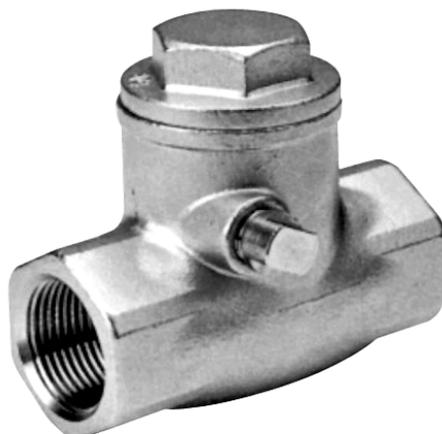


INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Swing Check Valve



GENEBRE Reference: 2430 – 2430N

Installation, operation and maintenance instructions

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1. Product description.

Genebre, S.A. offers a wide range of valves, designed and assembled to handle and drive fluids in industrial procedures.

The compatibility of materials used to build the valves (see technical specifications) and the application of valves to the different industrial processes is at user's risk. Valves will have an optimal behavior when working conditions do not exceed pressure and temperature limits (pressure curve) for which they have been designed.

2. Transport and Storage conditions



Transport and storage of this kind of products must be done keeping them in their original package!

VISUAL INSPECTION

Check whether during transport, unloading and placement, products have suffered damages.

During storage it is recommended to keep them in this same position, with the included protective wrapping to avoid damages or dirt accumulation in the ball. The wrap must not be removed until valve is to be installed.

Valves must be stored in a dry and clean environment.



If you notice any kind of anomaly during reception of the goods, contact immediately with GENEBRE in order to determine the possible responsibilities on the issue.

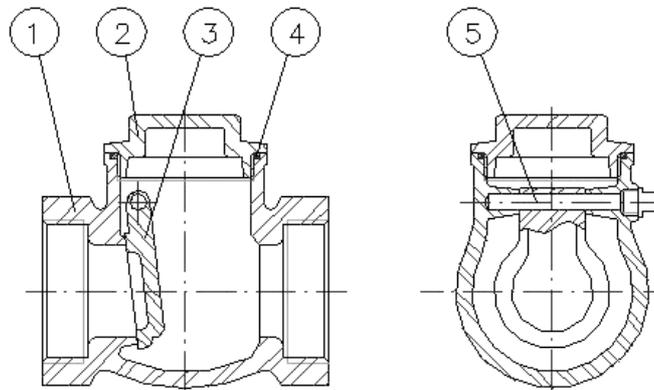
IMPORTANT NOTE:

Before installing and/or manipulating these elements, READ CAREFULLY these instructions for use and OBSERVE all contained information. If you fail to understand any of their content, please contact GENEBRE, S.A.



User is responsible for the safe use of these products, according to present instructions for use and specific technical documentation of the device.

3) Breakdown drawing.



3.1) List of valve components

Nº	Denominación / Name	Material
1	Body	AISI 316 / SS 316
2	Cap	AISI 316 / SS 316
3	Disc	AISI 316 / SS 316
4	Gasket	PTFE
5	Stem	AISI 316 / SS 316

4) Installation instructions

4.1) Preparation

Remove any material remains of the valve wrapping.

Serious problems may arise with the installation of a valve in a dirty pipe.

Make sure the pipe is not dirty and doesn't have welding particles, for example, before installing it. This may cause irreparable damages in the valve when the equipment is started
→ *prepare a clean working area.*

Plan beforehand enough space for future maintenance operations.

Check correct performance of the valve by pushing the *disk* (part.3) in the direction of the flow and making sure it goes back to the original position once it is released. If this is not the case, check if there are foreign particles inside the valve and repeat the whole operation. If the disk does not slide smoothly, valve must not be installed.

4.2) Assembling

Disk check valves can only be installed in two different positions:

A.- Horizontal or **B.- Vertical** (ascendant fluid).

Make sure the valve's pipe and thread end are clean and are compatible one with another (type of thread end) Apply an appropriate sealing in the pipes' thread ends and thread the valve being careful not to excessively tighten the conical threaded ends.

To tighten the valve it is recommended to use a spanner or monkey wrench only on the hexagonal area of the valves edges; the force applied being less than 30 Nm.

IMPORTANT:

- Valve must never be assembled adjacent to an elbow, reducer, valve or pump in order to avoid turbulences. Minimum distance recommended between these elements is 10 times pipe's diameter -waters up- and 3 times pipe's diameter -waters down- according to CR 13932:2000.

5) Operational instructions

5.1) Usage

Check valves are usually used to prevent fluid from coming back into the system and they provide a leakproof lock when used adjusted to the pressure and temperature values for which they have been designed.

Body material for the valve, seat and rest of components has to be fully compatible with the fluid circulating through the pipe. Otherwise, valve could be seriously damaged.

5.2) Operation

By default, this kind of valve does not need to be operated. Opening and closing are automated, depending on pressure and direction of the flow. For more information on opening pressure for the valve, please consult the technical specifications for the product.

6) Maintenance operations

Check valves with metallic lock are designed so that they do not need any lubrication and/or periodical maintenance during their life cycle.

- Inspect the valve and surrounding areas to verify if there is any leak.

7) Reparation instructions

This type of valves, due to their easy assembling and reduced production cost are not worth repairing, because most of the times is simply not cost-effective, so we recommend to directly replace it.



Before disassembling the pipe's valve to clean or replace it, make sure that line has been closed and depressurized because a bad operational procedure could cause a serious accident to staff and installation system



Before installing new valve, check if it meets the requirements of the valve being replaced.

8) Pressure for opening

Disk check valve by GENE BRE, S.A. (art.2430 – 2430N) has been designed to work with minimal operational pressures (to obtain more information, please consult the technical specifications).

9) Hygiene and Safety Instructions:

9.1) Fluids that go through the valve can be corrosive, toxic, flammable or pollutant. When operating valves, you must follow the security instructions and it is recommended to use personal protection gadgets:

- 1) Protect your eyes.
- 2) Wear gloves and appropriate working clothes.
- 3) Wear safety footwear.
- 4) Wear a helmet.
- 5) Have running water at hand.
- 6) To operate flammable fluids, make sure you have an extinguisher at hand.

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

9.3) Any valve being used by toxic services department needs to obtain a cleanliness certificate before being operated.