

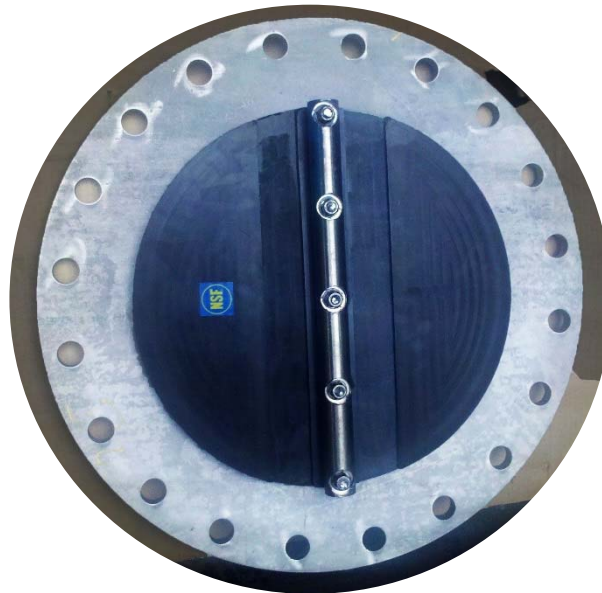
ONYX VALVE COMPANY

Model WCV CHECK VALVE

Installation & Maintenance

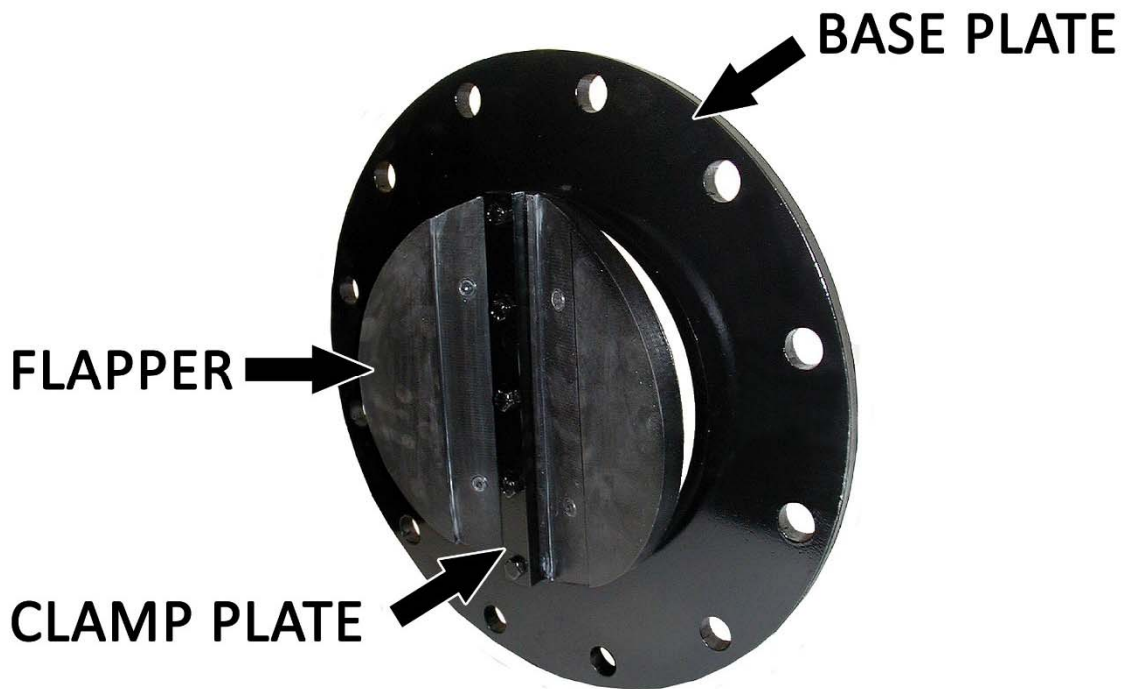
Wafer(W), Check (C), Valve (V)

Operation & Storage.....	2
Design Criteria	3
Installation Design Considerations.....	4
Bolt Torques.....	6
Warranty & Contact Information	7



OPERATION:

The Onyx series WCV is a flanged check valve designed primarily for minimum resistance with forward flow and delivers the maximum backflow prevention. The valve can be installed between two joining flanges in both horizontal and vertical pipelines.



STORAGE

Correct storage procedures extend valve life. The rubber sleeve in the valve is perishable. Ideal storage conditions are 50°F and 60% relative humidity.

1. Keep valves and spare sleeves as cool as possible. They can be stored in an unheated area but allow maximum ventilation in storage areas subject to high ambient summer temperatures. Truck trailers and storage sheds become incredibly hot during summer months. Avoid such locations.
2. Avoid sunlight. Ultra-violet light accelerates the deterioration of rubber. Leave the valve in its box. If not feasible to box the valve, cover the sleeve with black plastic.
3. Avoid ozone. **DO NOT STORE** valve near active electrical equipment. For long-term storage, coat the face and inside the sleeve twice yearly with silicone spray or liquid.

DESIGN CRITERIA

The **maximum process temperature** that the valve can tolerate is based on the elastomer used to fabricate the sleeve.

Poly Isoprene	Chloroprene	EPDM Ethylene Propylene	Nitrile	Butyl	Fluorocarbon
PGR Pure Gum Rubber	Neoprene	Nordel	Buna-N	Butyl	Viton
-30°→+180° F -34°→+82° C	-20°→+220° F -29°→+104° C	-40°→+300° F -40°→+150° C	-30°→+220° F -34°→+104° C	-30°→+225° F -34°→+106° C	-15°→+375° F -26°→+190° C

The **maximum safe process pressure** that the valve sleeve and housing can tolerate is based on valve size and flange rating. For Onyx model valves with 150# flanges maximum process pressure:

Size	4	6	8	10	12	14	16	18	20	24	30
P _{max} psi	150			100		75				50	

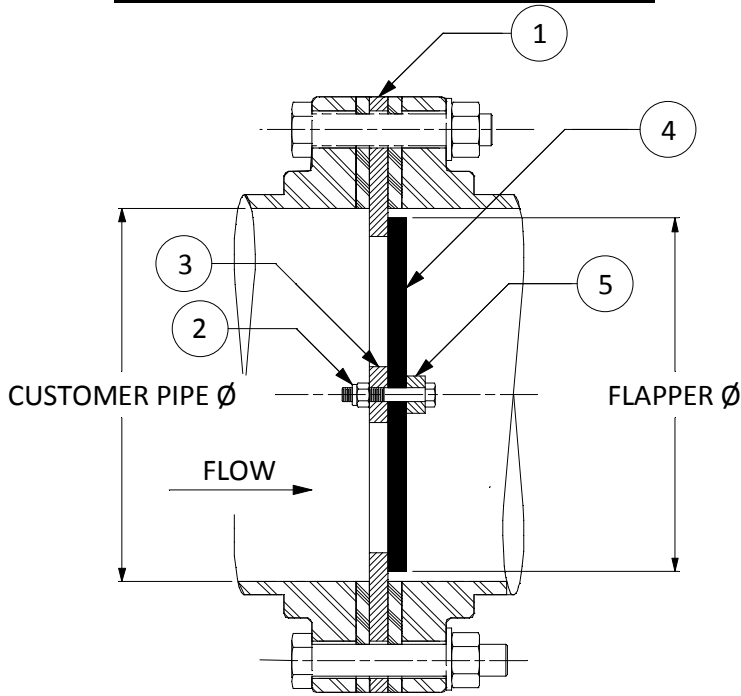
INSTALLATION DESIGN CONSIDERATIONS:

1. Install valve as shown between two joining flanges, OR at the end of a pipeline route to prevent backflow.

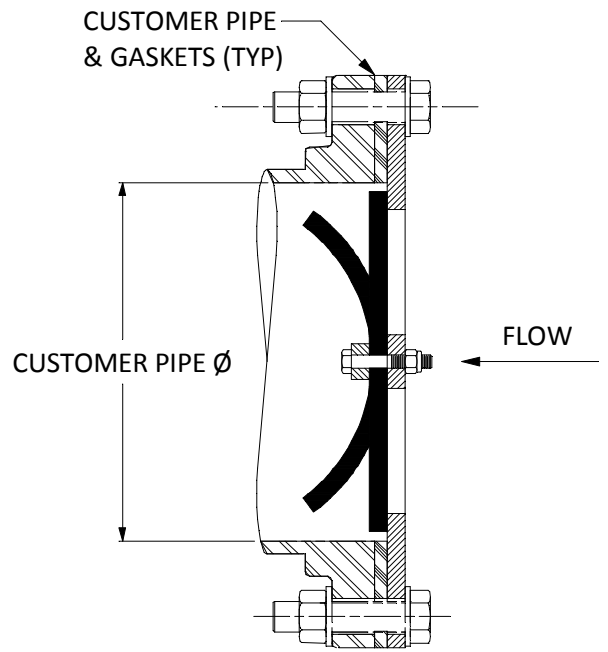
CHECK VALVE NOMENCLATURE	
ITEM #	DESCRIPTION
1	(WCV)WAFER CHECK VALVE
2	316 STAINLESS STEEL HDWR
3	CENTER FLANGE PLATE
4	ELASTOMER VALVE MATERIAL
5	CLAMP PLATE MATERIAL

Maximum Backpressure Limits

- 4" → 8" = **150 psi**
- 10" → 12" = **100 psi**
- 14" → 24" = **75 psi**
- 30" & Larger = **50 psi**

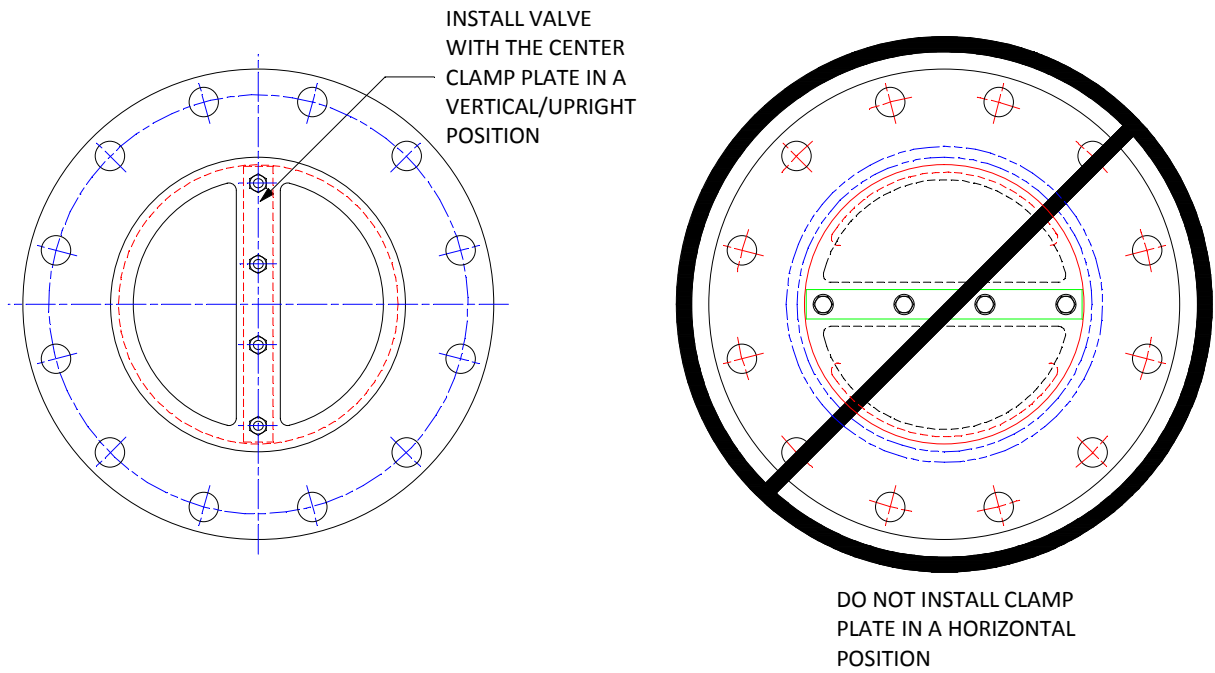


FLANGED INSTALLATION

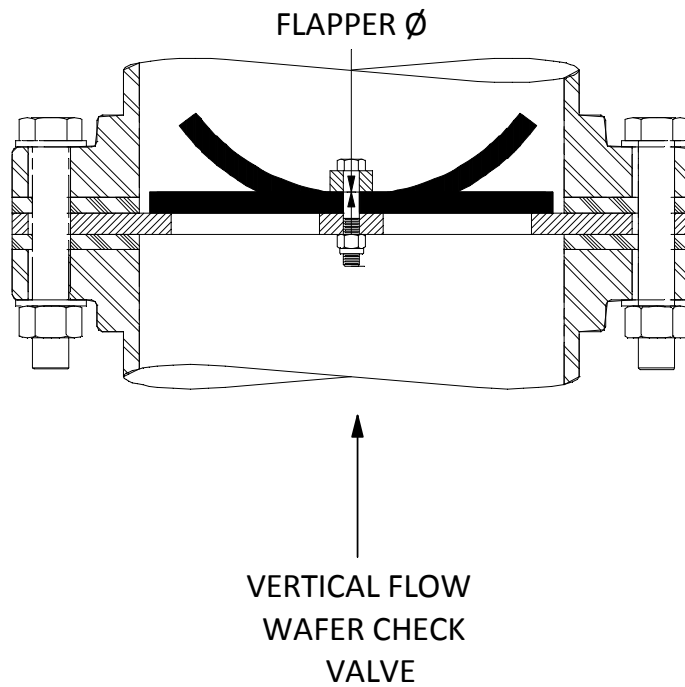


INTAKE ORIENTATION

2. For horizontal pipeline, install valve with the clamp plate in vertical upright position.



3. For vertical pipeline, valve can be installed **Flow Up** direction.



BOLT TORQUE FT-LB		
VALVE SIZE	NO OF BOLTS	WCV
4	8	80
5		100
6		140
8		180
10	12	160
12		200
14		250
16	16	225
18		300
20	20	280
24		360
30	28	340
36	32	450

ONYX VALVE COMPANY

WARRANTY

The following statement of our Warranty and Claims Policy is intended to assist our customers in understanding the terms of our warranty, the circumstances under which we will honor claims, and the procedure for making claims.

1 Warranty on Products Manufactured by Us.

We warrant Products manufactured by us to be free from defects in material and workmanship for a period of one year from the date of shipment from our factory or warehouse.

Our liability under this warranty or in connection with any other claim relating to our Products is limited to the repair, or at our option, the replacement or refund of the purchase price of any products or parts or components which are returned to us freight prepaid which are defective in material or workmanship. Products or parts or components that are repaired or replaced by us will be returned to our customer freight collect.

With regards to rubber components, Onyx Valve does not guarantee resistance to erosion, abrasion or other sources of failure, nor does Onyx Valve guarantee a minimum length of service or that the product shall be fit for any particular service.

2. Products of Other Manufacturers.

We make no warranty with regard to any products not manufactured by us. The only warranty that attaches to such Products is that warranty, if any, of the manufacturer of such Products. Our Customer Service Department should be consulted if our customers have questions as to whether particular products are covered by our warranty or are separately warranted by their manufacturers.

3 Limitation of Liability.

The only warranty that we make to our customers is that summarized above.

WE DO NOT MAKE ANY OTHER EXPRESS WARRANTIES OR ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR USE.

In addition, we do not assume and we expressly disclaim any liability for (i) any special, indirect, incidental, or consequential damages which anyone may suffer as the result of the sale, delivery, servicing, use, or loss of use, of any Product, or (ii) any charges or expenses of any nature that are incurred without our express written consent.

Our total liability under our warranty or in connection with any claim involving any Product is expressly limited to the purchase price of the Product in respect of which damages are claimed.

Failure of purchaser to give prompt written notice of any alleged defect under this guarantee forthwith upon its discovery, or use, and possession thereof after an attempt has been made and completed to remedy defects therein, or failure to return product or part for replacement as herein provided, or failure to install and operate said products and parts according to instructions furnished by Onyx Valve, or failure to pay entire contract price when due, shall be a waiver by purchaser of all rights under these representations. All orders accepted shall be deemed accepted subject to this warranty which shall be exclusive of any other or previous warranty, and shall be the only effective guarantee or warranty binding on Onyx Valve.

4. What Is Not Covered By Our Warranty; Types of Damages and Claims For Which We Are Not Responsible.

The following are examples of the kinds of defects which are not covered by our warranty: defects which are caused by improper installation, improper or abnormal use or operation, or improper storage or handling; defects caused by our customer's failure to perform normal preventive maintenance; defects caused by the use of replacement parts not manufactured or supplied by us; defects caused by repairs by persons not authorized by us; defects caused by modifications or alterations made by our customer, and any damage to our Product occurring while it is in our customer's possession. Since these are examples and not a complete list, we suggest that our customers contact our Customer Service Department if they have any questions concerning the scope of our warranty.

Additional costs incurred by our customers because of delays in delivery are consequential damages for which we are not responsible.

Risk of loss or damage to our Products passes to our customer when we tender our Products to the carrier. Although we cannot process transit damage claims with any carrier on a customer's behalf, we will provide reasonable assistance to our customers when such claims arise.

5. Consultations with Customers.

When so requested, our engineers and other personnel may consult with our customers concerning our Products. While our employees offer their best judgment on any question, the ultimate responsibility for selecting that Product which will perform the functions and applications desired by the customer rests with the customer. As noted above, we make no warranty, express or implied, as to the fitness of any Product for any particular purpose or use.

6. How to Make a Claim.

Within the limits of the terms and conditions set forth on our quotation and acknowledgment forms and in this Warranty and Claims Policy, we will honor reasonable and justified claims when adequate evidence is provided to show that our Product was defective.

Whenever a customer has a claim concerning a Product, the customer should contact the Customer Service Department. **CUSTOMERS SHOULD NOT RETURN ANY PRODUCTS OR PARTS OR COMPONENTS TO US WITHOUT FIRST CONTACTING US.**

When contacting us, customers should have the following information available:

1. Customer name, location, purchase order number and date of purchase.
2. Serial number.
3. Product/Model number.
4. Equipment installation date.
5. Equipment failure date.
6. Application or service of unit.
7. Details of claim.

We shall have the option of requiring the return of the defective product to our factory, with transportation charges prepaid, to establish the claim and our liability shall be limited to the repair or replacement of the defective product, F.O.B. our factory. Onyx Valve Co will not assume costs incurred to remove or install defective products nor shall we incur back charges or liquidated damages as a result of warranty work.

We will notify the customer whether it will be necessary to return the Product or part or component to us. If so, we will issue the customer an "AUTHORIZED RETURN GOODS NUMBER" that must be attached to the Product or part or component before returning it. All items returned to us must be returned freight prepaid.

If we determine that the Product or part or component is defective and that the defect is covered by our warranty, we will, as explained above, correct the defect or refund the purchase price.

Customers should promptly inspect all Products upon delivery. Customers must make claims for shortages within 20 days after the date of shipment from our factory or warehouse. We suggest that shortages be noted on the bill of lading or packing list, which should then be sent to our Customer Service Department for verification.

All other claims must be submitted within 60 days after the date of shipment from our factory or warehouse, or in the case of an alleged breach of warranty, within 60 days after the date within the warranty period on which the defect is or should have been discovered.

Claims may not be deducted from payments made to us unless we have so agreed in writing in advance.

Questions?

Contact Onyx Valve Company

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