



# CHEMLINE PW WAFER CHECK VALVE

Data Manual



SERIES: WP

SIZES: 3" – 10"²

SEALS: EPDM, FPM (Viton®)

**External Springs**  
Isolated from media

**Position Indicator**  
Optical indication of  
all disc positions  
closed to open



**Locating Bolt Holes**  
For easy installation  
between flanges

**Large Face O-Rings**  
No need for gaskets

## Features

**Large Flow Capacity** – Low pressure drop

**High Pressure Ratings**

- 150 psi rated up to 10"

**NSF 61 Approved Materials**

- PVC/EPDM and PVDF/EPDM valves are made of NSF approved materials

**Can be Mounted Vertically or Horizontally**

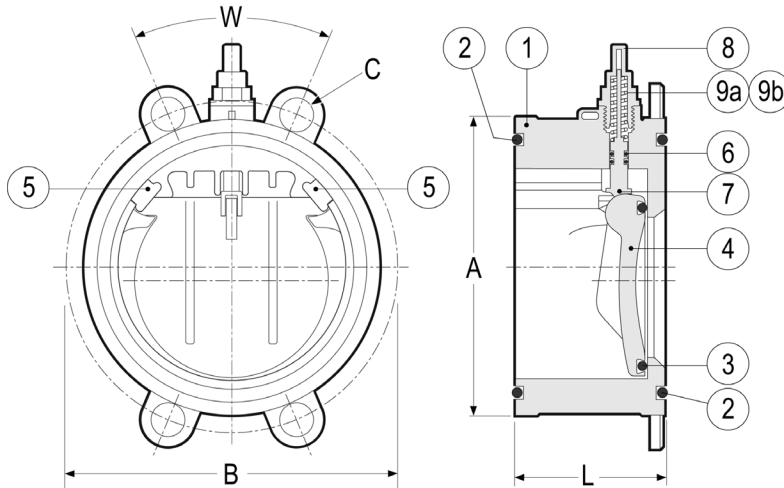
**Spring Assisted Valve Closing**

- Field installed springs assist disc closing for silent operation and to lower hammer on closing
- Two different springs installed in three configurations provide proper disc closing at 45 psi, 100 psi and 150 psi
- Springs are external, isolated from the fluid media

**Optional Drain Plug**

- Moulded boss may be tapped for drainage plug





**PARTS**

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Body	1	PVC, PP, PVDF, PPG
2▲	Body O-Ring	2	EPDM, FPM (Viton®)
3▲	Disc O-Ring	1	EPDM, FPM (Viton®)
4	Disc	1	PVC, PP, PVDF, PPG
5	Disc Retainer	2	PVC, PP, PVDF, PPG
6▲	Stem O-Ring	2	EPDM, FPM (Viton®)
7	Indicator Stem	1	PVDF
8	Indicator Cover	1	Clear ABS
9a	Spring (Inner)	1	304 SS
9b	Spring (Outer)	1	304 SS

**VACUUM RATING**

• Full Vacuum

**DIMENSIONS** INCHES

**WEIGHTS** LB.

**Cv VALUES**

Size	L	A	B	C	W	WEIGHTS				C <sub>v</sub> Value
						PVC	PP	PPG	PVDF	
3"	2.8	4.9	5.8 – 6.3	0.8	45°	1.26	0.84	1.00	1.57	180
4"	3.2	6.1	6.9 – 7.5	0.8	45°	1.87	1.26	1.48	2.36	400
6"	4.2	8.4	9.2 – 9.5	0.9	45°	5.40	3.62	4.25	6.77	1,000
8"	5.5	10.4	11.4 – 11.8	0.9	45°	6.61	5.29	6.39	8.82	2,500
10"	5.5	12.8	13.8 – 14.3	1.1	45°	11.60	9.28	11.20	15.40	3,500

**WORKING PRESSURES** PSI

Size	PVC			PP			PPG				PVDF			
	20°C 68°F	40°C 104°F	60°C 140°F	40°C 104°F	60°C 140°F	80°C 176°F	40°C 104°F	60°C 140°F	80°C 176°F	105°C 220°F	40°C 104°F	60°C 140°F	80°C 176°F	100°C 212°F
3"	150	130	70	90	70	58	150	130	90	45	150	130	90	60
4"	150	130	70	90	70	58	150	130	90	45	150	130	90	60
6"	150	130	70	90	70	58	150	130	90	45	150	130	90	60
8"	150	130	70	90	70	58	150	130	90	45	150	130	90	60
10"	150	130	70	90	70	58	150	130	90	45	150	130	90	60

Temperature Ranges: PVC 0 to 60°C (32 to 140°F), PP -20 to 90°C (-4 to 194°F), PPG -20 to 115°C (-4 to 240°F), PVDF -40 to 140°C (-40 to 284°F)

**PRESSURES TO OPEN** PSI

**SEALING PRESSURES** PSI

**MAXIMUM ALLOWABLE FLOW RATES** USGPM

Size	Spring Type			Maximum Back Pressure Required to Seal (psi)	at Start-Up and Shut-Down	Running State
	45 psi (Inner)	100 psi (Outer)	150 psi (Both)			
3"	0.1	0.25	0.5	1.5	125	200
4"	0.1	0.25	0.5	1.5	225	300
6"	0.1	0.25	0.5	1.5	500	600
8"	0.1	0.25	0.5	1.5	650	900
10"	0.1	0.25	0.5	1.5	800	1,300

Above data is from tests using water on valves with EPDM disc facing.

**ORDERING EXAMPLE**

<b>Chemline Wafer Check Valves</b>	<b>PW</b>	<b>A</b>	<b>030</b>	<b>E</b>
Valve Material	<b>A</b> – PVC <b>G</b> – PPG	<b>B</b> – PP <b>K</b> – PVDF		
Size	<b>030</b> – 3" <b>080</b> – 8"	<b>040</b> – 4" <b>100</b> – 10"	<b>060</b> – 6"	
Seals	<b>E</b> – EPDM <b>V</b> – FPM (Viton®)			

Example: PW Series Wafer Check Valve, PVC, 3", with EPDM seals.

**INSTALLATION PRECAUTIONS:**

- 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 distance of 5 to 10 times the nominal pipe diameter **downstream** of pumps, elbows or valves