

CPVC and PVC Butterfly Valves, Model B



Section A–A

Construction Materials

Part	Material
2. Top Bearing	Glass-Filled PTFE
3. O-Ring Seal (4 required)	FKM or EPDM
4. Disk/Stem	PVC ¹ w/ 316 Stainless Hex Shaft Insert-Molded
5. Body (2 required – mirror image)	3" - CPVC ¹ ; 4" & 6" - PVC
6. Seat/Boot	FKM or EPDM w/ GF-PTFE Upper & Lower Bearing-Bushings Insert-Molded
7. Cap Screws;	
3" Valve	(6) ea. 1/4"-20 x 7/8" Long Zinc Coated
4" Valve	(6) ea. 5/16"-18 x 1" Long Zinc Coated
6" Valve	(6) ea. 5/16"-18 x 1-1/2" Long & (2) ea. 5/16"-18 x 1" Long Zinc Coated
8. Hex Nuts;	
3" Valve	(6) ea. 1/4"-20 Zinc Coated
4" Valve	(6) ea. 5/16"-18 Zinc Coated
6" Valve	(8) ea. 5/16"-18 Zinc Coated
9. Lever Handle Assembly	
Handle w/Lever Lock	Malleable Iron
Throttling Plate	Zinc Plated Steel
Position Lock	Zinc Plated Steel

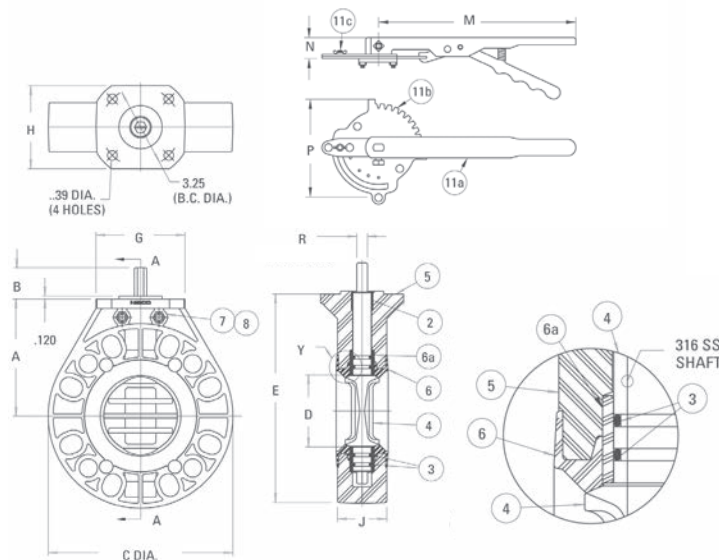
¹ Body, disk/stem, and throttle plate for 3" size are available in CPVC only.

C_v Table

Size	Degrees Open								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
3	4.3	16	35	62	94	135	180	235	290
4	8.6	34	76	137	215	310	420	550	690
6	17.5	67	200	265	410	580	790	1040	1340

Features

- Rated at 150 psi with non-shock service at 73°F (6" size 115 psi)
- Mates between ASME B16.5, Class 150; ISO 2084 PN 10, DN 80; and DIN EN 1092, PN 10, DN 80. Both 4-bolt and 8-bolt patterns are in 3" size.
- PVC overmolded 316 stainless hex shaft not exposed to the liquid
- Top bearing, as well as the upper and lower bushings, are glass-filled PTFE for ease of operation and maximum service life.
- Seat/boot design eliminates need for gaskets between mating flanges.
- Silicone-free lubricant is used to assemble Model B butterfly valves.



Chemtrol Figure Numbers

Seat Material	Operating Mechanism	3" (CPVC) ² Figure No.	4" (PVC) Figure No.	6" (PVC) Figure No.
EPDM	No Operator	W51BF-E-NO	W45BF-E-NO	W45BF-E-NO
	With Lever ¹ Handle	W51BF-E-LH	W45BF-E-LH	W45BF-E-LH
	With Gear Operator	NA	W45BF-E-GO	W45BF-E-GO
FKM ¹	No Operator	W51BF-V-NO	W45BF-V-NO	W45BF-V-NO
	With Lever ¹ Handle	W51BF-V-LH	W45BF-V-LH	W45BF-V-LH
	With Gear Operator	NA	W45BF-V-GO	W45BF-V-GO

¹ Includes throttle plate and hardware.

² Body and disk/stem for 3" size are available in CPVC only.

Model-B Butterfly Valve Dimensions–Weights

Valve Size	A	B	C	D	E	J	G	H	R	Handle			Approx. ¹ Wt./Lbs.
										M	N	P	
3	4.75	1.26	7.00	3.06	8.50	2.00	3.62	3.38	.37	10.50	1.01	6.19	3.25
4	6.13	1.22	9.00	4.00	10.63	2.22	3.62	3.38	.50	10.50	1.01	6.19	6.00
6	7.50	1.62	11.00	5.97	13.00	2.77	3.76	3.50	.56	13.75	1.01	6.19	12.00

¹ Operator not included in weight.

Maximum Operating Pressure (psi) vs. Temperature

"Operating Temperature (F)"	PVC	CPVC	"Operating Temperature (F)"	PVC	CPVC
100	150	150	150	N.R.	100
110	135	140	160	N.R.	90
120	110	130	170	N.R.	80
130	75	120	180	N.R.	70
140	50	110	190	N.R.	N.R.

N.R. - Not recommended