

Lever Handle/Gear Operated Butterfly Valve



ISO 9002 CERTIFIED

Material:	Body/Disc PVC/PP, CPVC/CPVC PVDF/PVDF, PP/PP
Size:	2" - 8" lever handle 8" - 24" gear operated
Pressure Rating:	see chart
Seals:	EPDM, FPM, Buna, Hypalon
Connections:	ANSI 150 Flanged

Materials of Construction:

PVC: Type 1, Class 12454B, ASTM D1784

CPVC: Type 4, Class 23447, ASTM D1970

PP: Class PP 110B76383, ASTM D4101

PVDF: Type 1, ASTM D3222

Seals: EPDM, FPM, Buna, Hypalon

Guide Specification: All Butterfly Valves are constructed of the materials indicated. Shaft shall be stainless steel, run through entire disc and be removable and replaceable independently of the disc. Shaft shall be protected by a double seal arrangement on top and bottom of the disc. Each double seal arrangement will feature a dynamic seal (o-ring) and static seal (integrally molded on the liner). Liner shall be molded and contoured through the entire body and face of the valve to act as a flange gasket. Liner and disc shall be the only wetted parts. Butterfly valves must be bubble tight and flange design, as manufactured by SIMTECH.

Features

- Bubble tight closure
- Ideally suited to flow control in minimum spaces
- Disc designed to minimize flow loss
- Easy to view position indicator
- Stem is isolated and not a wetted part
- Optional gear operators for all sizes
- Electric or pneumatic actuation available
- Lugs available for all sizes
- Optional stem extensions and/or square operating nuts available
- Automation (See Actuation)

Pressure/Temperature Graph: Working PSI/Fahrenheit

	Seat / Seal	Oper. Temp	2	2½	3	4	6	8	10	12	14	16	18	20	24
PVC Body	EPDM/VITON	70° F	150	150	150	150	150	150	150	100	100	86	75	75	75
	EPDM/VITON	120° F	100	100	100	100	100	100	100	60	45	45	45	30	30
PP Disc	EPDM/VITON	140° F	70	70	70	45	45	40	30	30	30	45	45	45	30
	EPDM/VITON	180° F	30	30	30	30	30	20	15	15	7	Consult Factory			

Operating Torque

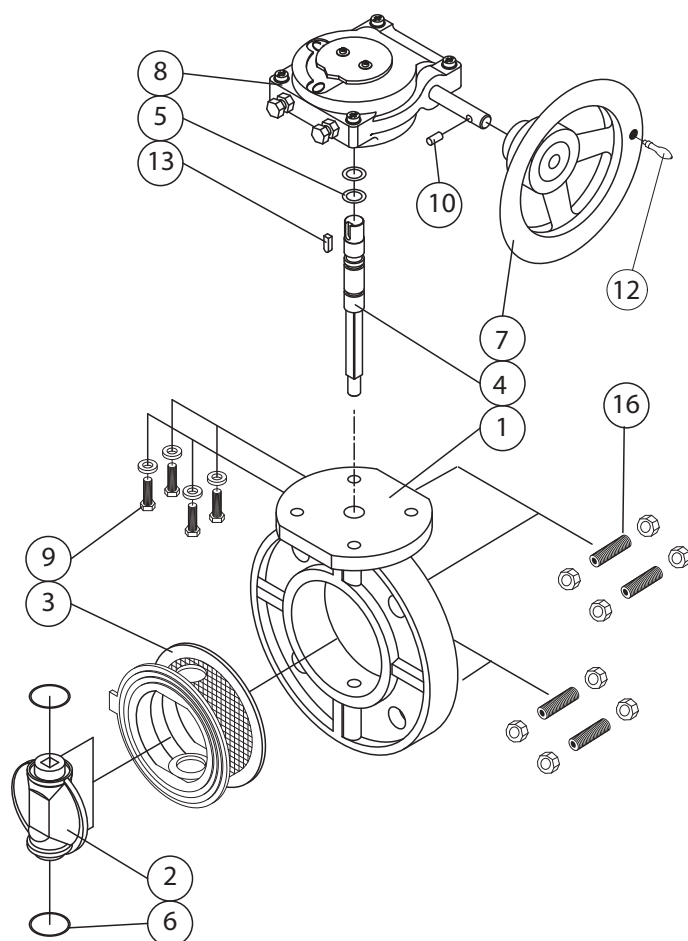
SIZE	2"	2½"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
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Flow Rate in Gallons Per Minute

SIZE	2"	2½"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Cv	100	265	390	500	1160	1995	3570	5048	6400	8300	10800	16000	18500

Cv is the number of gallons per minute of water at a temperature of 68°F that will flow through a valve with a 1 psi pressure differential at a specified travel.

Lug Insert Option

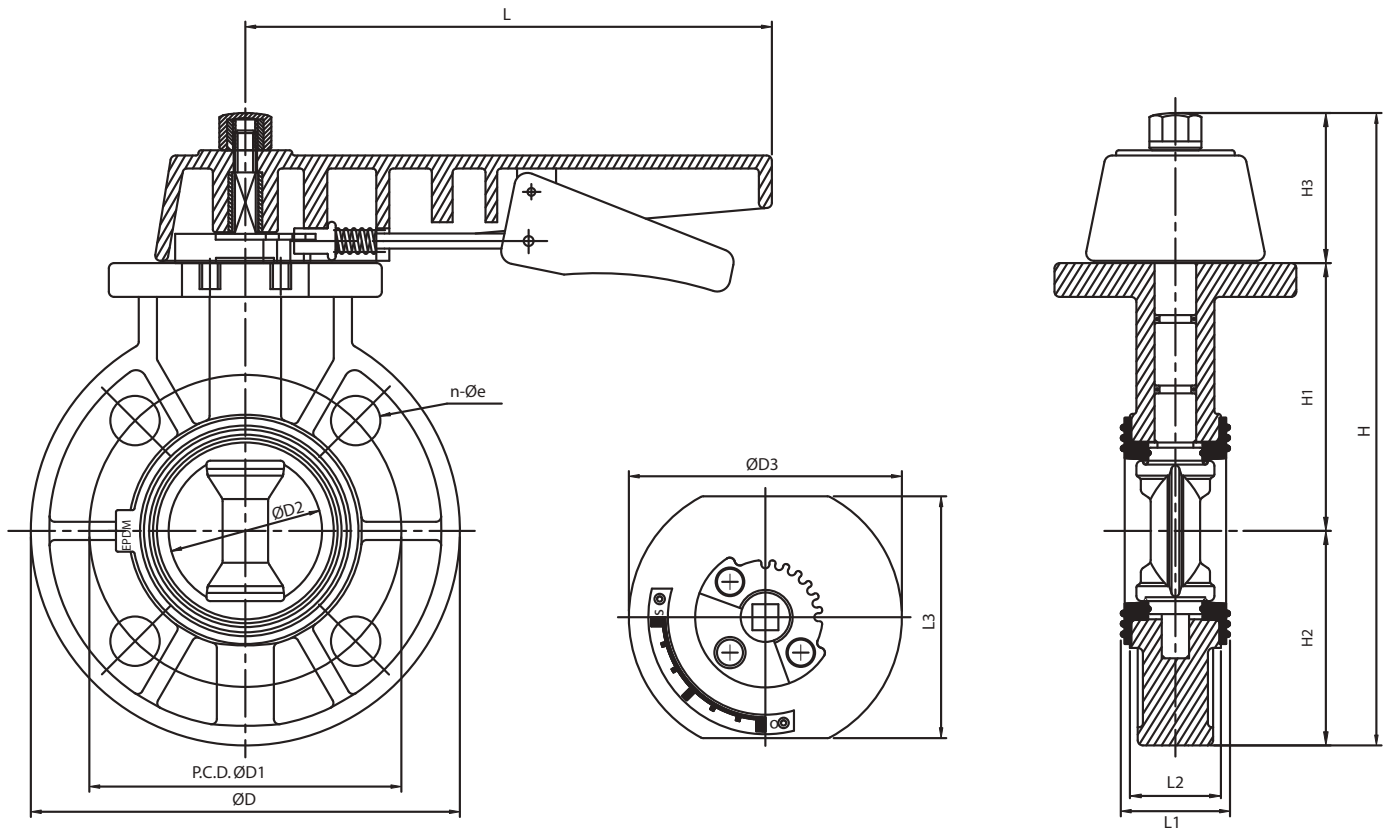


Number	Description	Material	Qty
1	Body	PVC, CPVC, PP, PVDF	1
2	Disc	PVC, CPVC, PP, PVDF	1
3	Seat Seal	EPDM, FPM, Buna, Hypalon	1
4	Stem	Stainless Steel - 304	1
5	O-Ring	EPDM, FPM, Buna, Hypalon	2
6	O-Ring	EPDM, FPM, Buna, Hypalon	2
7	Hand Wheel	FC - Cast Iron	1
8	Gear Box	FC - Cast Iron	1
9	Bolt & Washer	Stainless Steel - 304	4

SIZE	Bolt Length
2"	3/8" Bolt
3"	1/2" Bolt
4"	1/2" Bolt
6"	5/8" Bolt
8"	5/8" Bolt
10"	3/4" Bolt

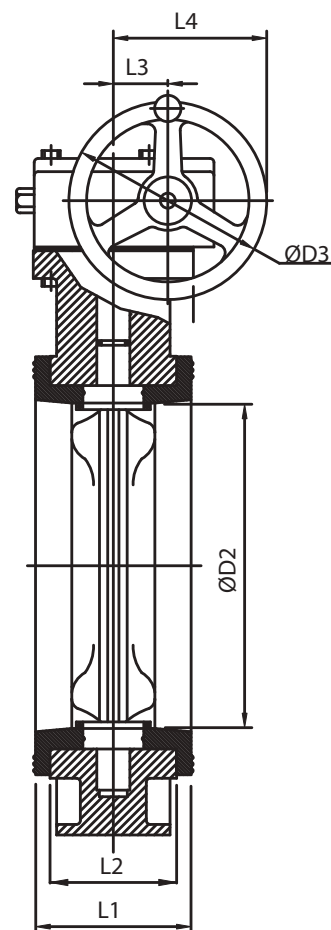
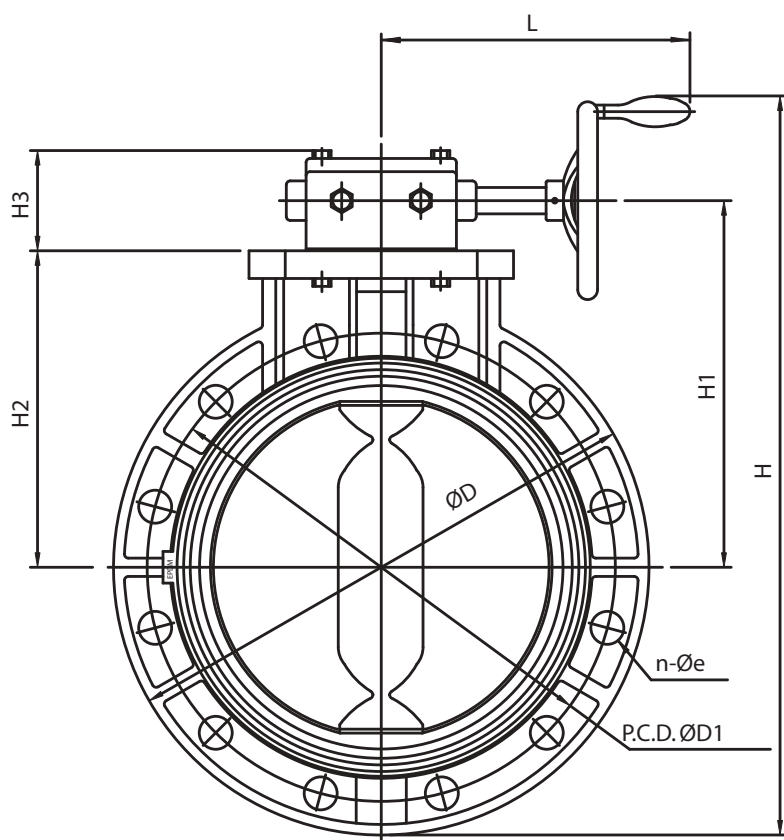
Dimensional Data - Lever Handle

NOM. Size	D	D1	D2	D3	H	H1	H2	H3	L	L1	L2	L3	# Holes	Hole Size
2"	6.52	4.76	2.22	4.13	9.76	4.17	3.27	2.34	7.83	1.67	1.38	3.70	4	0.75
2½"	7.28	5.51	2.74	4.72	10.51	4.53	3.64	2.34	7.83	1.85	1.42	3.70	4	0.75
3"	7.89	5.98	3.13	4.84	10.96	4.61	3.94	2.40	7.83	1.85	1.42	3.70	4	0.75
4"	9.02	7.52	4.04	5.31	12.52	5.43	4.51	2.58	9.92	2.24	1.85	3.92	8	0.75
6"	11.34	9.49	6.02	6.65	16.04	7.05	5.67	3.33	11.69	2.76	2.56	3.98	8	0.87
8"	13.50	11.73	7.99	7.91	18.39	8.31	6.75	3.33	11.69	3.35	2.87	4.80	8	0.87

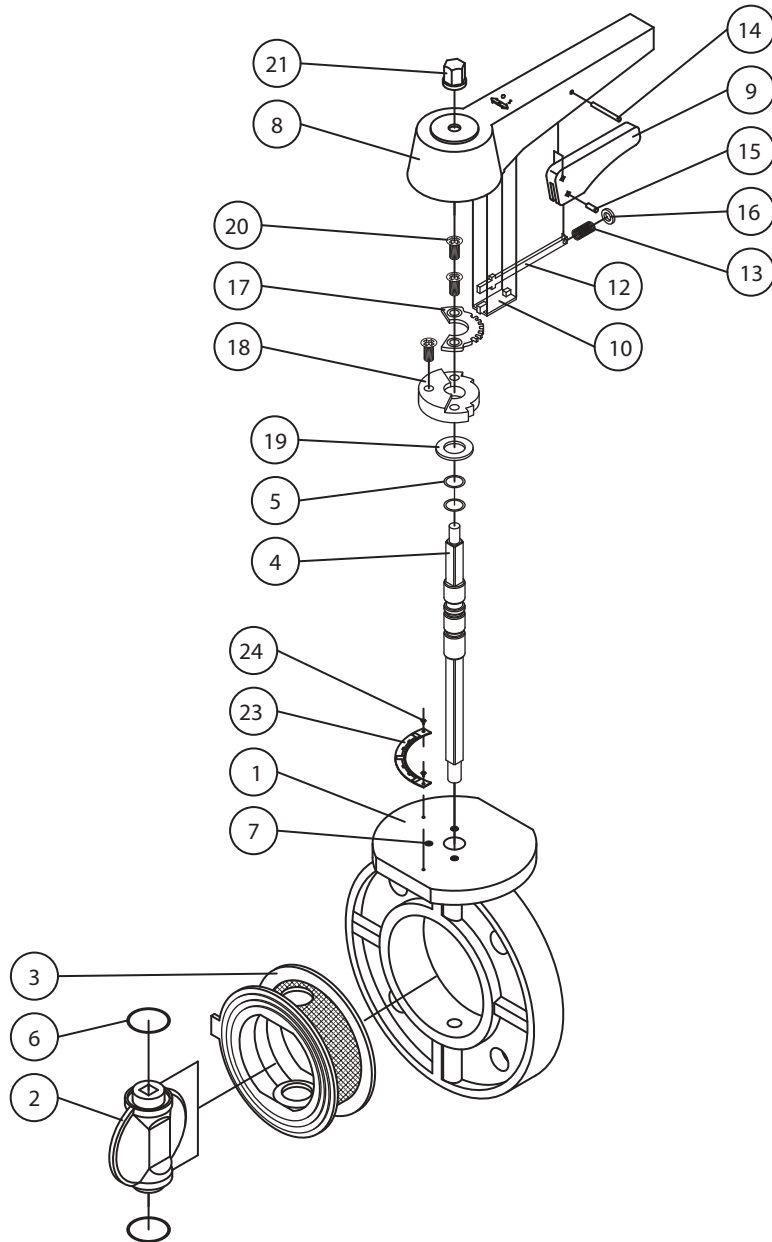


Dimensional Data - Gear Operated

Nom. Size	D	D1	D2	D3	H	H1	H2	H3	L	L1	L2	L3	L4	# Holes	Hole Size
4"	9.02	7.52	4.04	7.88	12.74	6.83	5.43	2.80	4.72	2.24	1.85	1.52	5.46	8	0.75
6"	11.34	9.49	6.02	7.88	15.51	8.44	7.05	2.80	4.72	2.76	2.56	1.52	5.46	8	0.87
8"	13.50	11.73	7.99	7.95	20.63	10.02	8.25	3.05	11.20	3.35	2.87	2.36	6.34	8	0.87
10"	16.18	14.25	10.04	7.95	23.15	11.16	9.43	3.05	11.20	4.29	3.76	2.36	6.34	12	0.98
12"	19.29	17.01	12.19	9.84	27.64	13.39	11.73	3.07	12.99	5.18	4.55	2.36	7.28	12	0.98
14"	20.87	18.74	13.98	9.92	28.86	13.46	11.81	3.07	12.99	5.00	4.45	2.36	7.28	12	1.14
16"	23.46	21.26	15.65	11.81	34.25	16.54	13.58	4.72	13.90	6.54	5.98	3.19	9.09	16	1.14
18"	24.80	22.76	17.81	11.81	35.83	17.52	14.57	4.61	13.90	7.05	6.42	3.19	9.09	16	1.26
20"	27.40	25.00	19.69	15.98	40.83	19.13	16.14	5.63	15.35	7.44	6.77	4.72	12.72	20	1.26
24"	32.01	29.53	23.72	15.98	45.91	21.89	18.90	5.63	15.35	8.23	7.64	4.72	12.72	20	1.38

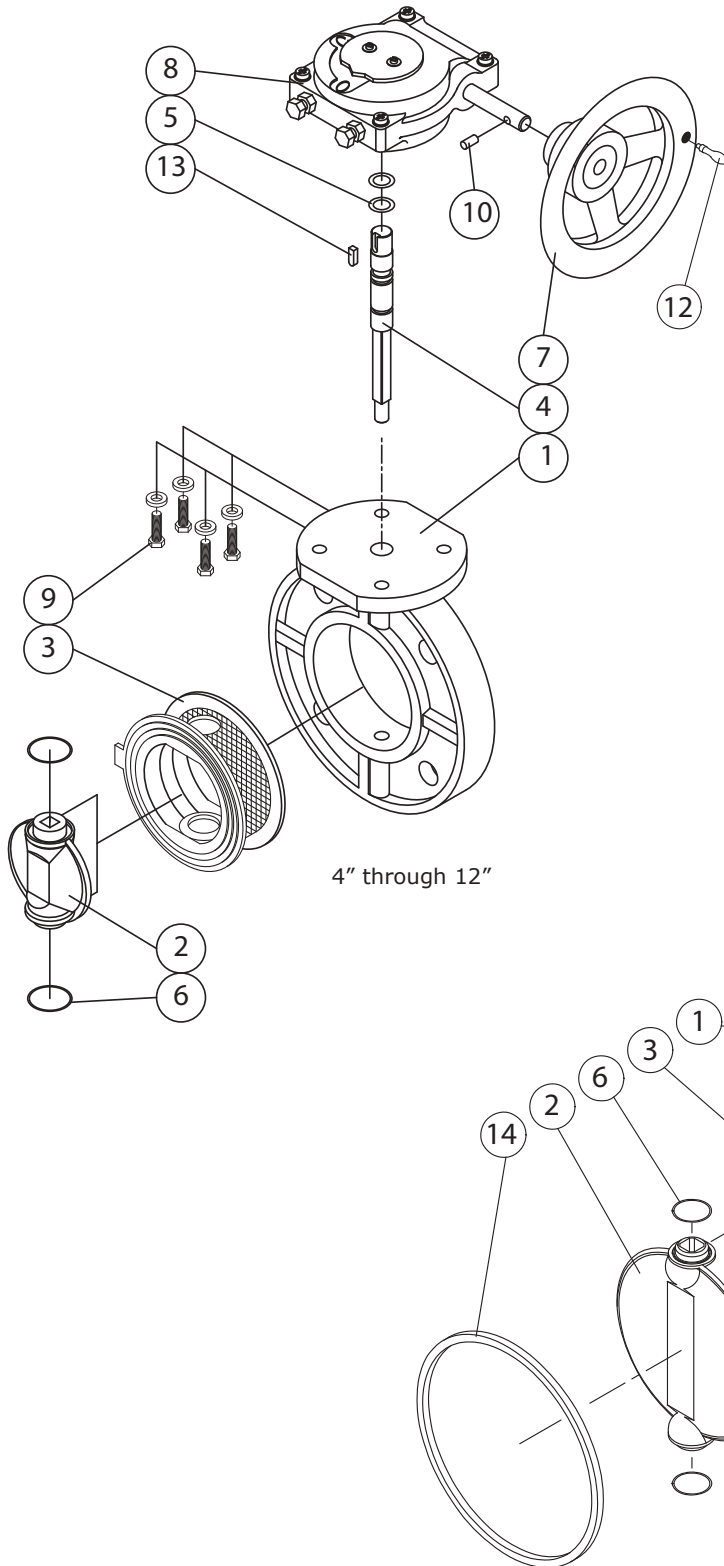


Parts Listing - Lever Handle

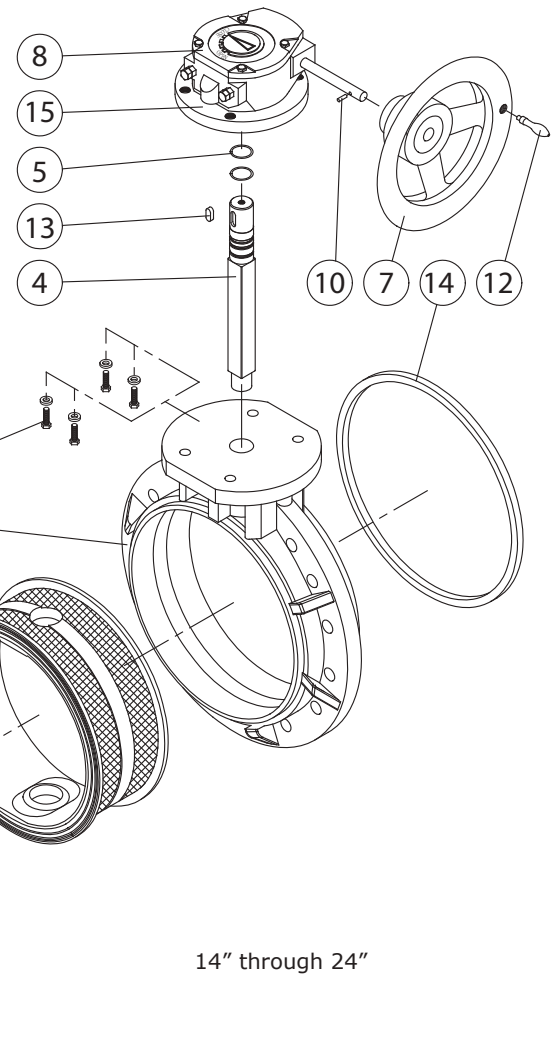


Number	Description	Material	Qty
1	Body	PVC, CPVC, PP, PVDF	1
2	Disc	PVC, CPVC, PP, PVDF	1
3	Seat Seal	EPDM, FPM, Buna, Hypalon	1
4	Stem	Stainless Steel - 410	1
5	Stem O-Ring	EPDM, FPM, Buna, Hypalon	2
6	Disc O-Ring	EPDM, FPM, Buna, Hypalon	2
7	Insert Nut	C3604	3
8	Large Handle	PP	1
9	Small Handle	PP	1
10	Spring Lock	PP	1
11	Handle Insert	Stainless Steel	1
12	Handle Lever	Stainless Steel - 304	1
13	Spring	Stainless Steel - 304	1
14	Spring Pin	Stainless Steel - 304	1
15	Spring Pin	Stainless Steel - 304	1
16	Washer	Stainless Steel - 304	1
17	Locking Plate	Stainless Steel - 304	1
18	Gear Seat	PVC, PVDF	1
19	Stem Washer	Stainless Steel - 304	1
20	Bolt	Stainless Steel - 304	3
21	Nut	PVC, PVDF	1
22	Insert Nut	C3604	1
23	Level	Stainless Steel - 304	1
24	Rivet	Stainless Steel	2

Parts Listing - Gear Operated



Number	Description	Material	Qty
1	Body	PVC, CPVC, PP, PVDF	1
2	Disc	PVC, CPVC, PP, PVDF	1
3	Seat Seal	EPDM, FPM, Buna, Hypalon	1
4	Stem	Stainless Steel - 304	1
5	O-Ring	EPDM, FPM, Buna, Hypalon	2
6	O-Ring	EPDM, FPM, Buna, Hypalon	2
7	Hand Wheel	FC - Cast Iron	1
8	Gear Box	FC - Cast Iron	1





BFP Series Electric Actuators and Accessories

Special Features:

S3 is the new concept ¼ turn multi voltage electric actuator that finally offers all the solutions that utilize the reversible electric actuators for the operation and control of the valves.

ALL S3 TYPES AND MODELS have the following STANDARD features:

ATC - AUTOMATIC TEMPERATURE CONTROL:

An internal 4w thermostatically controlled anti-condensation heater maintains the internal between +20° C and +30° C, (68° F – 86° F) eliminating the possibility of damage by condensation.

AVS - AUTO VOLTAGE SENSING:

The S3 actuators are, within the voltage ranges specified for "L" or "H" series, multi-voltage capable and make automatic internal adjustments to ensure the actuator operates, irrespective of the power supply

"L" series operates from 12 to 24V AC or 12 to 24 V DC

"H" series operates from 85 to 250V AC or DC

ETL - ELECTRONIC TORQUE LIMITER:

Continuous electric monitoring of the motor produces smooth operation and accurate control of the motor consumption up to the maximum permissible torque. Should the maximum torque be exceeded, the ETL automatically cuts the power to the motor to prevent damage to the actuator, and automatically relaxes the gearbox to allow simple operation of the manual override.

MO - MANUAL OVERRIDE:

For emergency manual operation, operated by a selector lever on the side of the actuator, with automatic motor power tripping when selected.

PES - PROTECTED ELECTRICAL SUPPLY:

This take 2 forms; first the actuator is protected against short circuit when connected and while the actuator won't operate if incorrectly connected, no internal damage will result, and secondly, the S3 accepts the same wiring connection for either AC or DC operation (grey connector).

External DIN plugs eliminate the need to remove the actuator's cover to connect.

VCO - VISUAL CONTROL OF OPERATION:

- A external LED indicates the normal operation of the actuator.

- A flashing LED frequency 1 advises that the actuator's torque limiter has been exceeded and the ETL has activated.

- A flashing LED frequency 2 advises that the actuator is in MANUAL position.

VFC - VOLT FREE CONTACTS:

1 set of open and closed volt free contacts are provided

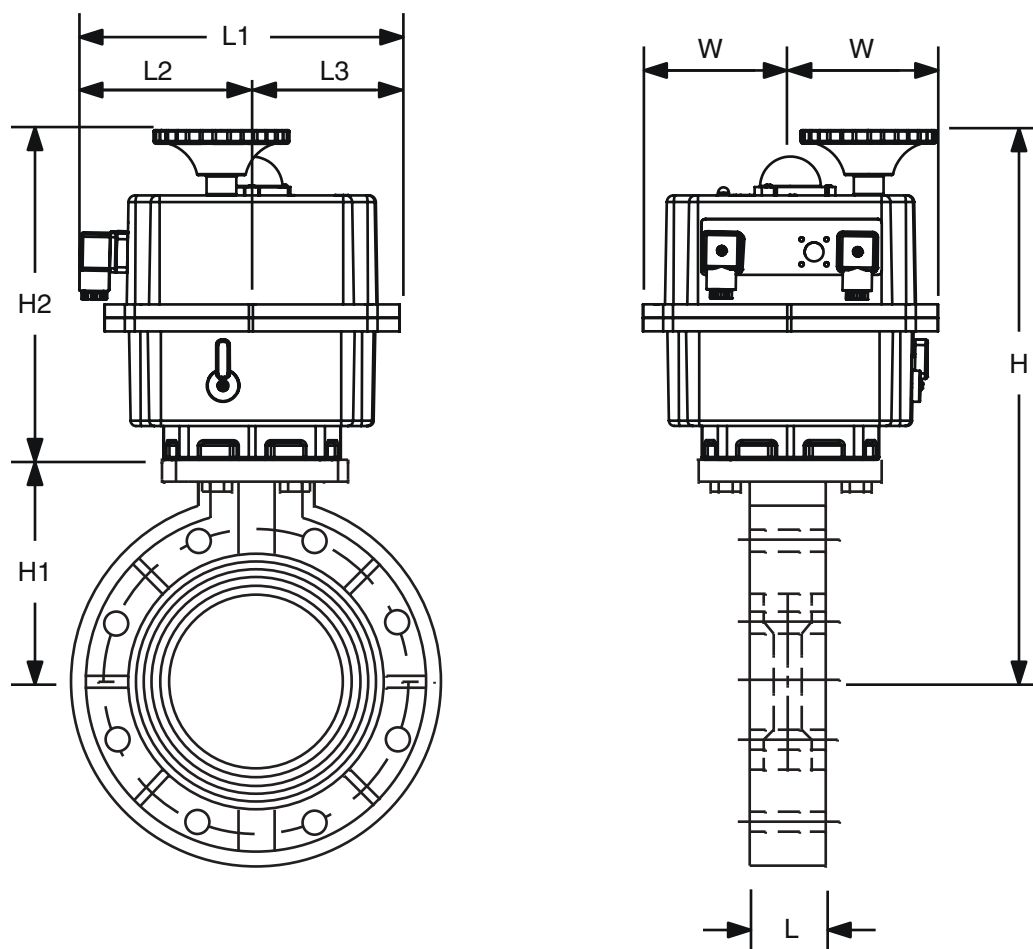
SIMTECH has designed and made the third generation of electric actuators that incorporates 6 models in each one of the series

"L"

(Low Voltage) & "H" (High Voltage) covering the following operational torques: 20, 35, 55, 85, 140 and 300 Nm

QUICK AND EASY TO INSTALL

These user friendly actuators are designed to be fully connected WITHOUT REMOVING THE ACTUATOR COVER via externally supplied DIN plugs, simply wire the plugs and they are ready for use. A wiring diagram label showing how to wire the plugs is affixed to the side of the actuator. Standard wiring (3 wire) for either AC or DC power supply is identical with a common, and a live switch between open and close. However, for DC power supplies, the actuators will also operate on a 2 wire system with a user supplied voltage polarity switch, used to reverse the motor, if this wiring configuration is preferred.



110v to 230v & 12v to 24v									
Size	H	H1	H2	L	L1	L2	L3	W	Actuator
2"	10.91	4.17	6.73	1.67	6.97	4.96	2.01	2.17	S3-E20
2.5"	12.24	4.53	7.72	1.85	6.97	4.96	2.01	2.17	S3-E55
3"	12.32	4.61	7.72	1.85	6.97	4.96	2.01	2.17	S3-E55
4"	13.15	5.43	7.72	2.24	6.97	4.96	2.01	2.17	S3-E55
6"	17.05	7.05	10.00	2.76	9.25	4.21	5.04	8.43	S3-H140
8"	18.31	8.31	10.00	3.35	9.25	4.21	5.04	8.43	S3-H140
10"	21.20	11.16	10.04	4.29	9.25	4.21	5.04	8.43	S3-H300
12"	23.46	13.39	10.08	5.18	9.25	4.21	5.04	8.43	S3-H300
14"	Consult Factory								
16"	Consult Factory								
18"	Consult Factory								
20"	Consult Factory								
24"	Consult Factory								



BFP Series Pneumatic Actuators and Accessories

Special Features:

The Pneumatic rack & pinion actuators are the next generation of innovation featuring a slimmer body design while maintaining extensive options for easy valve integration, flexible customization, and the same reliable operation, all backed by the industry's best unlimited cycle life warranty. Standard with NAMUR mounting for accessories, is setting the industry standard.

Pneumatic Actuators have the following STANDARD features:

Compact Design

The rack & pinion engineering polymer actuators produce linear torque output in a compact design utilizing the same body and end caps for double acting and spring return models.

Namur Mounting

Each actuator comes standard with NAMUR VDI/VDE 3845 mounting standard on all sizes and made with an insert in alloy UNI 5076 (ASTM B 179) coated with highly corrosion resistant epoxy. No special blocks are required to mount solenoid valves, limit switches or positioners. Air connections are 1/4" NPT as standard.

High Visibility Beacon

A simple and compact visual indicator comes standard on each unit.

ISO 5211 Valve Connection

The female output drive is standard with a double square output drive, according to ISO 5211 guidelines. Direct mounting ball valves is simple and quick.

Alternate Operating Pressure

Air pressure operation from 40 to 150 psi (2 to 10 Bar). Water, nitrogen and compatible hydraulic fluids may also be used to power the actuator.

Rugged Tooth Design

The pinion teeth are engaged the full length and stroke of the piston, and designed for the toughest flow conditions. The pinion height allows manual override without needing to remove the indicator.

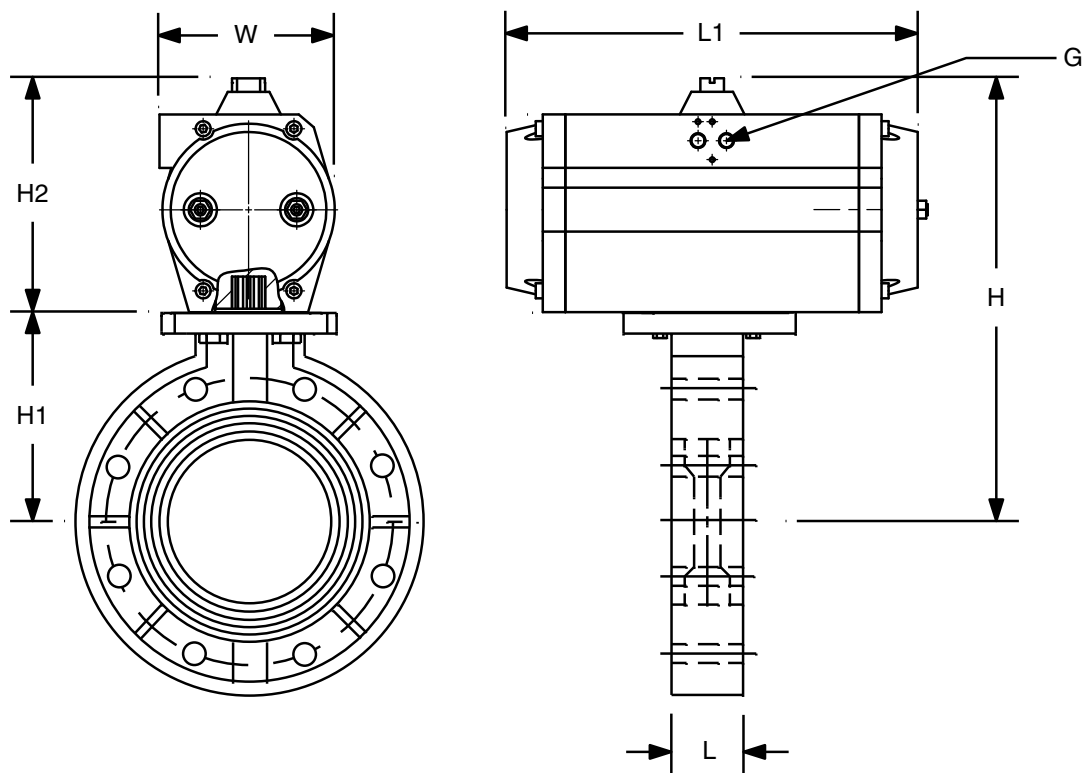
Optional Accessories

We offer a wide range of adapters for many different types of valves—including butterfly valves, ball valves and diaphragm—as well as a variety of pneumatic accessories suitable for diverse industrial environments.

Quality Assurance

100% of all units are factory pressure and leak tested, and individually boxed for shipment.

Dimensional Data



Spring Return								
Size	H	H1	H2	L	L1	W	G	
2"	8.56	4.17	4.39	1.67	6.89	3.98	¼" NPT	UT-19
2.5"	8.39	4.53	3.86	1.85	9.41	3.78	¼" NPT	UT-26
3"	9.23	4.61	4.62	1.85	9.06	4.49	¼" NPT	UT-31
4"	11.49	5.43	6.06	2.24	9.69	5.10	¼" NPT	UT-36
6"	13.68	7.05	6.63	2.76	13.82	5.71	¼" NPT	UT-46
8"	16.26	8.31	7.95	3.35	14.21	7.13	¼" NPT	UT-51
10"	17.38	9.43	7.95	4.29	16.46	7.13	¼" NPT	UT-56
12"	21.85	11.73	10.12	5.18	17.48	9.13	¼" NPT	UT-61
14"	24.80	11.81	12.99	5.00	22.83	12.99	¼" NPT	UT-71
16"	26.57	13.58	12.99	6.54	22.83	12.99	¼" NPT	UT-71
18"	27.56	14.57	12.99	7.05	22.83	12.99	¼" NPT	UT-76
20"	29.13	16.14	12.99	7.44	22.83	12.99	¼" NPT	UT-76
24"	31.89	18.90	12.99	8.23	26.69	12.99	¼" NPT	UT-76

Double Acting								
Size	H	H1	H2	L	L1	W	G	
2"	7.72	4.17	3.54	1.67	6.30	3.39	¼" NPT	UT-14
2½"	8.07	4.53	3.54	1.85	6.30	3.39	¼" NPT	UT-14
3"	8.15	4.61	3.54	1.85	6.30	3.39	¼" NPT	UT-14
4"	9.82	5.43	4.39	2.24	6.89	3.98	¼" NPT	UT-19