B5107 Series Butterfly Valves
Technical Specifications

Materials of Construction – Steel Components

• product contact components (Body & Disc): Forged 316L

• non-product contact components: 304

Sealing Materials

• product contact components (Seals): EPDM, FKM, Silicone. NOTE: 6in valve only available with EPDM & Silicone, 8in only EPDM

• non-product contact components (Bushings): Polyacetal

Line Pressure Technical Data

• max product line pressure:

  • Size 0.5” – 2”: 140psi

  • Size 2.5” – 3”: 110psi

  • Size 4”: 85psi

  • Size 6” – 8”: 60psi

• min product line pressure: 0.4in Hg vacuum at 68°F

Product Temperature Technical Data

• max operating temperature: 200**°F (93°C)**

• minimum operating temperature: 15**°F (-9°C)**

Surface Finish Technical Data

• product contact components: Ra ≤ 32

• optional finishes: 15Ra, 20Ra, 25Ra

Pneumatic Connections Technical Data (linear actuator)

• threaded air fitting size: G1/8”

• air connection hose size: ¼” Flexible Poly Tubing

• max supply air pressure: 100 **psi (6.9bar**)

• minimum supply air pressure: 80 **psi (5.5bar)**

Valve Stem Size

• Size ½” – 4”: 10mm

• Size 6”: 13mm

• Size 8”: 14mm

Connections

• clamp (standard)

• additional available connections: Weld, Female I-Line, Male I-Line, Threaded Bevel, Plain Bevel, Q-Line, John Perry Threaded

• connection sizes: 0.5in – 8in

Flow Coefficients (Cv)

(Based on Water at 68°F)

Valve Size	Flow Coefficient (Cv)	Valve Size	Flow Coefficient (Cv)
0.5in	7	2.5in	264
0.75in	11	3.0in	372
1.0in	23	4.0in	800
1.5in	80	6.0in	1200
2.0in	230	8.0in	2800

Valve Break Torque

(Based on Water at 68°F)

Valve Size	Break Torque (in-lbs.) Silicone	Break Torque (in-lbs.) EPDM	Break Torque (in-lbs.) FKM
0.5in	20	13	70
0.75in	20	13	70
1.0in	20	13	70
1.5in	35	20	125
2.0in	35	48	175
2.5in	133	98	220
3.0in	133	146	310
4.0in	266	341	450
6.0in	700	1550	NA
8.0in	NA	1650	NA

Pressure Drop Chart (PSI)

(Based on Water at 68°F)

CAPACITY (USGPM)	Valve Size (in)									
	0.5	0.75	1	1.5	2	2.5	3	4	6	8
5	7	5								
10		2.5	0.2	0.0						
50			4.7	0.4						
90			15.3	1.3	0.2					
130				2.6	0.3	0.2				
170				4.5	0.5	0.4	0.2			
210				6.9	0.8	0.6	0.3			
250				9.8	1.2	0.9	0.5			
290					1.6	1.2	0.6			
330					2.1	1.6	0.8	0.2		
370					2.6	2.0	1.0	0.2		
410					3.2	2.4	1.2	0.3		
450					3.8	2.9	1.5	0.3		
490					4.5	3.4	1.7	0.4	0.2	
530						4.0	2.0	0.4	0.2	
570						4.7	2.3	0.5	0.2	
610						5.3	2.7	0.6	0.3	
650						6.1	3.1	0.7	0.3	
690						6.8	3.4	0.7	0.3	
730							3.9	0.8	0.4	
770							4.3	0.9	0.4	
810							4.7	1.0	0.5	
850							5.2	1.1	0.5	
890							5.7	1.2	0.6	
930							6.3	1.4	0.6	
970								1.5	0.7	
1010								1.6	0.7	
1050								1.7	0.8	
1090				$\Delta P = \left[\frac{GPM}{C_V}\right]^2 G$				1.9	0.8	0.2
1130								2.0	0.9	0.2
1170								2.1	1.0	0.2
1210								2.3	1.0	0.2
1250								2.4	1.1	0.2
1290								2.6	1.2	0.2
1330								2.8	1.2	0.2
1370								2.9	1.3	0.2
1410								3.1	1.4	0.3
1450								3.3	1.5	0.3
1490								3.5	1.5	0.3
1530								3.7	1.6	0.3
1570								3.9	1.7	0.3
1610								4.1	1.8	0.3
1650								4.3	1.9	0.3