

Wheatley

Check Valve Information

Installation • Maintenance • Inspection • Repair Parts

- **Wafer Check Valve**
- **Standard Check Valve**
- **All Clear Check Valve**

Wafer Check Valve

INSTALLATION

Prior to installation make a visual inspection of the valve body and clapper for foreign objects. Clapper should be free to swing.

Wheatley short pattern wafer check valves are designed for horizontal and vertical flow-up service. The drop in style clapper is retained by the flange face. Too large a bore will result in the clapper not being retained properly. As a result, this valve cannot be used with a slip-on flange on the downstream side. Wheatley fixed shaft short pattern and long pattern wafer checks are recommended for this and similar oversized bore applications. See applicable general dimension drawings for recommended bore for horizontal and vertical flow up service.

To install, insert valve between the flanges. The O.D. of the valve will align with the inside circle formed by the flange bolts. The lifting eye on the top of the valve body should be vertical ± 5 degrees on horizontal pipelines. Be certain that the flow arrow on the valve points in the proper direction.



CAUTION

Wheatley wafer check valves are designed for horizontal or vertical flow up service. Installation at angles other than those shown may prevent the valve from functioning.

MAINTENANCE

Wafer check valves require only periodic inspection for free clapper movement and seal integrity. Replace clapper or seals as required. Recommended spare parts consist of clapper disc, clapper seal, and body seals.

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Wafer Check Valve (continued)



CAUTION

Line pressure must be reduced to atmospheric pressure before loosening any flange nut.

VALVE INSPECTION

1. Remove valve from line.
2. Remove clapper assembly from valve body.
3. Inspect seals for foreign material, nicks, and/or gouges.
4. Remove clapper pin (on fixed shaft valves) and check for excessive wear.
5. Check the hanger section and body seat face for wear.
6. Reassemble in reverse order.
7. Clapper must be free-swinging.

REPAIR PARTS

Contact Dresser Oilfield Valve Division

Tel: (918) 587-6731

Fax: (918) 592-5068

Specify valve size, working pressure and all numbers on casting or data tags. If your valve has a serial number also state that number.

Standard and All Clear Check Valves

VALVE PREPARATION

1. Remove all packaging and shipping materials.
2. Inspect valve interior through each end for foreign objects, especially around clapper seat area.
3. Make sure that clapper is unobstructed and free swinging.

INSTALLATION

1. Be sure valve is positioned with flow arrow pointing in the direction of flow (Fig.1).
2. Line pipe must be properly aligned to avoid excessive strain on check valve.
3. Install valve in accordance with diagrams shown in Figures 2, 3 & 4. Installation angles other than those shown are not approved by the manufacturer.



CAUTION

Wheatley check valves are designed for horizontal service. Installation at angles other than those shown may prevent the valve from functioning.

4. For vertical flow, or angles other than those shown, consult factory.

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OPERATION

1. Normal flow in the direction of the check valve flow arrow will cause the check valve clapper to open. Any reversal of normal flow will cause the valve clapper to close, thereby preventing back flow through the valve.

MAINTENANCE

The user should be aware that all components of a piping system, including valves, may erode, corrode or otherwise deteriorate with time. This may impair the function or pressure containing ability of the equipment. The user is responsible for maintaining valves in safe working order and the establishment of confirming inspection techniques suitable for each installation.



CAUTION

Line pressure must be reduced to atmospheric pressure before loosening any cover nut or pipe plug.

1. Remove cover nuts and cover.
2. After cover has been removed, clean and inspect cover o-ring groove.
3. Remove clapper by lifting entire clapper assembly from the valve interior.

4. Inspect clapper seal, arm and bushings for signs of wear. Replace worn parts.
5. Clean body cavity of foreign matter and inspect for excessive wear of hanger section and valve seat face.
6. Where abrasion or deep nicks are present on seat face, it may be necessary to replace the complete valve. Consult factory.
7. Reassemble valve, after assembly verify that the clapper moves freely from the closed position to the full open position.

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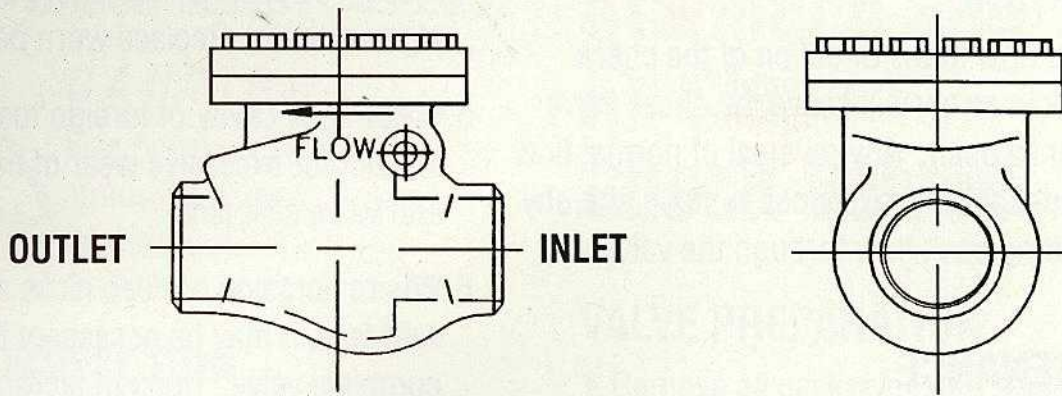


FIG. 1 STANDARD VALVE

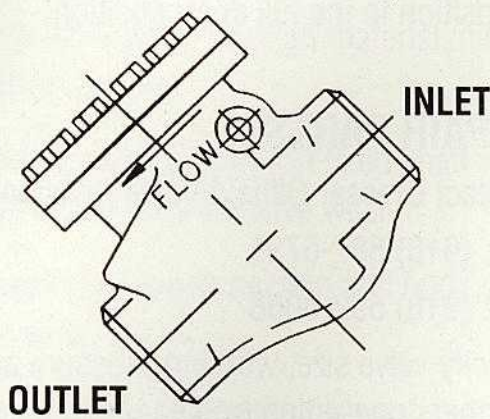


FIG. 2 DO NOT INSTALL OUTLET LOWER THAN INLET UNLESS VALVE HAS BEEN SPECIFICALLY BUILT FOR THIS SERVICE

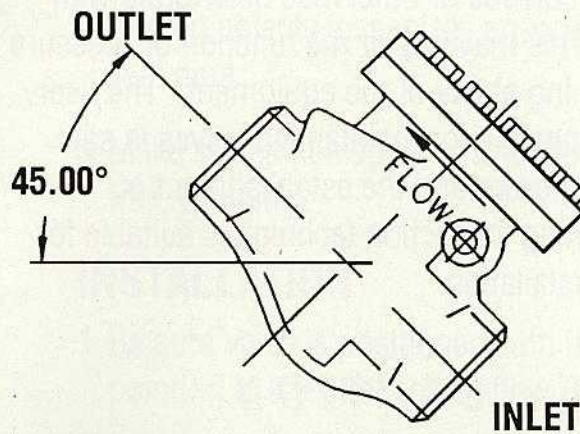


FIG. 3 INLET LOWER THAN OUTLET—OKAY

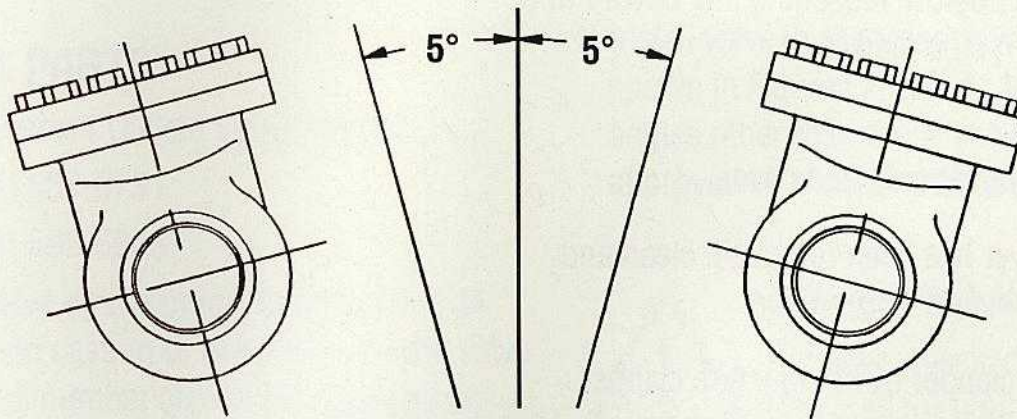


FIG. 4 VALVE COVER NOT HORIZONTAL

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