

SW Series Swing Check Valves



SERIES: SW

SIZES: 3/4" to 8"¹

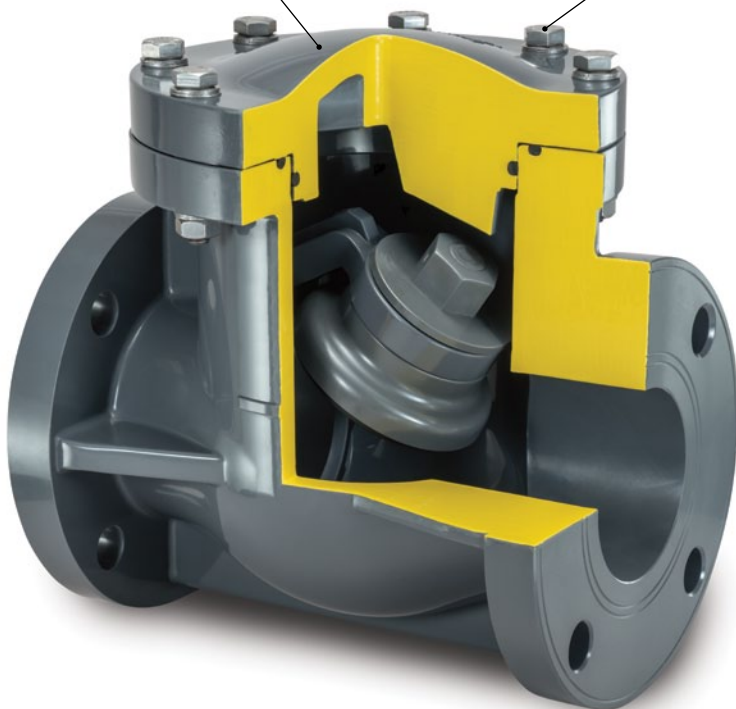
ENDS: Flanged

SEALS: EPDM or FPM (Viton®)

Large Access Cover

- Allows easy maintenance without removal of valve from line

SS Cover Bolts
are only metal parts



1" to 8" Version



3/4" Version

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

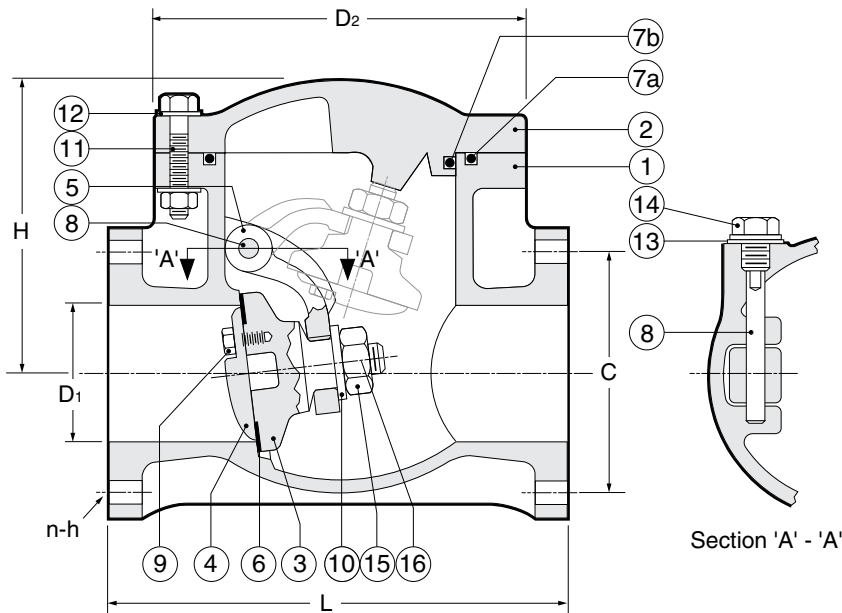
Horizontal or Vertical Operation

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

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®) |
| 7a | Body O-Ring | 1 | EPDM, FPM (Viton®) |
| 7b | Bonnet O-Ring | 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 | PP/PVDF | | PVC/CPVC | | D ₁ | C | n-h | D ₂ | H | NET WEIGHTS LBS. | | | | Cv VALUES USGPM Flow at 1 psi ΔP |
|--------|---------|-------|----------|-------|----------------|-------|-------|----------------|------|------------------|------|-------|--|--|
| | L | L | PVC | CPVC | | | | | | PP | PVDF | | | |
| 3/4" | 5.51 | 5.51 | 0.79 | 2.75 | 4 - 0.63 | 3.39 | 3.54 | 2.0 | 2.0 | 1.1 | 2.9 | 14 | | |
| 1" | 6.22 | 6.38 | 0.98 | 3.12 | 4 - 0.63 | 5.12 | 4.72 | 2.2 | 2.9 | 1.5 | 3.3 | 24 | | |
| 1-1/2" | 7.09 | 7.28 | 1.57 | 3.88 | 4 - 0.63 | 5.17 | 5.43 | 6.2 | 6.6 | 4.2 | 7.3 | 81 | | |
| 2" | 7.87 | 7.99 | 1.97 | 4.75 | 4 - 0.75 | 7.09 | 6.46 | 8.6 | 9.5 | 5.9 | 10.8 | 140 | | |
| 2-1/2" | 9.45 | 9.65 | 2.58 | 5.50 | 4 - 0.75 | 7.87 | 6.61 | 11.4 | 13.0 | 8.1 | 14.7 | 250 | | |
| 3" | 10.20 | 10.35 | 3.15 | 6.00 | 4 - 0.75 | 8.07 | 6.73 | 13.4 | 13.7 | 9.2 | 16.5 | 280 | | |
| 4" | 12.01 | 12.01 | 3.94 | 7.50 | 8 - 0.75 | 10.43 | 8.39 | 22.0 | 22.0 | 15.2 | 27.5 | 510 | | |
| 6" | 15.91 | 15.94 | 5.91 | 9.50 | 8 - 0.87 | 14.57 | 11.14 | - | - | 38.9 | 64.0 | 1,100 | | |
| 8" | 19.69 | 19.69 | 7.95 | 11.75 | 8 - 0.87 | 16.73 | 14.17 | - | - | 67.5 | 93.3 | 1,900 | | |

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 | 90°C 194°F | -20 to 35°C -4 to 95°F | 60°C 140°F | 80°C 176°F | -20 to 20°C -4 to 68°F | 100°C 212°F |
| 3/4" | 150 | 100 | 150 | 90 | 150 | 100 | 90 | 150 | 90 |
| 1" | 150 | 100 | 150 | 90 | 150 | 100 | 90 | 150 | 90 |
| 1-1/2" | 150 | 100 | 150 | 90 | 150 | 100 | 90 | 150 | 90 |
| 2" | 150 | 100 | 150 | 90 | 150 | 100 | 90 | 150 | 90 |
| 2-1/2" | 150 | 100 | 150 | 90 | 150 | 100 | 90 | 150 | 90 |
| 3" | 150 | 100 | 150 | 90 | 150 | 100 | 90 | 150 | 90 |
| 4" | 100 | 75 | 100 | 60 | 100 | 60 | 60 | 100 | 60 |
| 6" | - | - | - | - | 100 | 60 | 60 | 100 | 60 |
| 8" | - | - | - | - | 75 | 30 | 30 | 70 | 45 |

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 |
| 3/4" | 1.2 | 1.2 | 3.6 | 2.8 |
| 1" | 1.2 | 1.2 | 3.6 | 2.8 |
| 1-1/2" | 1.2 | 1.2 | 3.6 | 2.8 |
| 2" | 1.4 | 1.4 | 3.6 | 2.8 |
| 2-1/2" | 1.4 | 1.4 | 3.6 | 2.8 |
| 3" | 1.4 | 1.4 | 4.5 | 3.6 |
| 4" | 1.4 | 1.4 | 4.5 | 3.6 |
| 6" | 1.4 | 2.2 | 5.0 | 4.4 |
| 8" | 2.2 | 2.5 | 5.0 | 4.4 |

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 PP or PVDF sizes 3/4" to 8" and PVC or CPVC 3/4" to 4" 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 | SW | A | 015 | E |
| Valve Material | A – PVC C – CPVC B – PP K – PVDF | | | |
| Size | 007 – 3/4" 010 – 1" 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