



# CHALLENGER

## SERIES 60 WAFER CHECK VALVES



Bulletin No.  
CV-100

**Pressure Temperature Rating**

2"-6" 200 P.S.I. (1,379 Kpa) -20 to 150°  
-29 to 66°c

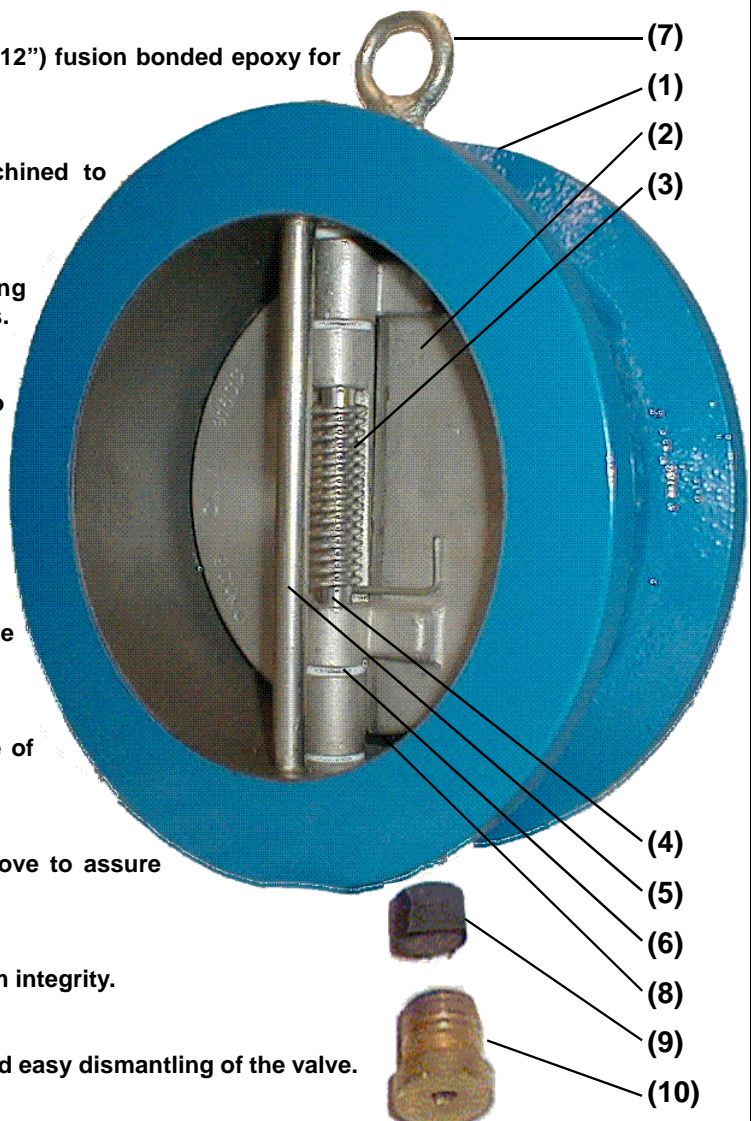
**Temperature Range/Buna -N Seat**

Maximum -2 12°F (100°C)  
Minimum -0°F (-17°C)

8"-12" 250 P.S.I. (1724 Kpa) -20 to 100°F  
-29° to 38°C

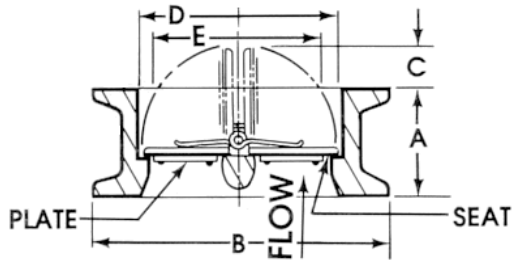
**STANDARD FEATURES**

The Challenger Series 60 Wafer Check Valve was designed for water, oil or gas applications and is suitable for installation in both horizontal or vertical lines between A.N.S.I. 125/150 lbs. flanges.

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- (1) **Body**  
Cast iron (2" - 6"), ductile iron (8" - 12") fusion bonded epoxy for maximum corrosion resistance.
  - (2) **Plates**  
Investment cast 316 S.S. and machined to provide full seat contact.
  - (3) **Spring**  
Heavy duty 304 S.S. providing instantaneous response to system changes.
  - (4) **Hinge Pin**  
Heavy Duty 304 S.S. designed to handle severe service.
  - (5) **Fixed Pin**  
304 S.S. designed to prevent over travel of the plates.
  - (6) **Spacers**  
P.T.F.E. designed to maintain plate alignment.
  - (7) **Lifting Bolt**  
Provided in sizes 5" to 12" for ease of installation.
  - (8) **Seat**  
BUNA-N, Bonded into the body groove to assure long service life.
  - (9) **Body Seals**  
BUNA-N designed to maintain system integrity.
  - (10) **Body Plugs**  
Steel / zinc plated providing quick and easy dismantling of the valve.

<b>VALVE DIMENSIONS - INCHES (Imperial)</b>							
Valve Size	A	B	C	D	E	C <sub>v</sub>	Weight Lbs.
2	2.13	4.13	0.00	2.37	0.00	63	2.2
2.5	2.13	4.88	0.00	2.87	0.00	100	3.3
3	2.25	5.38	0.60	3.50	2.12	177	4.4
4	2.50	6.88	0.87	4.50	3.50	345	8.8
5	2.75	7.75	1.35	5.50	4.50	567	13.2
6	3.00	8.75	2.10	6.62	5.87	856	17.6
8	3.75	11.00	2.50	8.62	7.75	1768	30.9
10	4.25	13.38	2.75	10.87	9.75	3180	50.0
12	5.63	16.13	3.00	12.75	11.50	4935	79.4

Note: Dimension "E" is the minimum bore diameter of mating flange to clear the plates.  
C<sub>v</sub> = The volume of water in U.S./G.P.M. that will flow through a given restriction or valve opening with a pressure drop of 1 P.S.I.



<b>CONSTRUCTION MATERIALS</b>		
Description	Qty.	Material
Body	1	Cast Iron (2"-6") ASTM A126-B Ductile Iron (8"-12") ASTM A395
Plates	2	316 S.S. ASTM A351-CF8M
Spring	1	304 S.S.
Hinge Pin	1	304 S.S. UNS-S30400
Fixed Pin	1	304 S.S. UNS-S30400
Spacer	4	P.T.F.E.
Lifting Bolt	1	Steel (5"-12")
Seat	1	BUNA-N
Shaft Seal	4	BUNA-N
Plug	4	Brass Commercial Grade

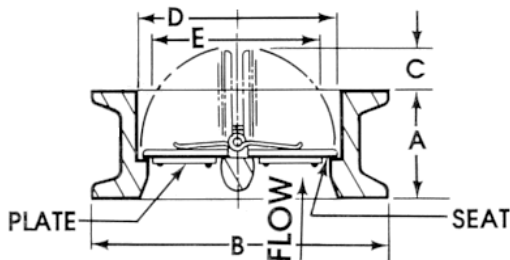
Note: For horizontal flow applications, the valve must be installed with the shaft in the vertical position.  
For vertical applications the valve must be installed with the flow up as indicated on the drawing.

Customer:			
Project:			
Valve Sizes:			
Certified By:		Date:	

**VALVE DIMENSIONS - MILLIMETERS (Metric)**

Valve Size	A	B	C	D	E	C <sub>v</sub>	Weight Kgs.
50	54.1	104.9	0.00	60.3	0.00	63	1.0
65	54.1	124.0	0.00	73.0	0.00	100	1.5
80	57.2	136.7	15.2	88.9	53.8	177	2.0
100	63.5	174.8	22.1	114.3	88.9	345	3.6
125	69.9	196.9	34.3	139.7	114.3	567	6.0
150	76.2	222.3	53.3	168.3	149.1	856	8.0
200	95.3	279.4	63.5	219.1	196.9	1768	14.0
250	108.0	339.9	69.9	276.2	247.7	3180	22.7
300	143.0	409.7	76.2	323.9	292.1	4935	36.1

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