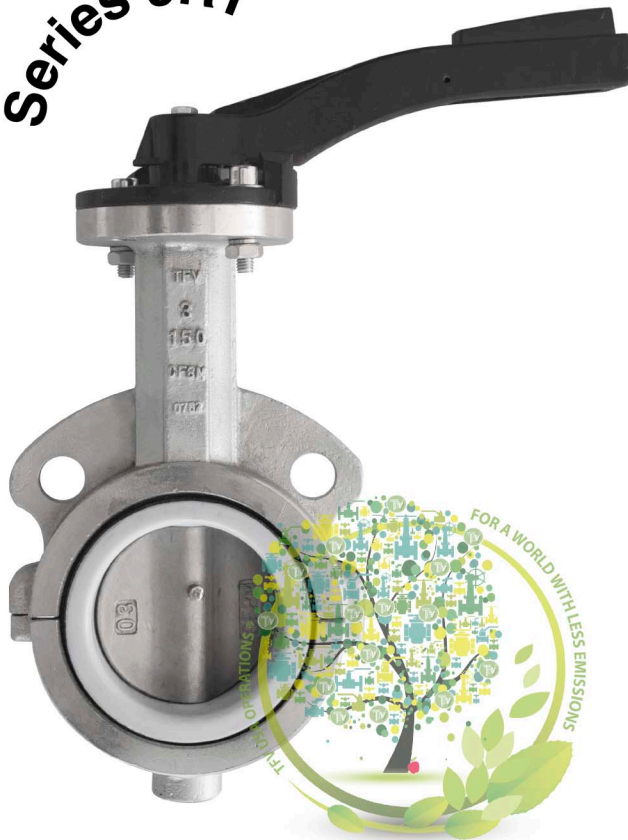


# BUTTERFLY VALVE

## TWO PCS RESILIENT SEATED BUTTERFLY VALVE

Series 9RT



### FEATURES

1. Bodies are machined to high tolerances, guaranteed standard dimensions for interchangeability of parts and actuators.
2. Top bushing is impact and corrosion resistant material. Protects the stem from side thrust of actuators.
3. Special double V-shape of stem seal self-adjusts to protect the stem area for either vacuum or pressure use. View Fig 1
4. Stem and body are isolated from line media by the seal created between the arch surface of the disc and the flat surface of the seat.
5. The TFV Ring Seal is a molded part of the seat. It is of special design so as to contain an o-ring creating a positive seal around stem as well as between seat and valve body. This positive secondary seal eliminates leakage into the stem journal as well as migration of line media behind seat. Ring seals are located at top and bottom and available in Buna-N, EPDM, Viton or Teflon. View Fig. 2
6. The special snap-in Resil-O-Seat design fixes seat in place without banding. The Resil-O-Seat is 100% field replaceable (no special tools required). Resil-O-Seat available in a variety of materials including Teflon. View Fig. 3
7. Specially designed disc/stem prevents distortion of disc under high pressure. Thin disc allows for maximum open flow.
8. Two-piece body of 9LR Series and one piece disc/stem makes field replacement of seat and disc/stem quick and easy.
9. Disc edge is individually processed through machining for a smooth edge, providing a bubble tight shut-off and maximum seal life.
10. Molded O-ring in the Resil-O-Seat forms a seal against all standard ANSI flanges. Gasketing requirements are eliminated
11. Elastomer covered 17-4 stainless steel disc/stem is for use when abrasive or chemical resistance is required. The encapsulated one-piece disc/stem is isolated from the stream.
12. The TFV valves are designed for complete adaptability to utilize various actuators for throttling. They may be used with handles, gear operators, pneumatic or electric operators. As requirements change or the demand arises actuators can be changed without changing the valve

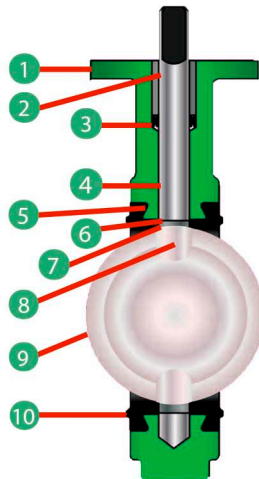
Fig. 1



Fig. 2

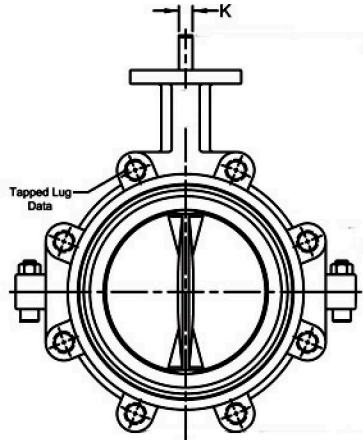


Fig. 3

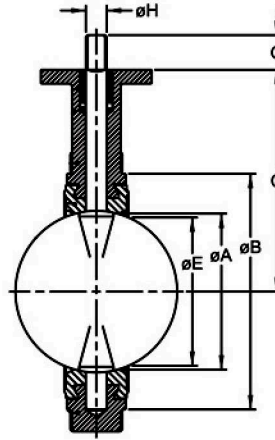


# BUTTERFLY VALVE

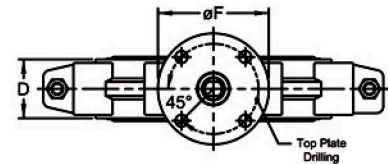
## TWO PCS RESILIENT SEATED BUTTERFLY VALVE



Flow View



Section View



Top View

| Size   | Dimensions |        |         |       |          |         |       |      |           |        | Top Plate Drilling |          |           | Tapped LUG data |            |     | Weight |      | Torque (IN-LB)      |                      |                      |
|--------|------------|--------|---------|-------|----------|---------|-------|------|-----------|--------|--------------------|----------|-----------|-----------------|------------|-----|--------|------|---------------------|----------------------|----------------------|
|        | A          | B      | C       | D     | E        | F       | G     | H    | K         | Keyway | Bolt Circle        | No Holes | Hole Dia. | Bolt Circle     | No Holes   | Tap | Wafer  | Lug  | $\Delta P = 50$ PSI | $\Delta P = 100$ PSI | $\Delta P = 150$ PSI |
| 2"     | 2 1/8      | 4 1/8  | 3 15/16 | 1 5/8 | 1 11/16  | 4 1 1/4 | 9/16  | 3/8  | -         | 3 1/4  | 4                  | 7/16     | 4 3/4     | 4               | 5/8-11 UNC | 6   | 7 1/2  | 230  | 240                 | 250                  |                      |
| 2 1/2" | 2 9/16     | 4 7/8  | 4 1/2   | 1 3/4 | 2 1/8    | 4 1 1/4 | 9/16  | 3/8  | -         | 3 1/4  | 4                  | 7/16     | 5 1/2     | 4               | 5/8-11 UNC | 8   | 9      | 283  | 288                 | 302                  |                      |
| 3"     | 3 1/8      | 5 3/8  | 4 7/8   | 1 3/4 | 2 1/8    | 4 1 1/4 | 9/16  | 3/9  | -         | 3 1/4  | 4                  | 7/16     | 6         | 4               | 5/8-11 UNC | 9   | 11     | 341  | 365                 | 379                  |                      |
| 4"     | 4 1/8      | 6 7/8  | 6       | 2     | 3 7/16   | 4 1 1/4 | 5/8   | 7/16 | -         | 3 1/4  | 4                  | 7/16     | 7 1/2     | 8               | 5/8-11 UNC | 11  | 17     | 514  | 542                 | 576                  |                      |
| 5"     | 5 3/16     | 7 5/8  | 6       | 2 1/8 | 5        | 4 1 1/4 | 5/8   | 7/16 | -         | 3 1/4  | 4                  | 7/16     | 8 1/2     | 8               | 3/4-10 UNC | 15  | 23     | 706  | 754                 | 806                  |                      |
| 6"     | 6 1/8      | 8 3/4  | 6 1/2   | 2 1/8 | 6        | 4 1 1/4 | 3/4   | 1/2  | -         | 3 1/4  | 4                  | 7/16     | 9 1/2     | 8               | 3/4-10 UNC | 17  | 26     | 1008 | 1109                | 1210                 |                      |
| 8"     | 8 1/8      | 11     | 8 5/16  | 2 1/2 | 8        | 6 1 1/4 | 7/8   | 5/8  | -         | 5      | 4                  | 9/16     | 11 3/4    | 8               | 3/4-10 UNC | 29  | 42     | 1714 | 1915                | 2112                 |                      |
| 10"    | 10 1/8     | 13 3/8 | 9       | 2 1/2 | 10 1/16  | 6 2     | 1 1/8 | -    | 1/4 X 1/8 | 5      | 4                  | 9/16     | 14 1/4    | 12              | 7/8-9 UNC  | 44  | 65     | 2621 | 3226                | 3372                 |                      |
| 12     | 12 3/32    | 16 1/8 | 10 9/32 | 3     | 11 15/16 | 6 2     | 1 1/8 | -    | 1/4 X 1/8 | 5      | 4                  | 9/16     | 17        | 12              | 7/8-9 UNC  | 85  | 108    | 3629 | 4138                | 4637                 |                      |

1. The 2 1/2" and 5" sizes are not available with plastic or elastomer liner disc
2. Valves rated from 100 to 150 PSI, determined by disc/stem and seat material.
3. The Series 9RT, cannot be used on a pipe or flange with an inside diameter less than the "E" dimension.
4. Dimension "K" not applicable to 10" or 12" size. The 10" and 12", Series 9RT stem is round with 1/4" x 1/4" keyway

| PART NAME      | MATERIAL                            |
|----------------|-------------------------------------|
| BODY           | CI, CF8M                            |
| DISC           | BRONZE, 316SS, 316SS+ELASTOMER      |
| STEM           | 316SS, 17-4PH                       |
| RESILIENT SEAT | EPDM, NBR, VITON, NEOPRENE, HYPALON |
| STEM BUSHING   | ACETAL                              |
| STEM PACKING   | BUNA N                              |





# BUTTERFLY VALVE

## TWO PCS RESILIENT SEATED BUTTERFLY VALVE

### HOW TO ORDER

| VALVE BODY DESIGN (SERIES)                       | MATERIAL         |                  |                 |                       |                                | ENDS                                     | CLASS   | SIZE  | OPERATION |
|--|------------------|------------------|-----------------|-----------------------|--------------------------------|--|---|---|-----------|
|  | BODY             | TRIM             | DISC LINER      | SEAT                  |                                |  |   |   |           |
| <b>9RT</b> 2 Pc Resilient Seated Butterfly Valve | <b>3</b> CF8M    | <b>1</b> Bronze  | <b>E</b> EPDM   | <b>E</b> EPDM         | <b>W</b> WAFER<br><b>L</b> LUG | <b>0</b> ANSI 150#<br><b>3</b> ANSI 300# | <b>02</b> 2"<br><b>02.5</b> 2 1/2"<br><b>03</b> 3"<br><b>03</b> 3"<br><b>04</b> 4"<br><b>05</b> 5"<br><b>06</b> 6"<br><b>08</b> 8"<br><b>10</b> 10"<br><b>12</b> 12"<br><b>14</b> 14"<br><b>16</b> 16"<br><b>18</b> 18"<br><b>20</b> 20"<br><b>24</b> 24" | <b>L</b> 10 Pos Lever<br><b>F</b> ON-OFF Lever<br><b>G</b> Gear Operator <sup>(1)</sup><br><b>B</b> Bare Shaft<br><b>E</b> Electric Actuator<br><b>P</b> Pneumatic Actuator |           |
|  | <b>2</b> WCB CS  | <b>3</b> 316SS   | <b>B</b> BUNA N | <b>B</b> NBR          |                                |  |   |   |           |
|  | <b>6</b> CI / DI | <b>6</b> CI / DI | <b>N</b> NONE   | <b>V</b> VITON        |                                |  |   |   |           |
|  |                  |                  |                 | <b>N</b> NEOPRENE     |                                |  |   |   |           |
|  |                  |                  |                 | <b>H</b> HYPALON      |                                |  |   |   |           |
|  |                  |                  |                 | <b>P</b> PTFE         |                                |  |   |   |           |
|  |                  |                  |                 | <b>W</b> PTFE/EPDM    |                                |  |   |   |           |
|  |                  |                  |                 | <b>X</b> PTFE/NBR     |                                |  |   |   |           |
|  |                  |                  |                 | <b>Y</b> PTFE/VITON   |                                |  |   |   |           |
|  |                  |                  |                 | <b>Z</b> PTFE/SILICON |                                |  |   |   |           |

Example  
2 PCS RESILIENT SEATED BUTTERFLY VALVE, BODY CI, DISC CI, SEAT EPDM, WAFER ANSI 150#, SIZE 6".  
WITH LEVER  
**9RT-66NE-W006L**

NOTES  
(1) Mandatory from 14" and larger

