

Type 56 Butterfly Valves



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 mounting³. 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 Wafer¹

MATERIALS:

Body: PVC, PP, PVDF
 Disc: PP (Standard), PVC, CPVC, PVDF

Seat and O-Rings: EPDM²

Sizes up to 24"

Updated version of TB Series

Easy Actuator Mounting³

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
- Polypropylene 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 Dimensions³

- "Top flange" and shaft have standard ISO dimensions for easy actuator mounting.

Easily Installed

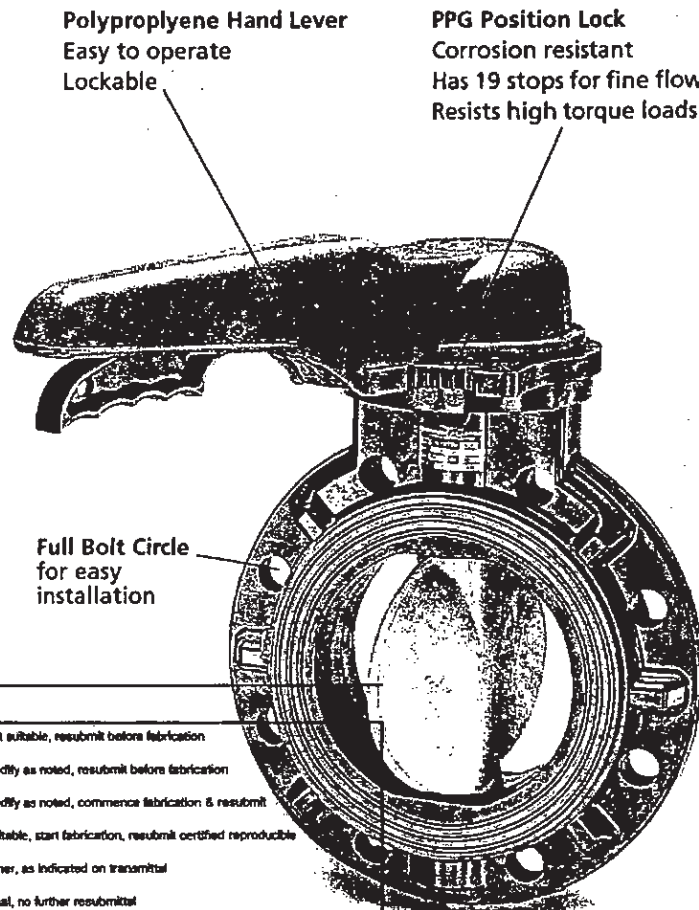
- Full bolt hole circle makes installation and alignment easy
- No gaskets are necessary

Easily Maintained

- Seat is easily replaced

Polypropylene Hand Lever
 Easy to operate
 Lockable

PPG Position Lock
 Corrosion resistant
 Has 19 stops for fine flow control
 Resists high torque loads



	<input type="checkbox"/> VA	Not suitable, resubmit before fabrication
	<input type="checkbox"/> VB	Modify as noted, resubmit before fabrication
Vendor's drawing review for conformity with specifications and design detailing. Review does not relieve the vendor of his responsibility for errors in design and detailing as detailed in his contract.	<input type="checkbox"/> VC	Modify as noted, commence fabrication & resubmit
	<input type="checkbox"/> VD	Suitable, start fabrication, resubmit certified reproducible
	<input type="checkbox"/> VE	Other, as indicated on transmittal
	<input type="checkbox"/> VF	Final, no further resubmittal
Vendor: Chemline Plastics Ltd - Chemlin No.: CHEM-400-IN-ED-0001-0034 Rev:		Date Rec'd
Doc. Title: BUTTERFLY VALVES - DATA PAGES (34 PAGES)		9/1/2004
Reviewed by: <i>[Signature]</i>	Project: Sarcheshmeh Sulphuric Acid Plant	
Date: <i>Sept. 14, 2004</i>	Document No 338033 - P48EW-0012-0003	Submittal 01

¹ Full stainless steel lug bodies are available as an option.

² Other elastomer seats are available.

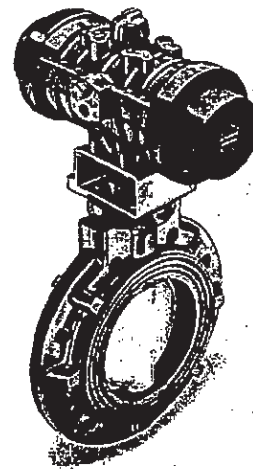
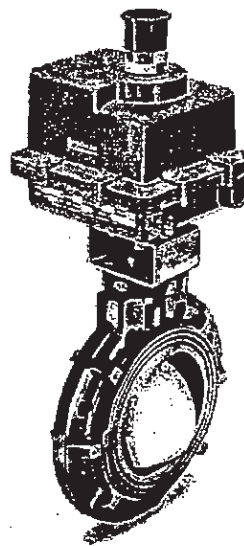
³ New ISO dimensions on sizes up to 16".

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Type 56 Butterfly Valves

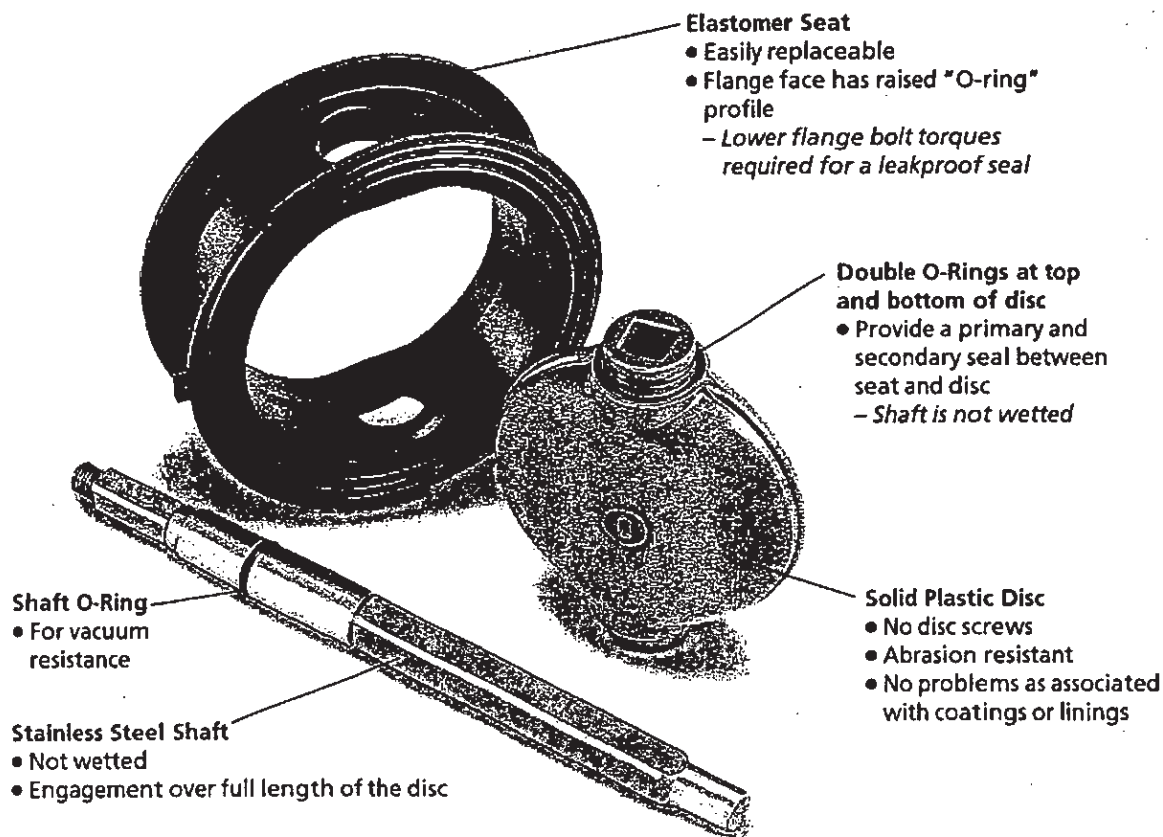


- Deluxe Gear Operators**
- Available on all valve sizes
 - Epoxy coating resists corrosion
 - Stainless steel shaft
 - All plastic hand wheel with crank



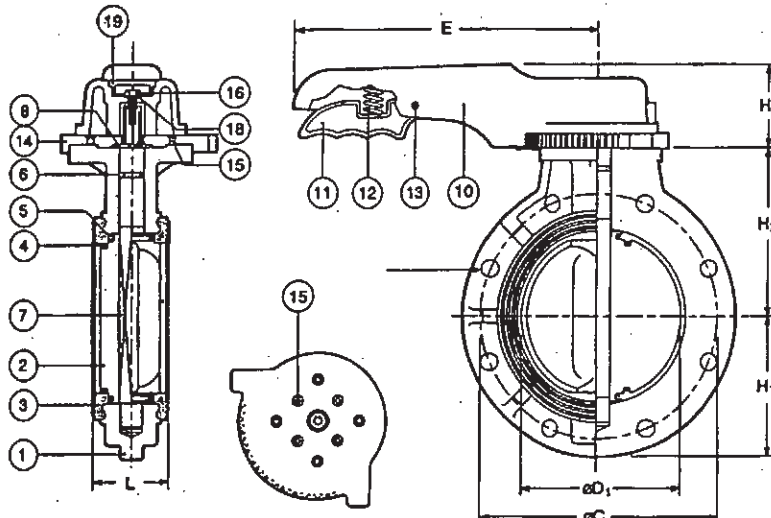
- Electrically or Pneumatically Actuated**
- Top flange of valve has standard ISO dimensions allowing for easy mounting of actuators

The Shaft Sealing System – Simple But Effective

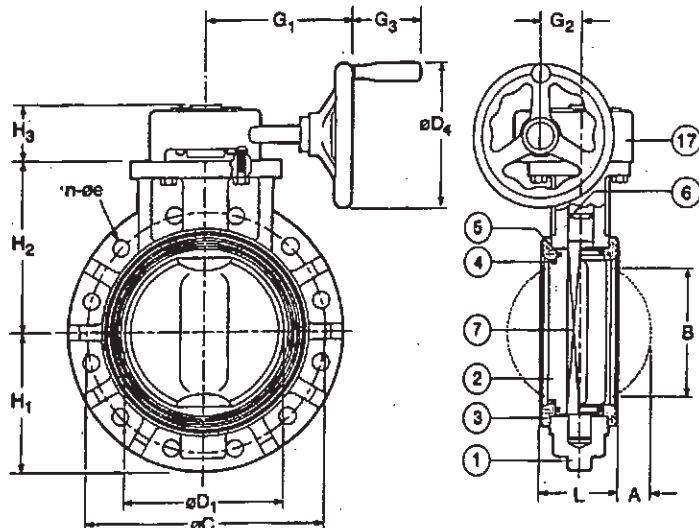


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Type 56 Butterfly Valves



1-1/2" - 8" Lever Operated



8" - 24" Gear Operated

PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Body (1-1/2" - 14")	1	PVC (Standard)
	Body (1-1/2" - 14")	1	PP (Optional)
	Body (1-1/2" - 24")	1	PVDF (Optional)
	Body (16" - 24")	1	PP (Standard)
2	Disc (1-1/2" - 24")	1	PP (Standard)
	Disc (1-1/2" - 14")	1	PVC (Optional)
	Disc (1-1/2" - 8")	1	CPVC (Optional)
	Disc (1-1/2" - 24")	1	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.

model no. HO-PP10F020
 in original bid?
 Catalog?

DIMENSIONS INCHES

Size	L	A	B	C	n	e	D ₁	D ₂	E/G ₁	G ₂	G ₃	H ₁	H ₂	H ₃
1-1/2"	1.54	0.15	0.99	3.88	4	.63	1.17	-	8.7	-	-	3.0	3.9	2.2
2"	1.65	0.30	1.52	4.75	4	.75	2.24	-	8.7	-	-	3.3	4.2	2.2
2-1/2"	1.81	0.47	2.08	5.50	4	.75	2.80	-	8.7	-	-	3.7	4.6	2.2
3"	1.81	0.65	2.53	6.00	4	.75	3.15	-	9.8	-	-	3.9	4.9	2.2
4"	2.20	0.93	3.41	7.50	8	.75	4.13	-	9.8	-	-	4.5	5.6	2.2
5"	2.60	1.25	4.39	8.50	8	.87	5.16	-	12.6	-	-	5.0	6.8	2.7
6"	2.80	1.57	5.23	9.51	8	.87	6.06	-	12.6	-	-	5.8	7.3	2.7
8" Lever	3.43	2.27	7.20	11.75	8	.87	8.03	-	15.8	-	-	6.7	8.5	2.7
8" Gear	3.43	2.27	7.20	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	9.06	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	11.1	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	13.1	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	14.3	21.25	16	1.14	15.69	9.8	8.4	3.0	3.7	11.8	13.8	4.0
18"	7.05	5.38	16.4	22.75	16	1.26	17.74	12.4	12.6	4.3	3.4	12.4	14.6	4.1
20"	7.48	6.15	18.3	25.00	20	1.26	19.70	12.4	12.6	4.3	3.4	13.8	15.8	4.1
24"	8.23	7.76	22.3	29.50	20	1.38	23.66	12.4	12.6	4.3	3.4	16.0	18.3	4.1

Type 56 Butterfly Valves



WORKING PRESSURES PSI

VACUUM NET RATING WEIGHTS LB.

Size L= Lever G= Gear	PVC Body/PP Disc			PP Body/PP Disc		PVDF Body/PVDF Disc/Viton*				Inches Mercury	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

TORQUES

Size	C _v VALUES						Flange Bolt Torques Foot-Pounds
	15°	30°	45°	60°	75°	90°	
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"
	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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