



## DeZURIK BOS-US & BOS-CL RESILIENT-SEATED BUTTERFLY VALVES

### Design and Construction

Two different seat designs offer you the flexibility to choose the right valve for your application. BOS Resilient Seated Butterfly Valves are designed to handle a wide variety of liquids and gasses. They are available as lugged or wafer bodies, with nickel plated ductile iron, 316 stainless steel or aluminum bronze discs.

BOS Valves feature a one-piece body; one-piece shaft and high-performance resilient seats made of EPDM, NBR or FKM. Both the On-Center and Uninterrupted Seat versions provide bi-directional shutoff to the full rating of the valve.

### Enhanced Quality Features

#### Superior Bonded Seats

The BOS seat bonding process provides a long lasting, maintenance free seal. Our experience and proof-of-design testing assures that the molded seats are maintenance free for the life of the valve.

#### Bearings and Shaft Seals

Three heavy-duty bearings ensure smooth, reliable valve operation. Shaft seals protect bearings from internal and external corrosion.

#### Actuator Mounting Flange

The actuator mounting flange is per ISO 5211 and accommodates all types of actuators – including levers, gears, pneumatic cylinders and electric motors.

### Quality Testing and Standards

Every BOS Valve is tested for leakage, shell pressure and to be operational with actuator.



## **Advantages of Bonded Seat Design**

The BOS seat bonding process provides a long-lasting, maintenance-free seal. Our process ensures the seat is held firmly in place – bonded to the body on BOS-US Uninterrupted Seat design and to a rigid backing ring for the BOS-CL On-Center design – eliminating premature seat failure that occurs due to flexing and fatigue.

The BOS-US uninterrupted seat design assures dead-tight shutoff in isolation and dead-end service without requiring downstream flanges. The bonded seat also improves performance when the line maintains a vacuum, or when handling viscous liquids – circumstances that tend to dislodge seats that are not solidly connected. BOS Valves have integral flange seals, eliminating the need for flange gaskets.

## **Bearings**

Three heavy-duty bearings ensure smooth, reliable valve operation that promote a longer cycle life than valve designs without bearings. They are fit into the valve body to support shaft loads and eliminate binding. In addition, shaft seals protect bearings from internal and external corrosion.

## **Shaft Seals**

The BOS shaft sealing technology offers maximum reliability. It uses four separate sealing components for continuous protection from leakage. Disc hubs form the primary seal around the shaft. Two additional seals are molded into the seat to ensure reliability.

## **Blowout Proof Shaft**

For user safety, each valve has a blowout proof shaft per API 609.



## On-Center Seat Design (BOS-CL)

On-Center Seat design provides a streamlined disc with high flow capacity.

Proven pin disc-to-shaft connection and blowout proof shaft per API 609 provide years of safe, trouble free service.

BOS-CL Valves, 1.5-24" (40-600mm) with EPDM or NBR seats are certified per NSF-61 requirements for use in drinking water applications.

### Pressure Ratings:

1.5-12" (40-300mm) 200 psi (1380 kPa)

14-24" (350-600mm) 150 psi (1030 kPa)

### Temperature Ratings:

NBR: 180°F (82°C)

EPDM: 250°F (121°C)

FKM: 350°F (177°C)

### Applications

Suitable for many industrial applications such as water treatment, power, mining, pulp and paper and automotive where heavy-duty Resilient Seated Butterfly Valves are required. The On-Center BOS Butterfly Valve is suitable for liquids and gases. Designed for both on-off and throttling.



## Uninterrupted Seat Design (BOS-US)

By using an off-center disc, BOS Valves have an uninterrupted seat design for improved seating performance, resulting in longer seat life.

BOS-US Valves feature a rugged, splined disc-to-shaft connection. This provides high cycle life and great control performance.

Shaft diameters meet AWWA 504 Class 75B standards. Blowout proof shaft per API 609 standard.

BOS-US valves, 2-20" (50-500mm) with EPDM or NBR Seats, are certified per NSF-61 requirements for use in drinking water applications.

### Pressure Ratings:

250 psi (1724 kPa) – 2-42" (50-1050mm) with DI disc (316 Stainless Steel 200 psi)

Dead end – full rating, lugged valves only  
24" Hg vacuum

### Temperature Ratings:

2-42" (50-1050mm)

NBR: 180°F (82°C)

EPDM: 250°F (121°C)

FKM: 350°F (177°C)

24-42" (600-1050mm) only

CR: 180°F (82°C)

EU: 130°F (54°C)

### Applications

The uninterrupted seat BOS Valve is desirable for applications where extended service applications are necessary such as high cycles, high pressures, and high temperatures. Excellent for continuous modulating control, dead-end service to 250 psi, and vacuum service to 24" Hg.

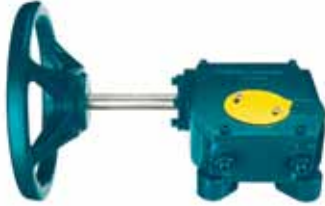


## Compatible with Standard Actuators

The actuator mounting flange on BOS valves is compatible with the ISO 5211/1 bolt pattern which increases flexibility and reduces inventory. Actuator options include lever, handwheel, chainwheel, square nut, PowerRac®, G-Series Cylinder and Compak™ Cylinder.

## MG-Series Manual Gear

Manual Gear actuators provide high strength for robust applications and a long service life without maintenance. Handwheel, Chainwheel and Nut input are available.



## G-Series Manual Actuators

G-Series Manual Actuators are constructed for dependable and lasting performance. Rugged worm gear design and heavy-duty corrosion resistant bearings provide easy valve operation and reliable long life. They are available with handwheel, chainwheel or 2" square nut input.



## PowerRac® Cylinder Actuators

Double-acting and spring-return PowerRac® actuators feature a proven rack-and-pinion design ideally suited for high cycle applications. PowerRac® actuators provide high output torque for on-off



applications and consistently high output torque throughout the full stroke for accurate control. Its durability is backed up with a Lifetime Warranty.

## Compak™ Cylinder Actuators

The compact, modular design allows the Compak™ actuator to be mounted for a low profile assembly. Compak actuators are a versatile double rack-and-pinion design and are available as double-acting or spring-return units.



## G-Series Cylinder Actuators

G-Series actuators feature a rack-and-gear design for larger size rotary valves where constant high torque capability throughout the stroke is required. They are available as double-acting or spring return with either pneumatic or hydraulic supply.



## Accessories

A full line of accessories is also available, including positioners, solenoids, switches, speed controls, floorstands and valves boxes.

## Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:  
Web Site: [www.dezurik.com](http://www.dezurik.com) E-Mail: [info@dezurik.com](mailto:info@dezurik.com)



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