

Type 57LIS/IS Narrow Elastomer Seated Butterfly Valves



BODY TYPE: Type 57LIS Narrow Lug: 3" – 8"
Type 57IS Narrow Wafer: 3" – 8"

MATERIALS: Body: PVC
Disc: PVC, PP, PVDF, CPVC

SEAT & O-RINGS: EPDM, FKM (Viton®), Nitrile



LIS Model



IS Model

Type 57LIS/IS elastomer seated butterfly valves are a direct replacement for metal valves conforming to ISO-5752 short face-to-face dimensions. The LIS/IS body, disc and seat are designed to offer excellent flow characteristics and low closing torques. Lug style LIS allows the downstream flange removal while maintaining full line pressure on the upstream side of the valve.

Features

Compact and Light Weight

High Corrosion Resistance

- Solid plastic body and disc

Abrasion Resistant

- Solid plastic disc
- PVDF disc available for high abrasion resistance

Easy Actuator Mounting

- Valves have standard ISO 5211 top flange and shaft dimensions

Easily Installed

- Full bolt hole circle makes installation and alignment easy

Better Sealing

- Spherical disc/seat seal design offers effective sealing at lower stem torques, and long life for the seat

Better Flow

- Streamlined disc offers higher C_v values

Protection against Flange Bolt Over Tightening

- Body gussets and new seat design prevent excessive flange bolt torques from affecting valve stem torques

Full Seat Design

- Isolates the body and stem from the media and acts as mating flange gaskets

Non-Wetted 316 Stainless Steel Stem

- Has full engagement over the entire length of the disc and is totally isolated from the media

Integral Locking Lever Handle

- With 21-position throttling plate

Polypropylene Stem Retainer

- To prevent stem removal

Good Tolerance to Suspended Solids

- But not recommended for use with slurries or debris



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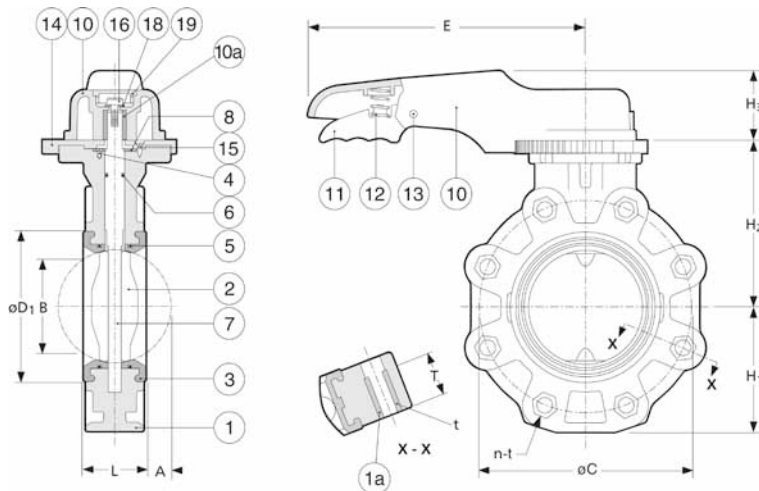
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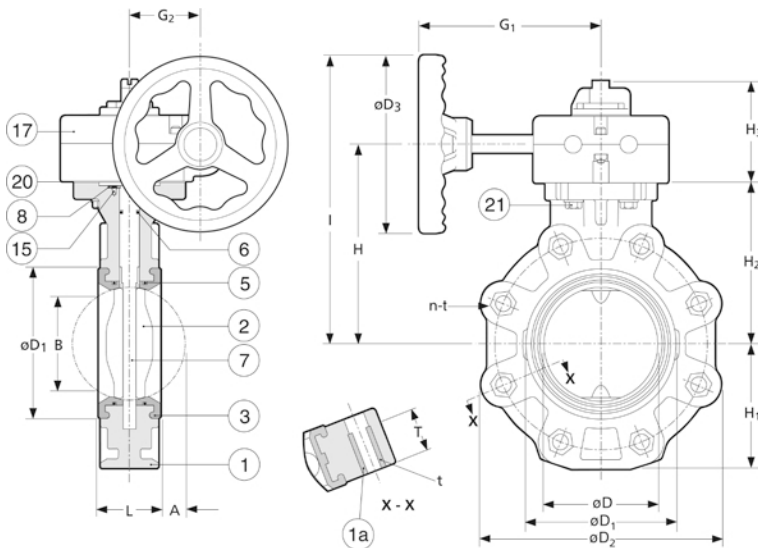
Toronto, ON

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Type 57 LIS/IS Narrow Body Butterfly Valves 3" to 8"



3" – 8" Lever Operated



8" Gear Operated

PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Body	1	PVC
1a	Lug	4/8 ²	316SS
2	Disc	1	PVC, PP, CPVC, PVDF
3▲	Seat	1	EPDM, FKM (Viton®), Nitrile
5▲	Stabilizing Ring	2	Stainless Steel (CSC 13)
6▲	Shaft O-Ring	1	EPDM, FKM (Viton®), Nitrile
7	Shaft	1	316 SS
8	Shaft Retainer	1	PP
10	Hand Lever	1	PP
11	Trigger	1	PPG
12	Spring	1	304 SS
13	Pin	1	PPG
14	Position Lock Plate	1	PPG
15	Plate Screw	4	304 SS
16	Hand Lever Bolt	1	304 SS
17	Gear Operator	1	FRP housing, handwheel & SS hardware
18	Hand Lever Washer	1	304 SS
19	Hand Lever Cap	1	PPG

24 pieces 2", 8 pieces 4" to 8"

DIMENSIONS INCHES

Size	L ¹	A	B*	C	n	D	D ₁	D ₂	D ₃	E/G ₁	G ₂	H ₁	H ₂	H ₃	I	T	t Thread
3"	1.73	0.65	2.80	6.00	4	3.03	4.13	7.28	-	9.80	-	3.8	5.3	2.2	-	1.26	5/8-11 UNC
4"	2.05	1.00	3.46	7.50	8	4.02	5.28	8.50	-	9.80	-	4.4	5.9	2.2	-	1.52	5/8-11 UNC
6"	2.20	1.86	5.49	9.51	8	5.91	7.48	10.67	-	12.60	-	5.6	7.2	2.7	-	1.57	3/4-10 UNC
8" Lever	2.36	2.66	7.31	11.75	8	7.68	9.53	12.76	-	15.80	-	6.6	8.4	2.7	-	1.57	3/4-10 UNC
8" Gear	2.36	2.66	7.31	11.75	8	7.68	9.53	12.76	6.30	6.60	2.50	6.6	8.1	3.6	12.64	1.57	3/4-10 UNC
10" Gear	4.41	2.72	8.80	14.25	12	9.84	11.89	15.91	6.30	6.57	2.50	8.0	9.5	3.6	14.00	3.14	7/8-9 UNC
12" Gear	5.08	3.42	10.80	17.01	12	11.93	14.17	18.54	11.81	9.53	3.90	9.3	1.7	4.3	19.30	3.14	7/8-9 UNC

¹ For replacement of ISO 5752 short pattern metal butterfly valves *B=Minimum inside diameter (I.D.) of mating pipe. If I.D. of pipe is B dimension or less, the inside of pipe and must be chamfered or spacers provided. Consult JJ DOWNS INDUSTRIAL PLASTICS INC.



Type 57LIS/IS Narrow Body Butterfly Valves 3" to 8"

materials selection ■ = standard construction

57LIS NARROW LUG BODY VALVES¹ (Drop In Lugs)

57IS NARROW WAFER BODY VALVES²

Size	Valve Type		Body				Disc			Seat ¹			Manual Operators	
			PVC	PP	PVDF	PDCPD	PP	PVC	PVDF	EPDM	FKM (Viton [®])	Nitrile	Lever	Gear
3"	57LIS	57IS	✓	X	X	X	✓	✓	✓	✓	✓	✓	✓	✓
4"	57LIS	57IS	✓	X	X	X	✓	✓	✓	✓	✓	✓	✓	✓
6"	57LIS	57IS	✓	X	X	X	✓	✓	✓	✓	✓	✓	✓	✓
8"	57LIS	57IS	✓	X	X	X	✓	✓	✓	✓	✓	✓	✓	✓

¹ Lug body valves are also available 1-1/2" to 2-1/2" and 10" to 24". Consult JJ DOWNS INDUSTRIAL PLASTICS INC.

² Narrow body valves have ISO 5752 short pattern face-to-face dimensions, allowing field replacement of corroded metal body valves.

Size	Valve Type		WORKING PRESSURES PSI			NET WEIGHTS ¹ LB.		Cv VALUES VS. DISC ANGLE			BOLT TORQUES Recommended Flange Bolt Torques Foot-Lbs.
			PVC Body/PP Disc			All Materials		Type 57IS & 57LIS			
			0-50°C 32-122°F	60°C 140°F	83°C 181°F	Lever Operated	Gear Operated	30°	60°	90°	
3"	57LIS	57IS	150	70	30	5.0	10.0	18.	183.	300.	22
4"	57LIS	57IS	150	45	30	7.0	12.0	28.	287.	470.	22
6"	57LIS	57IS	150	45	30	15.0	20.0	66.	671.	1,100.	30
8"	57LIS	57IS	150	40	20	25.0	30.0	150.	1,525.	2,500.	41

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 dimensions 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 moulded PP lever handles with PPG trigger and 21-position throttle plate or Plastgear™ 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 moulded and formed around the valve body and provide a gasket face for mating flanges. The valve body shall include moulded body stops to prevent mating flange overtightening.
- Valves shall be moulded 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 moulded ISO-5211 top flange bolt patterns for actuator mounting.
- PVC shall conform to ASTM D1784 Cell Classification (CC) 12454-A, CPVC to ASTM D-1784 CC 23567A, PP to ASTM D41101 CC 0210B67272, and PVDF to ASTM D3222-91A CC Type II.
- All Type 57LIS butterfly valves shall be rated to 150 psi at 21°C (70°F) and be wafer or lug style as supplied by JJ DOWNS INDUSTRIAL PLASTICS INC.





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Type 57 LIS/IS Narrow Body Butterfly Valves 3" to 8"

options + accessories



Shaft Extensions

- Different materials and lengths are available
- Several designs:
 - with no housing for indoors
 - with waterproofed PVC housing for indoors or outdoors
 - with stainless steel housing for buried services



Chain Wheel Operator

- For overhead operation, with 7' of chain drop
- Cast iron standard, stainless steel is also available
- Requires the use of gear operator, sold separately



Optional Lock-out Handle & Hasp

- To prevent unauthorized operation of the valve during maintenance shut-downs
- Padlocks go through holes in hasp

electric + pneumatic actuation

- A complete range of actuators and control accessories are available, mounted to valves using PPG plastic brackets and 304 stainless steel couplings. Refer to separate data sheets.
- All actuators are CSA approved, have NEMA 4S enclosures, stainless steel hardware and permanently lubricated gear train



A Series Electric

- butterfly valves up to 6"
- On-Off (3 wire) adjustable travel, optional On-Off (2 wire), failsafe multi-turn, 3 position modulating, BUS
- Visual feedback, optional 2 feedback switches, feedback potentiometer and feedback transmitter



V Series Electric

- butterfly valves up to 8"
- On-Off (2/3 wire) adjustable travel, optional failsafe, modulating, BUS
- Visual feedback, 2 feedback switches, optional 2 extra feedback switches, feedback potentiometer and feedback transmitter



Pneumatic Actuators

- PA Series**
 - butterfly valves up to 8"
 - industrial process, submerged
 - bleach/water washdown
 - Rilsan-coated aluminum
- PP Series**
 - butterfly valves up to 6"
 - industrial process with minimal use of metal
 - Glass-filled Polyamide
- P3 Series**
 - butterfly valves up to 8"
 - corrosive, submerged and off-shore applications
 - 316 stainless steel



Limit Switches

- Available for lever and gear operated valves
- Electrical feedback of manual valve position
- NEMA 4X enclosure, position indicator beacon, 2x SPDT switches, stainless steel hardware



Municipal Operating Nut

- For buried service

OTHER ACCESSORIES

- **Gear Operator** on 1-1/2" to 8"
- **Locking Capability** on gear operators

OPTIONS

- **Different Seats**
- **Different Material Shafts**

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ORDERING EXAMPLE

Butterfly Valves Type 57LIS: 3" to 8" Type 57IS: 3" to 8"	57	A	060	B	E	L	-LIS
Body	A – PVC						
Size	030 – 3"	040 – 4"	060 – 6"	080 – 8"			
Disc	B – PP	K – PVDF	A – PVC	C – CPVC			
Seat	E – EPDM	V – FKM (Viton®)	N – Nitrile				
Operator	L – Hand Lever	G – Gear Operator					
Style	LIS – Lug	IS – Wafer					

Example: Type 57LIS Butterfly Valve, PVC body, 6", with PP disc, EPDM seat, hand lever, LIS Lug style.