07      |
| 900-05DS_L  | 5"     | 8.39  | 5.31  | 1.26 | 8.50  | 8 : 0.87  | 4.85  | 2.17 | 2.76  | 0.55 | 4 : 0.35 | 3.54  | 15.43   | F07      |
| 900-06DS_L  | 6"     | 8.90  | 5.79  | 1.26 | 9.51  | 8 : 0.87  | 6.13  | 2.17 | 2.76  | 0.55 | 4 : 0.35 | 3.54  | 17.20   | F07      |
| 900-08DS_B  | 8"     | 10.24 | 7.20  | 1.61 | 11.75 | 8 : 0.87  | 7.97  | 2.36 | 4.02  | 0.67 | 4 : 0.47 | 4.92  | 29.10   | F10      |
| 900-10DS_G  | 10"    | 11.5  | 7.99  | 1.61 | 14.25 | 12 : 0.98 | 9.86  | 2.64 | 4.02  | 0.87 | 4 : 0.47 | 4.92  | 42.33   | F10      |
| 900-12DS_G  | 12"    | 13.27 | 9.53  | 1.61 | 17.01 | 12 : 0.98 | 11.87 | 2.97 | 4.02  | 0.87 | 4 : 0.47 | 5.51  | 71.65   | F10      |
| 900-14DS_G  | 14"    | 14.49 | 10.71 | 1.77 | 18.74 | 12 : 1.14 | 13.12 | 2.97 | 4.02  | 0.87 | 4 : 0.47 | 5.51  | 91.05   | F10      |
| 900-16DS_G  | 16"    | 15.75 | 13.11 | 2.02 | 21.26 | 16 : 1.14 | 15.34 | 4.02 | 5.51  | 1.06 | 4 : 0.71 | 6.89  | 134.48  | F14      |
| 900-18DS_G  | 18"    | 16.61 | 14.33 | 2.02 | 22.76 | 16 : 1.26 | 17.34 | 4.49 | 5.51  | 1.06 | 4 : 0.71 | 6.89  | 174.16  | F14      |
| 900-20DS_G  | 20"    | 18.90 | 15.31 | 2.53 | 25.00 | 20 : 1.26 | 19.35 | 5.00 | 5.51  | 1.42 | 4 : 0.71 | 6.89  | 282.19  | F14      |
| 900-24DS_G  | 24"    | 22.13 | 17.83 | 2.76 | 29.51 | 20 : 1.38 | 23.33 | 5.94 | 6.50  | 1.42 | 4 : 0.91 | 10.88 | 414.47  | F16      |
| 900-30DS_G  | 30"    | 25.98 | 21.23 | 2.60 | 36.00 | 28 : 1.38 | 29.30 | -    | 10.00 | -*   | 8 : 0.71 | 11.81 | 723.12  | -        |
| 900-36DS_G  | 36"    | 28.35 | 25.84 | 4.65 | 41.34 | 32 : 1.61 | 34.04 | -    | 10.00 | -*   | 8 : 0.71 | 11.81 | 1571.89 | -        |

\*Stem is round with key, dimensions and drawings available upon request.