


NSF

Certified to
NSF/ANSI 61 & 372
PVC/EPDM 2" - 12"
CPVC/EPDM 4" - 12"

BYV Series Butterfly Valves

2" TO 12" PVC, CPVC AND GFPP

KEY FEATURES & BENEFITS

- One Piece Injection Molded PVC, CPVC or GFPP Body
- PVC, CPVC or GFPP Disc Materials
- 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 Seal
- 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
- NSF / ANSI 61 and NSF / ANSI 372 Listed

OPTIONS

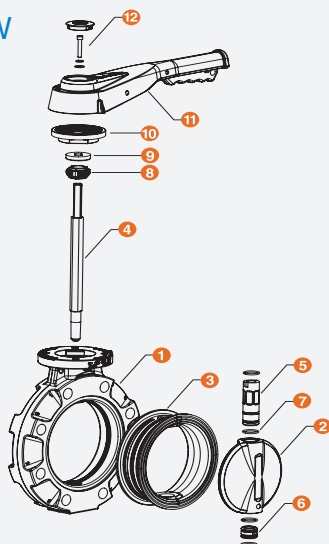
- Over-Molded 316 Stainless Steel Lugs
- Titanium or Hastelloy™ Stem Materials
- Gear Operators
- Complete Range of Pneumatic or Electric Actuators
- Lock Out Caps
- Stem Extensions
- 2" Square Operating Nut
- Chain Operator for Gear Box

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 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 10 Bar @ 21°C Non-Shock
	CPVC	CPVC		
	GFPP	GFPP		

"Patented" & Other Patents Pending" Pat. No.: 9,695,947;
9,989,154; 10,683,937; 10,683,938; 10,690,252

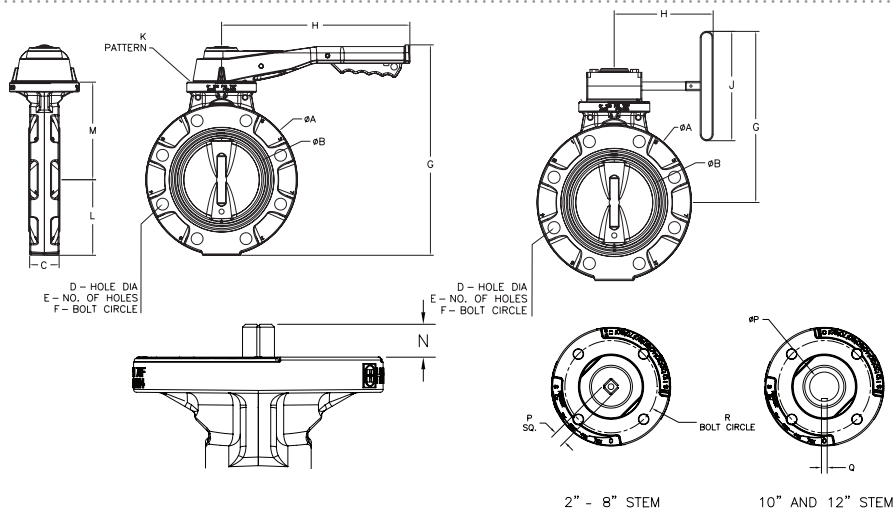
BYV Series Butterfly Valves

2" TO 12" PVC, CPVC AND GFPP

TECHNICAL INFORMATION, CONTINUED

PARTS LIST

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

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	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 / 30	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

4) ISO 5211 Flange and Drive

2) ANSI dimension per ASME B16.5, Class 150

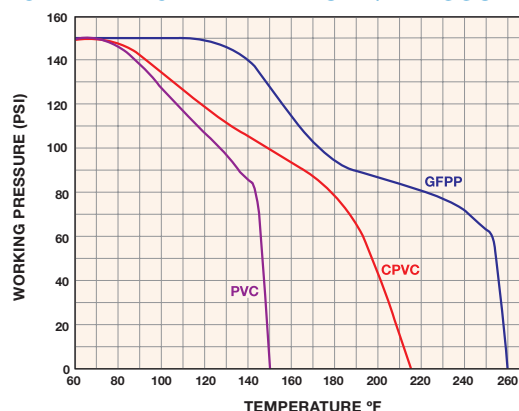
5) All weights are for non-lugged versions

3) Dimension per DIN 2501, PN10

Cv VALUES

SIZE in / DN	DISC ANGLE					FULL OPEN POSITION	PRESSURE LOSS CALCULATION FORMULA
	15°	30°	45°	60°	75°		
2 / 50	0.2	15	37	65	88	92	$\Delta P = \left[\frac{Q}{C_v} \right]^2$ $\Delta P = \text{Pressure Drop}$ $Q = \text{Flow in GPM}$ $C_v = \text{Flow Coefficient}$
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	

OPERATING TEMPERATURE/PRESSURE



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Liquid Filters and Strainers



Bag Filter vessel

- GFPP
- PVC
- CPVC



Y Strainers

- PVC
- CPVC
- Clear PVC
- PVDF



Simplex Strainers

- PVC
- CPVC
- GFPP
- PVDF
- Eastar® (Clear)



Duplex Strainers

- PVC
- CPVC
- GFPP
- Eastar® (Clear)

Valves and Flow Control



Ball Valves

- PVC
- CPVC
- GFPP
- PVDF



Check Valves

- Ball Check Valves
- Y-Check Valves
- Wafer Check Valves
- Swing Check Valves



Pressure & Chemfeed

- Injection Quills
- Back Pressure
- Pressure Relief
- Diaphragm Valves
- Needle Valves
- Angle Globe Valves



Butterfly Valves

- PVC
- CPVC
- GFPP
- PP
- PVDF



Actuation

- Electric
- Pneumatic



Solenoid Valves

- PVC
- CPVC
- PVDF



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