

## INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Gate Valve with rubber seal  
Grooved ends – UL/FM Certification



Ref. GENE BRE: 2100 – 2100D

## 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.

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.

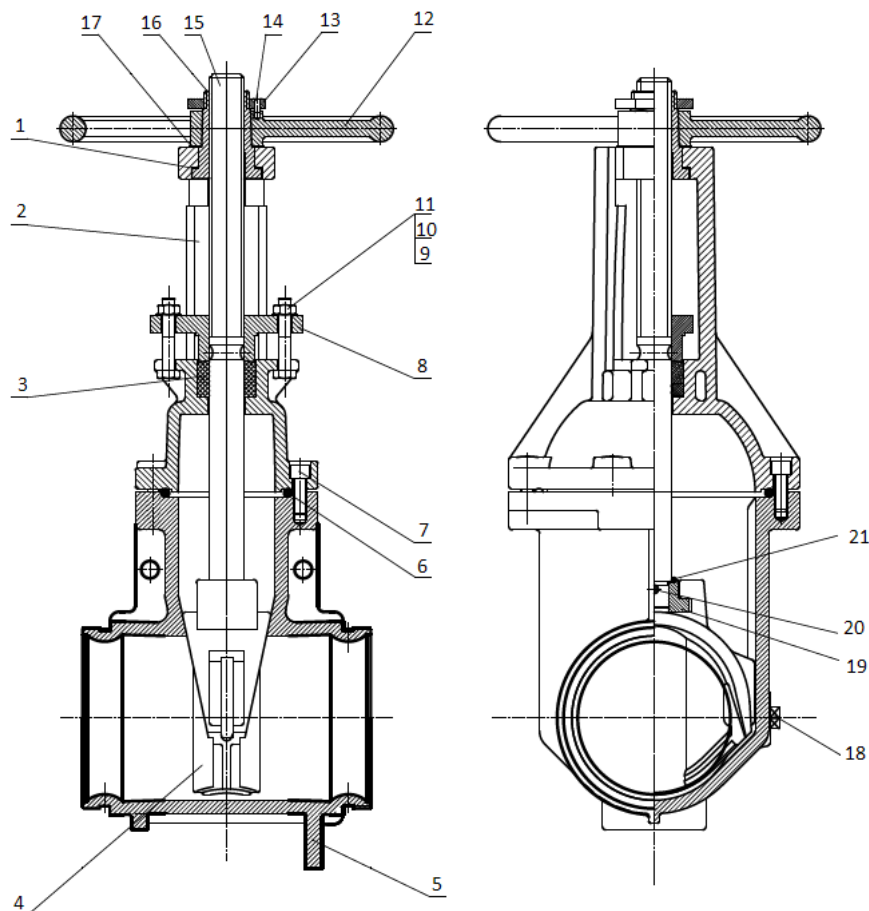
Art. 2100 / 2100D: Ductile Iron Wedge Gate Valve (OS&Y rising stem) with EPDM seal.  
UL/FM certification for use in fire protection systems.

Art. 2100: Grooved ends for use in pipes according to ASTM / ASME standard.

Art. 2100D: Grooved ends for use in pipes according to DIN standard.

**Note: Some pipe diameters are the same between both standards.**

## 2. Assembly drawing



## 2.1) Parts list

Nº	Name	Material	Surface Treatment
1	Gasket	AISI 304	-----
2	Bonnet	Ductile Iron EN-GJS-400	Epoxy coating
3	Packing	Graphite	-----
4	Wedge Body	Ductile Iron EN-GJS-400 + EPDM	-----
5	Body	Ductile Iron EN-GJS-400	Epoxy coating
6	Body Gasket	EPDM	-----
7	Bolt	Acero / Steel	-----
8	Gland	Ductile Iron EN-GJS-400	Epoxy coating
9	Nut	Acero / Steel	
10	Washer	Acero / Steel	-----
11	Bolt	Acero / Steel	-----
12	Handwheel	Ductile Iron EN-GJS-400	Epoxy coating
13	Lock Nut	Carbon Steel	-----
14	Locating screw	AISI 304	-----
15	Stem	AISI 304	-----
16	Stem Nut	C95400	-----
17	Gasket	C95400	-----
18	Plug	C95400	-----
19	Lifting nut	C95400	-----
20	Pin	AISI 304	-----
21	Sealing Ring	EPDM	-----

## 3. 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.



The responsibility for the safe use of these products lies with the user in accordance with the provisions of these instructions for use as well as the specific technical documentation of the device supplied!

## 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.

Control the correct performance of the valve by turning the handwheel both sides (close and open) and observing if the disc or needle slides correctly. If this is not the case, check if there are foreign particles inside the valve and repeat the whole operation.

## 4.2) Installation of valves with grooved ends

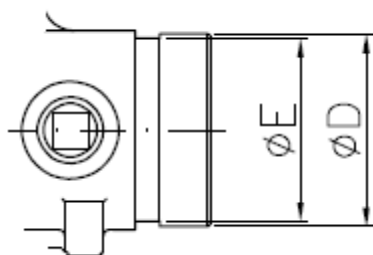
Do not disassemble these valves for installation.  
During installation, the valve must be closed.

Make sure the pipe's and edges of the valve are clean.

Use the corresponding accessories for install the valve to the pipe (grooved coupling)

Make sure the coupling joints are well placed.

Make sure the pipe ends and the valve ends are compatible according to the outside diameters (according to standard).



Pipe	Ref.	Size	Dimensions	
			D	E
ASTM / ASME	2100 10	2 ½"	73	69.1
	2100 11	3"	88.9	84.9
	2100 12	4"	114.3	110.1
	2100 13	5"	141.3	137
	2100 14	6"	168.3	164
	2100 16	8"	219.1	214.4
	2100 18	10"	273	268.3
	2100 20	12"	323.9	318.3
DIN	2100D 10	DN 65	76.1	72.3
	2100D 13	DN 125	139.7	135.5
	2100D 14	DN 150	165.1	160.8
	2100D 16	DN 200	216.3	211.6

After assembling, check the tightness and performance of the valve.

### **REMARKS:**

- **Gate Valves, ref. 2100 / 2100D are designed according to AWWA C515 to be assembled with grooved coupling according to AWWA C606 at a maximum working pressure of 300 PSI.**
- **It is recommended the use of filters in the pipe to make the valves longer life.**
- **Any damaged paint/coating during installation must be immediately repaired.**

## 5. Operation instructions

### 5.1) Usage

Gate valves art. 2100 / 2100D provide a leakproof seal when used adjusted to the pressure and temperature values for which they have been designed.

Seat material for the valve, joints, body, disk and axis have to be fully compatible with the fluid circulating through the valve. Otherwise, valve could be seriously damaged.

This valve is suitable for use in fire protection system.

### 5.2) Handwheel operation

The valves are designed to be manually operated by handwheel. Turn clockwise for closing or turn counterclockwise for opening the valve.

## 6. Maintenance operations

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

However, periodical checks explained below will be useful to extend the service life of the valve and reduce installation problems:

- Close the valve –from position completely open to completely closed.
- Verify all locks and threaded ends to check if they are loose or with rust. Tighten them if necessary.

## 7. Repair 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**

## **8. Hygiene and Safety Instructions:**

8.1) 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 type of repair or maintenance should be performed in ventilated places.