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Type 56 Butterfly Valves

CHEMLINE Plastics Limited
Your Pipeline To Quality

The Chemline TB Series Butterflies have performed successfully for many years in demanding process control applications. Type 56 is the new updated version of the TB Series. The redesigned hand lever no longer has external metal parts. The Type 56 has a redesigned valve "top flange" and shaft, now conforming to ISO for standardized actuator mounting[3]. These valves offer a large range of sizes and selection of body, disc and seat materials. This allows them into a wide range of on/off or throttling control applications.

Elastomer Seated

SIZES:	1-1/2" – 24"
BODY TYPE:	Semi lug Wafer[1]
MATERIALS:	
Body:	PVC, PP, PVDF
Disc:	PP (Standard), PVC, CPVC, PVDF
Seat and O-Rings:	EPDM[2]

Sizes up to 24"

Updated version of TB Series

Easy Actuator Mounting[3]

Features

Compact and Light Weight

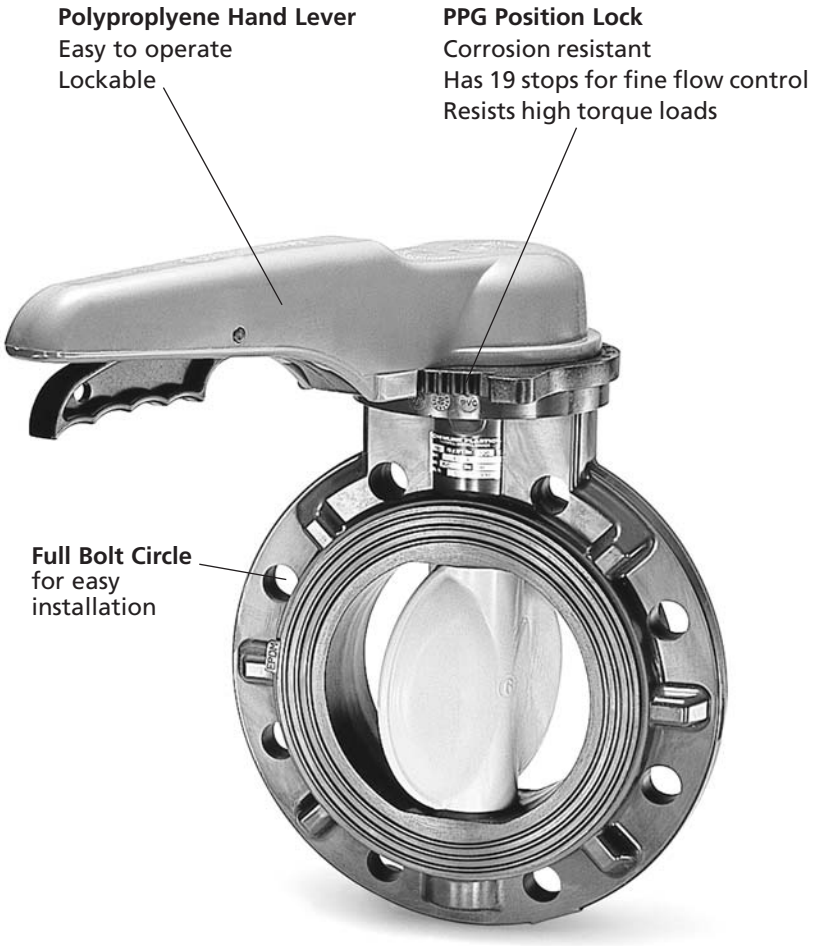
High Corrosion Resistance
- Double O-rings at top and bottom of disc prevent wetting of shaft
- Solid plastic body – no rust
- Polyproplyene lever operators
- Gear operators have epoxy coating and stainless steel trim

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

ISO Actuator Mounting Dimensions[3]
- "Top flange" and shaft have standard ISO dimensions for easy actuator mounting.

Easily Installed
- Full bolt hole circle makes installation and alignment easy
- No gaskets are necessary

Easily Maintained
- Seat is easily replaceable



[1] Full stainless steel lug bodies are available as an option.
[2] Other elastomer seats are available.
[3] New ISO dimensions on sizes up to 16".

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Type 56 Butterfly Valves



Deluxe Gear Operators
- Available on all valve sizes
- Epoxy coating resists corrosion
- Stainless steel shaft
- All plastic hand wheel with crank



Electrically or Pneumatically Actuated
- Top flange of valve has standard ISO dimensions allowing for easy mounting of actuators

The Shaft Sealing System – Simple But Effective



Elastomer Seat
- Easily replaceable
- Flange face has raised "O-ring" profile
  – *Lower flange bolt torques required for a leakproof seal*

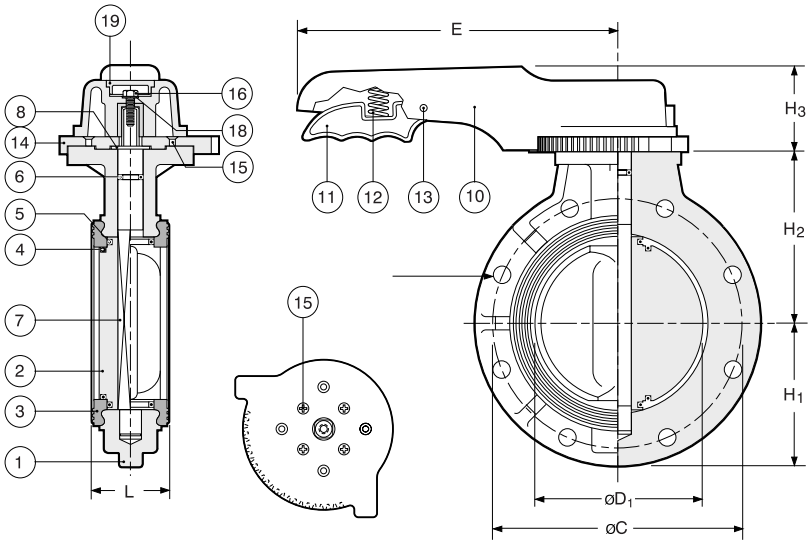
Double O-Rings at top and bottom of disc
- Provide a primary and secondary seal between seat and disc
  – *Shaft is not wetted*

Shaft O-Ring
- For vacuum resistance

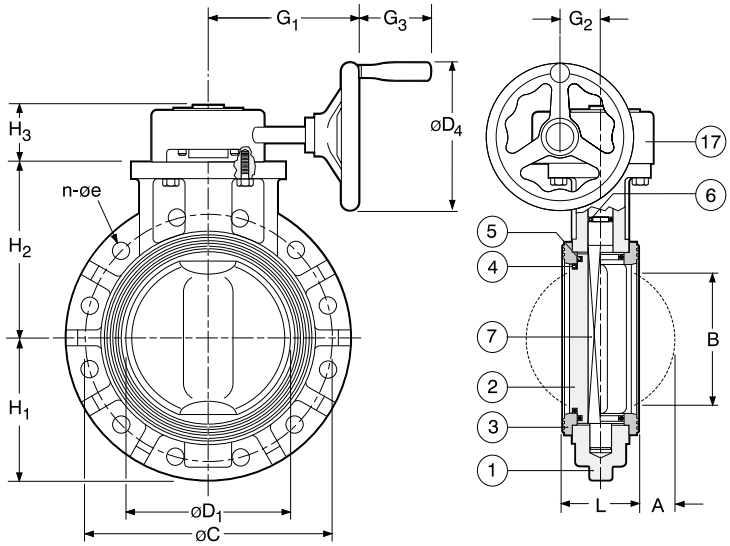
Solid Plastic Disc
- No disc screws
- Abrasion resistant
- No problems as associated with coatings or linings

Stainless Steel Shaft
- Not wetted
- Engagement over full length of the disc

Type 56 Butterfly Valves



1-1/2" – 8" Lever Operated



8" – 24" Gear Operated

PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Body (1-1/2"– 14") Body (1-1/2"– 14") Body (1-1/2"– 24") Body (16"– 24")	1 1 1 1	PVC (Standard) PP (Optional) PVDF (Optional) PP (Standard)
2	Disc (1-1/2"– 24") Disc (1-1/2"– 14") Disc (1-1/2"– 8") Disc (1-1/2"– 24")	1 1 1 1	PP (Standard) PVC (Optional) CPVC (Optional) PVDF (Optional)
3▲	Seat	1	EPDM†
4▲	Large Disc O-Ring	2	EPDM†
5▲	Small Disc O-Ring	2	EPDM†
6▲	Shaft O-Ring	1	EPDM†
7	Shaft	1	403 SS
8	Shaft Washer	1	304 SS
10	Hand Lever	1	PP
11	Trigger	1	PPG
12	Spring	1	304 SS
13	Pin	1	304 SS
14	Position Lock Plate	1	PPG
15	Plate Screw	3	304 SS
16	Hand lever Screw	1	304 SS
17	Gear Operator	1	Cast Aluminum Epoxy Coated††
18	Handle Screw Washer	1	304 SS
19	Hand lever	1	PP

† Alternate elastomer seats and O-rings are available.
†† Gear Operator for 18" to 24" is cast iron epoxy coated.

DIMENSIONS INCHES

Size	L	A	B	C	n	e	D_1	D_4	E/G_1	G_2	G_3	H_1	H_2	H_3
1-1/2"	1.54	0.15	1.01	3.88	4	.63	1.84	–	8.7	–	–	3.0	3.9	2.2
2"	1.65	0.30	1.51	4.75	4	.75	2.24	–	8.7	–	–	3.3	4.2	2.2
2-1/2"	1.81	0.47	2.14	5.50	4	.75	2.80	–	8.7	–	–	3.7	4.6	2.2
3"	1.81	0.65	2.58	6.00	4	.75	3.15	–	9.8	–	–	3.9	4.9	2.2
4"	2.20	0.93	3.50	7.50	8	.75	4.13	–	9.8	–	–	4.5	5.6	2.2
5"	2.60	1.25	4.46	8.50	8	.87	5.16	–	12.6	–	–	5.0	6.8	2.7
6"	2.80	1.57	5.37	9.51	8	.87	6.06	–	12.6	–	–	5.8	7.3	2.7
8" Lever	3.43	2.27	7.26	11.75	8	.87	8.03	–	15.8	–	–	6.7	8.5	2.7
8" Gear	3.43	2.27	7.26	11.75	8	.87	8.03	7.9	6.6	1.9	3.2	6.7	8.5	2.4
10"	4.33	2.85	9.10	14.25	12	.98	10.08	7.9	7.8	2.4	3.7	8.0	9.5	2.4
12"	5.08	3.54	11.53	17.00	12	.98	12.60	9.8	8.4	3.0	3.7	9.5	11.7	2.7
14"	5.08	4.47	13.44	18.75	12	1.14	14.37	9.8	8.4	3.0	3.7	10.3	11.8	2.7
16"	6.65	4.56	14.53	21.25	16	1.14	15.98	9.8	8.4	3.0	3.7	11.8	13.8	4.0
18"	7.05	5.38	16.34	22.75	16	1.26	17.80	12.4	12.6	4.3	3.4	12.4	14.6	4.1
20"	7.48	6.15	18.29	25.00	20	1.26	19.76	12.4	12.6	4.3	3.4	13.8	15.8	4.1
24"	8.23	7.76	22.27	29.50	20	1.38	23.74	12.4	12.6	4.3	3.4	16.0	18.3	4.1

Type 56 Butterfly Valves

WORKING PRESSURES PSI

Size L= Lever G= Gear	PVC Body/PP Disc			PP Body/PP Disc		PVDF Body/PVDF Disc/Viton®				VACUUM RATING Inches Mercury	NET WEIGHTS LB. Body/Disc		
	0-50°C 32-122°F	60°C 140°F	83°C 181°F	–20-60°C –4-140°F	80°C 176°F	–20-60°C –4-140°F	79°C 175°F	100°C 212°F	121°C 250°F		PVC/ PP	PP/ PP	PVDF/ PVDF
1-1/2"L	150	70	30	150	100	150	100	85	75	29.9	2.6	2.2	3.1
2"L	150	70	30	150	100	150	100	85	75	29.9	3.1	2.4	3.5
2-1/2"L	150	70	30	150	100	150	100	85	75	29.9	3.5	2.9	4.0
3"L	150	70	30	150	100	150	100	85	75	29.9	4.0	3.1	4.6
4"L	150	45	30	150	100	150	100	85	75	29.9	5.5	4.4	6.6
5"L	150	45	30	150	100	150	100	85	75	29.9	10.8	8.8	12.1
6"L	150	45	30	150	100	150	100	85	75	27.6	13.2	12.1	16.5
8"L	150	40	20	150	85	150	85	75	60	27.6	19.8	18.7	24.2
8"G	150	40	20	150	85	150	85	75	60	27.6	30.8	29.7	35.2
10"G	150	40	20	150	85	150	85	75	60	27.6	35.2	33.0	40.7
12"G	100	30	15	100	60	100	60	45	30	25.6	52.8	46.3	59.4
14"G	100	30	7	100	45	100	45	30	15	25.6	58.3	63.8	74.8
16"G	–	–	–	85	45	85	45	30	15	25.6	–	77.0	100.0
18"G	–	–	–	70	45	75	45	30	15	23.4	–	195.	227.
20"G	–	–	–	50	30	50	30	25	15	23.4	–	231.	273.
24"G	–	–	–	50	30	50	30	25	15	23.4	–	284.	345.

C_V VALUES VS. DISC ANGLE

Size	15°	30°	45°	60°	75°	90°	TORQUES Flange Bolt Torques Foot-Pounds
1-1/2"	0	2.6	19.4	42.0	58.1	71.	14
2"	0	3.3	25.1	54.4	75.3	92.	16
2-1/2"	0	5.0	38.2	82.7	115.	140.	16
3"	0	7.9	60.1	130.	180.	220.	22
4"	0	13.7	104.	225.	311.	380.	22
5"	0	26.3	199.	431.	597.	730.	29
6"	0	39.6	300.	650.	900.	1100.	32
8"	0	90.0	683.	1478.	2045.	2500.	40
10"	0	130.	983.	2128.	2945.	3600.	40
12"	0	186.	1409.	3050.	4221.	5160.	43
14"	0	232.	1758.	3806.	5268.	6440.	43
16"	0	300.	2277.	4929.	6822.	8340.	58
18"	0	392.	2973.	6436.	8908.	10890.	58
20"	0	506.	3838.	8309.	11501.	14060.	72
24"	0	666.	5051.	10934.	15133.	18500.	72

OPTIONS & ACCESSORIES

- **Alternate Elastomer Seats** – Viton®, Nitrile (Buna-N) or Aflas.
- **Alternate Discs** – CPVC, PVDF, PVC.
- **Electric or Pneumatically Actuated** – Refer to separate data sheets.
- **Municipal Operating Nut** for buried service.
- **Chain Wheel Operator.**
- **Gear Operator** on 1-1/2" – 6".
- **Lever Operator** on 10".
- **Locking Capability**
- **Shaft Extensions**
- **Lug Body Inserts** – Stainless steel lugs for dead end service.
- **Limit Switches** for open and/or closed position indication.

ORDERING EXAMPLE

Chemline Type 56 Butterfly Valve	56	A	060	B	E	L
Body	**A** - PVC	**B** - Polypropylene (PP)	**K** - PVDF			
Size	**015** - 1-1/2" **020** - 2" **025** - 2-1/2" **030** - 3" **040** - 4" **050** - 5" **060** - 6" **080** - 8" **100** - 10" **120** - 12" **140** - 14" **160** - 16" **180** - 18" **200** - 20" **240** - 24"					
Disc	**B** - PP	**C** - CPVC	**K** - PVDF	**A** - PVC		
Seat	**E** - EPDM	**B** - Nitrile (Buna-N)	**V** - Viton®	**A** - Aflas		
Operator		**L** - Hand Lever	**G** - Gear Operator			

Example: Chemline Type 56 Butterfly Valve, PVC body, 6", with PP disc, EPDM seat, hand lever.

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