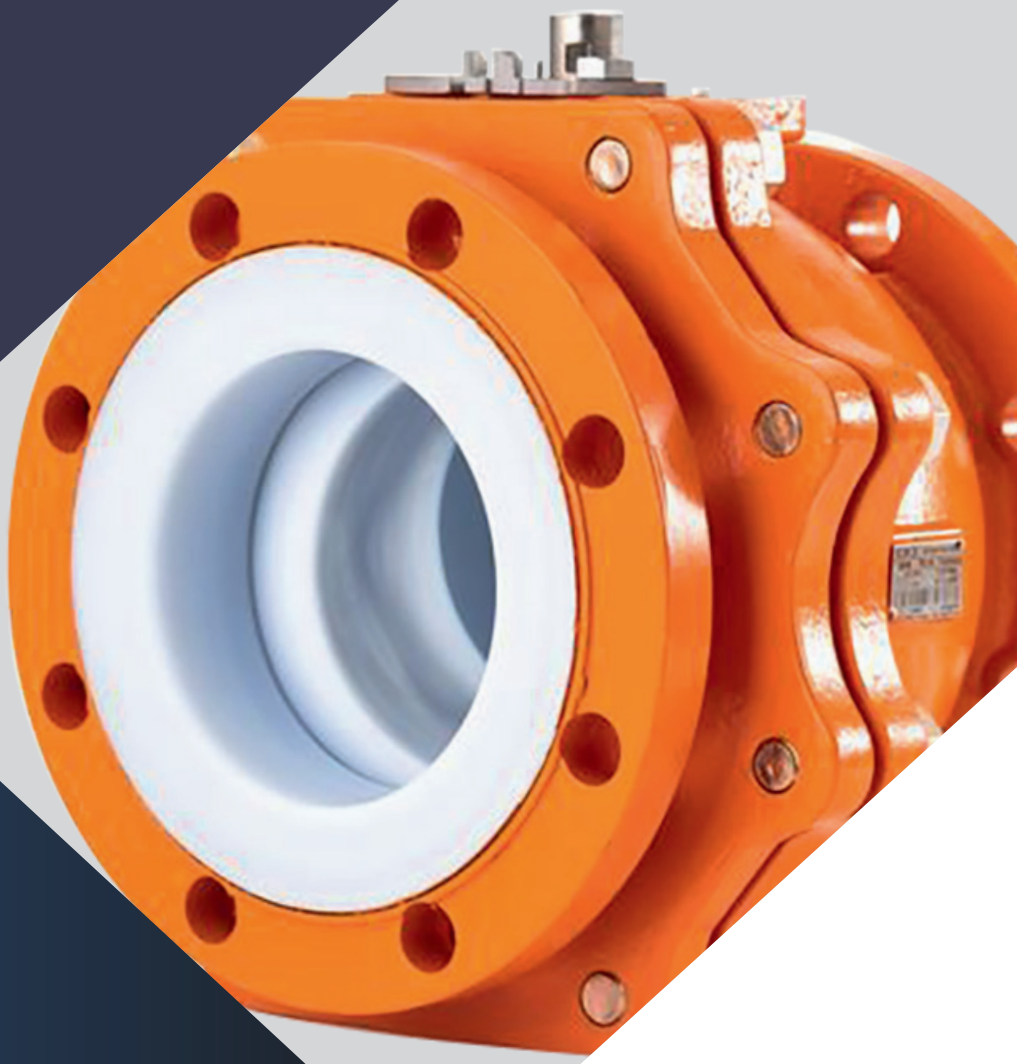
XOMOX®

SEAL THE FUTURE.

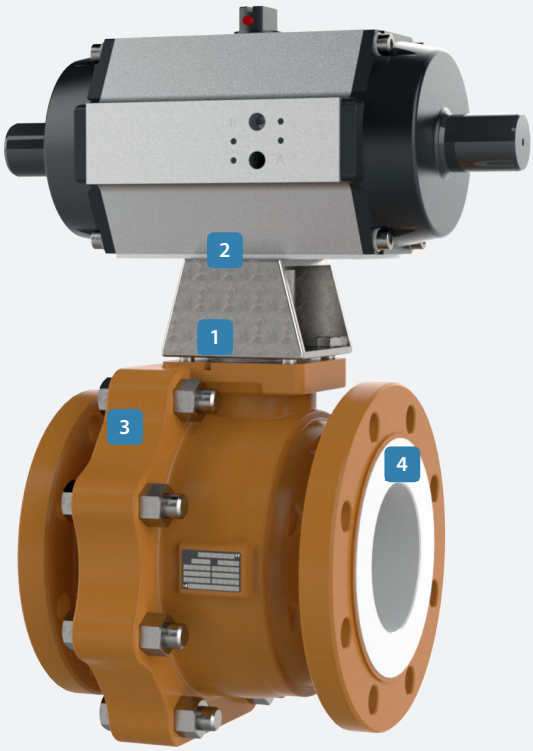
# XOMOX® LINED BALL VALVES

## SERIES XLB-FEO

CRANE

www.cranecpe.com

# Low Fugitive Emission




1 **Low Emissions**
ISO 15848-1 BH C03 SSA0/TA-LUFT 2021 compliant

2 **Low Torque**
smaller actuators, reduced costs, space and weight saving

**Actuator Mounting**
fully compliant with ISO 5211 allowing use of standardized mounting kits

3 **Compact Design**
allows installation in space restricted areas in parallel piping systems

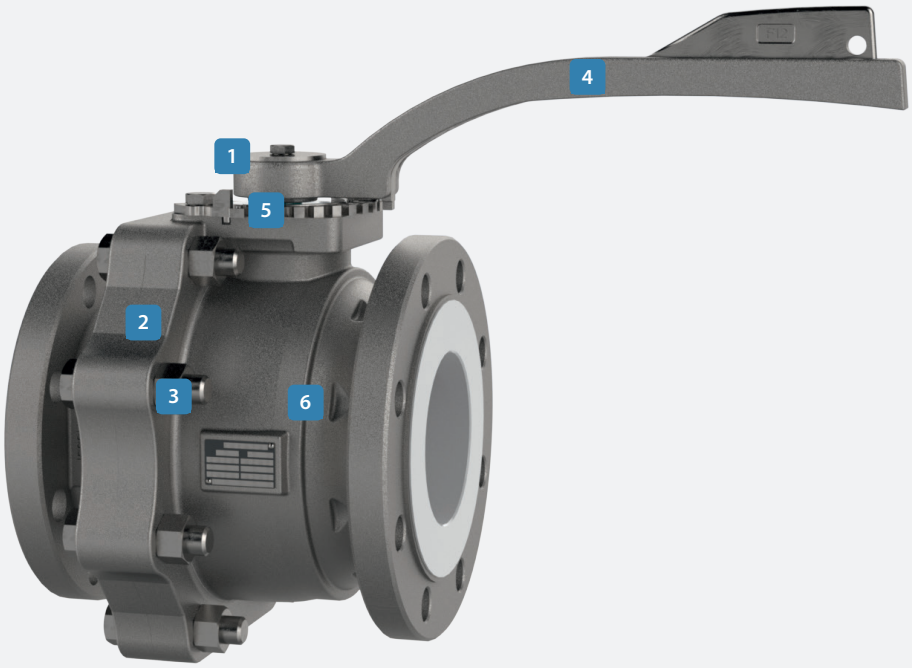
4 **All Wetted Components**
are fully lined with permeation resistant PFA material as a barrier to corrosion

5 **Valve Pressure Classes**
EN PN16 and ASME Class 150
JIS 10kg

6 **Size Range**
½“ / DN15 through 6“ / DN150 full port
1½“ through 8“ reduced port
Other sizes available up to 12“ / DN300 (R201/R202)

7 **Temperature Range**
ASME: -20°F (-29°C) to 400°F (204°C)
EN: -10°C (14°F) to 204°C (400°F)
Above data is for ductile iron lined valves, see pressure temperature ratings in our Technical Datasheet brochure for extended temperature capabilities with alternative materials

# Stainless Steel Configuration




**Full Port XLB-FE0 valves are also available in stainless steel construction with bodies in EN 1.4408 / ASTM CF8M material. Stainless steel valves are designed to maximize cleanliness and minimize areas where contamination could occur. Stainless steel valves also allow for low temperature operation down to -60°C**

1 **Duplex Stainless Steel**
integral lined ball and stem

2 **Crevice-Free**
body joint connection

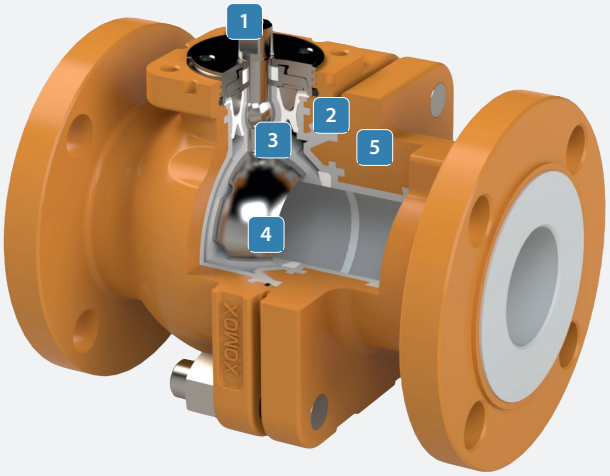
3 **Body joint fasteners**
in stainless steel

4 **All Stainless Steel Lever**
assembly with latching and locking facility

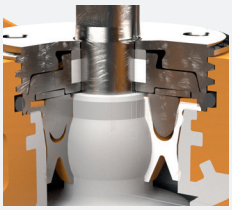
5 **Stainless Steel**
stop plate and fasteners

6 **Body Components**
in stainless steel

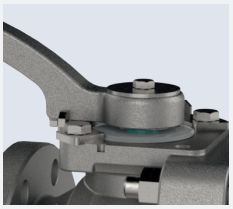
# Innovative Stem Sealing System




1

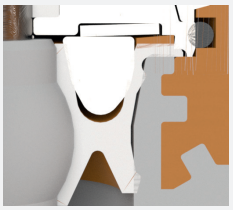


**Live Loaded Packing**
achieves ISO 15848-1 BH CO3 SSA0 which provides the highest protection against fugtitive emissions with zero adjustments



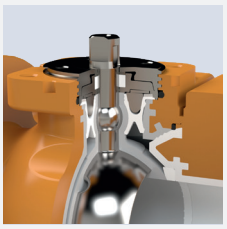
**Stainless Steel Lever**
latching device minimizes possibility of accidental operation. Locking capability as standard. Made of stainless steel material ideal for corrosive environments.

2



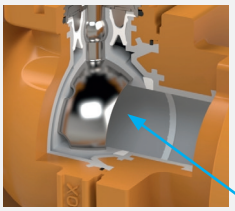
**Patented SX Seal**
innovative „pressure assisted" SX seal device provides the highest protection against fugitive emissions.

3



**Anti blow-out integral ball and stem**
retains positive control and minimizes the danger of stem/ball failures due to liner damage at wear points.

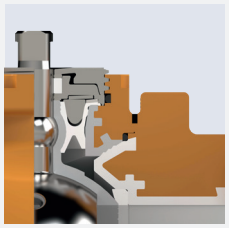
4



**Locked in fluoroplastic liner**
resists shrinkage and collapse, and permits vacuum applications.

**Chemically modified PTFE (CMP) seats**
provide greater pressure stability at higher temperatures than conventional PTFE.

5



**Metal-to-Metal Contact**
at the body joint ensures that no parts of the lining can be crushed or deformed because of forces within the piping system.

**Wide Conical Plastic Connection**
designed to maintain total seal even under extreme thermal cycling.

**O-Ring**
Viton O-ring - adding another independent seal to atmosphere

# Value Propositions

When valves are closed under pressure, the ball is able to float with line pressure and pressurize the downstream seat to further enhance the in-line seal. However, the stem will tend to tilt and can side load conventional packing, leading to potential wear and eventual leakage. The SX seal in the XLB valve moves in conjunction with the spherical portion of the stem, maintaining a constant seal.

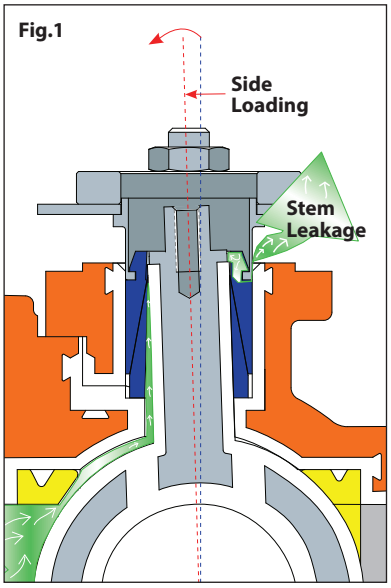



**Fig.1:**
In a conventional valve, moderate stem side loading can lead to significant emissions issues.

Other situations where side loading can occur during valve actuation include heavy manual operation, actuation loads, and misalignment, and abusive contact.

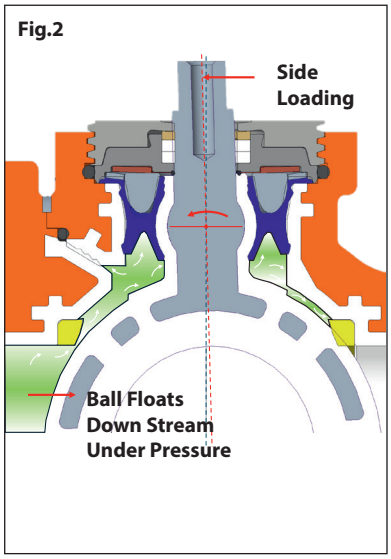
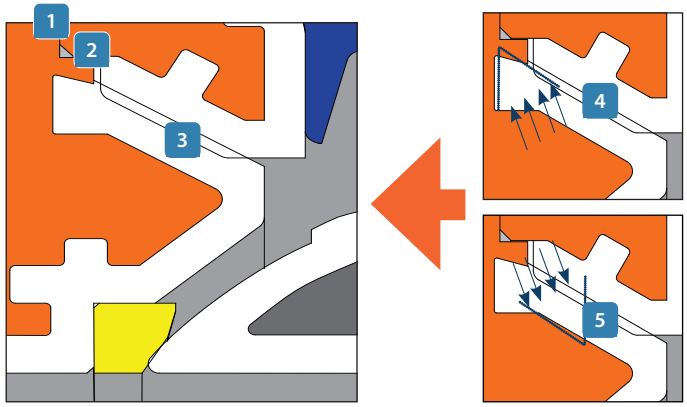



**Fig.2:**
The XLB valve's pressure assisted SX seal stays in constant contact with stem spherical seal surface to significantly reduce the chance of atmospheric leakage.

## Maintain seal through thermal cycles with SX seal technology

The body assembly has metal-to-metal connection that offers resistance against forces that may be created in the pipework. This feature is designed to alleviate deformation and damage to the lining, even under pressure induced stresses. Also, the body joint sealing is provided with taper lining overlap, which is especially effective under high internal pressure and temperature variations.




1. Metal-to-Metal Body Joint
2. Metal Body Centering
3. Lining Overlap
4. Temperature Increases
5. Temperature Decreases

# Options and Accessories

## Material and Liner Options

### Low Temperature Carbon Steel Body

- Low service temperatures below -20°F/-29°C

### Antistatic-PFA Lining

- Applications that cause potential electrostatic
- Complies with ATEX, European Directive 2014/34/EU

### PVDF-Lining

- Halogen applications
- Service temperatures limited to 130°C/266°F

## Operator Options

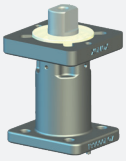
### Standard Locking Lever

- Stainless steel for corrosive environments
- Lockable as standard
- Spring-loaded latching mechanism

### Oval Handle

- Optional for sizes up to DN40 (1 1/2")
- Stainless steel for corrosive environments
- Compact design discourages accidental operation

### Stem Extension



- Standard stem extensions in stainless steel
- Provides necessary clearance for operators in insulated pipeline installations
- Used with lever, gear or automated packages

### Automated Valve

- XLB valves can be automated with manual, pneumatic or electric actuators.
- Actuator mounting dimension in accordance with ISO 5211
- Low torque allows for economical automation solutions

## AAR Approved

ASSOCIATION OF AMERICAN RAILROADS

Xomox lined ball valves are compliant with AAR (Association of American Railroads) standards

# Applications

**XLB-FE0 valves deliver cost-effective performance for most chemical applications, with exceptional leakage and emissions control**

**They are commonly used within the following industries:**

- Chlor-Alkali
- Industrial Inorganic Chemicals
- Metal and Mining
- Pharmaceutical
- Nitrogen and Phosphatic Fertilizers
- Petroleum Refining

**XLB-FE0 valves have superior performance in the following applications:**

- Chlorine
- Brine
- Benzene
- Bromine
- Sulfuric Acid
- Nitric Acid
- Hydrochloric Acid
- Phosphoric Acid
- Sea Water

Visit our website, www.cranecpe.com, to view these and other lined products, applications, brochures, certification, documents and more.

# Applications

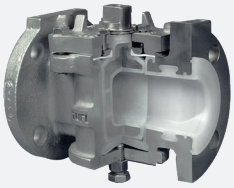
| | | |
|---|---|---|
| **Function** | **On / Off** | ● |
| | **Throttling** | ● |
| | **Diversion** | ● |
| **Media Type** | **Clean Liquids & Gases** | ● |
| | **Dirty Liquids & Gases** | ● |
| | **Corrosive Liquids & Gases** | ● |
| | **Hazardous Liquids & Gases** | ● |
| | **Viscous Liquids** | ● |
| | **Scaling Liquids & Slurries** | ● |
| | **Abrasive Slurries** | ● |
| | **Fibrous Slurries** | ● |
| | **Dry Materials** | ● |
| | **Vacuum Service** | ● |
| **Application Requirements** | **High Flow Capacity** | ● |
| | **Low Torque** | ● |
| | **Fugitive Emissions Control** | ● |
| | **Reduced Maintenance** | ● |
| | **Extended Service Life** | ● |
| | **Sizes** | ½ " - 6"<br>DN15 - DN150 |
| | **Pressure Ratings** | Class 150 / PN16 |
| | **High Temperature (ASME/EN)** | 400°F / 204°C |
| | **Low Temperature (EN)** | -10°C / 14°F |
| | **Low Temperature (ASME)** | -20°F / -29°C |
| | **Key Benefit** | Safety / Economy |

● Superior Performance ● Limited Application ● Not Applicable

Source: CRANE Engineering

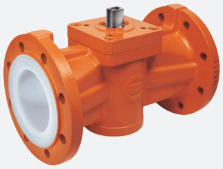
# Lined Products





Stainless steel lined plug valves

3 Way lined plug valves



Lined plug valve with ISO 5211 mounting

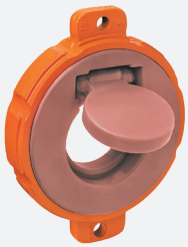
Lined plug valves, PN 16, class 150 and 300



Y Pattern ball check valves

Vertical and horizontal poppet check valves

Spring assisted check valves



Swing check valves



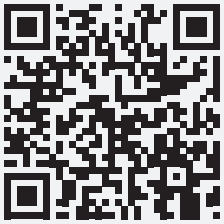
Fully lined sampling valves

Fully lined sight glass

Fully lined strainer and filters

In-line ball check valves

Visit our website www.cranecpe.com for additional product info.





Fully PFA lined butterfly valves

XLD Wafer

# Notes

# Notes

CRANE

**CRANE CHEMPHARMA & ENERGY**

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