Type 60 Elastomer Seated Butterfly Valves

CHEMLINE PLASTICS
SUPERIOR FLOW SOLUTIONS

Chemline **Type 60** Butterfly Valves are designed for ON/OFF and throttling control applications in plastic piping systems. They are competitively priced for pools, fountains, irrigation and fertigation applications.

PVC CPVC

NSF[1] Certified to NSF/ANSI 61

SERIES:	Type 60	
BODY TYPE:	Wafer	
SIZES:	PVC:	2" to 8" Lever Operated 2" to 12" Gear Operated
	CPVC:	2" to 8" Lever Operated 2" to 8" Gear Operated
MATERIALS:	Body:	PVC or CPVC
	Disc:	PVC or CPVC
	Seat & O-Rings:	EPDM, FKM (Viton®)

Features

NSF Approval[1]
- PVC and CPVC valves are certified to NSF/ANSI Standard 61 for contact with drinking water

Large Size Range
- 2" to 12" (PVC)

Compact and Light Weight

High Corrosion Resistance
- Solid plastic – no rust

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

Gussets on Body
- Prevent excessive compression of seat if flange bolts are over-tightened

ISO Actuator Mounting Dimensions
- "Top flange" has standard ISO dimensions for direct mounting of electric or pneumatic actuators

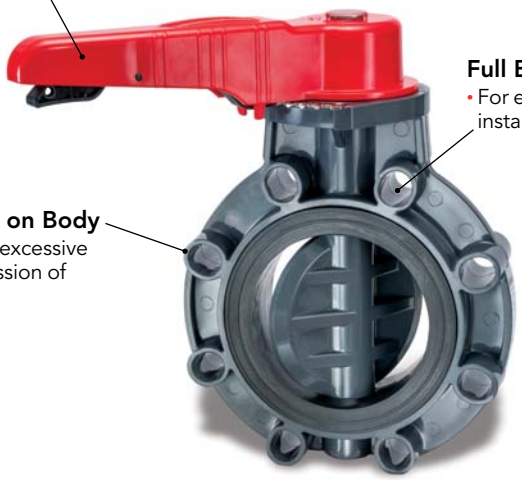
[1] PVC and CPVC valves with EPDM or FKM (Viton®) seals are certified under NSF/ANSI Standard 61 for contact with drinking water

©Chemline Plastics Limited 2025
Chemline is a registered trade mark of Chemline Plastics Limited

Type 60 Elastomer Seated Butterfly Valves

Engineered for Superior Performance

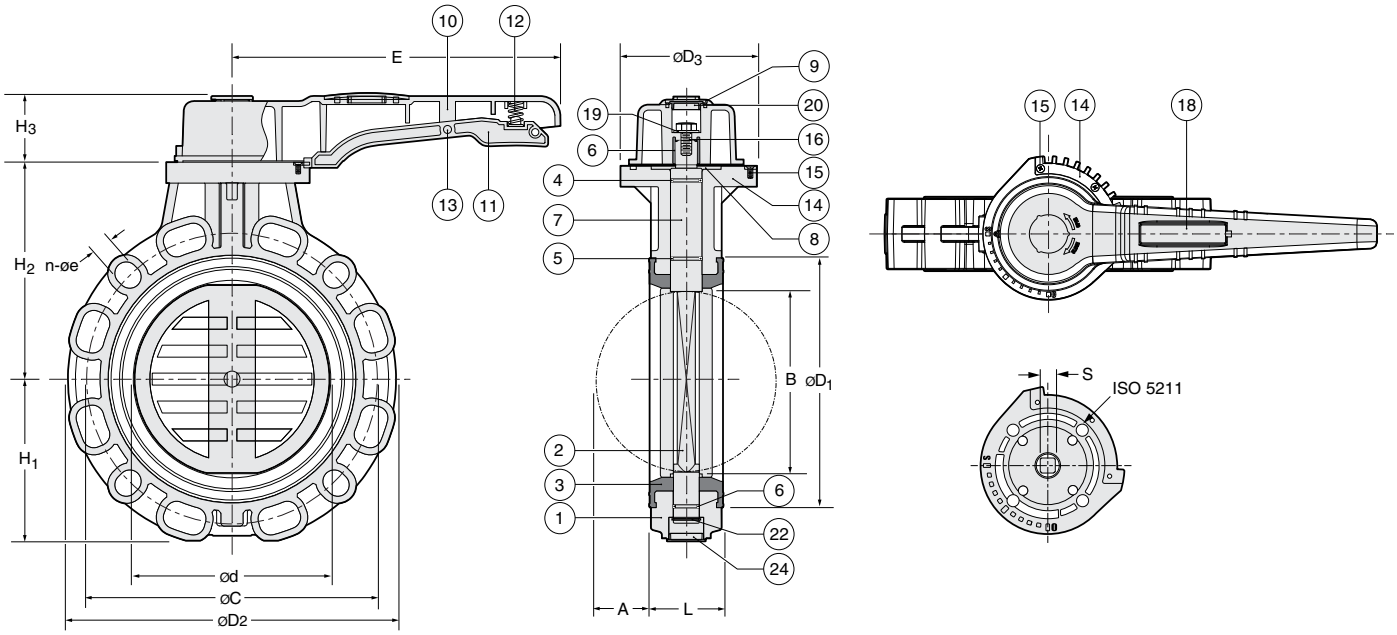
Hand Lever
- Lockable with 11 fine adjustment locking positions



Full Bolt Circle
- For easy installation

Gussets on Body
- Prevent excessive compression of seat

Gear Operator
- Ductile Iron with 400 Stainless Steel hand wheel



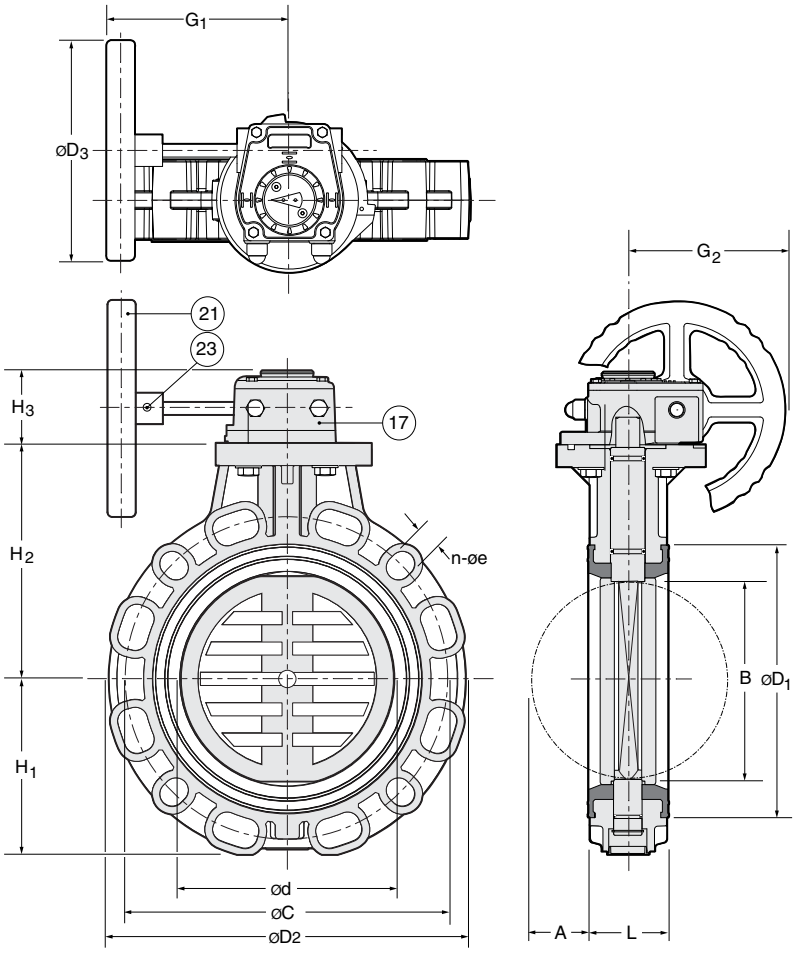
2" to 8" Lever Operated

DIMENSIONS – LEVER OPERATED INCHES

Size	A	L	D_1	D_2	D_3	d	B*	C	E	n	e	H_1	H_2	H_3	S	ISO 5211
2"	0.3	1.69	3.66	6.14	4.0	2.24	1.8	4.75	8.3	4	0.75	2.83	4.06	2.17	0.43	F05/F07
2-1/2"	0.4	1.81	4.17	6.97	4.0	2.68	2.3	5.50	8.3	4	0.75	3.15	4.49	2.13	0.43	F05/F07
3"	0.6	1.93	4.72	7.52	4.0	3.07	2.8	6.00	8.3	4	0.75	3.46	4.96	2.13	0.43	F05/F07
4"	0.8	2.20	5.71	8.78	4.0	3.78	3.7	7.50	11.0	8	0.75	4.06	5.63	2.17	0.55	F07
6"	1.5	2.76	8.03	10.98	5.7	5.71	5.6	9.50	11.0	8	0.86	5.08	7.13	2.52	0.67	F07/F10
8"	2.4	2.80	10.43	13.27	5.7	7.68	7.2	11.75	13.0	8	0.86	6.38	8.58	2.72	0.87	F10

***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 Chemline.

Type 60 Elastomer Seated Butterfly Valves



2" to 12" Gear Operated

PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Body	1	PVC, CPVC
2	Disc	1	PVC, CPVC
3▲	Seat	1	EPDM, FKM (Viton®)
4▲	Upper Shaft O-Ring	1	EPDM, FKM (Viton®)
5▲	Middle Shaft O-Ring	1	EPDM, FKM (Viton®)
6▲	Lower Shaft O-Ring	1	EPDM, FKM (Viton®)
7	Shaft	1	410 SS
8	Shaft Washer	1	304 SS
9	Clear Cap	1	ABS
10	Hand Lever	1	ABS
11	Trigger	1	PPG
12	Spring	1	304 SS
13	Hand Lever Pin	1	PPG
14	Position Lock Plate	1	304 SS
15	Plate Screw	3	304 SS
16	Hand Lever Bolt	1	304 SS
17	Gear Operator	1	Ductile Iron A536[1]
18	Handle Insert	1	ABS
19	Handle Screw Washer	1	304 SS
20	Handle Cap	1	ABS
21	Hand Wheel	1	400 SS
22	C-Ring	1	304 SS
23	Hand Wheel Pin	1	410 SS
24	Bottom Body Cap	1	ABS

[1] Iron is polyester/epoxy coated

DIMENSIONS – GEAR OPERATED INCHES

Size	A	d	B*	L	G_1	G_2	D_1	D_2	D_3	C	E	n	e	H_1	H_2	H_3
2"	0.3	2.24	1.8	1.69	5.0	4.3	3.7	6.14	5.5	4.75	0.33	4	0.75	2.83	4.06	2.13
2-1/2"	0.4	2.68	2.3	1.81	5.0	4.3	4.2	6.97	5.5	5.50	0.48	4	0.75	3.15	4.49	2.13
3"	0.6	3.07	2.8	1.93	5.0	4.3	4.7	7.52	5.5	6.00	0.67	4	0.75	3.46	4.96	2.13
4"	0.8	3.78	3.7	2.20	5.0	4.3	5.7	8.78	5.5	7.50	0.88	8	0.75	4.06	5.63	2.13
6"	1.5	5.71	5.6	2.76	6.5	11.8	8.0	10.98	7.9	9.50	1.59	8	0.86	5.08	7.13	2.64
8"	2.4	7.68	7.2	2.80	6.5	11.8	10.4	13.27	7.9	11.75	2.25	8	0.86	6.38	8.58	2.64
10"	2.7	9.84	9.3	4.49	7.5	17.7	12.6	16.10	11.8	14.24	2.89	12	0.98	7.72	10.28	2.87
12"	3.7	11.81	11.3	4.49	7.5	17.7	14.6	18.82	11.8	17.00	3.57	12	0.98	8.98	11.89	2.87

* **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 Chemline.

Type 60 Elastomer Seated Butterfly Valves

WORKING PRESSURES PSI

Size	PVC Body & Disc		CPVC Body & Disc				NET WEIGHTS LBS.		FLANGE BOLT TORQUES
	0 to 25°C 32 to 77°F	50°C 122°F	0 to 25°C 32 to 77°F	40°C 104°F	60°C 176°F	80°C 176°F	PVC Body & Disc	CPVC Body & Disc	Foot -Lbs.
2″	150	60	150	120	75	30	2.6	2.7	22 – 26
2-1/2″	150	60	150	120	75	30	3.0	3.1	22 – 26
3″	150	60	150	120	75	30	3.5	3.6	22 – 26
4″	150	60	150	120	75	30	5.1	5.2	22 – 26
6″	150	60	150	120	75	30	10.2	10.4	30 – 37
8″	150	60	150	120	75	30	16.8	17.3	33 – 41
10″	150	60	–	–	–	–	42.8	–	52 – 66
12″	150	60	–	–	–	–	54.0	–	52 – 66

Cv VALUES VS. DISC ANGLE/DISC

Size	Operator	20°	30°	45°	60°	75°	90°
2″	Lever	3.3	6.6	22	44	77	110
2-1/2″	Lever	6.9	13.8	46	92	161	230
3″	Lever	8.4	16.8	56	112	196	280
4″	Lever	13.2	26.4	88	176	308	440
6″	Lever	30.0	60.0	200	400	700	1,000
8″	Gear	66.0	132.0	440	880	1,540	2,200
10″	Gear	105.0	210.0	700	1,400	2,450	3,500
12″	Gear	162.0	324.0	1,080	2,160	3,780	5,400

ACCESSORIES

- **Electric or Pneumatic Actuation**
- **Lock-out Handle and Hasp** to prevent unauthotorized operation of valve during maintenance shut-downs
- **Valve Tags** stainless steel or plastic
- **Gear Operator** on 2″ to 12″
- **Locking Capability** on gear operators
- **Limit Switches** electrical feedback of manual valve position
- **Chain Wheel Operator** for overhead operation
- **Stem Extensions** for buried service

ORDERING EXAMPLE

Chemline Type 60 Elastomer Seated Butterfly Valves	**60**	**A**	**060**	**A**	**E**	**L**
Body	**A** – PVC	**C**[1] – CPVC				
Size	**020** – 2″ **060** – 6″	**025** – 2-1/2″ **080** – 8″	**030** – 3″ **100** – 10″	**040** – 4″ **120** – 12″		
Disc	**A** – PVC	**C**[1] – CPVC				
Seat	**E** – EPDM	**V** – FKM (Viton®)				
Operator	**L** – Hand Lever	**G** – Gear Operator				

Example: Chemline Type 60 Butterfly Valve, PVC body, 6″ body, with PVC disc, EPDM seat, hand lever operator

[1]CPVC valves are available up to 8″

CHEMLINE PLASTICS
SUPERIOR FLOW SOLUTIONS

55 Guardsman Road, Thornhill, ON, L3T 6L2, Canada | ISO 9001:2015 Certified
1.800.930.2436 (CHEM) | fax.905.889.8553 | request@chemline.com | chemline.com

Electric Actuation

Refer to actuator data page for detailed information.

All electric actuators have these STANDARD FEATURES:

- Polyamide plastic housings or covers – corrosion resistant and light weight
- NEMA 4X/IP65 water resistance enclosure rating
- CSA Approved or Special Inspection labelled
- Reversible operation
- Multi-voltage operation
- Standard ISO 5211 mounting dimensions
- Irreversible gearing – backlash is impossible

ER Series

VS Series

- Adjustable travel through the full range
- No maintenance is required
- Heater/thermostats for humid locations and cold weather operation
- Two extra switches for valve postion feedback

Electric Actuator Selection

Model	ER Series	V Series
FEATURES	FULL FEATURE	HIGHER TORQUE
Type 58 valve sizes	1-1/2" to 4"	1-1/2" to 24"
Voltage	120/240 VAC 12/24 VDC 24 VAC	120/240 VAC 12/24 VDC 24 VAC
Cycle Time sec/90°	12	30
Duty Cycle	50%	50%
CSA	Approved	Approved
ON/OFF Control	3-Wire/2-Wire	3-Wire/2-Wire
Gear Train	Spur Gears	Epicyclic
Mechanical Travel Stops	Fixed	Adjustable
DIN Plug Wiring Connectors	✓	✗
Two Position Feedback Switches	✓	✓
Valve Position Indicator	Knob	Dome
Manual Override	Declutching	Without Declutching
Override Device	Knob	Hand Wheel
Operating Temperature Range	–10 to 60C (15 to 140°F)	–20 to 70C (–4 to 158°F)
Onboard Electronic Torque Limiter	✓	✓
Onboard General Fault Relay	✓	✓
Onboard Diagnostics	✓	✓
ENCLOSURE OPTIONS		
Metal Cover for IP68 Rating	✗	✓
Low Temperature Option	✗	–50 to 70C (–58 to 158°F)
POSITION FEEDBACK OPTIONS		
Position Feedback Potentiometer	✓	✓
Transmitter	✓	✓
Extra Limit Switches[1]	✓	✓
CONTROL OPTIONS		
Digital Positioner	✓	✓
Failsafe Internal Battery Pack	✓	✓
Local/Remote Control Switch Box	✓	✓
MODBUS Module	✓	✓
Bluetooth Control	✓	✓

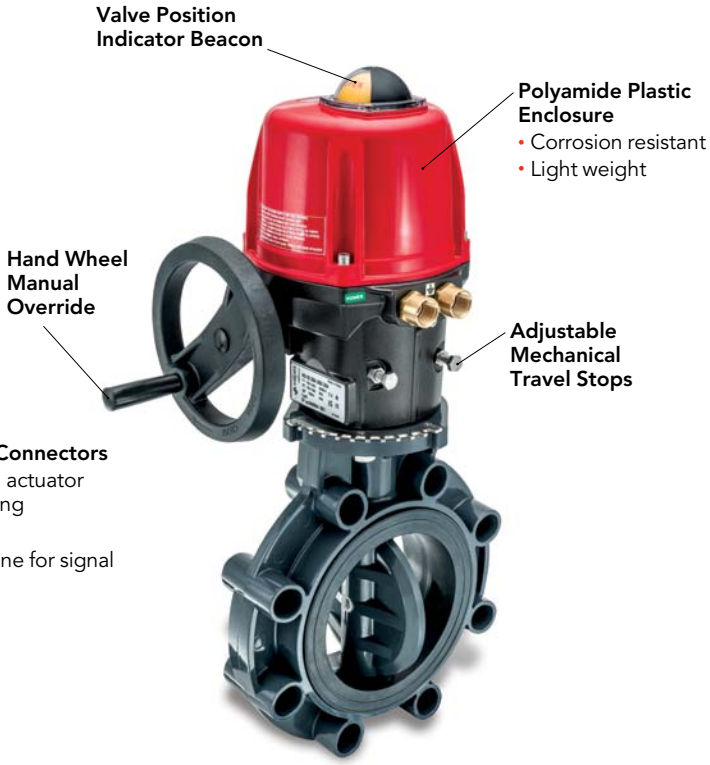
[1] 2 feedback switches are already supplied as standard

Type 60 Elastomer Seated Butterfly Valves

Electric Actuation

Refer to actuator data page for detailed information

ER Series



VS Series

Electric Actuation Item Numbers

Item numbers are for actuators including mounting to valve and bench testing

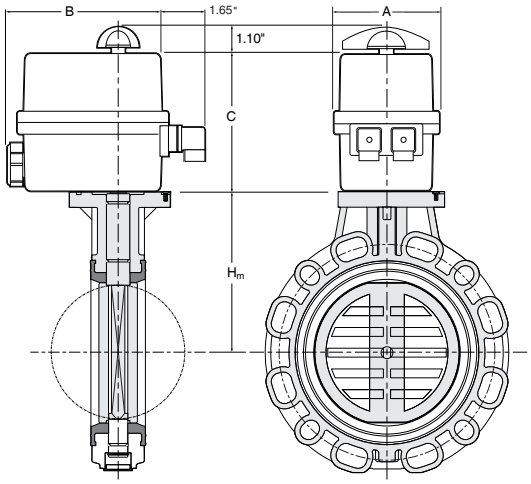
Model	ER Series				V Series			
Valve Size	Max. Line Pressure (psi)	Cycle Time/90°	120/240 VAC (50/60 Hz) Item No.	12/24 VDC & 24 VAC (50/60 Hz) Item No.	Max. Line Pressure (psi)	Cycle Time/90°	120/240 VAC (50/60 Hz) Item No.	12/24 VDC & 24 VAC (50/60 Hz) Item No.
2″	150	12 sec	60020-ER35.12	60020-ER35.346	150	30 sec	60020-VS150.12	60020-VS150.346
2-1/2″	150	12 sec	60025-ER35.12	60025-ER35.346	150	30 sec	60025-VS150.12	60025-VS150.346
3″	150	12 sec	60030-ER60.12	60030-ER60.346	150	30 sec	60030-VS150.12	60030-VS150.346
4″	150	12 sec	60040-ER60.12	60040-ER60.346	150	30 sec	60040-VS150.12	60040-VS150.346
6″	–	–	–	–	150	30 sec	60060-VS150.12	60060-VS150.346
8″	–	–	–	–	150	30 sec	60080-VS150.12	60080-VS150.346
10″	–	–	–	–	150	30 sec	60100-VT600.12	60100-VT600.346
12″	–	–	–		150	30 sec	60120-VT600.12	60120-VT600.346

Electric Actuation

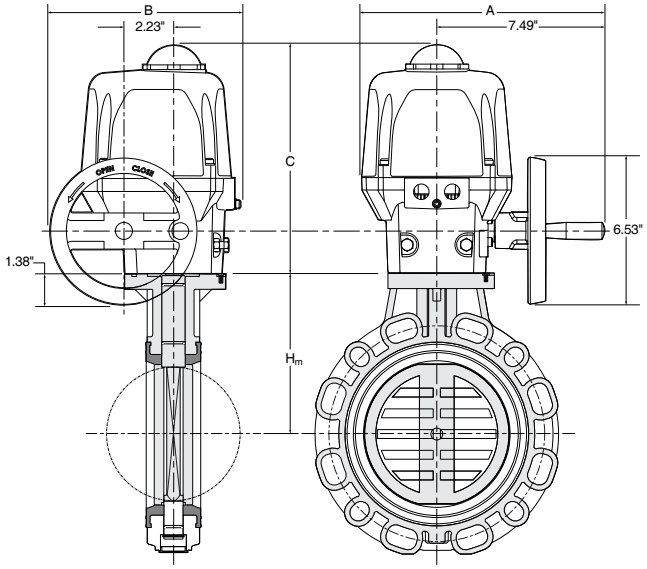
Refer to actuator data page for detailed information

ER Series

VS Series



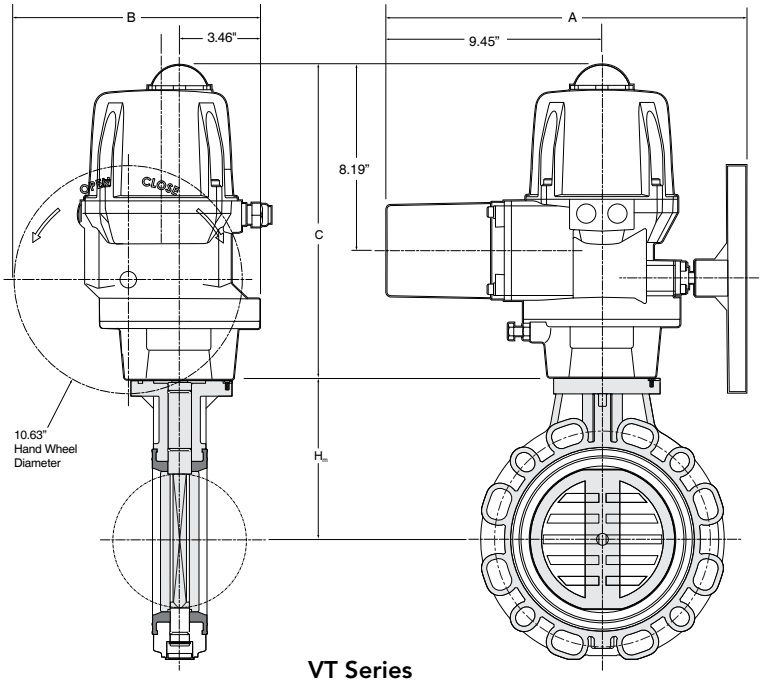
ER Series



VS Series

DIMENSIONS INCHES

Size	Actuator	A	B	C	H_m
2″	ER35	5.04	5.94	5.98	3.8
2-1/2″	ER35	5.04	5.94	5.98	3.8
3″	ER60	5.04	5.94	5.98	3.8
4″	ER60	5.04	5.94	5.98	3.8
6″	VS150	7.49	6.85	10.16	3.8
8″	VS150	7.49	6.85	10.16	3.8
10″	VT600	18.98	11.81	14.57	4.3
12″	VT600	18.98	11.81	14.57	4.5

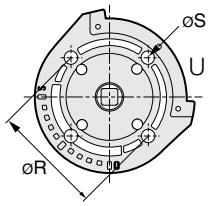


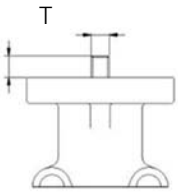
VT Series

TOPWORKS DIMENSIONS INCHES

	ISO 5211 Topworks					
	øR					
Size	inches	mm	ISO	øS	T	U
2″	1.65/1.98	42/50	F04/F05	0.35	0.433	0.63
2-1/2″	1.65/1.98	42/50	F04/F05	0.35	0.433	0.63
3″	1.65/1.98	42/50	F04/F05	0.35	0.433	0.63
4″	1.98	50	F05	0.35	0.551	0.63
6″	1.98	50	F05	0.35	0.551	0.63
8″	1.98	50	F05	0.35	0.551	0.63
10″	2.76	70	F07	0.35	0.669	0.63
12″	2.76	70	F07	0.35	0.669	0.63

Valve Top Mounting Flange





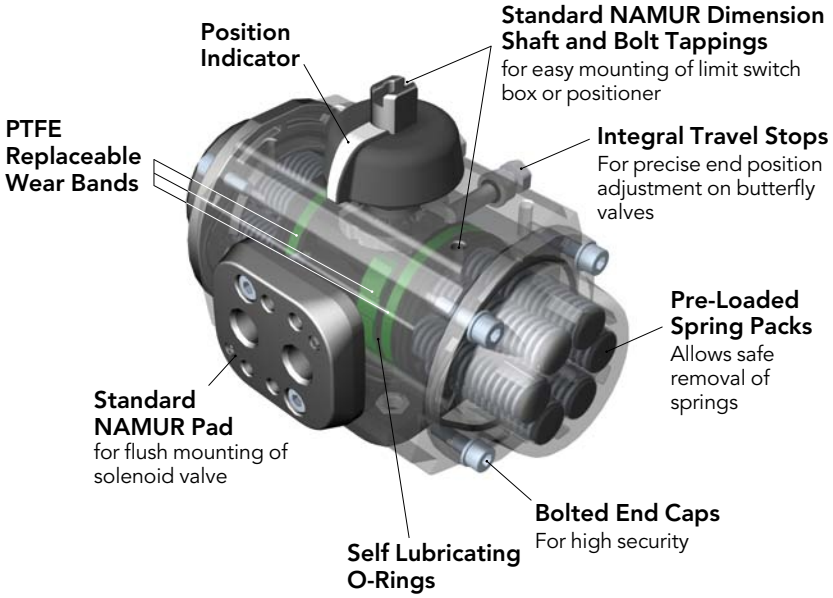
Pneumatic Actuation

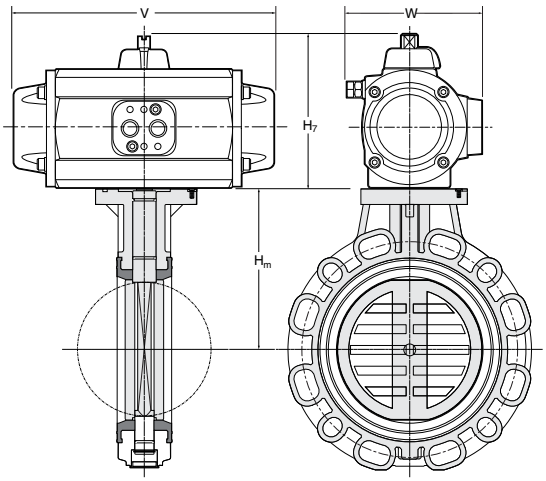
Refer to actuator data page for detailed information.

All pneumatic actuators have these STANDARD FEATURES:

- Aluminum rack and pinion type
- Coating is two-part epoxy/Rilsan polyamide, applied inside and out. Epoxy offers high chemical resistance and Rilsan offers coating durability.
- Rated for over one million cycles
- ISO standard valve mounting dimensions allow for direct mounting of most valves
- Mechanical travel stops are standard. They allow up to 5 degrees of piston travel adjustment
- Standardized accessories (solenoid valves, limit switch boxes, positioners) may be direct mounted

PA Series





DIMENSIONS INCHES

		Double Acting				Spring Return			
Size	H_m	Actuator[1]	H_7	V	W	Actuator[1]	H_7	V	W
2″	3.8	PAD00	4.38	6.00	3.31	PAS05	5.05	7.91	4.00
2-1/2″	3.8	PAD05	5.05	7.91	4.00	PAS10	5.21	8.83	4.08
3″	3.8	PAD05	5.05	7.91	4.00	PAS15	5.82	10.40	4.70
4″	3.8	PAD10	5.21	8.83	4.08	PAS20	6.15	12.19	5.02
6″	3.8	PAD15	5.82	10.40	4.70	PAS25	7.26	14.02	6.04
8″	3.8	PAD20	6.15	12.19	5.02	PAS30	8.31	16.83	6.97
10″	4.3	PAD30	8.31	16.83	6.97	PASR40	10.71	23.54	8.90
12″	4.5	PADA40	10.71	17.48	8.90	PASR40	10.71	23.54	8.90

[1]Actuator sizes are based on normal 80 psi available air supply

Pneumatic Actuation

PA Series

Refer to actuator data page for detailed information

Pneumatic Actuation Item Numbers

Item numbers are for actuators including mounting to valve and bench testing. Actuators are sized for "normal" service. For gas, vapour or severe chemical service, consult Chemline.

Double Acting

Valve Size	Max. Line Pressure (psi)	Air Supply Pressure (psi)		
		60	80	100
		Item No.	Item No.	Item No.
2"	150	60020-PAD05	60020-PAD00	60020-PAD00
2-1/2"	150	60025-PAD05	60025-PAD05	60025-PAD00
3"	150	60030-PAD10	60030-PAD05	60030-PAD05
4"	150	60040-PAD15	60040-PAD10	60040-PAD05
6"	150	60060-PAD20	60060-PAD15	60060-PAD15
8"	150	60080-PAD25	60080-PAD20	60080-PAD20
10"	150	60100-PADA40	60100-PAD30	60100-PAD30
12"	100	60120-PADA40	60120-PADA40	60120-PAD30

Spring Return

Actuators listed are for elastomer seated Type 60 butterfly valves in the fail closed position. For fail open, consult Chemline.

Valve Size	Max. Line Pressure (psi)	Air Supply Pressure (psi)		
		60	80	100
		Item No.	Item No.	Item No.
2"	150	60020-PAS15	60020-PAS05	60020-PAS05
2-1/2"	150	60025-PAS15	60025-PAS10	60025-PAS10
3"	150	60030-PAS20	60030-PAS15	60030-PAS10
4"	150	60040-PAS25	60040-PAS20	60040-PAS15
6"	150	60060-PAS30	60060-PAS25	60060-PAS25
8"	150	60080-PASR40	60080-PAS30	60080-PAS25
10"	150	60100-PAS50	60100-PASR40	60100-PASR40
12"	100	60120-PAS60	60120-PASR40	60120-PASR40

Pneumatic Actuation Accessories

Solenoid Valves

- Solenoid valves are electrically actuated. They control air supply in and out of the actuators to open or close the valve. They bolt flush onto the actuator.

Positioners

- Positioners control actuator-valve position responding to a control signal. They are either 3-15 psi pneumatic, 4-20 mA electro-pneumatic or 4-20 mA Smart (fully digital with intelligent functions).

Limit Switches

- Limit switches are for ON and/or OFF valve position feedback. They feature a valve position indicator dome with high visibility. The standard NEMA 4X/IP65 version has mechanical switches. Explosion proof versions are available.

End Cap Travel Stops

- These are to adjust the full length of piston travel but for only one direction of travel - either open for a normally closed valve or closed position for a normally open valve

Travel Stop Plate

- This is required to reduce end of travel by more than 5 degrees. It allows independent adjustment of the full length of piston travel for both opening and closing strokes.

Declutchable Gear Override

- This allows manual operation of the actuated valve in case the supply air pressure fails. It is normally disengaged. To engage, press the lever bar down.

CHEMLINE PLASTICS
SUPERIOR FLOW SOLUTIONS

55 Guardsman Road, Thornhill, ON, L3T 6L2, Canada | ISO 9001:2015 Certified
1.800.930.2436 (CHEM) | fax.905.889.8553 | request@chemline.com | chemline.com