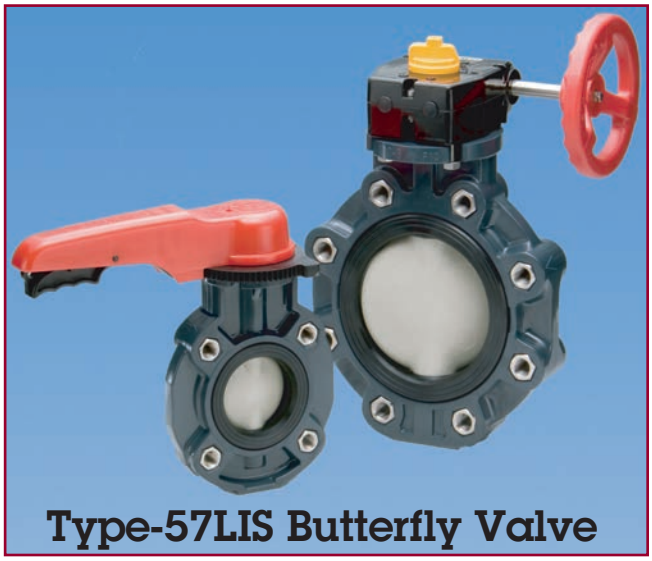


Type-57LIS Butterfly Valve

Specifications

Sizes: Lever: 3" – 8"
Gear: 3" – 8"
Models: Wafer Style or Lug Style with 316SS lug inserts
Operators: Lever and Plasgear
Bodies: PVC
Discs: PVC, CPVC, PP and PVDF
Seats: EPDM, FKM, or Nitrile
Seals: Same as seating material
Stems: 316 stainless steel, Titanium, Hastelloy C® ‡

‡ Trademark of Cabot Corporation

Standard Features (Sizes 3" – 8")

- Direct replacement for metal valves conforming to ISO 5752 short face-to-face dimensions
- Standard model has PVC body with PP disc for superior chemical and corrosion resistance as well as elevated temperature capabilities
- Non-wetted 316 stainless steel stem has full engagement over the entire length of the disc and is totally isolated from the media
- Full seat design isolates the body and stem from the media and acts as mating flange gaskets
- Integral body stops in valve body to prevent overtightening of mating flanges
- Spherical disc design for improved Cv's and superior durability
- Plasgear™ operator – Industry first composite enclosure gear operator
- Integral ISO-5211 top mounting pad for actuation mounting
- Polypropylene stem retainer

Parts List (Lever: Sizes 3" – 8")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
1e	Lug*	-	Stainless Steel 316
2	Disc	1	PVC, PP, PVDF
3	Seat	1	EPDM, FKM, NBR
6	O-Ring (C)	1	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
16	Handle	1	PP
16a	Metal Insert in Handle	1	Stainless Steel 316L
17	Handle Lever	1	PPG
18	Pin	1	PPG
19	Spring	1	Stainless Steel 304
20	Washer (A)	1	Stainless Steel 304
21	Bolt (B)	1	Stainless Steel 304
22	Locking Plate	1	PPG
23	Screw (B)	4	Stainless Steel 304
24	Cap (A)	1	PP
156	Stabilization Ring	2	Stainless Steel (SCS13)
157	Screw (F)	4	Stainless Steal 304

*Supplied installed with lug style valves only.

Options

- 316 stainless steel lug inserts
- Pneumatic and electric actuators with accessories
- Alternate disc materials
  - (I) PVC
  - (II) PVDF
- Alternate stem materials
  - (I) Titanium
  - (II) Hastelloy C®‡

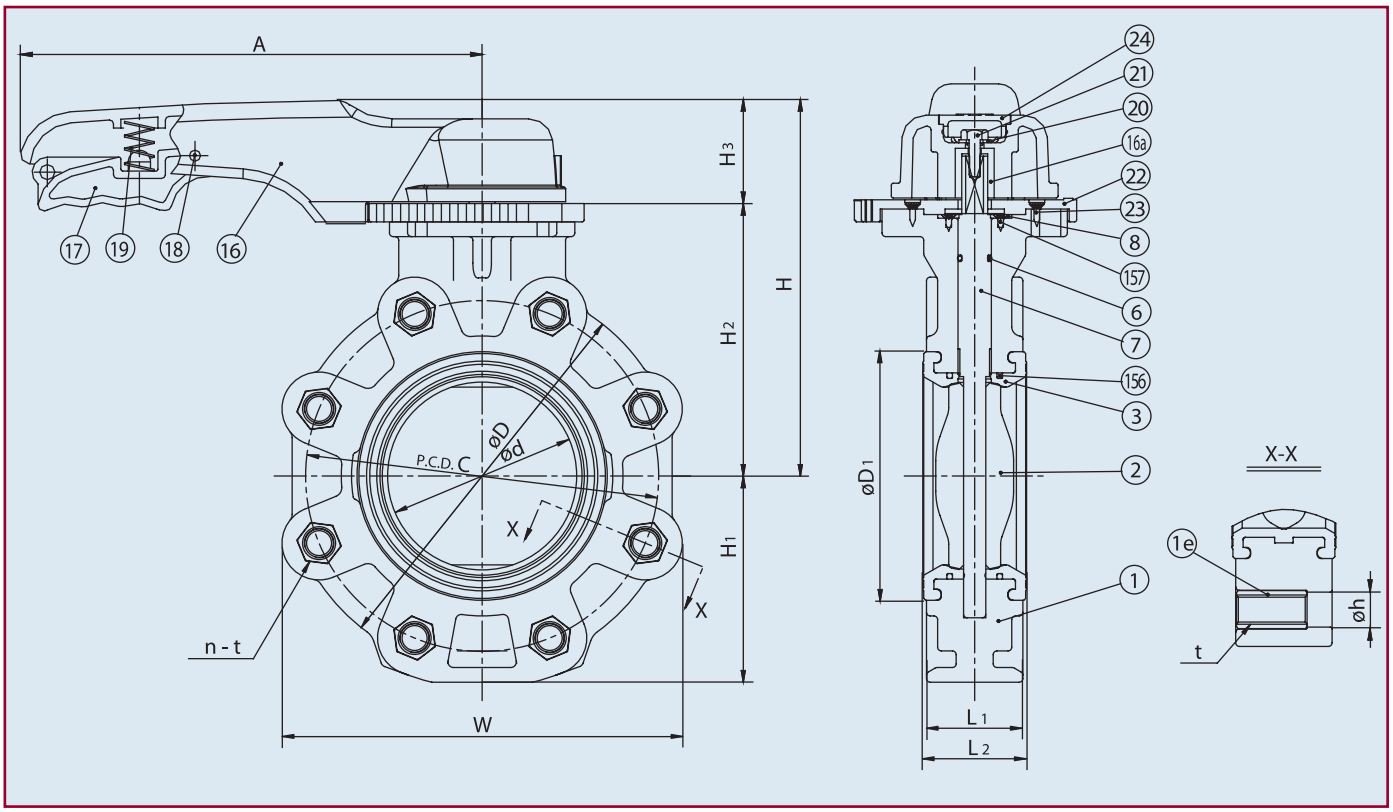
(Options continued)

- 2" square operating nuts on valve stem or gear operator shaft
- Stem extensions for above ground or buried applications
- Chain operators
- Manual limit switches

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

Type-57LIS Lever Butterfly Valves



Dimensions (Lever: Sizes 3" – 8") (in.)

NOMINAL SIZE			ANSI CLASS 150														
INCHES	mm	d	C	n	h	D	D1	L1	L2	H	H1	H2	H3	A	W	T	t
3	80	3.03	6.00	4	0.75	7.28	4.13	1.73	1.81	7.52	3.82	5.31	2.20	9.84	7.09	1.26	5/8-11 UNC
4	100	4.02	7.50	8	0.75	8.27	5.28	2.05	2.20	8.11	4.41	5.91	2.20	9.84	8.50	1.52	5/8-11 UNC
6	150	5.91	9.50	8	0.87	10.63	7.48	2.20	2.40	9.92	5.55	7.20	2.72	12.60	10.67	1.57	3/4-10 UNC
8	200	7.68	11.75	8	0.87	12.60	9.53	2.36	2.66	11.14	6.61	8.43	2.72	15.75	12.76	1.57	3/4-10 UNC

Pressure vs. Temp.

BODY		PVC		
DISC		PP		
NOMINAL SIZE		30° F 120° F	121° F 140° F	141° F 175° F
INCHES	mm			
3	80	150	70	30
4	100	150	45	30
6	150	150	45	30
8	200	150	40	20

Cv Values

NOMINAL SIZE		Cv (at various opening degrees)		
INCHES	mm	30°	60°	90°
3	80	18	183	300
4	100	28	287	470
6	150	66	671	1100
8	200	150	1525	2500

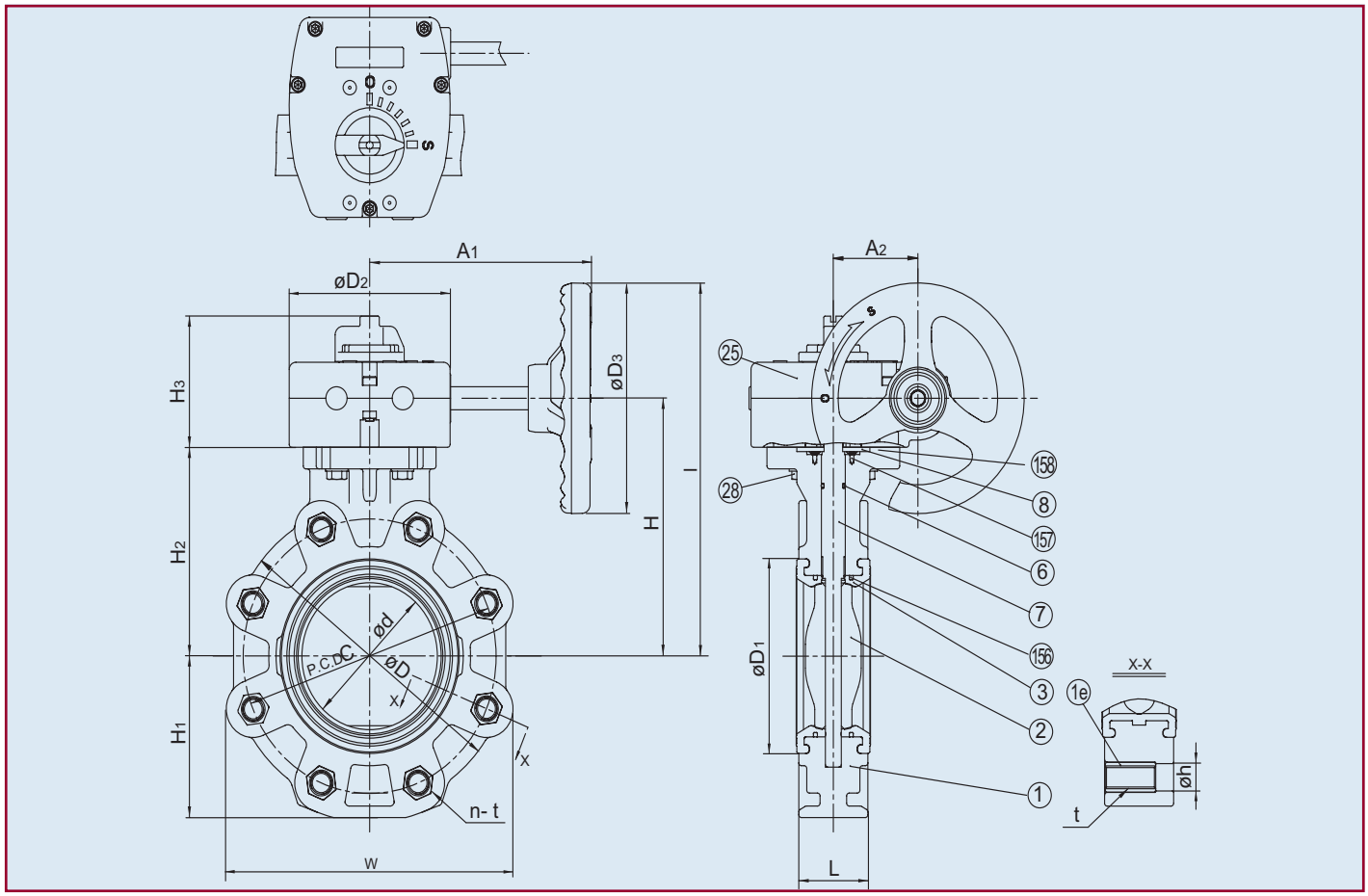
Vacuum Service

NOMINAL SIZE		VACUUM SERVICE (INCHES OF MERCURY)
INCHES	mm	
3	80	-29.92
4	100	-29.92
6	150	-29.92
8	200	-29.92

Wt. (lbs.)

NOMINAL SIZE		LEVER OPERATED	GEAR OPERATED
INCHES	mm		
3	80	10	15
4	100	15	20
6	150	23	28
8	200	34	39

Type-57LIS – Gear Operated Butterfly Valve



Dimensions (Gear: Sizes 3”-8”) (in.)

NOMINAL SIZE			ANSI CLASS 150																			
INCHES	mm	d	C	n	h	D	D1	D2	D3	L1	L2	H	H1	H2	H3	l	A1	A2	W	T	t	Wheel Cycles
3	80	3.03	6.00	4	0.75	7.28	4.13	4.80	6.30	1.73	1.81	6.50	3.82	5.12	3.62	9.65	6.57	2.52	7.09	1.26	5/8-11 UNC	9.5
4	100	4.02	7.50	8	0.75	8.27	5.28	4.80	6.30	2.05	2.20	7.09	4.41	5.71	3.62	10.24	6.57	2.52	8.50	1.52	5/8-11 UNC	9.5
6	150	5.91	9.50	8	0.87	10.63	7.48	4.80	6.30	2.20	2.40	8.27	5.55	6.89	3.62	11.42	6.57	2.52	10.67	1.57	3/4-10 UNC	9.5
8	200	7.68	11.75	8	0.87	12.60	9.53	4.80	6.30	2.36	2.66	9.49	6.61	8.11	3.62	12.64	6.57	2.52	12.76	1.57	3/4-10 UNC	9.5

Parts List (Gear: 3” – 8”)

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
1e	Lug	-	Stainless Steel 304, 316
2	Disc	1	PVC, PP, PVDF
3	Seat	1	EPDM, FKM, NBR
6	O-Ring (C)	1	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
25	Gear Box	1	Plasgear™
28	Bolt (C)	4	Stainless Steel 304
156	Liner Stabilization Ring	2	Stainless Steel (SCS13)
157	Screw (F)	4	Stainless Steel 304
158	Gasket	1	EPDM

* Supplied installed with Lug Style Valves only

Sample Specification

All Type-57LIS butterfly valves shall be of solid thermoplastic lined body design with only the disc and seat as wetted parts. The face-to-face dimension shall be in accordance to ISO-5752 short face-to-face dimensions. All valves shall meet Class 6 bubble-tight shut-off standards. Operators shall be either molded PP lever handles with PPG trigger and 21-position throttle plate or Plasgear™ plastic enclosure gear operators. The lever handle shall feature a molded provision for padlocking. Valves shall feature spherical design discs for improved Cv’s and lower seating torque. Seats or liners shall be molded and formed around the valve body and provide a gasket face for mating flanges. The valve body shall include molded body stops to prevent mating flange overtightening. Valves shall be molded wafer style and accept 316 stainless steel factory installed lug inserts. Lug style valves shall be capable of having the downstream flange removed while maintaining full line pressure on the upstream side. Valve stems shall be 316 stainless steel and have full engagement over the entire length of the disc. Valves shall feature molded ISO-5211 top flange bolt patterns for actuation mounting. PVC shall conform to ASTM D1784 Cell Classification (CC) 12454-A, PP to ASTM D41101 CC 0210B67272, and PVDF to ASTM D3222-91A CC Type II. All Type 57LIS butterfly valves shall be rated to 150psi at 70º F and be wafer or drop in lug style, as manufactured by Asahi/America, Inc.

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Type-57LIS Butterfly Valves

1.0 Scope:
All requirements are for Type-57 LIS Butterfly Valves and accessories.

2.0 Materials:
U-PVC – Conforming to ASTM D1784 Cell Classification 12454 A
CPVC – Conforming to ASTM D1784 Cell Classification 23567 A
Polypropylene – Conforming to ASTM D4101 Cell Classification PP0210B67272
PVDF – Conforming to ASTM D3222-91A Cell Classification Type II
FKM – Viton® Fluorocarbon Rubber
EPDM – Ethylene Propylene Diene Terpolymer Rubber
Nitrile – Nitrile Butadiene Rubber

3.0 Valves:
Type-57LIS Butterfly valves shall be PVC, body with either PP, PVC, or PVDF disc and either EPDM, Nitrile, or FKM seat & seals. The liner shall be full seat design fully molded around the body where as only the Disc and Seat are wetted parts and feature raised convex rings on the face and be utilized as the mating flange gaskets. Valve shall have spherical disc design for increased CV, high cycle life, and ultimate sealing. Valve body shall have integral molded body stops and seat relief area to prevent over-tightening of the mating flanges. Valves shall accept flat faced flanges in accordance with ANSI B16.5 bolt pattern for 150 lb flanges. Valves face to face dimension shall conform to ISO 5752 short pattern and shall function as a direct replacement for metal body valves conforming to the same standard. Valve stem shall be 316 SS, have PP stem retainer for valve stem retention, be non-wetted, and have engagement over the full length of the spherically designed disc. The valve lever handle (sizes 3" – 8") shall have a molded provision for a padlock. Valves sizes 3" – 8" shall feature a molded ISO bolt pattern for accessory mounting. Valves shall be molded to accept 316 SS lug inserts, have a fluid flow directional arrow cast into the valve body and be ideally suited for end of line applications where full pressure rating is required.

3.1 Operators
Type-57LIS 3" – 8" (Lever Type standard)
(Gear Type standard)
Lever Handle to be Asahi Standard valve handle Red color
Gear-Operator to be Asahi Plasgear™ all plastic construction with SS trim submersible type Gear-operator for valves sizes 3" – 8".

3.2 Approved Manufacturer
Valves shall be provided by Asahi/America, Inc. of Lawrence, MA with no approved equals. Manufacturer must be ISO-9001 certified.

3.3 Pressure vs. Temperature
Valves shall have a pressure rating of:
150 psi at 70^0 F sizes 3" – 8"

4.0 Accessories:
4.1 Stem Extensions
Stem extensions where required should be designed, built and provided by the Asahi/America, Inc., and be 1 of 5 styles:
Style LBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style GBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style LBF- B Single piece extension either free standing or supported design
Style GBF- B Single piece extension either free standing or supported design.
Style GBF-C Single piece extension for the gear handwheel only either free standing or supported design.

4.2 Actuation

Actuation where required should be designed, built and provided by Asahi/America, Inc., and be either pneumatic (Series 79P) or electric (Series 94, 92, or 10) type. All actuation accessories to be provided and installed by Asahi/America, Inc. in accordance with manufacturer's requirements.

4.3 Operating Nuts

Where required 2" square operating nuts can be installed on Lever type or Gear type Butterfly valves. On Gear type valves, the gear operator must remain on top of valve body and only the handwheel from gear-operator is replaced by 2" square operating nut.
Materials of construction – Anodized Aluminum.

4.4 Chain Operators

Where required for overhead applications, chain operators manufactured by Babbitt Steam may be installed on Gear-operated butterfly valves. Chain must be weldless loop style chain supplied from Babbitt Steam.
Materials of construction: Chain Operator – Cast Iron
Chain – Hot Galvanized steel, others by request.

5.0 Installation Procedures:

All valve joints shall be prepared using flanged connections to accept either wafer style or lugged butterfly valves. The bolt diameters and torque values should be according to manufacturer's standard and requirements put forth in Type-57LIS Butterfly valve Operation and Maintenance manuals. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.