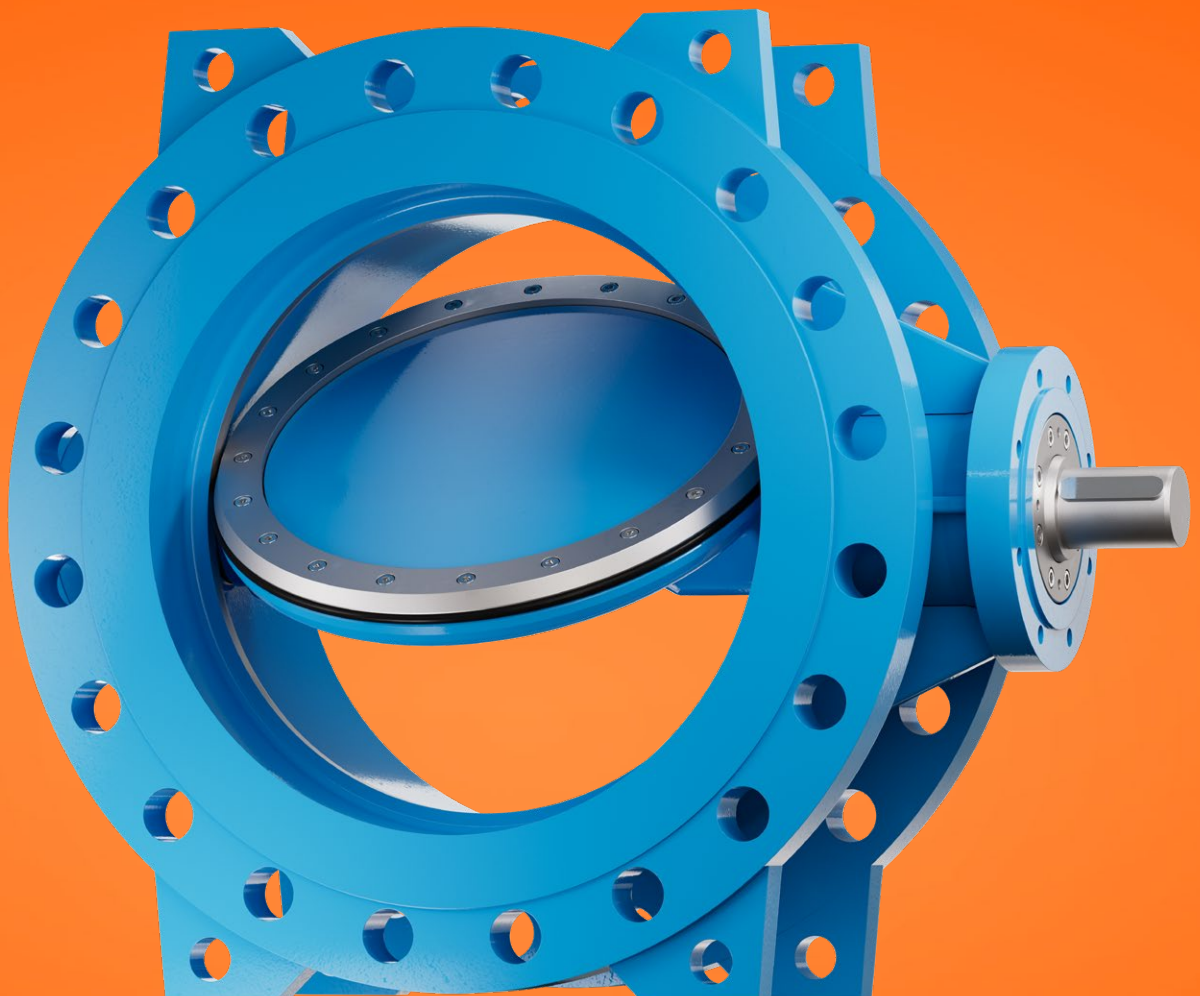


# SEAL THE DEAL. RELIABLE FLOW.

## WS SERIES

Heavy-duty 'Seal-On-Disc' butterfly valve with durable, low-torque performance – bi-directional, zero-leakage for water service applications.

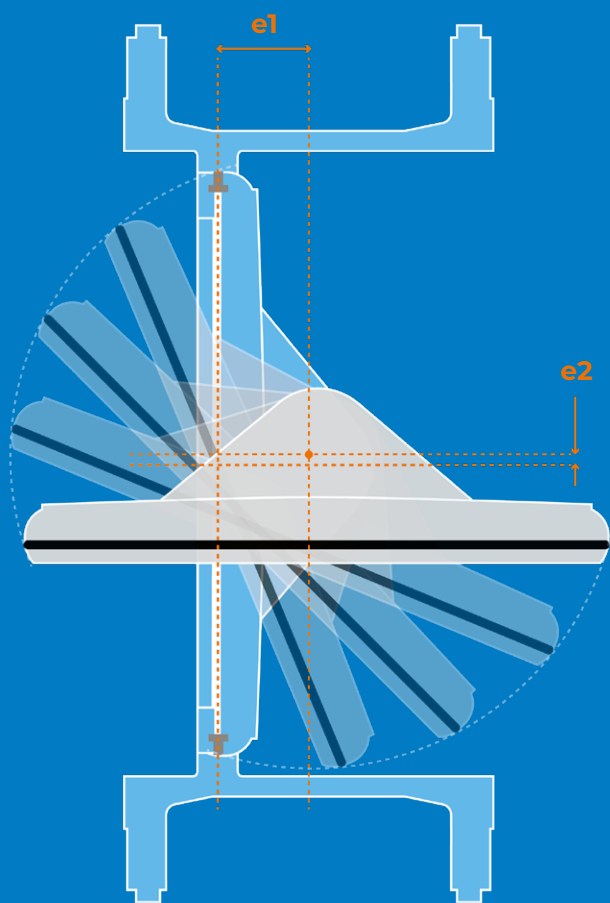


# BUILT TO LAST.

## Double-Eccentric Design. Durable & Low Torque Performance.

EBRO WS112 butterfly valves feature a double-eccentric design that minimizes wear and ensures long service life. The double eccentricity reduces friction, prevents seal deformation, and maintains low torque for efficient operation.

Built for heavy-duty water and wastewater applications, the WS112 delivers bi-directional, zero-leakage sealing. Its robust construction ensures reliable performance and reduces downtime while extending service life, making it ideal for demanding environments.



### BI-DIRECTIONAL T-SEAL

A precision-molded T-profile seal element maintains dependable seating contact force, delivering a 100% bubble-tight seal with consistent operating torques. Its low compression design, completely free of seating contact in the open position and designed for replacement in the field, makes the WS112 the preferred choice. It is available in a variety of materials to also cover demands in desalination applications.

## Weld-Deposited Body Seat. Built To Last.

EBRO WS112 valves utilize advanced robotic technology to apply a weld deposit to form the valve's body seat. This precise and repeatable process ensures a corrosion- and erosion-resistant seating surface for unmatched durability.

EBRO has taken weld overlay technology one step further by ensuring that the material grain boundary is completely coated with epoxy following the preparatory stages of manufacture. This attention to detail results in a body-sealing system that consistently outperforms all other designs.

With a range of material options available, the WS series is engineered to meet even the most demanding applications. Designed for durability, reliability, and longevity, it maintains consistent sealing integrity – proven by time and technology.

# DURABLE BY DESIGN. RELIABLE IN ACTION.

The WS Series is engineered to meet the demands of both above-ground and below-ground installations, offering reliable performance across a variety of water-management systems. Built to handle diverse water types and flow conditions, it ensures efficient operation even in challenging environments. Ideal for water supply, wastewater treatment, seawater desalination plants, and industrial infrastructure, the WS Series provides long-term solutions for critical systems.

## Disc-Shaft Connection. Built To Perform.

EBRO's advanced disc-shaft design ensures precise torque transfer to the disc. The polygonal design (up to DN 700) eliminates hysteresis, providing seamless, efficient movement without any energy loss, thereby enhancing system performance.

The “dry-shaft” design, featuring precision bearings, o-rings, along with the encapsulated disc hubs, minimizes weak points and provides continuous corrosion protection, even in harsh conditions. The WS Series offers smooth operation and low maintenance, making it the perfect choice for industrial and municipal applications alike.

## TECHNICAL SPECIFICATIONS

Nominal size:	DN 100 – DN 2200
Pressure rating:	PN 10, PN 16, PN 25, PN 40
Temperature range:	-15 °C to +80 °C
Face-to-face:	EN 558-1 series 14, EN 558-1 series 13
Flange connection:	EN 1092, AS 2129, AS4087, ANSI B16.5, AWWA C207
Testing:	EN 12266-1, API 598, AS 4795.2
Coating:	DN 100 - DN 1800: fusion-bonded epoxy (FBE) DN 2000 - DN 2200: two-pack liquid epoxy
Material (body, disc):	Ductile iron as standard: carbon steel, stainless steel, nickel-aluminium-bronze as option

## PRODUCT FEATURES

- ✓ Optimized bi-directional sealing design
- ✓ Proven design and easy maintenance
- ✓ Powerful disc-shaft connection
- ✓ High corrosion resistance
- ✓ Low operational torque
- ✓ Low headloss and high energy-efficiency

### APPLICATIONS

- Water supply pipelines
- Water transmission pipelines
- Desalination plants
- Buried service transmission pipelines
- Pumping stations
- Reservoirs and power stations

### MEDIA

- Potable water
- Raw water
- Sea water
- River water
- Grey water
- Screened effluent

# QUALITY IN EVERY DETAIL.

## BODY

The heavy-duty body construction is equipped with integral lifting points for easy installation, while the brackets provide strong ground support.

## BEARING SYSTEM

Self-lubricating bearings reduce shaft friction by centralizing the shaft and preventing radial movement from actuator side-thrust, resulting in low operating torque and ensuring smooth operation.

## RETAINING RING

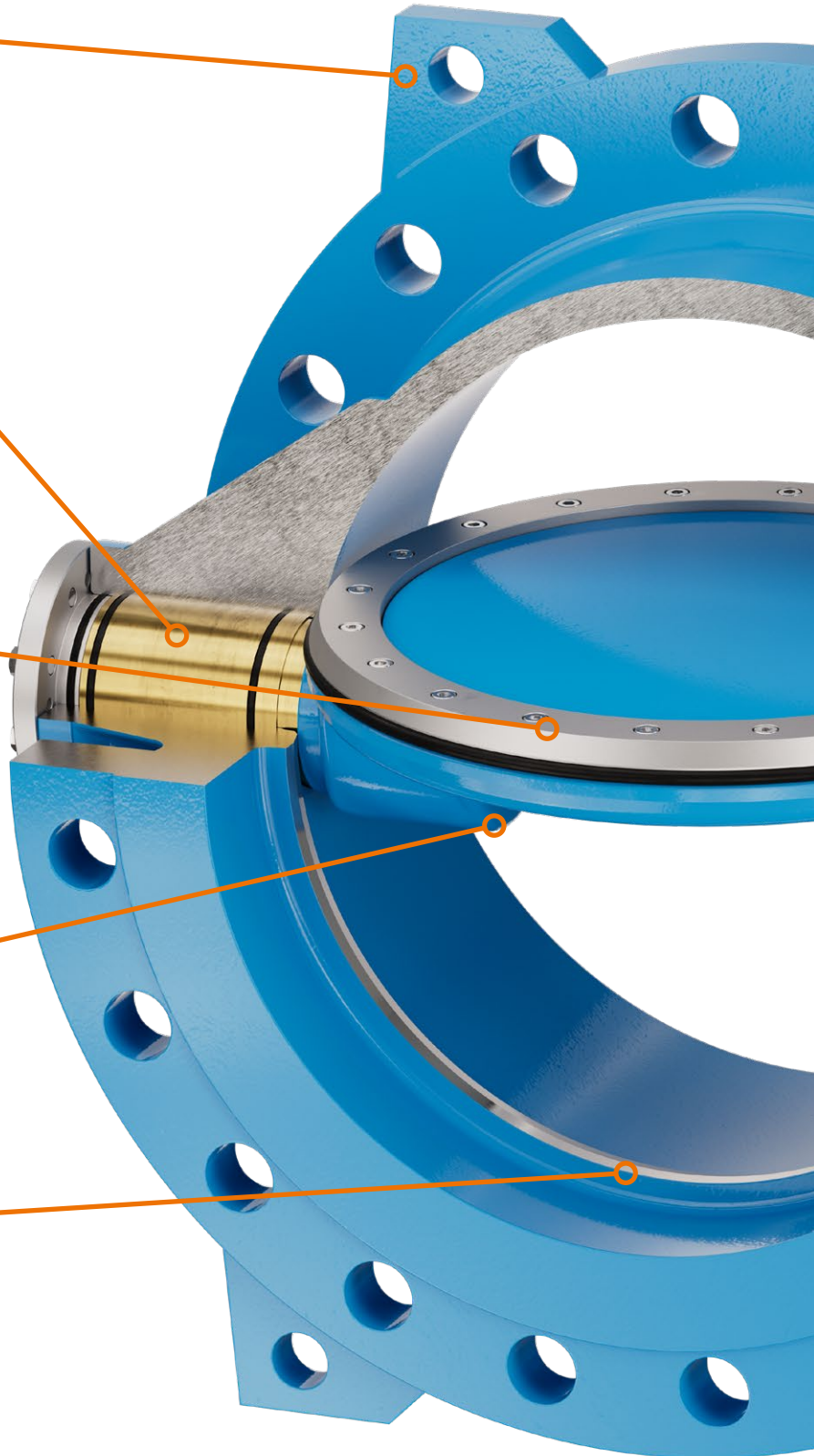
The one-piece retaining ring prevents the sealing ring from rolling out, while the sealing ring can be easily replaced on-site without dismantling the valve disc or requiring any special tools

## ENCLOSED DISC HUBS

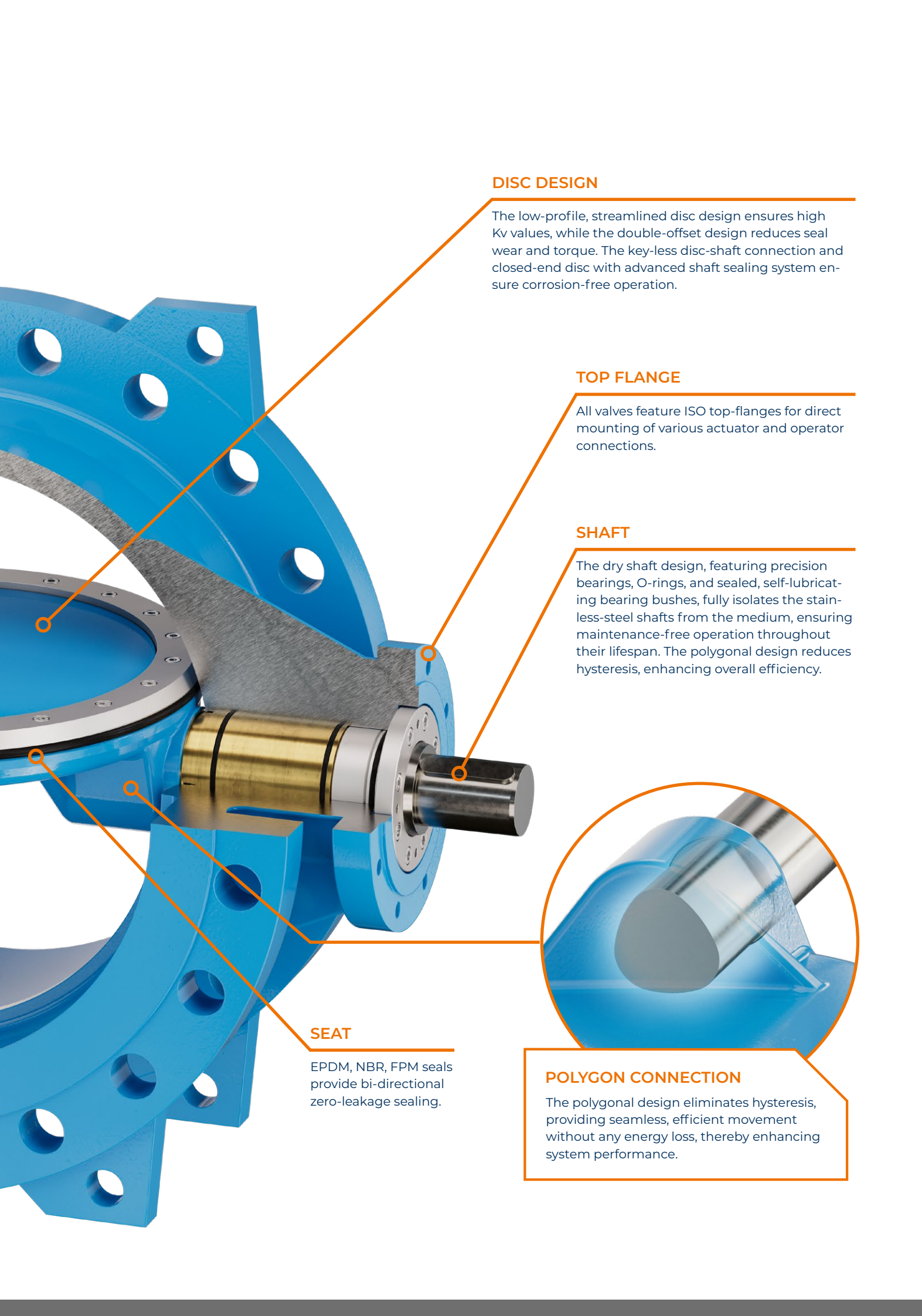
Durability is enhanced by enclosed disc hubs that provide uninterrupted corrosion protection.

## BODY SEAT

The stainless-steel weld-filled integral body seat, engineered with a high-precision finish, delivers a corrosion- and erosion-resistant surface to ensure durability and reliability of the entire sealing system.







### DISC DESIGN

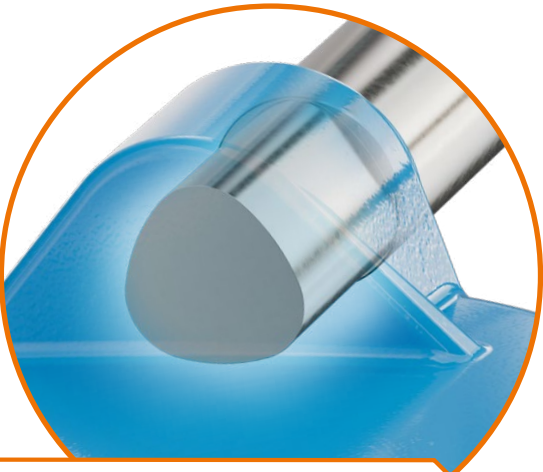
The low-profile, streamlined disc design ensures high Kv values, while the double-offset design reduces seal wear and torque. The key-less disc-shaft connection and closed-end disc with advanced shaft sealing system ensure corrosion-free operation.

### TOP FLANGE

All valves feature ISO top-flanges for direct mounting of various actuator and operator connections.

### SHAFT

The dry shaft design, featuring precision bearings, O-rings, and sealed, self-lubricating bearing bushes, fully isolates the stainless-steel shafts from the medium, ensuring maintenance-free operation throughout their lifespan. The polygonal design reduces hysteresis, enhancing overall efficiency.



### SEAT

EPDM, NBR, FPM seals provide bi-directional zero-leakage sealing.

### POLYGON CONNECTION

The polygonal design eliminates hysteresis, providing seamless, efficient movement without any energy loss, thereby enhancing system performance.

# THE WORLD OF EBRO ARMATUREN.

## Our international network



Established in 1972, EBRO ARMATUREN has a compelling track record when it comes to developing, producing, and marketing butterfly and control valves as well as automation technology for industrial applications. More than 1,000 employees at two domestic and 30+ international subsidiaries ensure that EBRO products are available in over 100 countries worldwide. Within the global network, production takes place at the headquarters in Germany and in Italy, Sweden, China, and Thailand with uniformly high manufacturing and quality standards.

In 2005, EBRO ARMATUREN acquired the Swedish manufacturer Stafsjö Valves AB, thereby expanding its overall product range to include an extensive portfolio of knife gate valves.

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Further details about the  
EBRO WS112 series

