

HIGH PERFORMANCE BUTTERFLY VALVE

LCS6822 (Class 150)

LCS7822 (Class 300)

APPLICATIONS

Ideally suited for Commercial, Industrial and Mechanical HVAC Services. Use in other applications must be approved by the manufacturer

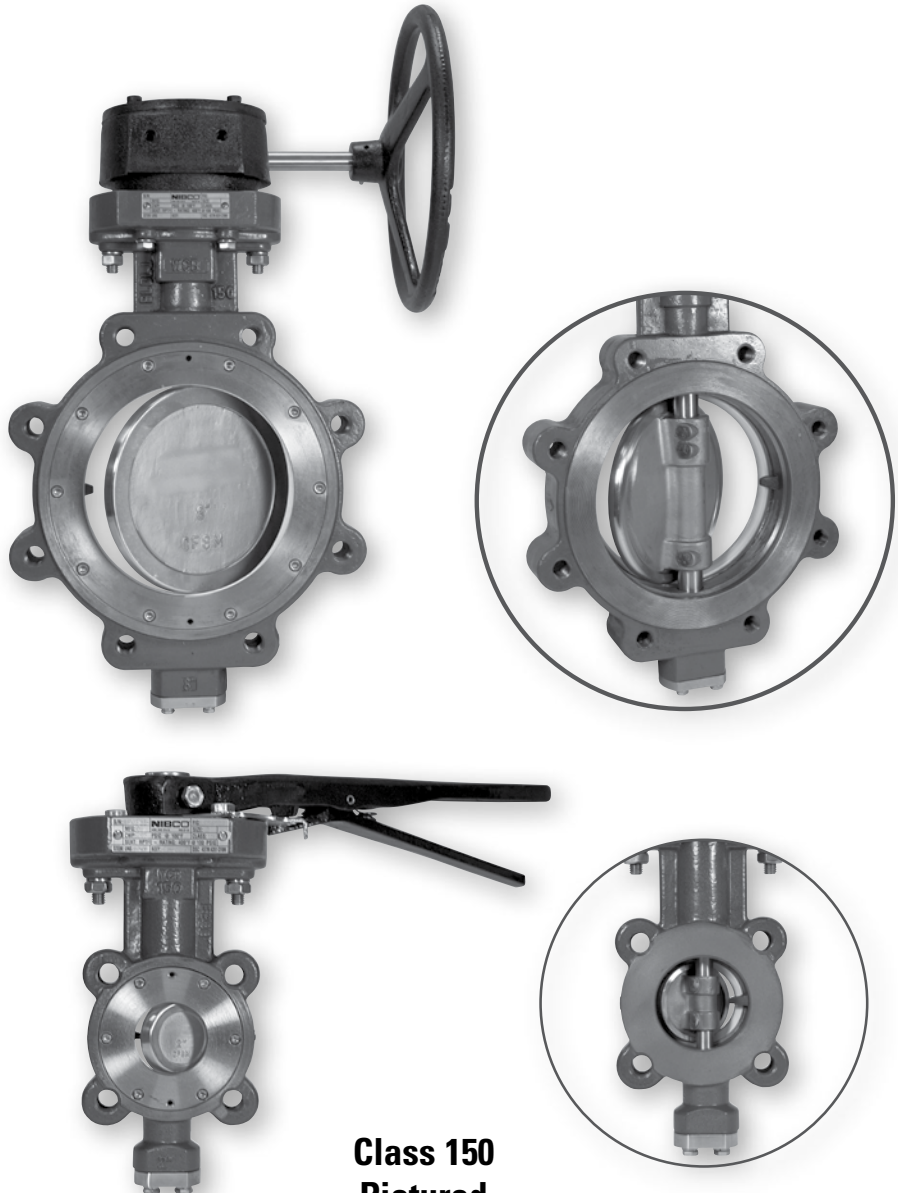
- Heating Hot Water
- Condenser Water
- Glycol
- Chilled Water
- Compressed Air
- Steam rated - 2" - 12" 150 psi for on/off applications and 50 psi modulating
- Chemical Process
- Isolation and Throttling
- Domestic Water

MATERIALS & CONSTRUCTION

- Body constructed of carbon steel
- Stainless steel disc and stem
- Seats of reinforced PTFE for exceptional chemical and heat resistance
- Welded disc pins
- Silicone is not used in the manufacture of this valve

DESIGN CRITERIA

- MSS SP-68 (Design & Testing)
- MSS SP-25 (Markings)
- API-609 Seat Pressure/Temperature Ratings/ Blow-out proof stem
- ASME/ANSI B16.34A, Body Pressure/Temperature Ratings
- ASME/ANSI B16.5 Flange Dimensions
- ISO 5211, EN 12116 Actuator Mounting Top Works
- ANSI Class 150 and Class 300
- Dual Offset Design



Class 150 Pictured

FEATURES

- Powder coated epoxy finish
- One-piece stem
- Direct mount actuation
- Live loaded adjustable packing with unique flush-mounted packing gland
- Integrally cast disc-stop
- Dual offset design
- Blow-out proof stem
- Bi-directional dead end service (Arrow on body indicates preferred flow)
- Maximum operating temperature 400°F at 100 psi
- 100% production tested per MSS SP-68

High Performance Butterfly Valve Series 6822 & 7822

Carbon Steel Body • Stainless Steel Disc and Stem • ISO 5211 Actuation Mounting

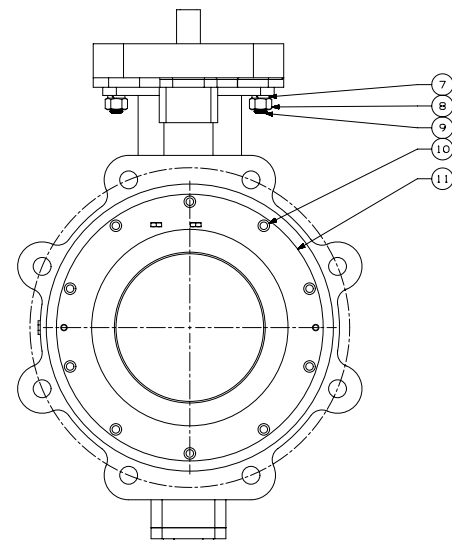
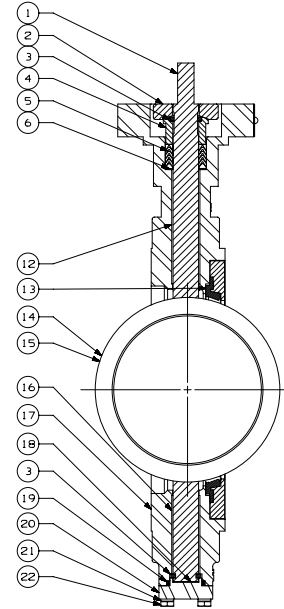
CLASS 150 - SIZES 2" THROUGH 30"

CLASS 300 - SIZES 2" THROUGH 24"

ANSI Class 150 & 300

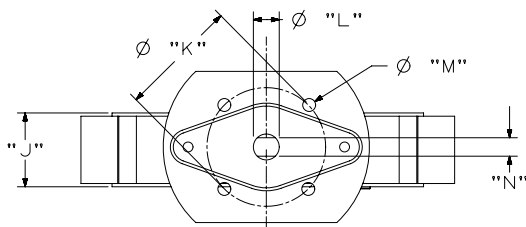
MATERIAL LIST

| PART | SPECIFICATION |
|-----------------------|--|
| 1. Stem | Stainless Steel UNS ASTM A564 UNS S17400 |
| 2. Flange, Gland | Stainless Steel ASTM A351 Grade CF8M |
| 3. Retainer, Stem (4) | Stainless Steel ASTM A276 UNS S31600 |
| 4. Gland, Packing | Stainless Steel ASTM A276 UNS S31600 |
| 5. Packing (set) | PTFE |
| 6. Retainer, Packing | Stainless Steel ASTM A276 UNS S31600 |
| 7. Lockwasher (2) | Stainless Steel Type 304 18-8 |
| 8. Nut (2) | Stainless Steel Type 304 18-8 |
| 9. Stud (2) | Stainless Steel Type 304 18-8 |
| 10. Screw, SHCS | Stainless Steel Type 304 18-8 |
| 11. Retainer, Seat | Stainless Steel ASTM A276 UNS S31600 |
| 12. Bushing, Upper | Stainless Steel Type 304 PTFE Coated |
| 13. Seat | PTFE 15% Glass Reinforced |
| 14. Disc | Stainless Steel ASTM A351 Grade CF8M |
| 15. Pin, Disc (2) | Stainless Steel ASTM A276 UNS S31600 |
| 16. Bushing, Lower | Stainless Steel TYPE 304 PTFE Coated |
| 17. Body | Carbon Steel ASTM A216 GRADE WCB |
| 18. Disc, Spacer | Stainless Steel ASTM A240 UNS S31600 |
| 19. Seal, Lower | PTFE |
| 20. Cap, Body | Stainless Steel ASTM A351 Grade CF8M |
| 21. Lockwasher (4) | Stainless Steel Type 304 18-8 |
| 22. Screw, Hex (4) | Stainless Steel Type 304 18-8 |
| 23. Handle Assembly | Malleable Iron (shown separately) |
| 24. Plate, Throttle | Steel, Plated (shown separately) |
| 25. Screw, Hex | Carbon Steel, Plated (shown separately) |
| 26. Lockwasher | Carbon Steel, Plated (shown separately) |
| 27. Key | Carbon Steel ASTM A108 Grade 1045 |
| 28. ID Plate | Stainless Steel |

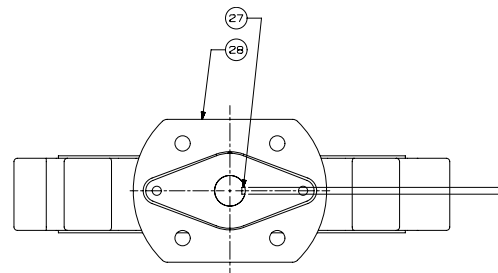


NOTE: For severe steam applications, contact NIBCO Technical Services.

NOTE: If valve is installed opposite the flow arrow for dead end service a downstream flange is recommended.



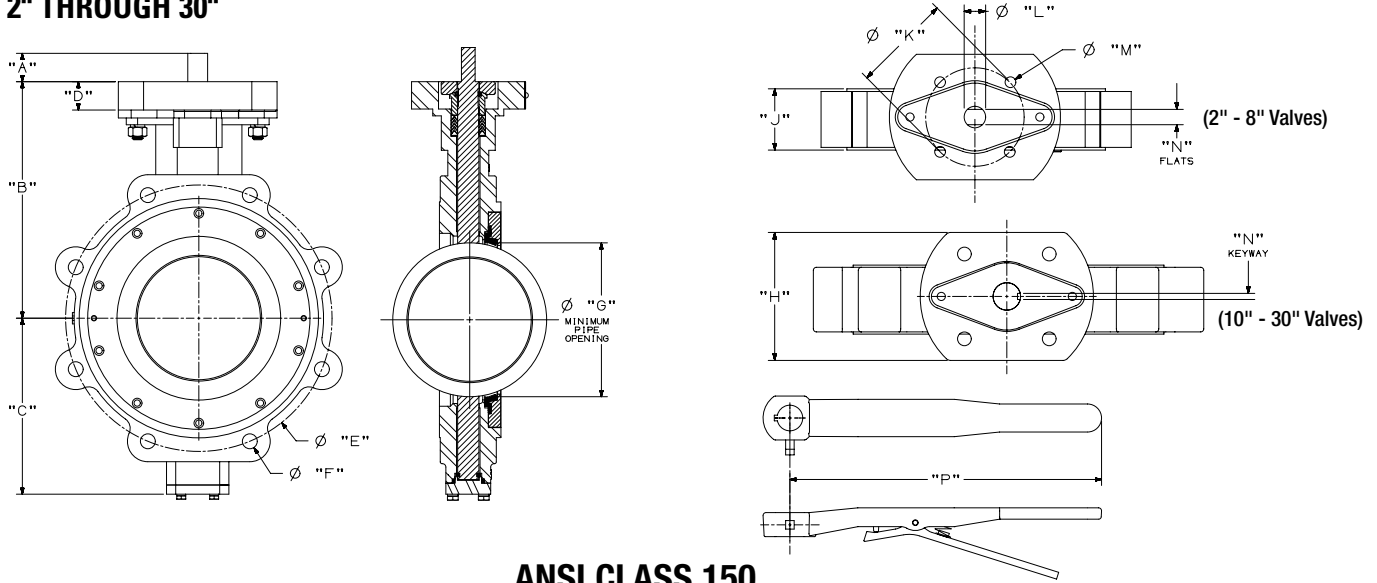
2" - 8" Class 150 Valves
2" - 6" Class 300 Valves



10" - 30" Class 150 Valves
8" - 24" Class 300 Valves

High Performance Butterfly Valve Series 6822

SIZES 2" THROUGH 30"



ANSI CLASS 150

DIMENSIONS — WEIGHTS

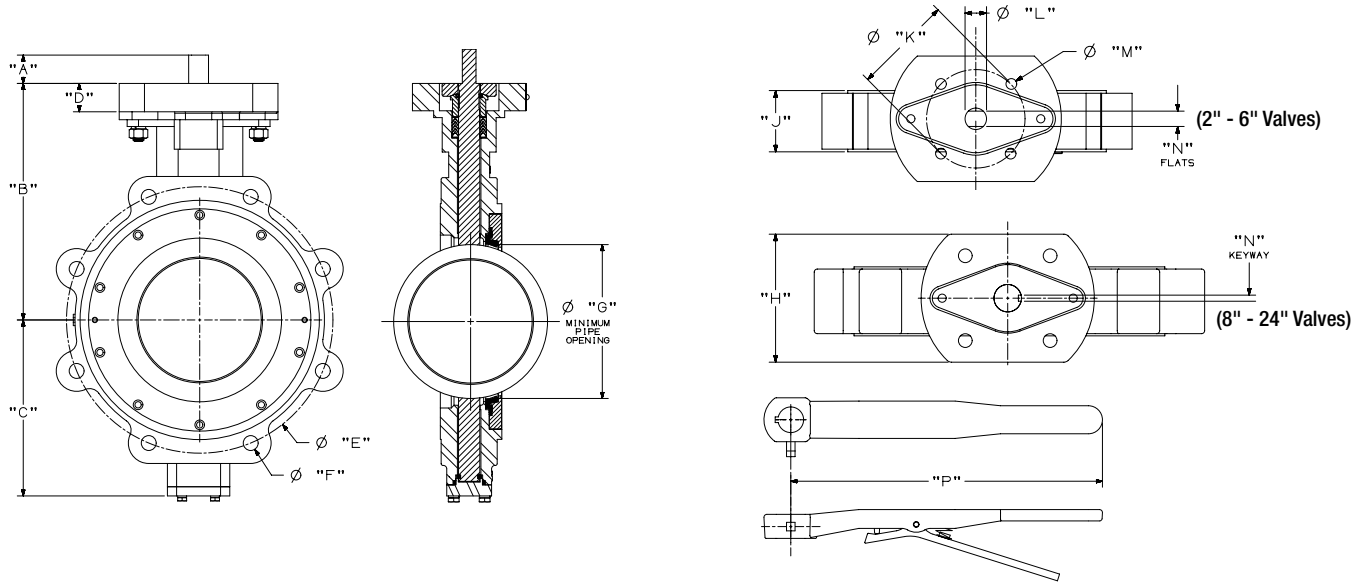
| Valve Size | Gear Operator Mounting | A | | B | | C | | D | | E | | F | | G | |
|------------|------------------------|------|--------|-------|-------|-------|-------|------|------|-------|--------|-------------------|-------|-------|--|
| | | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | Threads | In. | mm. | |
| 2" | F07 | 1.25 | 31.75 | 5.78 | 146.8 | 3.94 | 100.1 | 1.25 | 31.8 | 4.75 | 120.65 | 4 X 5/8"-11 UNC | 1.68 | 42.7 | |
| 2½" | F07 | 1.25 | 31.75 | 6.49 | 164.8 | 4.06 | 103.1 | 1.25 | 31.8 | 5.50 | 139.70 | 4 X 5/8"-11 UNC | 2.24 | 56.9 | |
| 3" | F07 | 1.25 | 31.75 | 6.77 | 172.0 | 4.37 | 111.0 | 1.25 | 31.8 | 6.00 | 152.40 | 4 X 5/8"-11 UNC | 2.72 | 69.1 | |
| 4" | F07 | 1.25 | 31.75 | 6.98 | 177.3 | 4.80 | 121.9 | 1.25 | 31.8 | 7.50 | 190.50 | 8 X 5/8"-11 UNC | 3.38 | 85.9 | |
| 5" | F07 | 1.25 | 31.75 | 8.39 | 213.1 | 6.38 | 162.1 | 1.25 | 31.8 | 8.50 | 215.90 | 8 X 3/4"-10 UNC | 4.48 | 113.8 | |
| 6" | F07 | 1.25 | 31.75 | 8.71 | 221.2 | 5.97 | 151.6 | 1.25 | 31.8 | 9.50 | 241.30 | 8 X 3/4"-10 UNC | 5.34 | 135.6 | |
| 8" | F10 | 1.25 | 31.75 | 10.43 | 264.9 | 7.76 | 197.1 | 1.60 | 40.6 | 11.75 | 298.45 | 8 X 3/4"-10 UNC | 7.28 | 184.9 | |
| 10" | F12 | 2.00 | 50.80 | 11.81 | 300.0 | 8.61 | 218.7 | 1.00 | 25.4 | 14.25 | 361.95 | 12 X 7/8"-9 UNC | 9.13 | 231.9 | |
| 12" | F12 | 2.00 | 50.80 | 12.80 | 325.1 | 10.63 | 270.0 | 1.00 | 25.4 | 17.00 | 431.80 | 12 X 7/8"-9 UNC | 10.68 | 271.3 | |
| 14" | F12 | 2.25 | 57.15 | 16.03 | 407.2 | 11.68 | 296.7 | 1.00 | 25.4 | 18.75 | 476.25 | 12 X 1"-8 UNC | 12.14 | 308.4 | |
| 16" | F16 | 3.00 | 76.20 | 16.73 | 424.9 | 13.78 | 350.0 | 1.88 | 47.8 | 21.25 | 539.75 | 16 X 1"-8 UNC | 13.98 | 355.1 | |
| 18" | F16 | 3.00 | 76.20 | 17.72 | 450.1 | 14.76 | 374.9 | 1.88 | 47.8 | 22.75 | 577.85 | 16 X 1-1/8"-8 UN* | 16.18 | 411.0 | |
| 20" | F16 | 3.00 | 76.20 | 18.94 | 481.1 | 16.43 | 417.3 | 2.00 | 50.8 | 25.00 | 635.00 | 20 X 1-1/8"-8 UN* | 18.13 | 460.5 | |
| 24" | F16/F25 | 4.00 | 101.60 | 23.23 | 590.0 | 19.37 | 492.0 | 2.50 | 63.5 | 29.50 | 749.30 | 20 X 1-1/4"-8 UN* | 21.17 | 537.7 | |
| 30" | F25 | 5.33 | 135.38 | 26.90 | 683.3 | 24.24 | 615.7 | 3.00 | 76.2 | 36.00 | 914.4 | 28 X 1-1/4"88 UN* | 26.87 | 682.5 | |

*SPECIAL PITCH CAP SCREW THREAD REQUIRED PER MSS SP-68 SPECIFICATIONS.

| Valve Size | H | | J | | K | | L | | M | | N | | P | | Valve Wt. | | Operating Torque at 285 psi | |
|------------|-------|-------|------|--------|-------|--------|-------|--------|------|-------|---------------|--------|-------|-------|-----------|-------|-----------------------------|-----|
| | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | Lbs. | Kg. | In.-Lbs. | N-m |
| 2" | 4.15 | 105.4 | 1.69 | 42.93 | 2.76 | 70.10 | 0.500 | 12.700 | 0.37 | 9.40 | 0.375 | 9.525 | 13.75 | 349.3 | 12.5 | 6 | 290 | 33 |
| 2½" | 4.15 | 105.4 | 1.84 | 46.74 | 2.76 | 70.10 | 0.625 | 15.875 | 0.37 | 9.40 | 0.438 | 11.125 | 13.75 | 349.3 | 16 | 7 | 320 | 36 |
| 3" | 4.15 | 105.4 | 1.88 | 47.75 | 2.76 | 70.10 | 0.625 | 15.875 | 0.37 | 9.40 | 0.438 | 11.125 | 13.75 | 349.3 | 18 | 8 | 350 | 40 |
| 4" | 4.15 | 105.4 | 2.12 | 53.85 | 2.76 | 70.10 | 0.625 | 15.875 | 0.37 | 9.40 | 0.438 | 11.125 | 13.75 | 349.3 | 31 | 14 | 510 | 58 |
| 5" | 4.15 | 105.4 | 2.25 | 57.15 | 2.76 | 70.10 | 0.750 | 19.050 | 0.37 | 9.40 | 0.500 | 12.700 | 13.75 | 349.3 | 38 | 17 | 725 | 82 |
| 6" | 4.15 | 105.4 | 2.25 | 57.15 | 2.76 | 70.10 | 0.750 | 19.050 | 0.37 | 9.40 | 0.500 | 12.700 | 13.75 | 349.3 | 44 | 20 | 845 | 95 |
| 8" | 5.12 | 130.0 | 2.50 | 63.50 | 4.02 | 102.11 | 0.875 | 22.225 | 0.44 | 11.18 | 0.625 | 15.875 | — | — | 68 | 31 | 1430 | 162 |
| 10" | 5.25 | 133.4 | 2.83 | 71.88 | 4.92 | 124.97 | 1.125 | 28.575 | 0.56 | 14.22 | 1/4" X 1/4" | — | — | 104 | 47 | 2400 | 271 | |
| 12" | 5.25 | 133.4 | 3.19 | 81.03 | 4.92 | 124.97 | 1.125 | 28.575 | 0.56 | 14.22 | 1/4" X 1/4" | — | — | 148 | 67 | 3650 | 412 | |
| 14" | 5.25 | 133.4 | 3.62 | 91.95 | 4.92 | 124.97 | 1.375 | 34.925 | 0.56 | 14.22 | 5/16" X 5/16" | — | — | 201 | 91 | 6000 | 678 | |
| 16" | 6.50 | 165.1 | 4.00 | 101.60 | 6.50 | 165.10 | 1.875 | 47.625 | 0.81 | 20.57 | 3/8" X 1/2" | — | — | 309 | 140 | 8800 | 994 | |
| 18" | 6.50 | 165.1 | 4.50 | 114.30 | 6.50 | 165.10 | 1.875 | 47.625 | 0.81 | 20.57 | 3/8" X 1/2" | — | — | 346 | 157 | 11500 | 1299 | |
| 20" | 6.50 | 165.1 | 5.00 | 127.00 | 6.50 | 165.10 | 2.125 | 53.975 | 0.81 | 20.57 | 1/2" X 1/2" | — | — | 426 | 194 | 16500 | 1864 | |
| 24" | 11.02 | 279.9 | 6.06 | 153.92 | 6.50 | 165.10 | 2.555 | 64.897 | 0.81 | 20.57 | 3/4" X 1/2" | — | — | 675 | 307 | 24600 | 2779 | |
| 30" | 11.25 | 285.8 | 7.51 | 190.75 | 10.00 | 254.00 | 3.142 | 79.807 | 0.69 | 15.53 | .866 X .788 | — | — | 1026 | 466 | 37175 | 4200 | |

High Performance Butterfly Valve Series 7822

SIZES 2" THROUGH 24"



ANSI CLASS 300

DIMENSIONS — WEIGHTS

| Valve Size | Gear Operator Mounting | A | | B | | C | | D | | E | | F | | G | |
|------------|------------------------|------|--------|-------|-------|-------|-------|------|------|-------|--------|-------------------|-------|-------|--|
| | | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | Threads | In. | mm. | |
| 2" | F07 | 1.25 | 31.75 | 5.78 | 146.8 | 3.94 | 100.1 | 1.25 | 31.8 | 5.00 | 127.00 | 8 X 5/8"-11 UNC | 1.68 | 42.7 | |
| 2½" | F07 | 1.25 | 31.75 | 6.49 | 164.8 | 4.06 | 103.1 | 1.25 | 31.8 | 5.88 | 149.35 | 8 X 3/4"-10 UNC | 2.24 | 56.9 | |
| 3" | F07 | 1.25 | 31.75 | 6.77 | 172.0 | 4.37 | 111.0 | 1.25 | 31.8 | 6.62 | 168.15 | 8 X 3/4"-10 UNC | 2.72 | 69.1 | |
| 4" | F07 | 1.25 | 31.75 | 6.98 | 177.3 | 4.80 | 121.9 | 1.25 | 31.8 | 7.88 | 200.15 | 8 X 3/4"-10 UNC | 3.38 | 85.9 | |
| 5" | F07 | 1.25 | 31.75 | 8.39 | 213.1 | 6.38 | 162.1 | 1.25 | 31.8 | 9.25 | 234.95 | 8 X 3/4"-10 UNC | 4.42 | 112.3 | |
| 6" | F07 | 1.25 | 31.75 | 9.53 | 242.1 | 7.75 | 196.9 | 1.25 | 31.8 | 10.62 | 269.75 | 12 X 3/4"-10 UNC | 4.07 | 103.4 | |
| 8" | F10 | 2.00 | 50.80 | 11.42 | 290.1 | 8.91 | 226.3 | 2.00 | 50.8 | 13.00 | 330.20 | 12 X 7/8"-9 UNC | 7.03 | 178.6 | |
| 10" | F12 | 2.25 | 57.15 | 12.32 | 312.9 | 9.88 | 251.0 | 1.00 | 25.4 | 15.25 | 387.35 | 16 X 1"-8 UNC | 9.11 | 231.4 | |
| 12" | F12 | 3.00 | 76.20 | 13.90 | 353.1 | 11.00 | 279.4 | 1.00 | 25.4 | 17.75 | 450.85 | 16 X 1-1/8"-8 UN* | 10.55 | 268.0 | |
| 14" | F16 | 3.00 | 76.20 | 15.95 | 405.1 | 12.57 | 319.3 | 2.00 | 50.8 | 20.25 | 514.35 | 20 X 1-1/8"-8 UN* | 11.99 | 304.5 | |
| 16" | F16 | 3.00 | 76.20 | 18.31 | 465.1 | 15.83 | 402.1 | 2.00 | 50.8 | 22.50 | 571.50 | 20 X 1-1/4"-8 UN* | 13.80 | 350.5 | |
| 18" | F25 | 4.33 | 109.98 | 19.29 | 490.0 | 16.81 | 427.0 | 1.25 | 31.8 | 24.75 | 628.65 | 24 X 1-1/4"-8 UN* | 15.81 | 401.6 | |
| 20" | F25 | 4.33 | 109.98 | 22.44 | 570.0 | 17.72 | 450.1 | 1.25 | 31.8 | 27.00 | 685.80 | 24 X 1-1/4"-8 UN* | 17.50 | 444.5 | |
| 24" | F25 | 4.33 | 109.98 | 24.92 | 633.0 | 21.65 | 549.9 | 1.25 | 31.8 | 32.00 | 912.80 | 24 X 1-1/2"-8 UN* | 21.50 | 546.1 | |

*SPECIAL PITCH CAP SCREW THREAD REQUIRED PER MSS SP-68 SPECIFICATIONS.

| Valve Size | H | | J | | K | | L | | M | | N | | P | | Valve Lbs. Kg. | Operating Torque at 700 psi | | |
|------------|-------|-------|------|--------|------|--------|-------|--------|------|-------|---------------|--------|----------|-------|----------------|-----------------------------|------|-----|
| | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In.-Lbs. | N-m | | | | |
| 2" | 4.15 | 105.4 | 1.69 | 42.93 | 2.76 | 70.10 | 0.500 | 12.700 | 0.37 | 9.40 | 0.375 | 9.525 | 13.75 | 349.3 | 14 | 6 | 390 | 44 |
| 2½" | 4.15 | 105.4 | 1.84 | 46.74 | 2.76 | 70.10 | 0.625 | 15.875 | 0.37 | 9.40 | 0.438 | 11.125 | 13.75 | 349.3 | 21 | 10 | 425 | 48 |
| 3" | 4.15 | 105.4 | 1.88 | 47.75 | 2.76 | 70.10 | 0.625 | 15.875 | 0.37 | 9.40 | 0.438 | 11.125 | 13.75 | 349.3 | 27 | 12 | 450 | 51 |
| 4" | 4.15 | 105.4 | 2.12 | 53.85 | 2.76 | 70.10 | 0.625 | 15.875 | 0.37 | 9.40 | 0.438 | 11.125 | 13.75 | 349.3 | 49 | 22 | 725 | 82 |
| 5" | 4.15 | 105.4 | 2.31 | 58.67 | 2.76 | 70.10 | 0.750 | 19.050 | 0.37 | 9.40 | 0.500 | 12.700 | 13.75 | 349.3 | 60 | 27 | 1000 | 113 |
| 6" | 4.15 | 105.4 | 2.31 | 58.67 | 2.76 | 70.10 | 0.750 | 19.050 | 0.37 | 9.40 | 0.500 | 12.700 | 13.75 | 349.3 | 71 | 32 | 1250 | 141 |
| 8" | 5.12 | 130.0 | 2.88 | 73.15 | 4.02 | 102.11 | 1.125 | 28.575 | 0.44 | 11.18 | 1/4" X 1/4" | — | — | 121 | 55 | 2025 | 229 | |
| 10" | 5.25 | 133.4 | 3.25 | 82.55 | 4.92 | 124.97 | 1.375 | 34.925 | 0.56 | 14.22 | 5/16" X 5/16" | — | — | 143 | 65 | 3775 | 426 | |
| 12" | 5.25 | 133.4 | 3.62 | 91.95 | 4.92 | 124.97 | 1.625 | 41.275 | 0.56 | 14.22 | 3/8" X 3/8" | — | — | 216 | 98 | 5725 | 647 | |
| 14" | 6.50 | 165.1 | 4.62 | 117.35 | 6.50 | 165.10 | 1.875 | 47.625 | 0.81 | 20.57 | 1/2" X 3/8" | — | — | 378 | 172 | 11500 | 1299 | |
| 16" | 6.50 | 165.1 | 5.25 | 133.35 | 6.50 | 165.10 | 1.875 | 47.625 | 0.81 | 20.57 | 1/2" X 3/8" | — | — | 488 | 222 | 15338 | 1733 | |
| 18" | 11.02 | 279.9 | 5.88 | 149.35 | 10.0 | 254.00 | 2.555 | 64.897 | 0.75 | 19.05 | 3/4" X 1/2" | — | — | 720 | 327 | 19516 | 2205 | |
| 20" | 11.02 | 279.9 | 6.30 | 160.02 | 10.0 | 254.00 | 2.555 | 64.897 | 0.75 | 19.05 | 3/4" X 1/2" | — | — | 855 | 389 | 26022 | 2940 | |
| 24" | 11.02 | 279.9 | 7.12 | 180.85 | 10.0 | 254.00 | 2.555 | 64.897 | 0.75 | 19.05 | 3/4" X 1/2" | — | — | — | — | — | — | — |

High Performance Butterfly Valve Technical Data

CLASS 150 HPBFV 6800 Series Flow Data

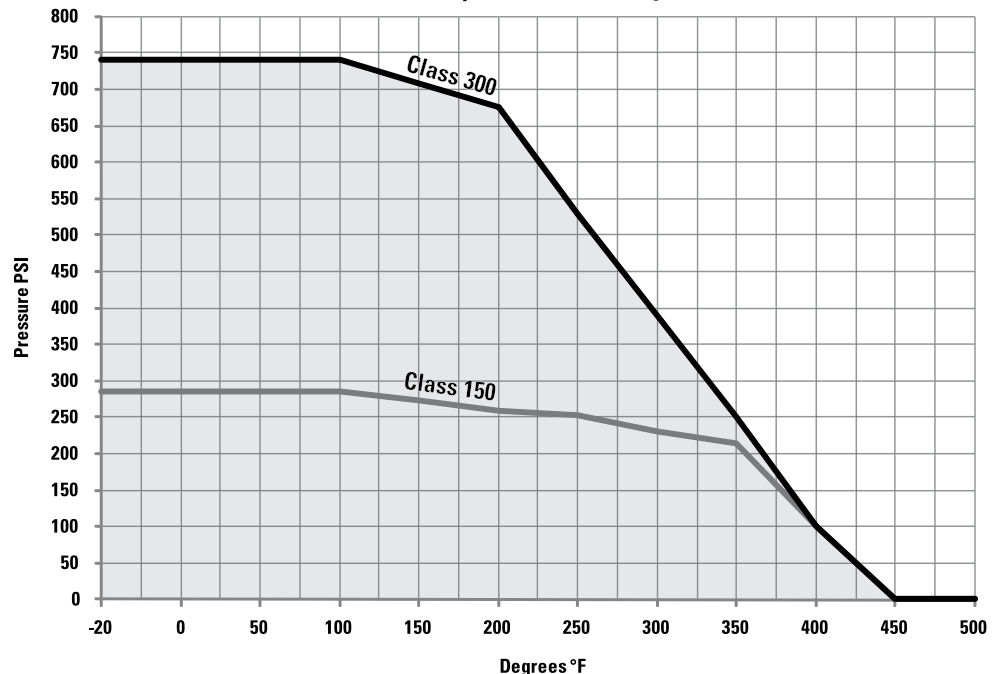
| Valv Size | Cv Rating | DISC OPEN - Degrees | | | | | | | | |
|-----------|-----------|---------------------|------|------|------|-------|-------|-------|-------|-------|
| | | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° |
| 2" | 92 | 2 | 6 | 13 | 20 | 30 | 43 | 72 | 81 | 92 |
| 2½" | 150 | 3 | 11 | 21 | 33 | 50 | 71 | 117 | 132 | 150 |
| 3" | 260 | 5 | 18 | 36 | 57 | 86 | 122 | 203 | 230 | 260 |
| 4" | 460 | 9 | 32 | 64 | 101 | 152 | 216 | 360 | 405 | 460 |
| 5" | 760 | 15 | 53 | 106 | 167 | 251 | 357 | 595 | 670 | 760 |
| 6" | 1150 | 23 | 81 | 161 | 253 | 380 | 540 | 897 | 1015 | 1150 |
| 8" | 2100 | 42 | 147 | 295 | 462 | 695 | 987 | 1640 | 1850 | 2100 |
| 10" | 3200 | 64 | 225 | 450 | 705 | 1056 | 1505 | 2496 | 2816 | 3200 |
| 12" | 4700 | 94 | 330 | 660 | 1035 | 1551 | 2210 | 3666 | 4136 | 4700 |
| 14" | 5800 | 116 | 406 | 815 | 1276 | 1915 | 2726 | 4525 | 5105 | 5800 |
| 16" | 8000 | 160 | 560 | 1120 | 1760 | 2640 | 3760 | 6240 | 7040 | 8000 |
| 18" | 10500 | 210 | 735 | 1470 | 2310 | 3465 | 4935 | 8190 | 9240 | 10500 |
| 20" | 14000 | 280 | 980 | 1960 | 3080 | 4620 | 6580 | 10920 | 12320 | 14000 |
| 24" | 21000 | 420 | 1470 | 2940 | 4620 | 6930 | 9870 | 16380 | 18480 | 21000 |
| 30" | | 980 | 2750 | 4700 | 7800 | 11700 | 17000 | 23700 | 29600 | 33500 |

CLASS 300 HPBFV 7800 Series Flow Data

| Valve Size | Cv Rating | DISC OPEN - Degrees | | | | | | | | |
|------------|-----------|---------------------|------|------|------|------|------|-------|-------|-------|
| | | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° |
| 2" | 92 | 2 | 6 | 13 | 20 | 30 | 43 | 72 | 81 | 92 |
| 2½" | 150 | 3 | 11 | 21 | 33 | 50 | 71 | 117 | 132 | 150 |
| 3" | 260 | 5 | 18 | 36 | 57 | 86 | 122 | 203 | 230 | 260 |
| 4" | 460 | 9 | 32 | 65 | 101 | 152 | 216 | 360 | 405 | 460 |
| 5" | 760 | 15 | 53 | 106 | 167 | 251 | 357 | 595 | 670 | 760 |
| 6" | 1150 | 23 | 81 | 161 | 253 | 380 | 540 | 987 | 1015 | 1150 |
| 8" | 1900 | 38 | 133 | 266 | 418 | 627 | 895 | 1485 | 1675 | 1900 |
| 10" | 2800 | 56 | 196 | 392 | 616 | 925 | 1316 | 2185 | 2465 | 2800 |
| 12" | 4100 | 82 | 287 | 575 | 905 | 1355 | 1930 | 3200 | 3610 | 4100 |
| 14" | | 110 | 385 | 770 | 1210 | 1815 | 2585 | 4290 | 4840 | 5500 |
| 16" | | 152 | 532 | 1065 | 1675 | 2510 | 3575 | 5930 | 6690 | 7600 |
| 18" | | 198 | 695 | 1390 | 2180 | 3270 | 4566 | 7725 | 8715 | 9900 |
| 20" | | 260 | 910 | 1820 | 2860 | 4290 | 6110 | 10140 | 11440 | 13000 |
| 24" | | 390 | 1365 | 2730 | 4290 | 6435 | 9165 | 15210 | 14160 | 19500 |

Cv = Flow in U.S. Gallons per minute of 60°F water with a 1 psi pressure drop across valve

Pressure Temperature Seat Rating (RPTFE)

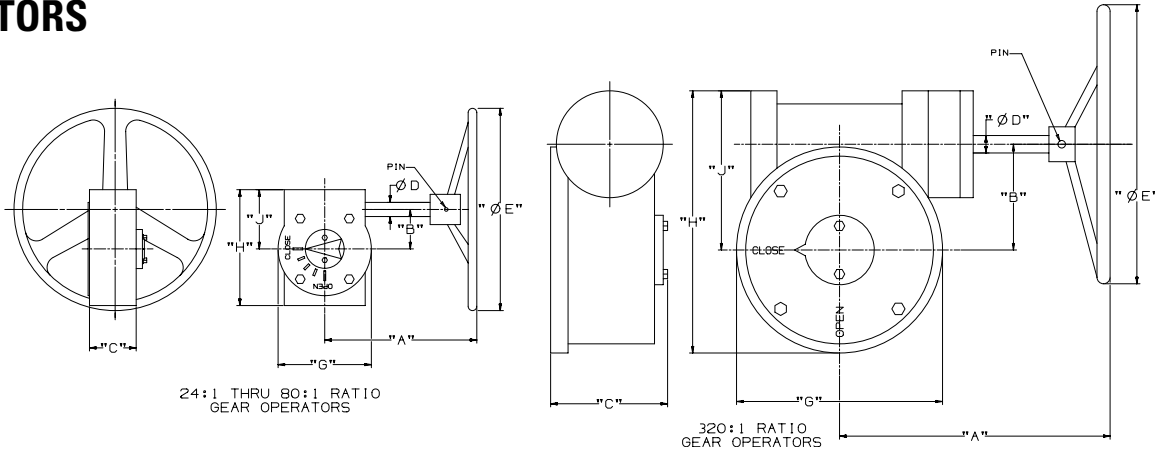


| Temperature °F | Class 150 | Class 300 |
|----------------|-----------|-----------|
| | -20 | 285 |
| 0 | 285 | 740 |
| 50 | 285 | 740 |
| 100 | 285 | 740 |
| 150 | 273 | 708 |
| 200 | 260 | 675 |
| 250 | 254 | 530 |
| 300 | 230 | 390 |
| 350 | 215 | 250 |
| 400 | 100 | 100 |
| 450 | 0 | 0 |
| 500 | 0 | 0 |

Pressure PSI

High Performance Butterfly Valve Technical Data

OPERATORS



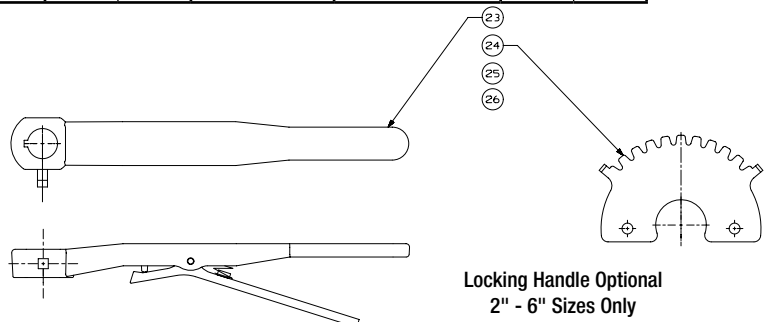
GEAR OPERATOR DIMENSIONS

| Valve Size | | Gear Operator Figure Number | NIBCO Material Number | Ratio | Gear Operator Efficiency | Gear Operator Mounting | A | | B | | C | | D | |
|----------------|----------------|-----------------------------|-----------------------|-------|--------------------------|------------------------|-------|-------|------|-------|------|-------|-------|-------|
| Class 150 | Class 300 | | | | | | In. | mm. | In. | mm. | In. | mm. | In. | mm. |
| 2" | 2" | GO24:1-1-8 | RG70001 | 24:1 | 15% | F07 | 5.77 | 146.6 | 1.73 | 43.9 | 2.65 | 67.3 | 0.625 | 15.88 |
| 2-1/2", 3", 4" | 2-1/2", 3", 4" | GO24:1-3-8 W/STSA-4 | RG70002 | 24:1 | 15% | F07 | 5.77 | 146.6 | 1.73 | 43.9 | 2.65 | 67.3 | 0.625 | 15.88 |
| 5", 6" | 5", 6" | GO24:1-3-8 W/STSA-5 | RG70003 | 24:1 | 15% | F07 | 5.77 | 146.6 | 1.73 | 43.9 | 2.65 | 67.3 | 0.625 | 15.88 |
| 8" | — | GO30:1-1-12 W/STSA-6 | RG70004 | 30:1 | 19% | F10 | 9.50 | 241.3 | 2.50 | 63.5 | 3.00 | 76.2 | 0.750 | 19.05 |
| — | 8" | GO30:1-1-12 | RG70005 | 30:1 | 19% | F10 | 9.50 | 241.3 | 2.50 | 63.5 | 3.00 | 76.2 | 0.750 | 19.05 |
| 10" | — | GO30:1-2-12 | RG70006 | 30:1 | 19% | F12 | 9.50 | 241.3 | 2.50 | 63.5 | 3.00 | 76.2 | 0.750 | 19.05 |
| 12", 14" | 10", 12" | GO50:1-3-16 | RG70007 | 50:1 | 20% | F12 | 9.00 | 228.6 | 3.00 | 76.2 | 3.00 | 76.2 | 0.750 | 19.05 |
| 16" | — | GO80:1-2-16 | RG70008 | 80:1 | 20% | F12 | 10.75 | 273.1 | 4.75 | 120.7 | 4.40 | 111.8 | 1.000 | 25.40 |
| 18" | — | GO80:1-1-1-20 | RG70009 | 80:1 | 16% | D16 | 10.75 | 273.1 | 4.75 | 120.7 | 4.40 | 111.8 | 1.000 | 25.40 |
| 20" | — | GO320:1-1-20 | RG70010 | 320:1 | 16% | F16 | 15.51 | 394.0 | 6.06 | 153.9 | 6.46 | 164.1 | 1.190 | 30.23 |
| 24" | — | GO320:1-2-20 | RG70011 | 320:1 | 16% | F16 | 15.51 | 394.0 | 6.06 | 153.9 | 6.46 | 164.1 | 1.190 | 30.23 |
| 30" | — | GO320:1-4-20 | RG70020 | 320:1 | 15% | F25 | 15.51 | 394.0 | 6.06 | 153.9 | 6.46 | 164.1 | 1.190 | 30.23 |

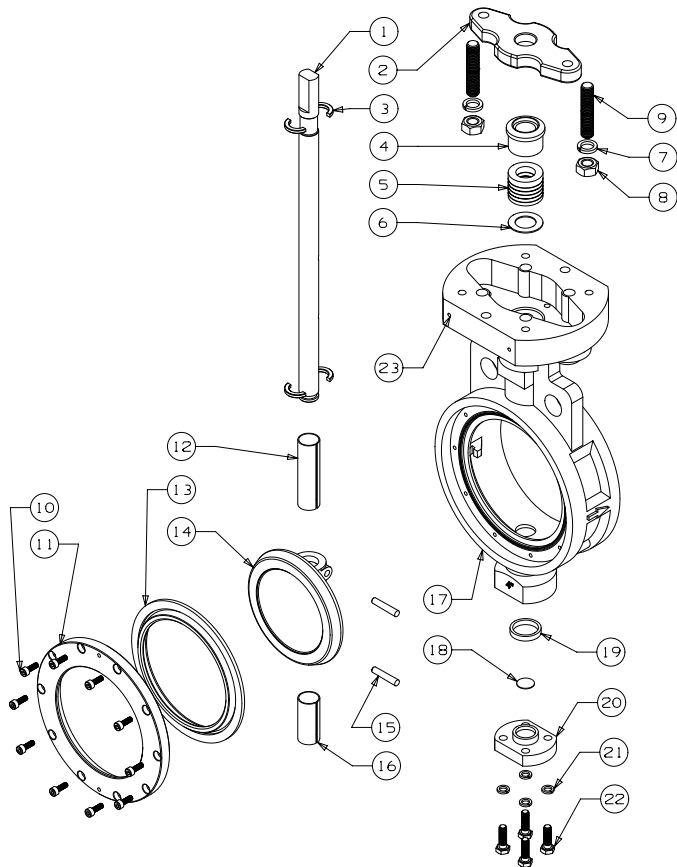
| Valve Size | | E | | G | | H | | J | | Mounting Screws | Handwheel Pin Size | Weight | |
|----------------|----------------|-----|-----|-------|-------|-------|-------|-------|-------|-----------------|--------------------|--------|-----|
| Class 150 | Class 300 | In. | mm. | In. | mm. | In. | mm. | In. | mm. | | | Lbs. | Kg. |
| 2" | 2" | 8 | 203 | 4.00 | 101.6 | 5.07 | 128.8 | 2.90 | 73.7 | 5/16"-18 UNC | Ø.190 X 1.63 LONG | 12 | 5.5 |
| 2-1/2", 3", 4" | 2-1/2", 3", 4" | 8 | 203 | 4.00 | 101.6 | 5.07 | 128.8 | 2.90 | 73.7 | 5/16"-18 UNC | Ø.190 X 1.63 LONG | 12 | 5.5 |
| 5", 6" | 5", 6" | 8 | 203 | 4.00 | 101.6 | 5.07 | 128.8 | 2.90 | 73.7 | 5/16"-18 UNC | Ø.190 X 1.63 LONG | 12 | 5.5 |
| 8" | — | 12 | 305 | 6.00 | 152.4 | 6.90 | 175.3 | 3.90 | 99.1 | 3/8"-16 UNC | Ø.190 X 1.63 LONG | 26.5 | 12 |
| — | 8" | 12 | 305 | 6.00 | 152.4 | 6.90 | 175.3 | 3.90 | 99.1 | 3/8"-16 UNC | Ø.190 X 1.63 LONG | 26.5 | 12 |
| 10" | — | 12 | 305 | 6.00 | 152.4 | 6.90 | 175.3 | 3.90 | 99.1 | 3/8"-16 UNC | Ø.190 X 1.63 LONG | 26.5 | 12 |
| 12", 14" | 10", 12" | 16 | 406 | 6.70 | 170.2 | 7.80 | 198.1 | 4.60 | 116.8 | 1/2"-13 UNC | Ø.190 X 1.63 LONG | 37.5 | 17 |
| 16" | — | 16 | 406 | 10.25 | 260.4 | 11.50 | 292.1 | 6.25 | 158.8 | 3/4"-10 UNC | Ø.380 X 1.81 LONG | 72 | 33 |
| 18" | — | 20 | 508 | 10.25 | 260.4 | 11.50 | 292.1 | 6.25 | 158.8 | 3/4"-10 UNC | Ø.380 X 1.81 LONG | 72 | 33 |
| 20" | — | 20 | 508 | 11.81 | 300.0 | 17.00 | 431.8 | 11.10 | 281.9 | 3/4"-10 UNC | Ø.380 X 2.50 LONG | 200 | 91 |
| 24" | — | 20 | 508 | 11.81 | 300.0 | 17.00 | 431.8 | 11.10 | 281.9 | 5/8"-11 UNC | Ø.380 X 2.50 LONG | 200 | 91 |
| 30" | — | 20 | 508 | 11.81 | 300.0 | 17.00 | 431.8 | 11.10 | 281.9 | 5/8"-11 UNC | Ø.380 X 2.50 LONG | 200 | 91 |

LEVER HANDLE

| Item | Description | Material |
|------|-----------------|----------------------|
| 23 | Handle Assembly | Malleable Iron |
| 24 | Plate, Throttle | Steel, Plated |
| 25 | Screw, Hex | Carbon Steel, Plated |
| 26 | Lockwasher | Carbon Steel, Plated |



High Performance Butterfly Valve Technical Data



MATERIAL LIST

| PART | SPECIFICATION |
|-----------------------|--|
| 1. Stem | Stainless Steel UNS ASTM A564 UNS S17400 |
| 2. Flange, Gland | Stainless Steel ASTM A351 Grade CF8M |
| 3. Retainer, Stem (2) | Stainless Steel ASTM A276 UNS S31600 |
| 4. Gland, Packing | Stainless Steel ASTM A276 UNS S31600 |
| 5. Packing | PTFE |
| 6. Retainer, Packing | Stainless Steel ASTM A276 UNS S31600 |
| 7. Lockwasher (2) | Stainless Steel Type 304 18-8 |
| 8. Nut (2) | Stainless Steel Type 304 18-8 |
| 9. Stud (2) | Stainless Steel Type 304 18-8 |
| 10. Screw, SHCS | Stainless Steel Type 304 18-8 |
| 11. Retainer, Seat | Stainless Steel ASTM A276 UNS S31600 |
| 12. Bushing, Upper | Stainless Steel Type 304 PTFE Coated |
| 13. Seat | PTFE 15% Glass Reinforced |
| 14. Disc | Stainless Steel ASTM A351 Grade CF8M |
| 15. Pin, Disc (2) | Stainless Steel ASTM A276 UNS S31600 |
| 16. Bushing, Lower | Stainless Steel Type 304 PTFE Coated |
| 17. Body | Carbon Steel ASTM A216 Grade WCB |
| 18. Disc, Spacer | Stainless Steel ASTM A240 UNS S31600 |
| 19. Seal, Lower | PTFE |
| 20. Cap, Body | Stainless Steel ASTM A351 Grade CF8M |
| 21. Lockwasher (4) | Stainless Steel Type 304 18-8 |
| 22. Screw, Hex (4) | Stainless Steel Type 304 18-8 |