

XUROX

ASSEMBLY INSTRUCTIONS AND MAINTENANCE



1. Introduction

This document contains the general instructions and recommendations for the correct assembly and installation of XUROX butterfly valves, in order to ensure proper operation, reliable sealing performance, and maximum safety during installation, operation, and maintenance.

All valves are manufactured and assembled by highly qualified personnel. Therefore, COVALMA shall not assume any liability or warranty for failures caused by improper handling or incorrect installation.

The installation, handling, and maintenance of the valves must be carried out exclusively by qualified personnel with appropriate technical training, always following safety requirements and good installation practices.

Before installation, it must also be verified that the selected valve is suitable for the actual service conditions of the system, taking into account factors such as working pressure, temperature, and material compatibility.

Valves must be stored in dry places, protected from humidity and direct sunlight exposure. During storage and installation, the disc must remain slightly open, without protruding beyond the face-to-face dimension of the valve.

For any technical inquiries related to valve selection, installation, or application, it is recommended to contact the authorized distributor or the technical department of COVALMA S.L.

These instructions apply to wafer, lug, and flanged butterfly valves intended for industrial, hydraulic, marine, and general process applications.

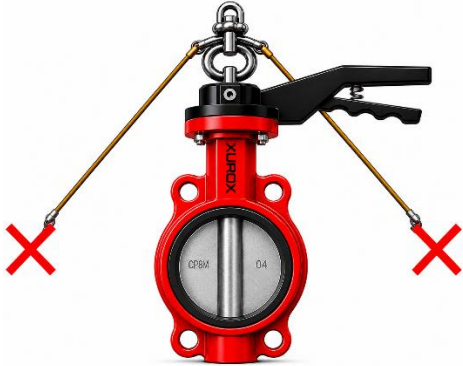


2. General safety recommendations

Compliance with the following safety instructions is essential to ensure valve integrity, personnel safety, and the proper operation of the installation.




Verify that the system is depressurized



Do not lift the valve by the actuator, handwheel, or gearbox.




Use the required PPE (Personal Protective Equipment).



The flanges must never be welded to the pipeline while the valve is installed. Heat may damage the elastomer and the valve.



Check that the valve is compatible with the operating conditions.



Avoid impacts, improper handling, and damage to the valve components.

3. Visual inspection

The following visual checks must be carried out before installation to ensure the cleanliness, compatibility, and proper operation of both the valve and the installation.

<p>1</p>		<p>Make sure that the inside of the valve body is completely clean, especially around the elastomer area. In addition, verify that the surfaces where the valve will be installed (flanges, pipelines, etc.) are clean.</p>
<p>2</p>		<p>Confirm that the inside of the pipelines and installation is clean and free from debris, welding residues, particles, or foreign bodies.</p>
<p>3</p>		<p>Check the proper operation of the valve by performing a complete opening and closing cycle.</p>
<p>4</p>		<p>Verify that the installation flanges are compatible with the valve and properly aligned.</p>
<p>5</p>		<p>Check the alignment of the pipelines and the flanges.</p>

4. General installation recommendations

Before installing the valve, it is recommended to verify the installation conditions and follow the good practices indicated below. These recommendations help prevent excessive stress, damage to the elastomer, and possible failures during operation.

<p>1</p>		<p>Install the valves in a centered position. Sufficient space must be left between the pipeline flanges to protect the disc edge and prevent any permanent damage or deformation of the elastomer.</p>
<p>2</p>		<p>Partially insert the fastening bolts without fully tightening them.</p>
<p>3</p>		<p>Avoid installation immediately adjacent to pumps, elbows, or other components that may generate turbulence.</p>
<p>4</p>		<p>Butterfly valves are bidirectional and may be installed in either flow direction.</p>

5. Assembly procedures

The following instructions must be followed during assembly to ensure correct valve centering, proper tightening, and reliable operational performance.

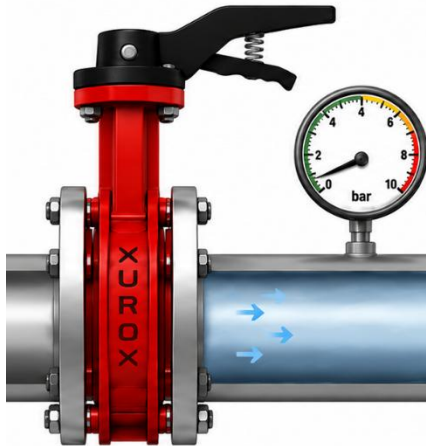
<p>1</p>		<p>Verify that the disc can open and close without exceeding the valve body width and without interfering with the pipeline.</p>
<p>2</p>		<p>Fully open the disc before final tightening.</p>
<p>3</p>		<p>Tighten the bolts progressively in a star pattern until metal-to-metal contact is achieved between the valve body and the pipeline flanges, ensuring that correct alignment between the body and the flange is maintained.</p>
<p>4</p>		<p>Verify the correct operation of the disc once again.</p>

6. Commissioning

Carry out the valve commissioning procedure by following the steps indicated below.

1 LOW PRESSURE

Start of pressurization



Pressurize the line gradually. Avoid sudden pressurization.

2 MEDIUM PRESSURE

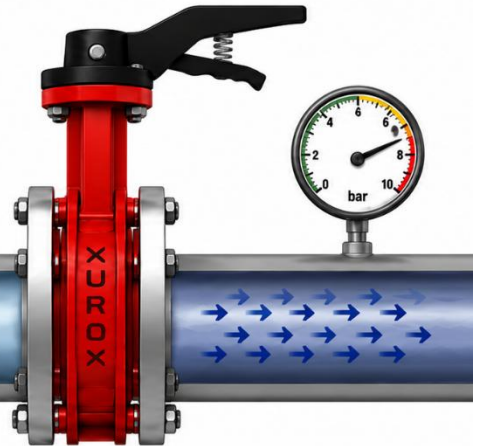
Pressurization in progress



Open the valve gradually to allow pressure stabilization in the line, preventing water hammer, overpressure, and system damage.

3 OPERATING PRESSURE

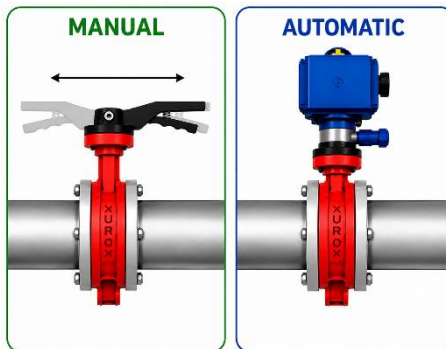
Stabilized system



Once the operating pressure has been reached, verify that the system remains stable and that the valve operates correctly.



Verify the absence of leaks.
Carefully inspect all connections and flanges.



Check the operation.
Verify the corresponding manual or automatic actuation.

! IMPORTANT

Do not exceed the pressure and temperature limits specified for the valve.

Ensure that the fluid is compatible with the valve materials.

Keep the system clean.

In the event of any abnormality, stop operation and inspect the installation.

6. General maintenance

The butterfly valve must be handled properly. Otherwise, the customer shall assume responsibility for any maintenance operations, which must be carried out exclusively by qualified personnel.

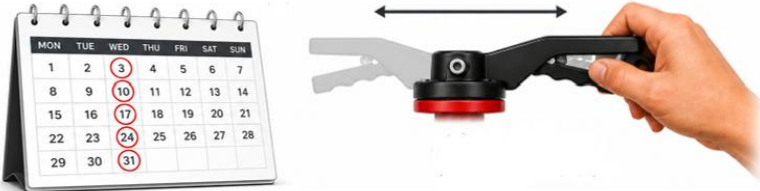
The frequency and intervals of maintenance shall be determined by the person responsible for the installation, according to the specific service and operating conditions.




INSPECTION

- _____
- _____
- _____
- _____

Carry out periodic inspections.


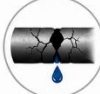




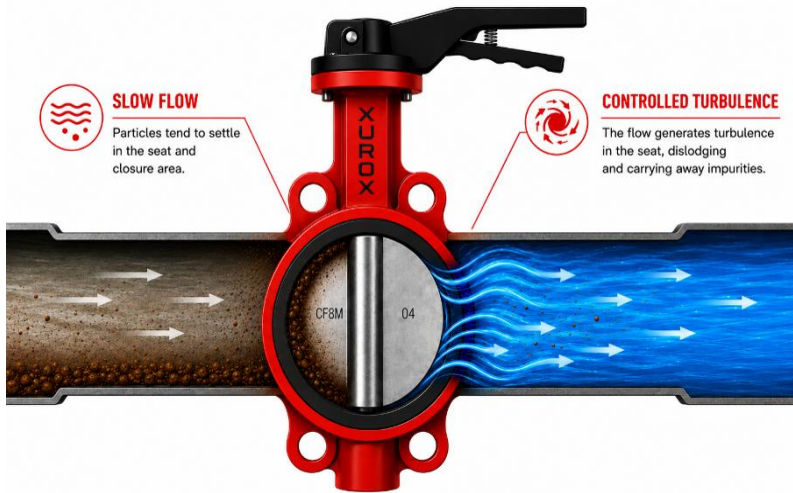
Operate the valve periodically to prevent seizure.



Excessive fluid velocities, pulsating flows, and water hammer effects must be avoided, as they may cause vibrations, overpressure, and damage to the valve or the installation.

CONSEQUENCES

-  Loud noise and vibrations
-  Damage to valves and piping
-  Leaks and system failures
-  Reduced equipment useful life



Butterfly valves are self-cleaning, as the fluid itself keeps the seat free from impurities. If the valve is not operated continuously, or if the flow is too slow or insufficient, dirt deposits and blockages may occur.



All valve components are removable, allowing any part to be replaced if necessary.

It is recommended to replace parts only with original manufacturer spare parts. Otherwise, COVALMA shall be exempt from any liability arising from such modifications or replacements.



The use of aggressive chemicals or incompatible additives may damage the valve elastomer, affecting sealing performance and the proper operation of the system.

i For any questions or further information, please contact your authorized distributor or COVALMA S.L.