

WE Series Wafer Check Valves



PVC

SERIES: WE

SIZES: 2-1/2" to 8"

SEALS: EPDM or FPM (Viton®)

SPRING: 316 Stainless Steel



The Chemline **WE Series** Wafer Check Valve is a non-return valve ideal for limited space installations. These valves are economical and do not require spacers. They are available in two versions – with or without disc springs. The spring adds force for faster, more silent closing.

Features

Compact

- Requires little space in piping systems
- Disc opens fully when installed on ANSI Sch 80 PVC pipe

Easy Installation

- Light weight
- Wafer body slips between standard flanges
- For both ANSI and DIN flanges
- Locating ears to install valve level and centered between flanges

NSF

- Valves are certified to NSF/ANSI Standard 61 for contact with drinking water

Horizontal or Vertical Operation

Available With Disc Springs

- Faster disc closure reduces amount of back flow and consequent water hammer
- Maximum closure is obtained with low pressure differential
- Recommended for pulsating flows and horizontal piping

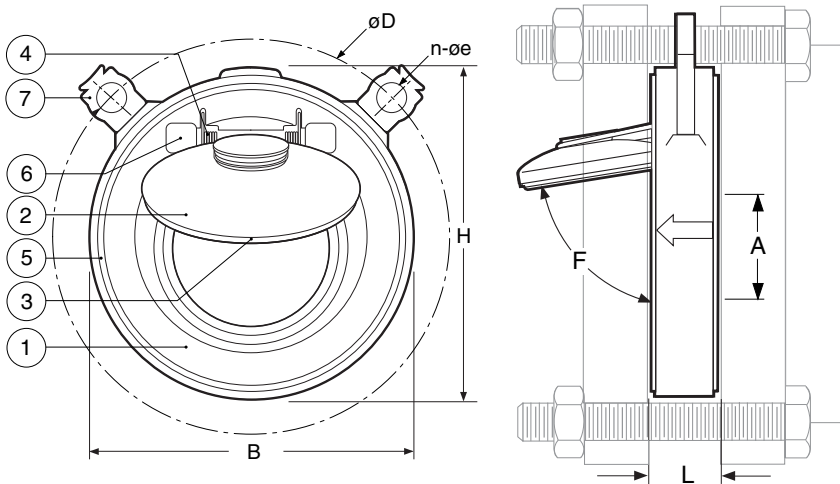
Available Without Disc Spring

- For applications where no metals are desired
- Lower cost



Closed position

WE Series Wafer Check Valves



PARTS

▲ Recommended Spare Parts

| No. | Part | Pcs. | Materials |
|-----|---------------|------|-------------------|
| 1 | Body | 1 | PVC |
| 2 | Disc/Hinge | 1 | PVC |
| 3▲ | Disc O-Ring | 1 | EPDM, FPM(Viton®) |
| 4▲ | Spring | 1 | 316 SS |
| 5▲ | Body O-Ring | 2 | EPDM, FPM(Viton®) |
| 6 | Hinge Plug | 2 | PVC |
| 7 | Locating Ears | 2 | PVC |

VACUUM RATING

- 29.9 inches mercury

INSTALLATION PRECAUTIONS

The following should be observed when assembling onto the discharge side of a pump:

- Never install the valve directly to a pump
- Never install the valve directly to a bend or elbow
- Install all wafer check valves a minimum of 10 times the nominal pipe diameter **downstream** of pumps, elbows or valves.
Example: install a 4" valve 20" away from a pump discharge.

NOTE:

- Always use valves with spring for pulsating applications and horizontal piping

WORKING PRESSURE PSI DIMENSIONS INCHES WEIGHTS C_v VALUES

| Size | Temperature | | | L | A | B | C | H | n | øe | øD | F Max. Opening | Lbs. | C _v |
|--------|--------------|---------------|---------------|-----|-----|------|-----|------|---|------|-------|-------------------|------|----------------|
| | 20°C 68°F | 40°C 104°F | 60°C 140°F | | | | | | | | | | | |
| 2-1/2" | 145 | 72 | 15 | 0.8 | 1.8 | 4.3 | 1.8 | 4.8 | 2 | 0.75 | 5.50 | 80° | 0.4 | 102 |
| 3" | 145 | 72 | 15 | 0.8 | 2.3 | 4.9 | 2.2 | 5.3 | 2 | 0.75 | 6.00 | 80° | 0.5 | 176 |
| 4" | 145 | 72 | 15 | 0.9 | 2.9 | 5.9 | 2.8 | 6.3 | 2 | 0.75 | 7.50 | 79° | 0.8 | 286 |
| 6" | 145 | 72 | 15 | 1.2 | 4.4 | 8.5 | 4.1 | 8.7 | 2 | 0.88 | 9.50 | 77° | 2.3 | 664 |
| 8" | 145 | 72 | 15 | 1.4 | 5.9 | 10.8 | 5.9 | 10.8 | 2 | 0.88 | 11.75 | 60° | 4.4 | 1,215 |

Temperature Range: PVC 0 to 60°C (32 to 140°F)

ORDERING EXAMPLE

| | | | | | |
|------------------------------------|--|-----------------|-----------------|----------|----------|
| Chemline Wafer Check Valves | WE | A | 030 | E | S |
| Valve Material | A - PVC | | | | |
| Size | 025 - 2-1/2" | 030 - 3" | 040 - 4" | | |
| | 060 - 6" | 080 - 8" | | | |
| Seals | E - EPDM V - FPM (Viton®) | | | | |
| Spring | S - 316 SS Blank - without | | | | |

Example: WE Series Wafer Check Valve, PVC, 3", with EPDM seals and 316 SS spring

PRESSURE TO OPEN PSI SEALING PRESSURES MAX. ALLOWABLE FLOW RATES USGPM

| Size | Pressure to Open (Vertical Installation) | | Sealing Pressures | | Max. Allowable Flow Rates (USGPM) | |
|--------|--|----------------|-------------------|----------------|-----------------------------------|---------|
| | With Spring | Without Spring | With Spring | Without Spring | At Start-up & Shut-Down | Running |
| 2-1/2" | 0.04 | 0.02 | 0.02 | 0.04 | 80 | 100 |
| 3" | 0.04 | 0.02 | 0.02 | 0.04 | 130 | 160 |
| 4" | 0.04 | 0.02 | 0.02 | 0.04 | 265 | 330 |
| 6" | 0.05 | 0.03 | 0.03 | 0.05 | 370 | 460 |
| 8" | 0.06 | 0.04 | 0.04 | 0.06 | 400 | 750 |

Above data is from tests using water on valves with EPDM disc o-ring

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