

SWING CHECK VALVE USER MANUAL

PRODUCT INFORMATION

Valve Name:	Swing check valve, wafer type (305072)
Nominal Diameter:	DN40-350
Nominal Pressure:	PN10, PN16, ANSI150
Material (Body & Disc):	Aluminium bronze CC333G (AB2)
Material (Sealing):	NBR
Working temperature:	(-35°C to +95°C)

APPLICATION

Used to prevent backflow in water and seawater systems and can be used in other applications providing the valve materials are compatible with the media.

Can be installed in horizontal position or in vertical position with flow going upwards.

Features & benefits : Weight and size, space saving, easy to install, Good solution for liquid applications.

Suitable for upward or horizontal flow. Low head losses. No need for flange gaskets due to O-ring design.

Disadvantages: Reduced bore

OPERATING INSTRUCTIONS

As a check valve, the swing check valves purpose is to allow flow in one direction and prevent flow in the opposite direction.

The swing check valve utilizes the weight of its disk as well as the pressure in the pipe system to seal of flow (see figure 5).

When installing the valve horizontally, the eye bolt shall point upwards, to make sure that the valve disk is mounted with the hinge up.

The valve can be installed in a vertical pipe, but only if the flow is going upwards (see figure 4). Otherwise the disk will not be able to keep the pipe sealed as the weight of the disk will open it.

As a result of the thin shape of the valve, one should bear in mind that the disk will be moving inside the pipe. Enough space in the pipe is required for the valve to be able to open

fully.

The swing check valve is suitable in systems containing steam, fuel oil, lubricating oil, flammable hydraulic oil, cargo oil, seawater and freshwater.

The 305072, swing check valve exists in variants with O-ring of either FPM/FKM (-30°C to +180°C), PTFE (-50°C to +220°C) or EPDM (-40°C to +120°C) rubber.

For more detailed information, please visit the Meson webpage or contact our company.

O-RING INSTALLATION INSTRUCTION

Bear in mind wrong installation of the O-ring will cause sealing failure and result in leakage.

1. Place the O-ring on the valve body.
2. Push the O-ring into the valve body at 3, 6, 9 and 12 o'clock and hold it into place (see figure 1).
3. Proceed with sliding the remaining parts of the O-ring down into the valve body by going clockwise, 3-6, 6-9, 9-12 and 12-3.

INSTALLATION INSTRUCTIONS

1. Lift and hold the swing check valve into place using the eye bolt. If installed horizontally, make sure that the eye bolt is pointing upwards. Make sure that the arrow on the valve (see figure 2) is pointing in the correct direction.
2. Clamp the swing check valve between the pipe end by tightening the bolts in the pipes flange. The number of bolts used shall meet the required amount given in the associated standard.



Figure 1, Where to push down the O-ring.

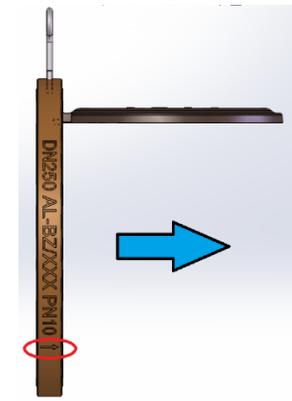


Figure 2, Flow direction

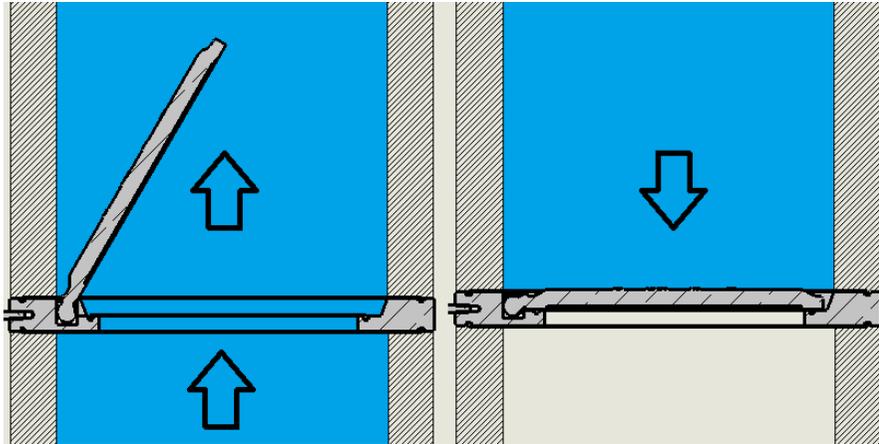


Figure 3, Swing check valve installed vertically. The media can flow upwards and is prevented from going downwards.

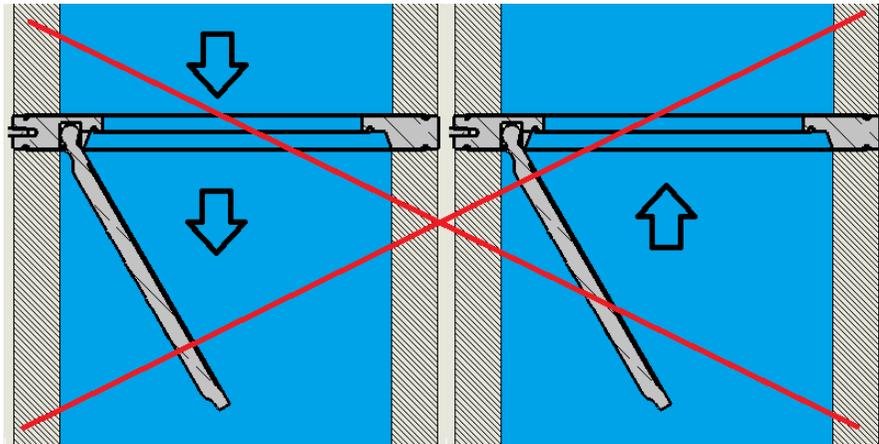


Figure 4, Swing check valve installed vertically with flow going downwards. In this scenario the check valve loses its ability to stop flow from going upwards.

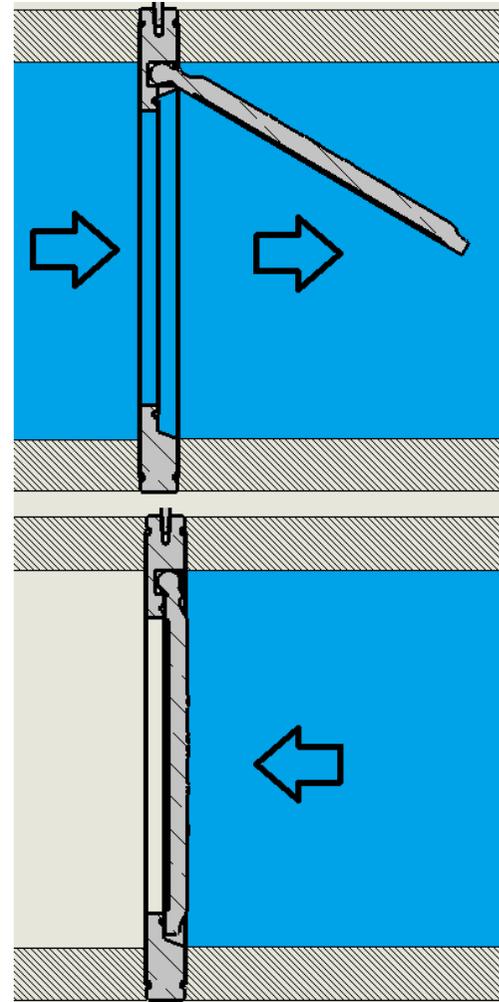


Figure 5, Swing check valve installed horizontally.