

# INSTALLATION, OPERATION AND MAINTENANCE MANUAL

## Pressure Relief Valve



Ref. GENE BRE: 2258 – 2258N – 2259

## **Installation, Operation and Maintenance Instructions**

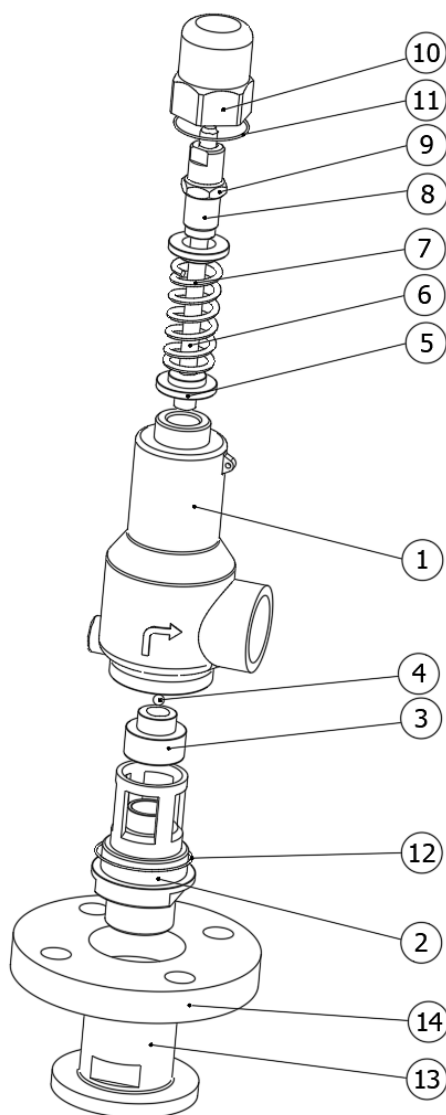
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## 1) Product description

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

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 behaviour when working conditions do not exceed pressure and temperature limits (pressure curve) for which they have been designed. Please, refer to the product datasheet.

## 2) Exploded view



## 2.1) List of parts

Nº	Denominación / Name	Material	Acabado Superficial / Surface Treatment	Observación
1	Cuerpo / Body	1.4408	Granallado / Shot blasting	-----
2	Tapa / Cap	1.4408	Granallado / Shot blasting	-----
3	Disco / Disc	PTFE+1.4408	-----	-----
4	Bola / Ball	AISI 316	-----	-----
5	Guía / Guide	AISI 316	-----	-----
6	Eje / Stem	AISI 316	-----	-----
7	Muelle / Spring	AISI 302	-----	-----
8	Tornillo / Screw	1.4408	-----	-----
9	Tuerca / Nut	AISI 316	-----	-----
10	Caperuza / Cap	1.4408	Granallado / Shot blasting	-----
11	Junta/ Gasket	PTFE	-----	-----
12	Junta/ Gasket	PTFE	-----	-----

13	Acoplamiento / Coupling	1.4408	Granallado / Shot blasting	Sólo en artículo / Only Art. 2259
14	Brida / Flange	1.4408	Granallado / Shot blasting	Sólo en artículo / Only Art. 2259

Available models:

- Ref. 2258: Pressure Relief Valve GAS thread
- Ref. 2258N: Pressure Relief Valve NPT thread
- Ref. 2259: Pressure Relief Valve EN PN16 flanges

## 3) Storage

If the valve is not installed immediately, it is recommended that the protective packaging not be removed to prevent any blows or the accumulation of dirt. This packaging should not be removed unless the valve is going to be installed. Where possible, the valves must be stored in a dry clean place.

## 4) Installation Instructions

### 4.1) Preparation

Remove any remains of packing material from the valve.  
Significant problems may arise with any valve installed onto dirty piping.

*Ensure that the pipe is free from dirt, welding particles, etc. prior to installation as the valve may suffer irreparable damage during the start-up of the equipment → prepare a clean working area.*

Make sure there is enough space for future maintenance operations.

Monitor the correct functioning of the valve by pushing the *disc* (part. 3) in the direction of the flow and observing that it returns by itself once the *disc* is released. If this is not the case, check that there are no foreign bodies in the interior of the valve and repeat the operation. If the disc does not slide freely, the valve must not be installed.

In case of vibrations in the pipe it is strongly recommended to mount anti-vibration elements to absorb them. Otherwise, the life of the product could be drastically reduced.

## 4.2) Assembly

***Pressure relief valves must be installed in vertical position, making sure that the arrow marked on the body of the valve follows the direction of the flow.***

### **IMPORTANT:**

- Do not dismantle these valves in order to install them
- Ensure that the pipe and valve thread are clean and that they are compatible (thread type)
- Apply a suitable sealer on the pipe threads and fasten the valve to the pipe taking care not to over tighten the tapered threads
- Do not perform any welding when the valve has been assembled as it could be damaged by overheating and the seat area may deform
- We recommend fastening the valve to the pipe using an open-ended or an adjustable spanner and by only applying force on the hexagonal area of the valve ends. It is recommended that the force applied is lower than 30 Nm
- The valve must never be assembled adjoining an elbow, reducer, valve or pump to avoid any turbulence. The minimum distance recommended between these elements is 10 times the pipe diameter -upstream- and 3 times de pipe diameter -downstream-, according to the CR 13932:2000
- Inlet / Outlet pipe must be bigger than the DN of the valve
- Pressure relief valves must not withstand any stress generated by the outlet pipe (discharge) and this must be as short and direct as possible

## 5) Operating Instructions

### 5.1) Use

Pressure relief valves are mostly used to protect equipment from overpressure. The material of the valve body and other components must be compatible with the fluid flowing through the valve, otherwise the valve may be seriously damaged. As it is soft sealing, the pressure relief valve is suitable for liquid, gas and steam (low temperature). For working with steam, however, we recommend Safety Valve (ref. 2252-2253-2256-2257).

### 5.2) Operation

This type of valve, by definition, does not require operating. The opening and closing is carried out automatically depending on the pressure. For the regulating pressure range, see the nameplate on the valve body. If you want to change the set pressure, see section 5.3.

### 5.3) Modification of the set pressure

To change the set pressure of the valve, proceed as follows:

- 1- With the valve depressurized, remove the *Cap #10* and the *Gasket #11*
- 2- Loosen the *Nut #9* and using a 14 mm wrench turn the *Screw #8* clockwise to increase the pressure, or counterclockwise to reduce it
- 3- Fix the *Screw #9* again by means of the *Nut #9* and put the *Cap #10* and the *Gasket #11* back on, paying attention that it is well housed.



**Make sure that the new regulation pressure is within the pressure range indicated on the valve nameplate**

## 6) Maintenance Instructions

Genebre, S.A. is not responsible for those valves that have been manipulated by unauthorized persons.

Every pressure relief valve is required to have a maintenance schedule.

Perform a monthly visual inspection.

If necessary, Genebre S.A. replacement parts are available. Check availability.

## 7) Health and Safety

**7.1)** The fluids that pass through a valve can be corrosive, toxic, flammable or of a contaminating nature. They can also be found at very high or low temperature. When handling the valves, take the necessary safety measures, and it is advisable to use personal protective equipment:

- 1) Wear eye protection
- 2) Wear appropriate gloves and work clothes
- 3) Wear safety shoes
- 4) Wear a helmet
- 5) Check the availability of running water
- 6) In the case of flammable fluids, ensure that the appropriate extinguisher is available

**7.2) Before removing a valve from any piping, always ensure that the line is completely cold, drained and depressurised.**

**7.3)** Any valve that has been used in toxic services must have a certificate of cleaning before it is handled.

**7.4)** Any type of repair or maintenance should be performed in ventilated places.