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INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Swing Check valve
Flanged ends – UL/FM Certification

Ref. GENEBRE: 2403

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Installation, operation and maintenance instructions

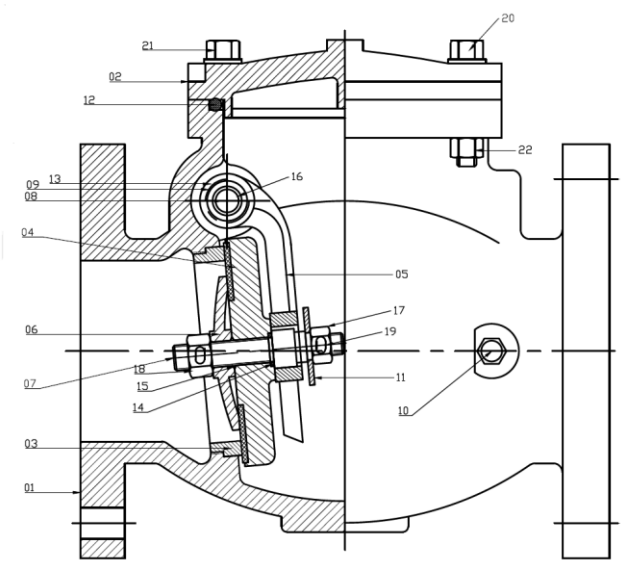
1. Product description

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. 2403: Ductile Iron Check Valve (Swing Disc) with EPDM seal. UL/FM certification for use in fire protection systems.

2. Assembly drawing and parts list



Nº	*Name*	Material	*Surface Treatment*
1	*Body*	*Ductile Iron EN-GJS-400*	*Epoxy coating*
2	*Bonnet*	*Ductile Iron EN-GJS-400*	*Epoxy coating*
3	*Seat Ring*	C95400	------
4	*Disc*	*Ductile Iron EN-GJS-400 + EPDM*	------
5	*Rocker arm*	*Ductile Iron EN-GJS-400*	------
6	*Baffle plate*	C95400	------
7	*Middle plate*	AISI 304	------
8	*Pinned stem*	AISI 304	------
9	*Bracket screw*	AISI 304	------
10	*Plug*	C95400	------
11	*Gasket*	*Stainless Steel 304*	------
12	O'ring	EPDM	------
13	O'ring	EPDM	------
14	O'ring	EPDM	------
15	O'ring	EPDM	------
16	*Bushing*	Bronze	------
17	*Nut*	*Stainless Steel 304*	------
18	*Nut*	*Stainless Steel 304*	------
19	*Pin*	AISI 304	------
20	*Bolt*	*Steel*	------
21	*Bolt*	*Steel*	------
22	*Nut*	*Steel*	------

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 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.

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.

4.2) Installation of valves with flanged ends

Make sure the pipe's and edges flanges of the valve are clean.
Use the corresponding screws in all of the flanges drill holes.
Place an adequate joint in each end and align it in the centre of the flanges.
Tighten screws evenly and cross-shaped to avoid deformations. To do so, you must not force in any case the pipe to centre the valve; it should take its position smoothly. Last, verify that screws are tightened with the recommended torque for each type of screw.
Make sure the flanges joints are well placed.
After assembling, check the tightness and performance of the valve.

REMARKS:

- Check Valves, ref. 2403 are designed according to AWWA C508 to be assembled between flanges ASME B16.10 Class 150 at a maximum working pressure of 300 PSI.

- Verify good parallelism of the flanges.

- 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

Check valves art. 2403 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.

6. Maintenance operations

Check 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:

- Verify all locks and threaded ends to check if they are loose or with rust. Tighten them if necessary.

- Inspect the valve and surrounding areas to verify if there is any leakage in the stem or in the flange connections.

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.