

## INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Forged Check Valves Piston Type Class 800  
with threaded or Socket Weld or ends



Ref. GENE BRE: 2234N – 2234S

## 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 handwheel 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 the products have suffered damages.

During storage it is recommended to keep them into the included protective wrapping to avoid damages or dirt accumulation in the inside part of the valve. 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 GENE BRE 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 GENE BRE, 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. Installation instructions**

### **3.1) 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.

### **3.2) Installation of valves with threaded ends (2234N)**

*Do not disassemble the valves to install them.*

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 into the pipes' thread ends and thread the valve being careful not to excessively tighten the conical threaded ends.

To tighten the valve into the pipe it is recommended to use a correct wrench only on the body central assembly; the force applied needs to be less than 30 Nm.

*Design for this kind of regulation valves allows only one position for assembling it to the pipe, specified by means of an arrow in the valve's body that indicates the direction in which the fluid needs to circulate.*

### **3.3) Installation of valves with socket weld ends (2234S)**

*Do not disassemble the valves to install them.*

*3.4.1 Is necessary a clean area for work.*

*3.4.2 Genebre, S.A. recommends the use of electric welding methods (TIG, MIG).*

*3.4.3 Use cooling during the welding process.*

*3.4.4 Welding to be performed by a qualified welder.*

*3.4.5 Excessive heating of the valve must be avoided during the welding.*

***If is necessary to make the pressure test Genebre, S.A. recommend use the instruction of European Standard EN ISO 15761:2002.***

***If possible, it is recommended to install the valve in horizontal position and the handwheel upwards.***

***Valves do not have to support pipe's efforts so it is advisable to anticipate a good alignment and parallelism of such pipe.***

***It is also recommended to use filters in the pipe to extend lifecycle of the valve.***

## **4. Operating instructions**

GENEBRE valves provide a leakproof lock when used adjusted to the pressure and temperature values for which they have been designed.

Valve materials have to be fully compatible with the fluid circulating through the valve. Otherwise, valve could be seriously damaged.

***Do not use for slurries or fluids containing solids that can build up in valve cavities.***

## 5. Maintenance instructions

Verify possible leaks through the line (due to closure); this defect is probably caused by deposition of impurities between the disc or needle and the seat, transported by the fluid. Disassemble the valve from the pipe, clean it thoroughly and reinstall it. If the problem persists you should change the valve, since it is possible that some metallic parts used for closure are damaged (erosion, corrosion). See section 6 for further details.

## 6. Reparation instructions

These types of valves, due to their assembling specifications are not worth repairing, because most of the times are simply not cost-effective, so we recommend to directly replace them.



**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**

## 7) Opening pressures

The piston type check valve by GENE BRE S.A. (Art. 2234N/2234S) has been designed to operate with minimum operating pressures. For further information, refer to the product datasheet.

## 8. Hygiene and Safety Instructions

**8.1)** Fluid passing through a valve or accessory 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.

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

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