



PVC/EPDM
2" - 12"

BYV Series Butterfly Valves

2" TO 12" PVC BODY WITH PVC OR GFPP DISC

KEY FEATURES & BENEFITS

- One Piece Injection Molded PVC Body
- PVC or GFPP Disc Materials
- Viton®, EPDM and Nitrile Seat Materials
- NSF / ANSI 61-G Listed
- Hand Lever with 19 Lockable Stop Positions & 360° Interlocking Splines
- External Disc Position and Flow Indication
- Hydro-dynamic Centric Disc for Increased Flow Performance
- Over-Sized Liner Face Maximizes Surface Contact with Flanges
- 1-Piece 316 Stainless Steel Stem with Threaded Retaining Gland
- Stem Bearing and Seal Retainer for Absolute Stem Position and Sealing
- ISO 5211 Top Flange and Stem Drive
- All Sizes Meet ANSI B16.10 / ISO 5752 Narrow Face-to-Face Dimensions
- Pressure Rated at 150 PSI / 10 Bar in All Sizes @ 70°F Non-Shock

OPTIONS

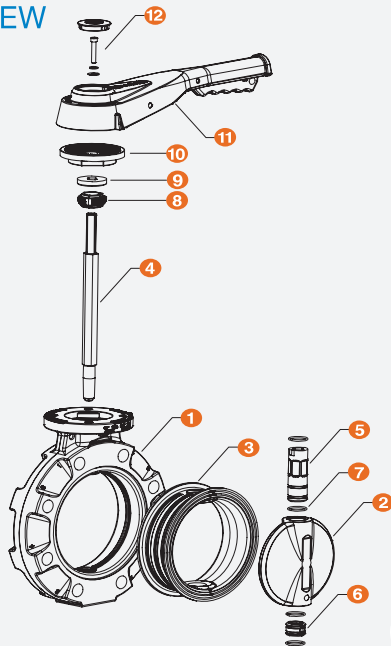
- Over-Molded or Field Mountable 316 Stainless Steel Lugs
- Gear Operators
- Complete Range of Pneumatic or Electric Actuators
- Stem Extensions
- 2" Square Operating Nut
- Chain Operator for Gear Box

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- GFPP Cell Class 85580 per ASTM D4101
- Viton®, EPDM or Nitrile Liners

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

| SIZE | BODY MATERIAL | DISC MATERIAL | LINER MATERIAL | PRESSURE RATING |
|----------------------------|---------------|----------------|-------------------------------|--------------------------------|
| 2" - 12" (DN50 - DN300) | PVC | PVC or GFPP | Viton®, EPDM or Nitrile | 150 PSI @ 70°F Non-Shock |

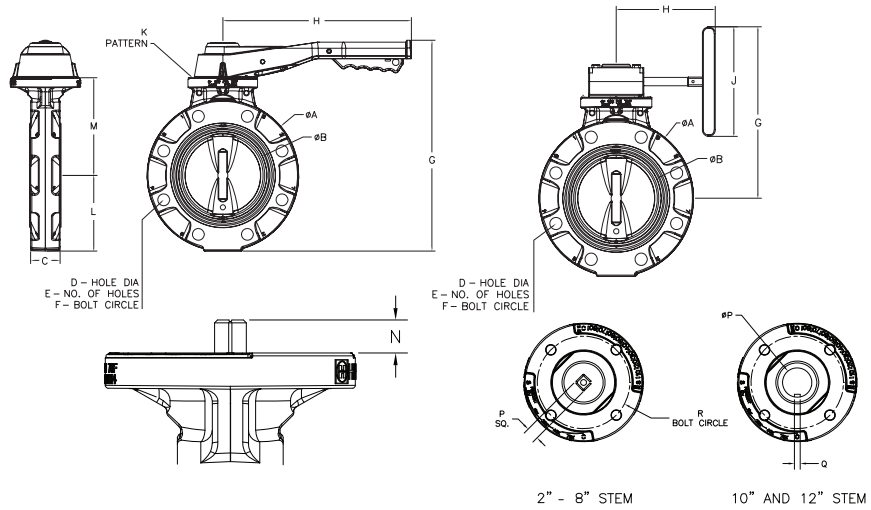
BYV Series Butterfly Valves

2" TO 12" (DN50-DN300) PVC BODY WITH PVC OR GFPP DISC

TECHNICAL INFORMATION, CONTINUED

PARTS LIST / 2D DRAWINGS

1. Body
2. Disc
3. Liner
4. Stem
5. Upper Stem Bearings
6. Seal Retainer
7. O-Rings (4)
8. Threaded Retaining Gland
9. Weather Seal
10. Splined Throttle Plate (Ultem®)
11. Hand Lever Assembly
12. Bezel, Washers, Socket Head Cap Screw



DIMENSIONS – INCHES / MILLIMETERS

| SIZE | A | B | C (1) | D, ANSI (2) | E | F, ANSI (2) | G | H | J | K (4) ISO 5211 | L | M | N | P | Q, 10" & 12", SQUARE KEY | R | WEIGHT w LEVER | WEIGHT w GEAR | | |
|----------|-------------|-------------|-----------|-------------|---------|-------------|-------------|-------------|------------|----------------|----------|---------|------------|-------------|--------------------------|------------------------|----------------|---------------|------------|-------------|
| in / DN | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | in / mm | lbs / Kg | lbs / Kg | | |
| 2 / 50 | 6.12 / 155 | 2.03 / 52 | 1.69 / 43 | 0.75 / 19 | 4 / 4 | 4.75 / 121 | 7.53 / 191 | 6.25 / 159 | 4.75 / 121 | 10.5 / 267 | 5 / 125 | F07-D11 | 3.17 / 81 | 3.97 / 101 | 0.51 / 13 | 0.430-0.433 / 10.92-11 | - | 2.76 / 70 | 4.0 / 1.8 | 5.8 / 2.6 |
| 2.5 / 65 | 7.25 / 184 | 2.50 / 64 | 1.81 / 46 | 0.75 / 19 | 4 / 4 | 5.50 / 140 | 7.96 / 202 | 6.67 / 169 | 4.75 / 121 | 10.5 / 267 | 5 / 125 | F07-D11 | 3.63 / 92 | 4.40 / 112 | 0.51 / 13 | 0.430-0.433 / 10.92-11 | - | 2.76 / 70 | 4.9 / 2.2 | 6.7 / 3.0 |
| 3 / 80 | 7.75 / 197 | 3.25 / 83 | 1.81 / 46 | 0.75 / 19 | 4 / 8 | 6.00 / 152 | 8.31 / 211 | 7.00 / 178 | 4.75 / 121 | 10.5 / 267 | 5 / 125 | F07-D11 | 3.88 / 99 | 4.75 / 121 | 0.51 / 13 | 0.430-0.433 / 10.92-11 | - | 2.76 / 70 | 5.2 / 2.4 | 7.0 / 3.2 |
| 4 / 100 | 9.13 / 232 | 4.12 / 105 | 2.06 / 52 | 0.75 / 19 | 8 / 8 | 7.50 / 191 | 9.29 / 236 | 8.00 / 203 | 7.28 / 185 | 12.00 / 305 | 5 / 125 | F07-D14 | 4.57 / 116 | 5.69 / 145 | 0.68 / 17 | 0.548-0.551 / 13.92-14 | - | 2.76 / 70 | 7.7 / 3.5 | 11.1 / 5 |
| 6 / 150 | 11.25 / 286 | 5.98 / 152 | 2.19 / 56 | 0.88 / 22 | 8 / 8 | 9.50 / 241 | 12.35 / 314 | 10.00 / 254 | 7.75 / 197 | 14.00 / 356 | 8 / 200 | F10-D14 | 5.63 / 143 | 7.25 / 184 | 0.68 / 17 | 0.548-0.551 / 13.92-14 | - | 4.02 / 102 | 12.7 / 5.8 | 16.2 / 7.4 |
| 8 / 200 | 13.75 / 349 | 7.75 / 197 | 2.38 / 60 | 0.88 / 22 | 8 / 8 | 11.75 / 298 | 13.48 / 342 | 11.18 / 284 | 7.75 / 197 | 16.00 / 406 | 8 / 200 | F10-D17 | 6.88 / 175 | 8.38 / 213 | 0.77 / 20 | 0.666-0.669 / 16.92-17 | - | 4.02 / 102 | 18.5 / 8.4 | 21.9 / 10.0 |
| 10 / 250 | 16.13 / 410 | 9.63 / 245 | 2.69 / 68 | 1.00 / 25 | 12 / 12 | 14.25 / 362 | 16.37 / 416 | N/A | 9.00 / 229 | N/A | 10 / 250 | F12-V28 | 8.06 / 205 | 10.88 / 276 | 2.24 / 57 | 1.102 DIA. / 28 DIA. | 0.25 / 6.35 | 4.92 / 125 | N/A | 34.2 / 15.5 |
| 12 / 300 | 19.13 / 486 | 11.37 / 289 | 3.06 / 78 | 1.00 / 25 | 12 / 12 | 17.00 / 432 | 17.87 / 454 | N/A | 9.00 / 229 | N/A | 10 / 250 | F12-V36 | 9.56 / 243 | 12.38 / 314 | 2.24 / 57 | 1.417 DIA. / 36 DIA. | 0.25 / 6.35 | 4.92 / 125 | N/A | 50.4 / 22.9 |

- 1) Dimension per ASME B16.10 Class 150, Steel, Narrow
- 2) ANSI dimension per ASME B16.5, Class 150
- 3) Dimension per DIN 2501, PN10

- 4) ISO 5211 Flange and Drive
- 5) All weights are for non-lugged versions

Cv VALUES

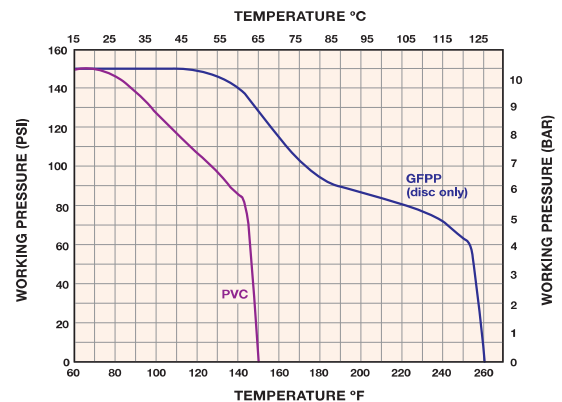
| SIZE in / DN | DISC ANGLE | | | | | FULL OPEN POSITION |
|-----------------|------------|-----|------|------|------|--------------------|
| | 15° | 30° | 45° | 60° | 75° | |
| 2 / 50 | 0.2 | 15 | 37 | 65 | 88 | 92 |
| 2-1/2 / 65 | 1.1 | 24 | 45 | 80 | 145 | 165 |
| 3 / 80 | 3.1 | 28 | 36 | 83 | 182 | 250 |
| 4 / 100 | 20 | 58 | 84 | 183 | 390 | 470 |
| 6 / 150 | 30 | 105 | 200 | 458 | 1000 | 1510 |
| 8 / 200 | 125 | 203 | 375 | 770 | 1650 | 2820 |
| 10 / 250 | 123 | 289 | 644 | 1396 | 3003 | 4723 |
| 12 / 300 | 154 | 435 | 1011 | 2189 | 4586 | 6400 |

PRESSURE LOSS CALCULATION FORMULA

$$\Delta P = \left[\frac{Q}{C_v} \right]^2$$

ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = Flow Coefficient

OPERATING TEMPERATURE / PRESSURE



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