

## 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
- Viton®, EPDM and Nitrile Seat 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

### 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
- Lock Out Cap

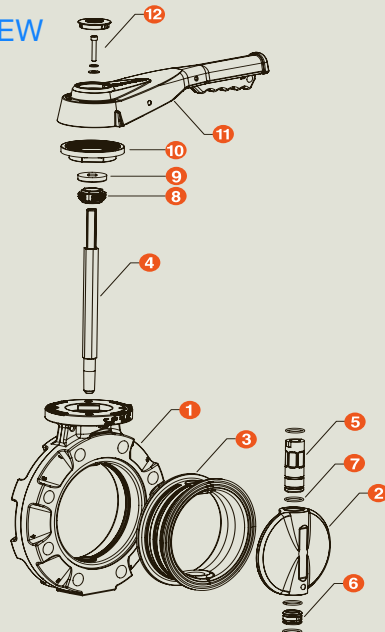
### MATERIALS

- 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		150 PSI @ 70°F Non-Shock
	CPVC	CPVC	Viton®, EPDM or Nitrile	
	GFPP	GFPP		

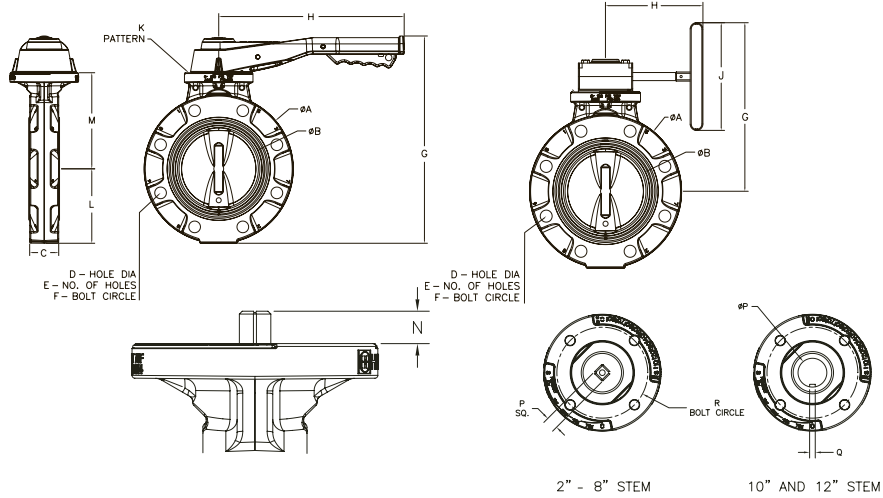
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## TECHNICAL INFORMATION, CONTINUED

### 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)	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	ISO 5211	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  
4) ISO 5211 Flange and Drive

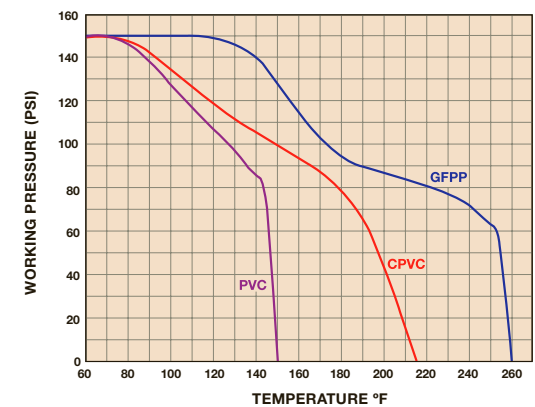
2) ANSI dimension per ASME B16.5, Class 150  
5) All weights are for non-lugged versions

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	$\Delta P = \left[ \frac{Q}{Cv} \right]^2$ $\Delta P = \text{Pressure Drop}$ $Q = \text{Flow in GPM}$ $Cv = \text{Flow Coefficient}$
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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