

## Type 57LIS Butterfly Valve

Direct replacement for  
ISO-5752 short pattern metal butterfly valves

### Standard Features (Sizes 3" – 8")

- Direct replacement for ISO-5752 short pattern metal butterfly valves
- Standard model has PVC body with PP disc for superior chemical and corrosion resistance as well as elevated temperature capabilities.
- Non-wetted 316 SS 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
- Integral locking lever handle w/ 21 position throttling plate
- Plasgear™ operator – Industry first composite enclosure gear-operator
- Integral ISO-5211 top mounting pad for actuation mounting
- Polypropylene stem retainer to prevent stem removal

### Options

- 316 SS lug inserts for end-of line service
- Pneumatic and electric actuators with accessories
- Alternate Disc Materials  
(I) PVC  
(II) CPVC  
(III) PVDF
- Alternate Stem Materials  
(I) Titanium  
(II) Hastelloy C®
- 2" Square Operating nuts on valve stem or gear operator shaft
- Stem Extensions for above ground or buried applications
- Chain Operators
- Manual Limit Switches

### Specifications

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

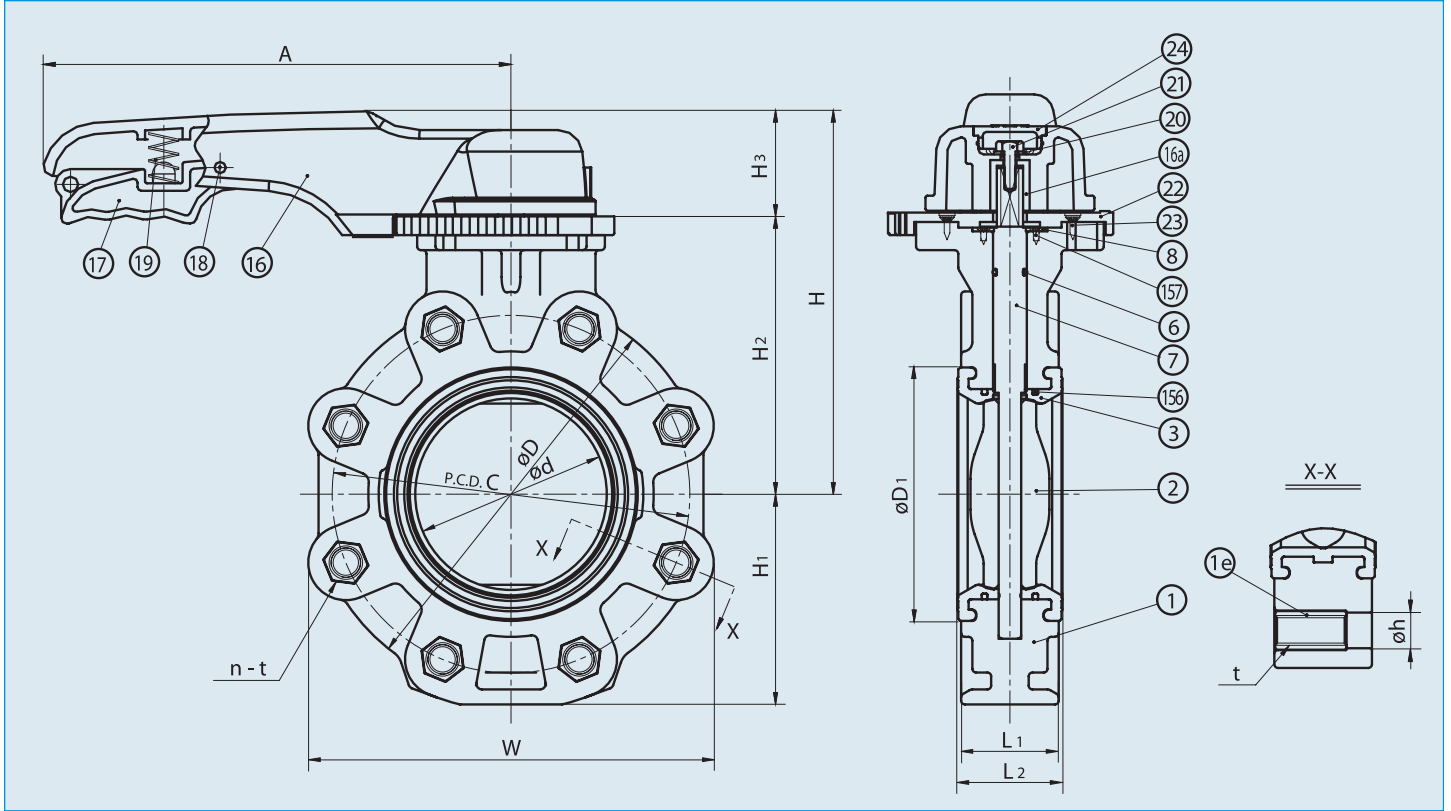
‡Trademark of Cabot Corporation

### Parts List (Lever: Sizes 3" – 8")

PARTS			
No.	DESCRIPTION	QTY.	MATERIAL
1	BODY	1	PVC
1e*	LUG-INSERT	-	STAINLESS STEEL(SS316)
2	DISC		PVC, CPVC, PP, PVDF
3	SEAT	1	EPDM, FKM, NITRILE
6	O-RING (C)	1	EPDM, FKM, NITRILE
7	STEM	1	STAINLESS STEEL (SS403)
8	STEM RETAINER (A)	1	PP
16	HANDLE(A)	1	PP
16a	HANDLE INSERTED METAL	1	STAINLESS STEEL(SS316L)
17	HANDLE LEVER	1	PPG
18	PIN	1	PPG
19	SPRING	1	STAINLESS STEEL(SS304)
20	WASHER (A)	1	STAINLESS STEEL(SS304)
21	BOLT(B)	1	STAINLESS STEEL(SS304)
22	LOCKING PLATE	1	PPG
23	SCREW(B)	4	STAINLESS STEEL(SS304)
24	CAP(A)	1	PP
156	STABILIZATION RINGS	2	STAINLESS STEEL(SCS13)
157	SCREW(F)	4	STAINLESS STEEL(SS304)

\*Supplied installed with Lug Style Valves only

# Type 57LIS Lever Butterfly Valve



## Dimensions (Lever: Sizes 3" - 8")

DIMENSION TABLE																	UNIT:inch		
NOMINAL SIZE		ANSI150lb																	
inch	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		

NOTE. The shape and appearance of assembly differ a little with nominal size compared to this drawing.

## Wt (LBS)

NOMINAL SIZE		LEVER OPERATED		GEAR OPERATED	
INCHES	mm				
3	80	5		10	
4	100	7		12	
6	150	15		20	
8	200	25		30	

## Press vs. Temp

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

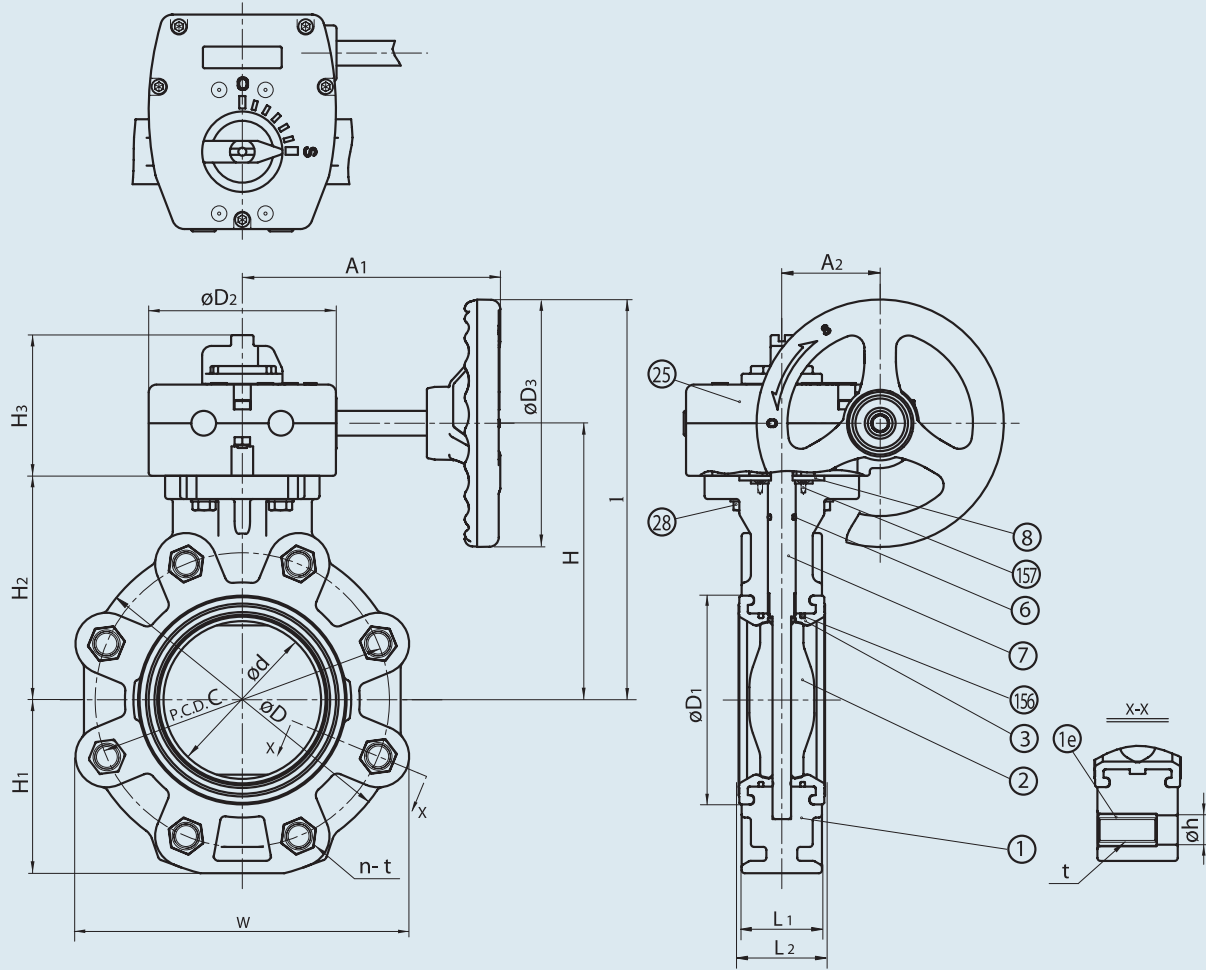
## Cv Values

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

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	

# Type 57LIS Gear Butterfly Valve



## Dimensions (Gear: Sizes 3" - 8")

DIMENSION TABLE																				UNIT:inch		
NOMINAL SIZE		ANSI150lb																				Number of handle wheel rotations
inch	mm	d	C	n	h	D	D1	D2	D3	L1	L2	H	H1	H2	H3	I	A1	A2	W	T	t	
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	
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	
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	
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	

NOTE. The shape and appearance of assembly differ a little with nominal size compared to this drawing.

## Parts List (Gear: Sizes 3" - 8")

PARTS			
No.	DESCRIPTION	QTY.	MATERIAL
1	BODY	1	PVC
1e*	LUG-INSERT	-	STAINLESS STEEL(SS316)
2	DISC	1	PVC, CPVC, PP, PVDF
3	SEAT	1	EPDM, FKM, NITRILE
6	O-RING (C)	1	EPDM, FKM, NITRILE
7	STEM	1	STAINLESS STEEL(SS316)
8	STEM RETAINER (A)	1	PP
25	GEAR BOX	1	PLASGEAR™
28	BOLT (C)	4	STAINLESS STEEL(SS304)
156	STABILIZATION RINGS	2	STAINLESS STEEL (SCS313)
157	SCREWS (F)	4	STAINLESS STEEL(SS304)
158	GASKET (L)	1	EPDM

\*Supplied installed with Lug Style Valves only

## Sample Specification

All Type-57 LIS 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 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 SS 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 SS 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, CPVC to ASTM D1784 CC 23567A, PP to ASTM D4141 CC O210B67272, and PVDF to ASTM D3222-91A CC Type II. All Type-57 LIS butterfly valves shall be rated to 150 psi at 70 °F and be wafer or lug style as manufactured by Asahi/America Inc.