

SW Series Swing Check Valves



SERIES: SW

SIZES: 1/2" to 8"¹

ENDS: Flanged

SEALS: EPDM or FPM (Viton®)

The Chemline **SW Series** Swing Check Valve is the heaviest duty solid plastic non-return valve available. The strong one piece flanged body is suitable for installation in any type of piping, horizontally or vertically. A large choice of body materials allow its use in the most aggressive chemical services. Pressure drop is low due to full flow design.

Features

Strong, One-Piece Moulded Flanged Body

- A good choice for flanged thermoplastic, fibreglass or metal piping systems

Large Flow Capacity

- Low pressure drop

Horizontal or Vertical Operation

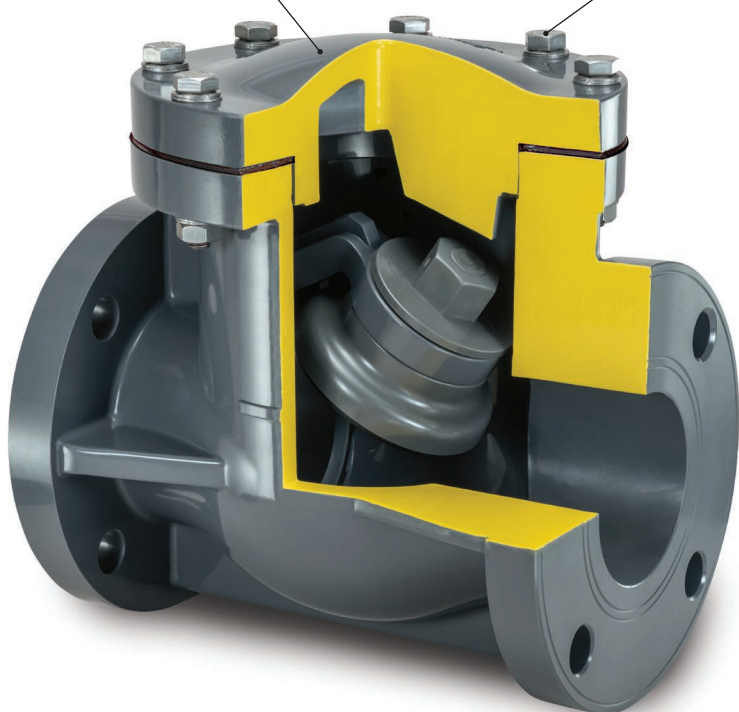
Corrosion Resistant Inside and Out

- All parts are plastic except the stainless steel cover bolts
- PVDF valves are suitable for FRP piping systems in chemical plants

Large Access Cover

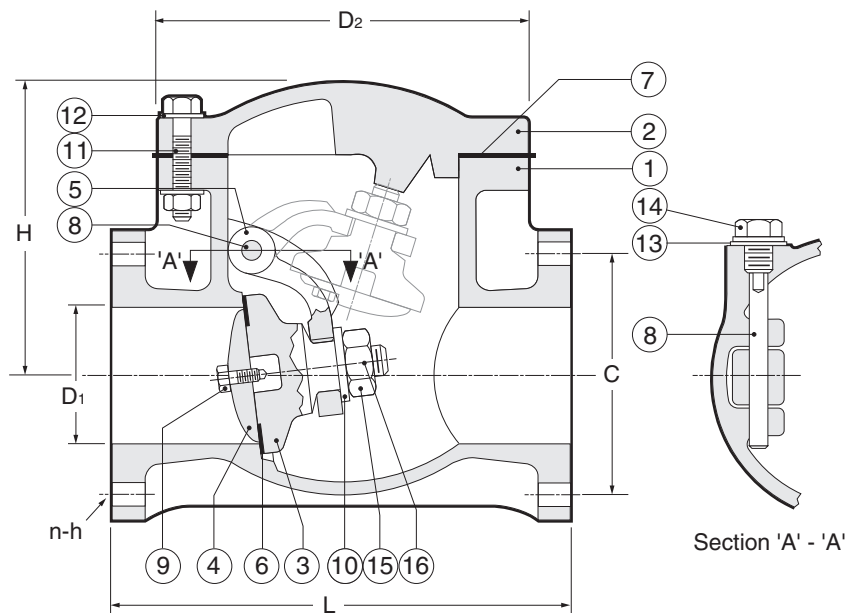
- Allows easy maintenance without removal of valve from line

SS Cover Bolts
are only metal parts



¹ PVC and CPVC valves are available up to 4", PP and PVDF valves are available up to 8"

SW Series Swing Check Valves



PARTS

No.	Part	Pcs.	Materials
1	Body	1	PVC, CPVC, PP, PVDF
2	Bonnet	1	PVC, CPVC, PP, PVDF
3	Disc	1	PVC, CPVC, PP, PVDF
4	Seat Holder	1	PVC, CPVC, PP, PVDF
5	Swing Arm	1	PVC, CPVC, PP, PVDF
6	Seat	1	EPDM, FPM (Viton®)
7	Bonnet Gasket	1	EPDM, FPM (Viton®)
8	Hinge Pin	1	PVC, CPVC, PP, PVDF
9	Disc Bolt	Set	PP covered 410 SS
10	Washer	1	PVC, CPVC, PP, PVDF
11	Bolt & Nut	Set	304 SS
12	Washer	Set	304 SS
13	Sheet Gasket	1	EPDM, FPM (Viton®)
14	Side Plug	1	PVC, CPVC, PP, PVDF
15	Disc Lock Nut	1	PVC, CPVC, PP, PVDF
16	Set Pin	1	PVC, CPVC, PP, PVDF

DIMENSIONS INCHES

Size	L	D ₁	C	n-h	D ₂	H	NET WEIGHTS LBS.				USGPM Flow at 1 psi ΔP
							PVC	CPVC	PP	PVDF	
1/2"	6.31	1.00	2.38	4 - 0.63	5.13	5.07	3.4	3.6	2.4	4.1	18
3/4"	6.31	1.00	2.75	4 - 0.64	5.13	5.07	3.4	3.7	2.6	4.2	18
1"	6.31	1.00	3.13	4 - 0.65	5.13	5.07	3.6	3.9	2.7	4.5	22
1-1/4"	7.09	1.63	3.50	4 - 0.66	5.72	5.55	5.0	5.3	3.4	6.3	70
1-1/2"	7.09	1.63	3.88	4 - 0.67	5.72	5.55	5.6	5.3	3.6	6.6	70
2"	7.88	2.06	4.75	4 - 0.75	7.09	6.50	7.7	8.4	5.3	9.7	93
2-1/2"	10.25	3.15	5.50	4 - 0.75	8.06	7.09	11.8	12.7	8.9	14.1	240
3"	10.25	3.15	6.00	4 - 0.75	8.06	7.09	12.0	13.7	9.1	15.4	300
4"	11.82	3.94	7.50	8 - 0.75	10.44	8.50	22.4	24.7	16.0	26.9	500
6"	15.75	5.90	9.50	8 - 0.88	14.56	10.75	46.7	51.5	33.9	56.9	1,000
8"	19.69	7.88	11.75	8 - 0.88	16.71	12.21	73.0	80.6	51.7	88.7	1,850

WORKING PRESSURES PSI

Size	PVC		CPVC			Polypropylene			PVDF	
	0 to 30°C 32 to 86°F	50°C 122°F	0 to 50°C 32 to 122°F	60°C 140°F	80°C 176°F	0 to 35°C 32 to 95°F	60°C 140°F	80°C 176°F	-20 to 20°C -4 to 68°F	100°C 212°F
1/2"	150	100	150	100	80	100	70	60	150	80
3/4"	150	100	150	100	80	100	70	60	150	80
1"	150	100	150	100	80	100	70	60	150	80
1-1/4"	150	100	150	100	80	100	70	60	150	80
1-1/2"	150	100	150	100	80	100	70	60	150	80
2"	150	100	150	100	80	100	70	60	150	80
2-1/2"	150	100	150	100	80	100	70	60	150	80
3"	150	100	150	100	80	100	70	60	150	80
4"	150	100	150	100	80	100	70	60	150	80
6"	100	70	100	70	50	70	50	40	100	50
8"	100	70	100	70	50	70	50	40	100	50

Working pressures of PVC, CPVC and PP valves fitted with PTFE seals are lower than the above. Consult Chemline.

Temperature Ranges: PVC 0 to 50°C (32 to 122°F), CPVC 0 to 90°C (32 to 194°F), PP -20 to 80°C (-4 to 176°F), PVDF -20 to 100°C (-4 to 212°F).

SW Series Swing Check Valves



MAXIMUM FLUID VELOCITY

- Max. 5 m/s recommended

PRESSURE TO OPEN/CLOSE PSI

Size	Minimum ΔP to Open	Minimum ΔP to Close
	Horizontal/Vertical	Horizontal/Vertical
1/2"	2.00	2.00
3/4"	2.00	2.00
1"	2.00	2.00
1-1/4"	2.00	2.00
1-1/2"	2.00	2.00
2"	2.50	2.50
2-1/2"	2.50	2.50
3"	2.50	2.50
4"	3.50	3.00
6"	4.00	3.50
8"	4.50	4.00

Above data is from tests using water on valves with EPDM disc facing. Consult Chemline for Open/Close pressures for alternate materials.

SAMPLE SPECIFICATION

1. All Swing Check valves in PVC, CPVC, PP or PVDF sizes 1/2" to 8" shall be Chemline SW Series or equal with one-piece moulded flanged body and removable access cover.
2. Elastomer seals will be EPDM or FPM (Viton®).
3. Flanged ends shall be ANSI Class 150

ORDERING EXAMPLE

Chemline SW Swing Check Valves				A	015	E
Valve Material	A – PVC	C – CPVC	B – PP	K – PVDF		
Size	005 – 1/2"	007 – 3/4"	010 – 1"	012 – 1-1/4"	015 – 1-1/2"	020 – 2"
	025 – 2-1/2"	030 – 3"	040 – 4"	060 – 6"	080 – 8"	
Seals	E – EPDM V – FPM (Viton®)					

Example: Chemline SW Series Swing Check Valve, PVC, 1-1/2", with EPDM seals