WCV Series Full Pattern Wafer Check Valve

2" TO 8" PVC, CPVC AND GFPP

The new patent-pending WCV Series Full Pattern Wafer Check Valve features a robust thermoplastic construction with industry leading flow rates, and eliminates the need for spacers or specialty flanges.

Made from thermoplastic materials, the WCV has a lighter weight than a metal equivalent and excellent corrosion resistance. The unique angle seat and disc seat allows for high flow rates and excellent sealing properties. No exposed fasteners or clips in the media to retain the disc which can break off in the line.

Designed also for global use, the WCV fits ANSI and DIN/EN flange patterns. It also provides a pressure rating of 150 PSI across all sizes where most other plastic wafer check or swing check valves do not. Best of all, the WCV is made in the U.S.A.!

KEY FEATURES AND BENEFITS

- Robust Full Pattern Body in PVC, CPVC and GFPP – No Need for Spacers or Specialty Flanges.
- One-Piece Disc and Shaft Design
- Designed for ANSI150 and PN10 Flanges
- Contoured Inlet Port For Easy Flow
- High Cv Rating Equal to Metal Check Valves, Saves On Energy And Pump Wear.
- Lower Closing Pressure Than Swing Check Valves
- Integral Bolt Eyes for Ease of Installation for Large Sizes
- Can be Installed in Vertical or Horizontal Position
- FPM or EPDM Gasket and Face Seal
- Pressure Rated to 150 PSI / PN10 In All Sizes

OPTIONS

- 316 Stainless Steel or Hastelloy® Disc Spring

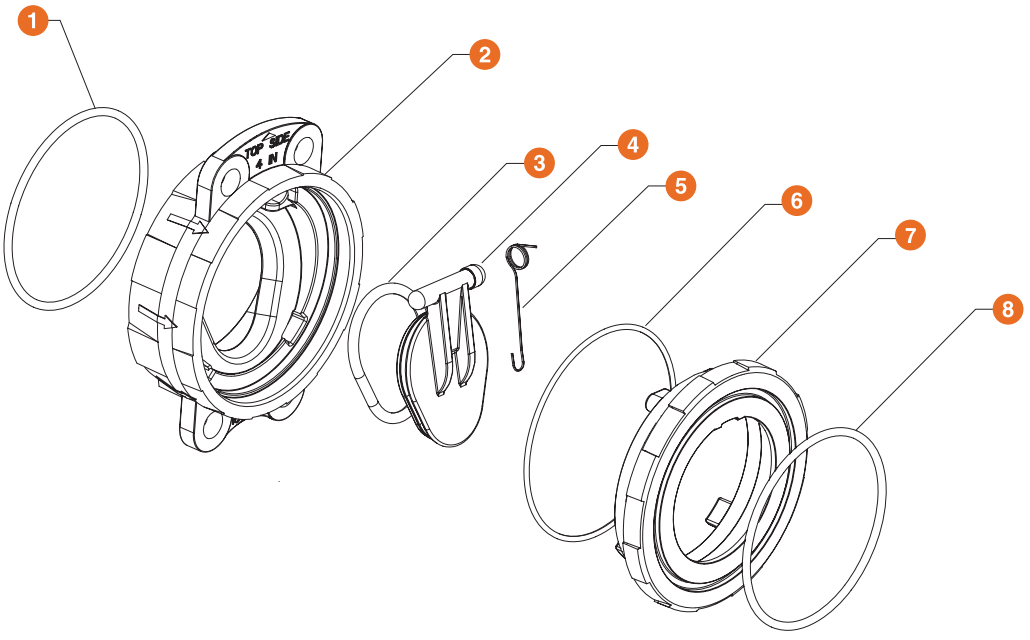
TYPICAL APPLICATIONS

- Water and Wastewater Treatment
- Water / Theme Parks
- Aquatic and Animal Life Support Systems
- Chemical Processing
- Marine and Corrosive Environments
- Mining
- Landfills

MATERIALS

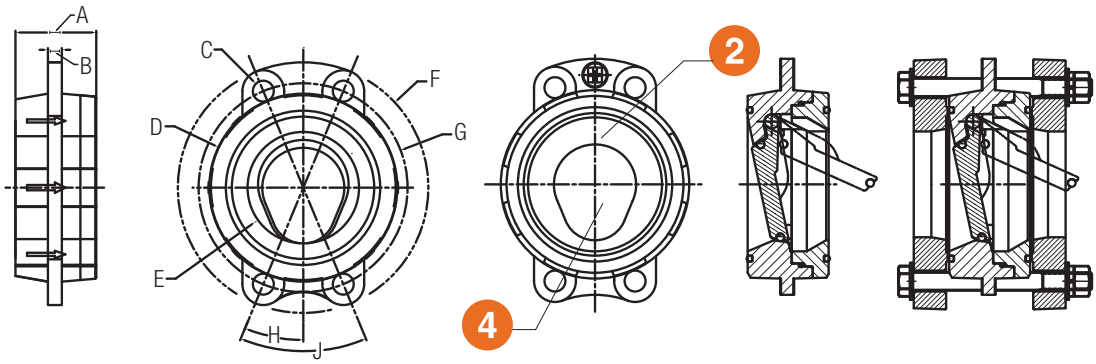
- PVC per ASTM D1784 Cell Class 12454
- CPVC per ASTM D1784 Cell Class 23447
- GFPP per ASTM D4101 Cell Class 85580
- FPM and EPDM Gasket and Disc Seals

EXPLODED VIEW



PARTS LIST

1. Face Seal O-Ring
2. Body
3. Wafer Disc O-Ring
4. Wafer Disc
5. Wafer Disc Spring
6. Body O-Ring
7. Body
8. Face Seal O-Ring



TECHNICAL INFORMATION

DIMENSIONS – INCHES / MILLIMETERS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G in / mm	H in / mm	J in / mm
2 / 50	1.80 / 45	.25 / 6	—	4.00 / 101	2.03 / 51	5.25 / 133	—	—	—
2-1/2 / 65	2.30 / 58	.25 / 6	—	4.75 / 120	2.43 / 61	6.00 / 152	—	—	—
3 / 80	2.40 / 61	.25 / 6	—	5.25 / 133	3.00 / 76	6.50 / 165	—	—	—
4 / 100	2.90 / 73	.50 / 12	.75 / 19	6.75 / 171	4.00 / 101	9.00 / 228	.75 / 190	22.50 / 572	45.00 / 1143
6 / 150	3.00 / 76	.50 / 12	.88 / 22	8.63 / 219	5.77 / 146	11.13 / 282	9.50 / 241	22.50 / 572	45.00 / 1143
8 / 200	4.93 / 125	.75 / 19	.95 / 24	10.88 / 276	7.63 / 193	13.38 / 339	11.75 / 298	22.50 / 572	45.00 / 1143

Pressure Rating for ALL Sizes – 150 PSI @ 70°F Non-Shock
Consult Hayward for DN100 Wafer Check Dimension

OPENING / SEALING PRESSURE - PSI

SIZE in / DN	OPENING PRESSURE WITH SPRING	SEALING PRESSURE (WITH OR WITHOUT SPRING)*
2 / 50	0.5	3.0
2-1/2 / 65	0.5	3.0
3 / 80	0.5	3.0
4 / 100	0.5	3.0
6 / 150	0.5	3.0
8 / 200	0.5	3.0

*Sealing Pressure Preliminary and subject to change

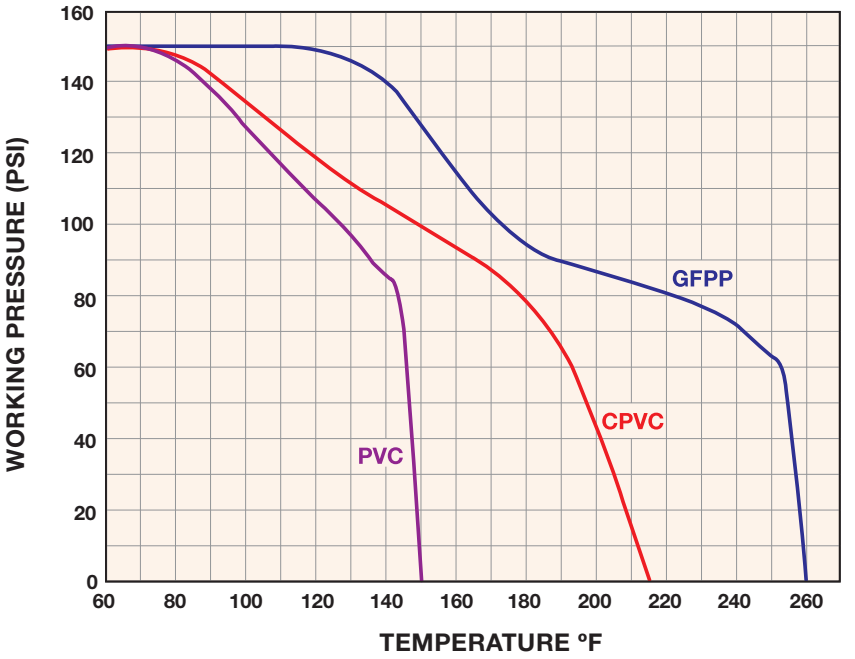
FLOW RATES - IN GPM

NOMINAL SIZE in / DN	Cv
2 / 50	93
2-1/2 / 65	144
3 / 80	187
4 / 100	346
6 / 150	848
8 / 200	1643

PRODUCT WEIGHTS

NOMINAL SIZE in / DN	LBS/KG
2 / 50	1.01 / .46
2-1/2 / 65	1.62 / .73
3 / 80	1.93 / .87
4 / 100	3.73 / 1.69
6 / 150	6.34 / 2.88
8 / 200	14.05 / 6.37

PRESSURE / TEMPERATURE CHART



PART NUMBER MATRIX

A		B		C		D		E	
WCV		1		200		E		S	
VALVE SERIES	*SUFFIX A*	BODY/DISC MATERIAL	*SUFFIX B*	SIZE INCH / DN	*SUFFIX D*	LINER	*SUFFIX E*	SPRING	*SUFFIX F*
WCV Wafer Check	WCV	PVC	1	2 / 50	200	EPDM	E	316SS	S
		CPVC	2	2-1/2 / 65	250	FPM	V	Hastelloy	H
		GFPP	4	3 / 80	300				
				4 / 100	400				
				6 / 150	600				
				8 / 200	800				

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2" TO 8" PVC, CPVC AND GFPP

SAMPLE SPEC

All thermoplastic wafer check valves shall be manufactured with PVC (ASTM D1784, Cell Classification 12454), CPVC (ASTM D1784, Cell Class 23447), or Glass-Filled Polypropylene (ASTM D4101, Cell Class 85580).

Valve body shall be full pattern design, requiring no additional spacers or specialty flanges for downstream disc clearance.

Valve shall be self-cleaning design with contoured inlet. Valve disc shall be one-piece, tear-drop design. Valve shall contain tilted-disc design to achieve better seating characteristics.

For spring-assisted discs, spring material shall be 316 stainless steel as standard, or Hastelloy® as required. Valve seals shall be FPM as standard, or EPDM as required.

All 2" – 8" valves shall be rated for 150 PSI at 70°F non-shock, as manufactured by Hayward® Flow Control Products. Valves shall carry 2-year warranty.

INSTALLATION INSTRUCTIONS

All WCV Series Wafer Check Valves are designed to fit between raised or flat face flanges, 150 lbs rated.

Observe flow direction before installing valve per flow arrows molded on body.

Handle valve carefully and do not drop valve—large PVC valves can be sensitive to impact.

Use bolt eyes to secure valve and for inserting between flanges. Make sure to have valve in upward position when valve is installed in horizontal pipes. “TOP” is molded into valve body to designate orientation.

Refer to technical data sheet for recommended maximum flow rates and start-up flow rates.

WCV Series Wafer Check Valves contain a gasket and disc seal and do not require low-torque flange seals.

Center by means of body rim (external) diameter.

Assemble between ANSI150 or DIN/EN PN10 flanges. If desired, use soft gaskets and tighten.

Flange bolts should be well lubricated. With plastic flanges, it is important to use washers.

Tighten bolts with a torque wrench evenly and in a crossing pattern.

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

A. Never assemble directly onto pump flange.

B. Never assemble onto a bend or an elbow.

C. Allow an additional distance of 5 – 10 times the nominal pipe diameter from the pump discharge or from elbows before installing the wafer check valve.