

INSTALLATION, OPERATION & MAINTENANCE MANUAL

Foot Check Valve with Flanged End

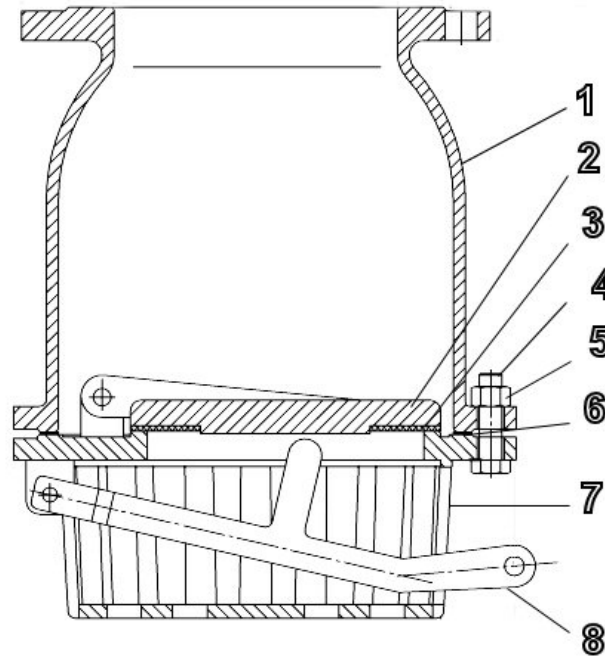


Ref. GENEBRE: 2448

INSTRUCTIONS FOR INSTALLATION, OPERATION & MAINTENANCE MANUAL

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1) Assembly drawing



1.1) Parts List

Nº	Name	Material	Surface Treatment	Spare Part Code
1	Body	Stainless Steel 1.4408	Shot blasting	-----
2	Disc	Stainless Steel 1.4408	Shot blasting	-----
3*	Seal	FKM	-----	K2448 xx
4	Bolt	Stainless Steel 316	-----	-----
5	Nut	Stainless Steel 316	-----	-----
6*	Gasket	PTFE	-----	K2448 xx
7	Strainer	Stainless Steel 1.4408	Shot blasting	-----
8	Handweel	Stainless Steel 1.4408	Shot blasting	-----

* Available spare parts

2) Storage

In case that the valve is not installed immediately, keep it with protective packaging to prevent strokes or accumulation of dirt (it should not be removed until the valve is going to be installed). As far as possible, the valves should be stored in a dry and clean area.

3) Installation Instructions

3.1) Preparation

Remove any remaining packing materials from the valve.

There may be serious problems with any valve installed in a dirty pipe.

Make sure the pipe is free of dirt, welding particles, etc. before installation because the valve could get irreparable damage when starting-up → *prepare a clean working area*.

Provide enough space for future maintenance.

Use flat gaskets between valve and pipe flanges to ensure sealing.

Check the correct operation of the valve by pulling the lever (part.8) upwards. The disc will swing and open the valve. Note that the disc returns by its own once released the lever. Otherwise, check that there are not foreign objects inside the valve and then repeat the operation. If the disc does not swing freely, do not install the valve.

3.2) Installation

The foot disk check valve must be installed in vertical position fluid upwards. Always must take into account the flow direction of the valve marked by an arrow in the body.

IMPORTANT:

- Genebre foot check valve with flange (art. 2448) is designed for mounting with flange DIN PN16 .
- Take the precaution of centring the valve with the axis of the pipe in order to ensure sealing between body and flange.
- Do not weld with the valve mounted as it could get damage by overheating and produce deformation of the seating area.
- Pay particular attention to the flow direction of the valve marked by an arrow in the body.

- Leave enough space between the flange and the bottom so that the valve can be installed / dismantled easily.
- Tighten the screws of the flanges to hold the valve body firmly. Apply the alternate clamping method to ensure proper installation.
- The valve should never be mounted adjacent to an elbow, reducer, valve or pump, to avoid turbulence. The recommended minimum distance between these elements is 10 times the diameter of the pipe, according to the standard CR 13932:2000.

4) Operating Instructions

4.1) Usage

Check valves are used mainly to prevent backward flow in the system. These valves are made for being installed between flanges, and provide a tight seal when are used respecting the values of pressure / temperature for which they are designed. The material of the valve body, seat and other components must be compatible with the fluid going through the valve; otherwise the valve can be seriously damaged.

4.2) Operation

This type of valve, by definition, does not require any operation. Opening and closing is done automatically depending on the pressure and flow direction. For more information about the opening pressure of the valve consult the technical data sheet of the product.

However, in case it's necessary empty the fluid in the pipe, the user has a manual system to empty by lever. Join the end of the lever with a sufficiently strong chain and pull to start flushing. Once released the chain, the disc will close the valve.

5) Maintenance Instructions

Check valves do not require regular maintenance and lubrication during their life. However, the following regular checks will help to extend the life of the valve and reduce problems in the installation:

- keep the valve in the fully closed position.
- check that all screws and threaded unions are not loose or rusted. Tighten if necessary.
- Inspect the valve and surrounding areas to check that there is not any leakage.

6) Repair Instructions

In case of obstruction, it is probably due to accumulation of dirt in the strainer. In this case, clean with pressurized water. Use a brush if necessary.

In case of leakage through the seat, it is probably due to accumulation of dirt in the seat area. In this case proceed to remove the strainer, clean the seat area and reassemble the filter again.

6.1) Cleaning the seat area

Don't need to remove the valve from the installation.

Make sure the line is cold, drained and depressurized.

Prepare a clean working area and adequate tools to perform mechanical tasks.

a.- Loosen and remove the *bolts* (part.4) and *nuts* (part.5) taking care not to drop the strainer. Use a fastener if necessary. Position the *strainer* (part.7) in a place to be cleaned. Leave the *gasket* (part.) in a safe place to avoid damage.

b.- Clean the seat area inside the strainer using pressurized water. Use a non-metallic brush if necessary. If is necessary, change the seal (part.3).

c.- Reassemble the strainer to the valve body using the bolts and nuts removed previously. Do not forget to place the PTFE (part.6) gasket between both parts.

7) Opening Pressure

The foot check valve with flange (art. 2448) has been designed to work with minimum opening pressure (for details see technical data sheet of the product).

8) Safety Instructions

8.1) The fluids pass through a valve can be corrosive, toxic, flammable or pollutant. When handling valves shall be taken necessary security measures and it is advisable to use personal protective equipment:

- 1) Wear eye protection.
- 2) Wear gloves and appropriate work clothes.
- 3) Wear safety shoes.
- 4) Wear a helmet.
- 5) Note the availability of running water.
- 6) For flammable fluids, make sure you have a fire extinguisher.

8.2) Before removing a valve from a pipe, always check that the line is completely cold, drained and depressurized.

8.3) Any valve that was used in toxic services must have a cleaning certificate before handling.