

Wafer Style Butterfly Valve Type 567 LD



General

- **Size:** 14"–24"
- **Material:** PVC, PP
- **Seals:** EPDM, FPM
- **Stem:** 304 stainless steel
- **Operation:** Bare shaft, gear
- **Connection:** Both ANSI 150 and DIN 2501
- **Standard Pack Quantity:** 1 valve

Key Certifications

- **FDA CFR 21 177.1520:** PP
- **FDA CFR 21 177.2600:** EPDM and FPM
- **USP Class VI (physiological non-toxic):** EPDM, FPM and PP

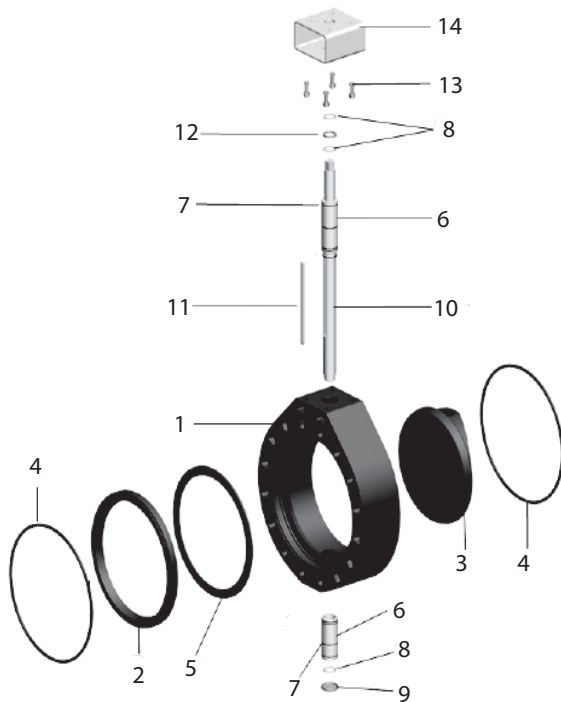
Sample Specification

The Type 567 Butterfly Valve shall be wafer style compatible with both ANSI B16.5 150 lb and DIN 2501 flange patterns. The disk operation shall utilize double eccentric design principles. The shaft shall be non-wetted by a bushing assembly with double O-ring seals and fixed at both ends. The face seal shall be a O-ring compatible with flat and serrated flange adapters. The face, disk and shaft seals shall operate independently. The wetted body and disk shall be of like materials. Valves shall be rated for bidirectional use. The operator mounting flange shall be comply with ISO standards. All valves shall be tested in accordance to ISO9393 and designed to ISO16136 standards. All valves shall be manufactured under ISO9001 for Quality and ISO14001 for Environmental Management. Following assembly, every valve shall be tested and certified bubble tight exceeding Class VI standards.

Material Specification

PVC valves shall meet ASTM D1784 cell classification 12454 standards. PP valves shall meet ASTM D5847-14 cell classification PP0510B66851 standards. Valves of all materials shall be RoHS compliant.

Components



Optional Features

- **Actuation:** Electric, pneumatic
- **Limit Switches:** Mechanical, inductive
- **Stem Extension:** Two piece stainless steel
- **Operation:** Chain operator, square operating nut
- **Gear Operator:** Stainless steel housing
- **Hardware:** Alternatives available upon request

Valve Components

Part	Description	Material
1	Body	PVC or PP
2	Compression ring	PVC or PP
3	Disk	PVC or PP
4	Face seal	EPDM or FPM
5	Disk seal	EPDM or FPM
6	Shaft bushing	PVC or PP
7	Shaft seal	EPDM or FPM
8	Retaining clip	304 stainless steel
9	Shaft cap	Glass-filled PP
10	Shaft	304 stainless steel
11	Shaft key	304 stainless steel
12	Washer	304 stainless steel
13	Mounting pad bolts	304 stainless steel
14	Mounting pad	304 stainless steel

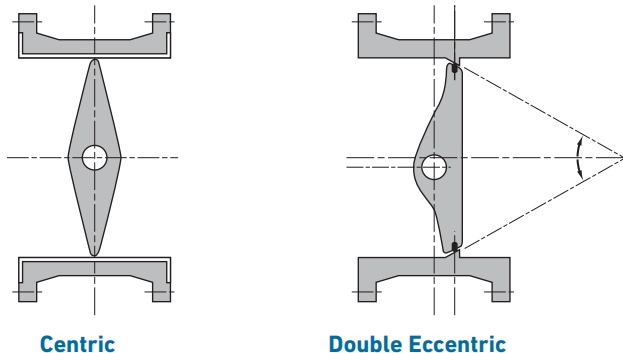
Material Availability

Material	Range (inch)	Range (mm)
PVC	14-16	355-400
PP	14-24	355-630

Alternative Configurations

It is not possible to use inner housings with disks of different material. GF does not offer disc seals that deviate from their standard product offering.

Key Design Features



Double Eccentric Design Principle

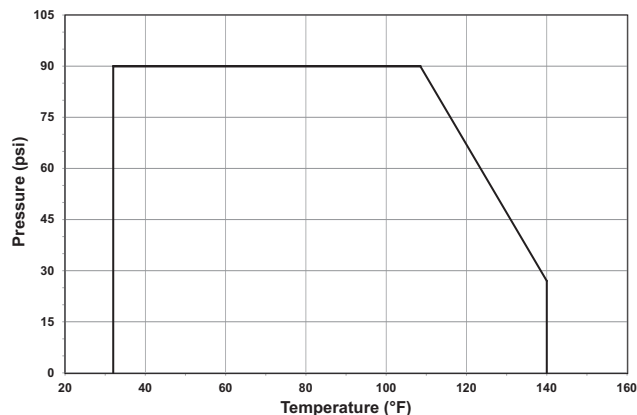
The Type 567 Butterfly Valve is designed using the double eccentric disc principle. When opening and closing, the disc is not in contact with the seat, significantly reducing component wear. This design principle greatly reduces the operating torque and required elastomeric sealing material. The reduction in sealing material decreases the impact of elastomeric swelling. The benefits of double eccentric valves include ease of manual usage, reduction in required actuator torque and extended valve lifetime.

Technical Data

Pressure-Temperature Curves

The following graphs are based on a lifetime of 25 years of water or similar media applications

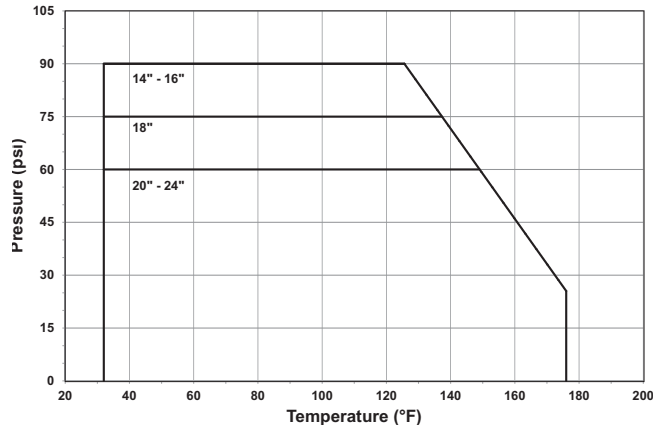
PVC



Vacuum Service

The Type 567 is rated for full vacuum service. Maximum differential pressure of 15psi at 122°F.

PP



Pressure-Temperature

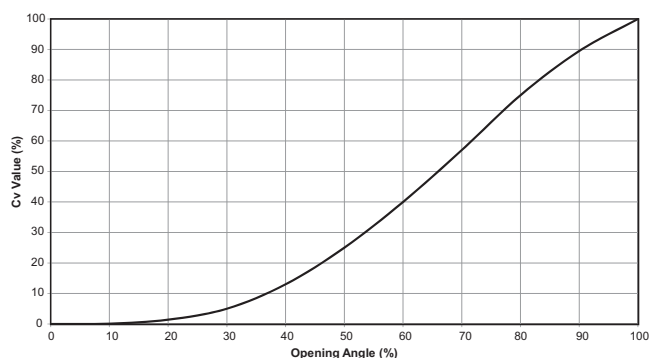
Material	Temperature Range (°F)	Max Pressure (psi)
PVC	32 to 140	90*
PP	32 to 176	90*

*Dependant on size as shown in P-T curves

Flow

The following information is based on water applications at 68° F

Flow Characteristics



Cv Value

Size (inch)	d (mm)	Cv (gal/min)
14	355	6300
16	400	8050
18	450	10850
20	500	14280
24	630	18550

Breakaway Torque

The following tables show average values at nominal pressure

Size (inch)	d (mm)	At 75psi Torque (ft-lb)	At 150psi Torque (ft-lb)
14	355	170	310
16	400	250	400
18	450	330	580
20	500	400	615
24	630	560	860

For non-GF actuators, a safety factor should be used in calculating the required actuator torque. This safety factor can vary depending on the application conditions and end user's preference. (e.g. control time, medium, temperature, etc.).

Weight

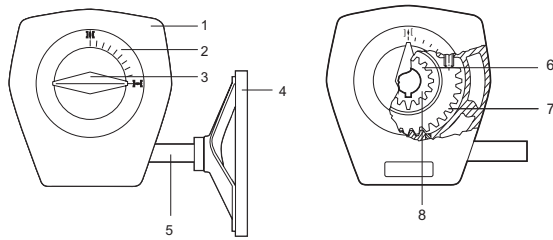
The following table shows unpacked valve weight

Size (inch)	Size (inch)	Weight (lb)
14	355	99
16	400	121
18	450	132
20	500	165
24	630	242

Valve weights shown are bare shaft and are approximate.
Gear operator weight is 3 lb.

Operator Components

Gear Operator

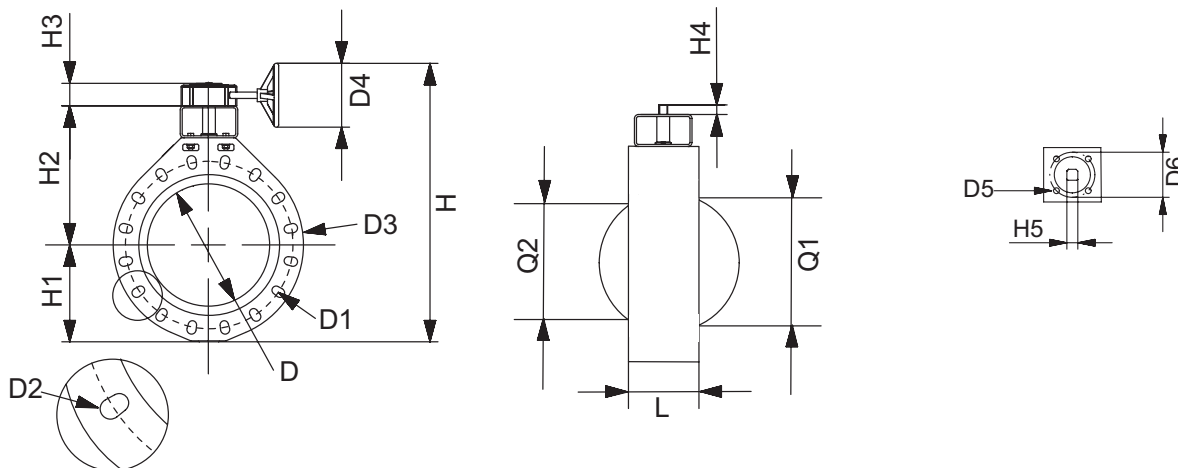


Gear Components

Part	Description	Material
1	Housing	Aluminum
2	Indicator cap	PE
3	Indicator	PE
4	Handle	Aluminum
5	Wormshaft	Nitempered steel
6	Drive bushing	Sintered copper steel
7	Quadrant	Sintered copper steel
8	Thrust bearing	Type AXK

Dimensions

The following tables are shown in millimeters unless otherwise specified



Size (Inch)	d (mm)	ISO	D	D1 Min	D1 Max	D2	D3	D4	D5	D6
14	355	F12	305	445	477	29	535	200	12	125
16	400	F12	351	510	540	29	595	200	12	125
18	450	F14	391	565	578	32	635	250	16	140
20	500	F14	439	620	635	32	700	350	16	140
24	630	F14	526	725	750	35	813	350	16	140

Size (Inch)	d (mm)	H	H1	H2	H3	H4	H5	L	Q1	Q2
14	355	747	268	410	69	31	22	129	325	305
16	400	804	300	435	69	31	27	169	353	350
18	450	921	320	520	81	35	27	179	393	390
20	500	994	350	550	94	35	36	190	444	440
24	630	1124	420	610	94	35	36	209	530	527