

Technical Specifications

Materials of Construction – Steel Components

- Product contact components (body and disc): forged 316L stainless steel
- Non-product contact components: 304 stainless steel

Sealing Materials

- Product contact components (seals): EPDM, FKM, silicone
 - Silicone and EPDM for valve sizes 1/2" to 4" have USP VI Certification
 - NOTE: 6" and 8" valves only available with EPDM and silicone
- Non-product contact components (bushings): polyacetal

Line Pressure Technical Data

- Max product line pressure:
 - 1/2" to 2": **140 PSI**
 - 2-1/2" to 3": **110 PSI**
 - 4": **85 PSI**
 - 6" to 8": **60 PSI**
- Minimum product line pressure: 0.4" Hg vacuum at **68°F (20°C)**

Product Temperature Technical Data

- Minimum/maximum operating temperature: **15°F (-9°C) to 200°F (93°C)**

Surface Finish Technical Data

- Product contact components: $R_a \leq 32$
- Optional finishes: 15R_a, 20R_a, 25R_a

Pneumatic Connections Technical Data (linear actuator)

- Threaded air fitting size: G1/8"
- Air connection hose size: 1/4" flexible poly tubing
- Max supply air pressure: **100 PSI (6.9 bar)**
- Minimum supply air pressure: **80 PSI (5.5 bar)**

Valve Stem Square Size

- 1/2" to 4": 10mm
- 6": 13mm
- 8": 14mm

Connections

- Clamp (standard)
- Additional available connections: weld, female I-Line, male I-Line, threaded bevel, plain bevel, Q-Line, John Perry threaded
- Sizes: 1/2" to 8"

Flow Coefficients (C_v) Based on water at 68°F (20°C)

Valve Size	Flow Coefficient (C _v)	Valve Size	Flow Coefficient (C _v)
1/2"	7	2-1/2"	264
3/4"	11	3"	372
1"	23	4"	800
1-1/2"	80	6"	1200
2"	230	8"	2800

Valve Break Torque Based on water at 68°F (20°C)

Valve Size	Break Torque (in-lbs.) Silicone	Break Torque (in-lbs.) EPDM	Break Torque (in-lbs.) FKM
1/2"	20	13	70
3/4"	20	13	70
1"	20	13	70
1-1/2"	35	20	125
2"	35	48	175
2-1/2"	133	98	220
3"	133	146	310
4"	266	341	450
6"	775	830	NA
8"	1106	1106	NA

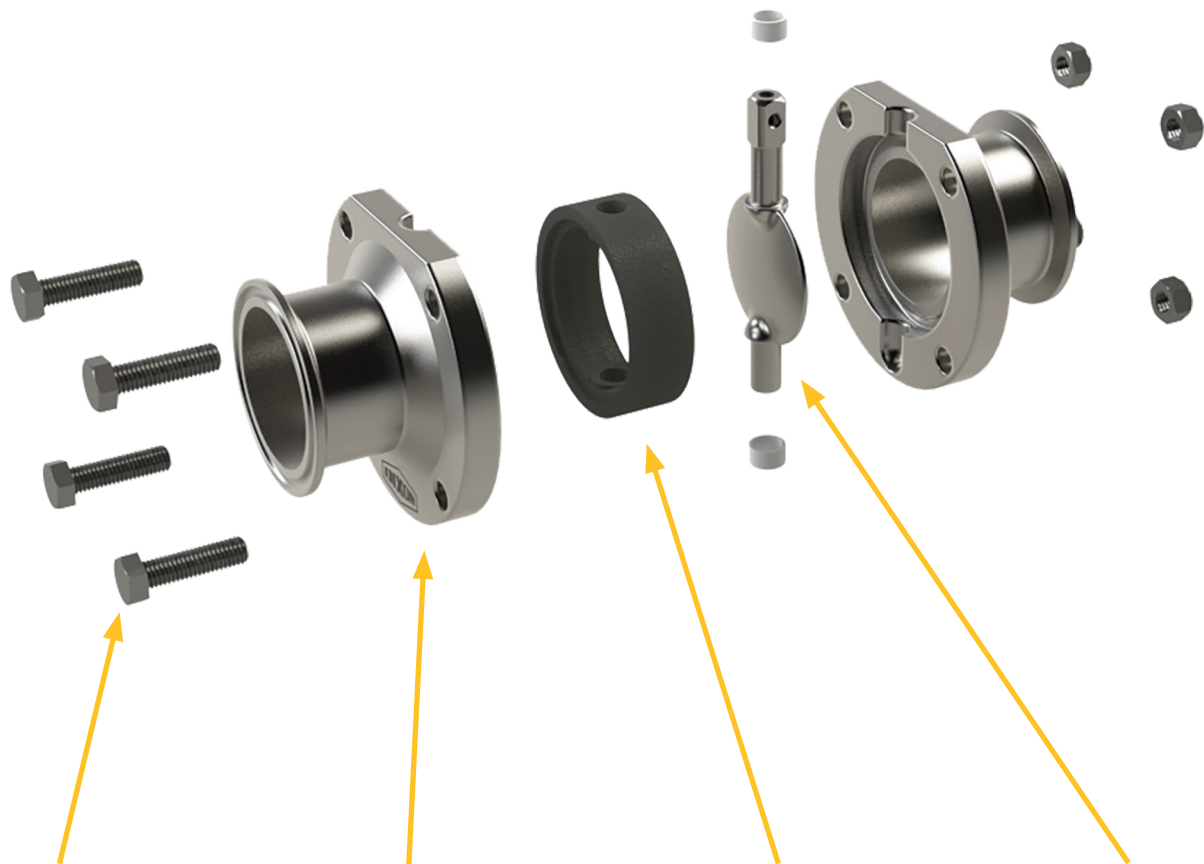
Pressure Drop Chart (PSI)

Based on water at 68°F (20°C)

Capacity (USGPM)	Valve Size (in)									
	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	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								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

$$\Delta P = \left[\frac{\text{GPM}}{C_v} \right]^2 G$$

B5107-Series Butterfly Valve



Hex Head Body Bolts

Hex head body bolts eliminate the recessed cavity found in socket head body bolts, reducing the potential for bacterial buildup. Sizes 1/2" to 4"

Exterior Body Geometry

Body design enhances the exterior cleanability and drainability of the valve by utilizing a large machined chamfer between the flange face and the tube OD

Seal Performance

Our new EPDM with self-lubricating properties and silicone rubber help to reduce break torque and provide added durability to valve seats. Silicone and EPDM for valve sizes 1/2" to 4" have USP VI certification

Valve Disc

Increased disc stem square size provides added durability when higher torques are experienced due to viscous or sticky process fluids