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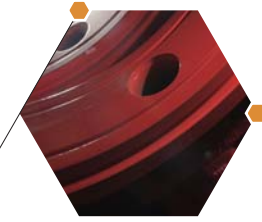
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# RBV010

Wafer Resilient Seated Butterfly Valve



## SISCO VALVE

## COMPANY PROFILE

SISCO is a competitive valve manufacturer that was first incorporated in 1995. As an OEM manufacturer, we specialize in premium industrial valves. Our main products include the butterfly valve, gate valve, and check valve. These products are utilized extensively by industries such as petroleum, chemical engineering, sewage treatment as well as air and water treatment. Customization services are available upon request.

SISCO owns 12,000 square meters of real estate. We maintain operations with a staff of more than 200 employees, many of whom are senior engineers and experienced technicians. Our modern facilities include 11 workshops and 3 automatic assembling machines that have been specialized for dedicated functions such as assembly, processing, painting, and testing. A complete array of advanced equipment ensures the quality of our products.

We have successfully passed the certification of internationally recognized standards such as CE, DNV, GOST, and ISO9001. Our manufacturing techniques implement state-of-the-art technologies to guarantee high processing efficiency and integrity. This level of enhanced productivity is the underlying basis for our always-on-time delivery policy. As a mature and responsible enterprise, we strive to provide considerate and attentive after-sales services.

SISCO exports worldwide to regions including the Americas, Europe, and the Middle East. Our valves have also exhibited outstanding performance on domestic markets, serving as the control node for systems such as petroleum pipelines, heat supply pipelines, water supply pipes, chemical pipelines, and sewage treatment.

Product quality has always been our top priority. All SISCO employees are trained in proper handling and operating techniques. We have developed quality control protocols to streamline everything from raw material procurement to machining, inspection, and logistics.

Please contact us with product and service related inquiries! We look forward to your correspondence.

## Wafer Resilient Seated Butterfly Valve **RBV010** Series



# RBV010

Butterfly Valve Series

## COMPANY & PRODUCTS

01 02

RBV010 Series is a line of WAFER type concentric resilient seated butterfly valve, which is designed to meet the stringent requirements of industrial applications and to provide reliable performances under various working conditions.

The RBV010 Series Butterfly Valve comes with 3 different exteriors while sharing the same general design features.

### RBV010-H SERIES

Wafer type concentric hard backup seat designing, size from 2"-24" (DN50-600)



### RBV010-C2 SERIES

Wafer type concentric soft backup seat with groove and tongue designing, size from 2"-24" (DN50-600)



### RBV010-C1 SERIES

Wafer type concentric soft backup seat with groove and tongue designing, size from 2" -24" (DN50-600)



PRODUCTS



# RBV010

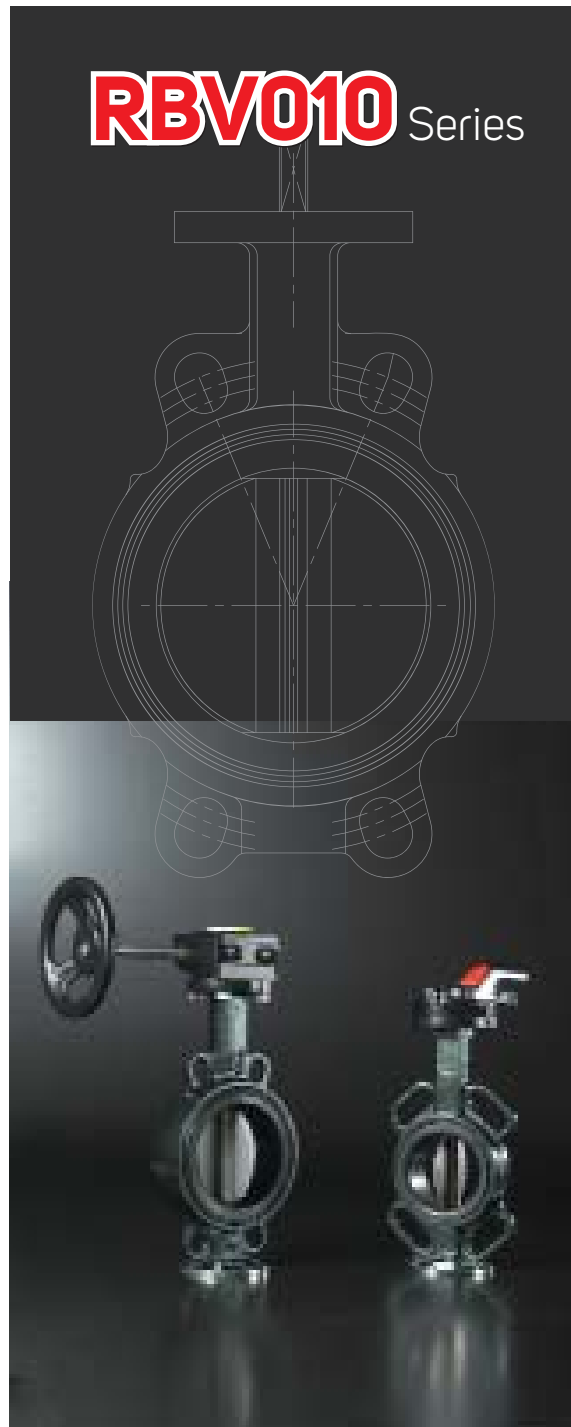
Butterfly Valve Series

## FIELD OF APPLICATION

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Wafer Resilient Seated Butterfly Valve

- Water & Wastewater Treatment
- Desalination Plants
- Irrigation
- District Cooling System
- HVAC
- Power stations / FGD
- Petroleum Refining & Oilfield
- Shipbuilding
- Marine
- Steel Production
- Aluminum Production
- Mining Applications
- Chemical Applications
- Ultrapure Water
- Pharmaceutical
- Food Processing
- Beverage
- Brewing/Wine Making
- Sugar/Ethanol
- Pulp & Paper



## WORKING & ENVIRONMENT

### Temperature Range

Depending on different materials used for the valve seat, RBV Series butterfly valve is applicable to a wide range of working temperature.

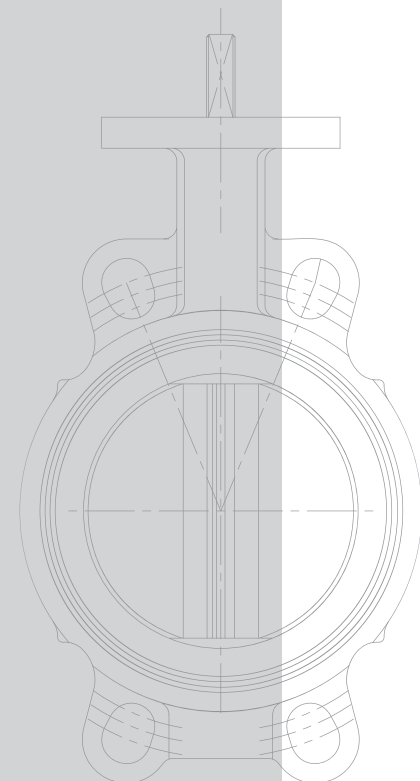
Material	Working Temperature
EPDM	-20 °F (-29°C)~250 °F (121°C)
BUNA-N	0 °F (-18°C)~212 °F (100°C)
Viton	0 °F (-18°C)~400 °F (204°C)
Polyurethane	-20 °F (-29°C)~176 °F (80°C)
PTFE-Lined EPDM (Standard)	-20 °F (-29°C)~250 °F (121°C)
PTFE-Lined EPDM (High-Temp)	-20 °F (-29°C)~302 °F (150°C)
Virgin PTFE & Conductive PTFE	0 °F (-18°C)~392 °F (200°C)
UHMWPE	0 °F (-18°C)~185 °F (85°C)

### Media

Different Disc / Seat material combinations in RBV010 Series are available to be chosen according to different media and working conditions. Experienced senior SISCO engineers are here to serve you providing professional advices to meet your particular requirements.

### Bill of Material

Part Name	Material
Body	Cast Iron
	Ductile Iron
Body Coating	Epoxy Coating
Disc	ASTM 304/316 Stainless Steel
	Super Duplex Stainless Steel
	Aluminum Bronze
Disc Surfacing	Electroplate
	Nylon Coating
	Halar Coating
	Coated with NBR
	Coated with PTFE
Stem	ASTM 304/316 Stainless Steel
	ASTM 416/420 Stainless Steel
	Super Duplex Stainless Steel
	Monel Metal
Seat	NBR
	EPDM/EPDM-Food Grade
	Viton
	Silicon Rubber
	PTFE



# RBV010

Butterfly Valve Series

## GENERAL FEATURES

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### General Features

**International Compatibility / Bi-directional Sealing**  
**Full EPDM Lining / Dry Shaft Design**  
**Smaller Operating Torque / Easy installation & Maintenance**  
**Full bore feature**

### International Compatibility

#### Top Flange:

RBV010 Series top flanges mounting meets ISO 5211 standard for direct mounting of Handles, Gear Operators, Pneumatic and Electric Actuators, no brackets are required, which allows of simple installation in the field, minimizes possible misalignment and reduces overall height.

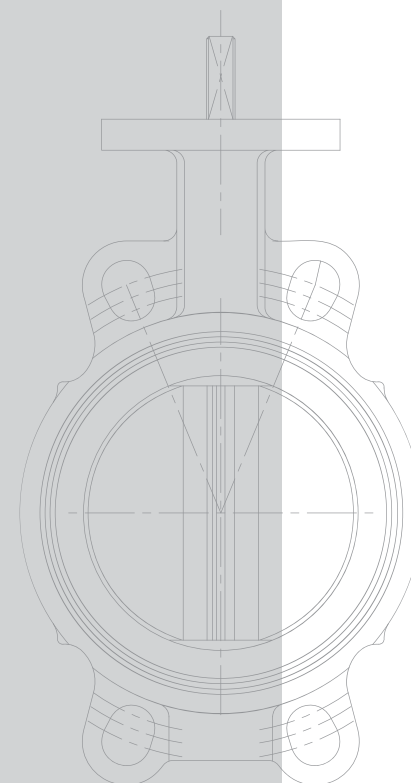
#### Side Flange:

Connection compatibility design allows RBV010 Series Butterfly Valve to be installed between flanges of DIN PN10/16, BS and ASME Class 150 simultaneously.

### Bi-Directional Sealing

Concentric resilient seated design features the Series bi-directional bubble tight shut off with zero leakage. Bi-directional sealing breaks the directional limitation during installation, making it much more flexible and more achieving friendly working. Zero leakage perfects the sealing performance especially in Gas and Air applications.

Wafer Resilient Seated Butterfly Valve



### Full EPDM Lining

Full EPDM lined valve interior completely isolating the line media from the body eliminating unnecessary contacts between media and body. Body material therefore does not have to be corrosion resistance materials, which usually being expensive, this feature lowers the overall cost.

### Dry Shaft Design

Alternative to high corrosion resistance shaft materials the RBV010 valves are equipped with the dry shaft provision. In that case the shaft with standard material is protected from the medium by applying rubber lining. This lining protects the standard shaft material against corrosive environments.

### Smaller Operating Torque

Replaceable tongue and groove seat design lowers the opening and closing torque which makes operation easier as well as saving cost in actuator selection.

# RBV010

Butterfly Valve Series

## LEADING DESIGN

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Zinc Coated



Epoxy Coating



Hammer Painting



PPS

### Body

One piece wafer style. All bodies are drilled to be compatible with DIN PN10, PN16, and ANSI 150 side flange connection simultaneously. Valve mounting top flanges meet ISO 5211 standard for direct mounting of manual operators and power actuators.

### Surface Coating

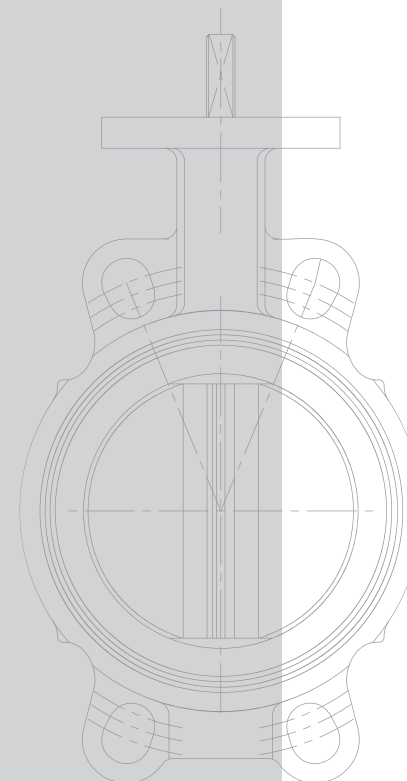
As standard body coating, Fusion Bonded Epoxy coating is applied for excellent corrosion resistance. Hammer painting, Nylon, PPS, Halar, and sweat proof coating are available as options.

Machined valve body is carefully prepared before coating. SISCO standard procedure is Zinc coated before epoxy coating to achieve ideal quality. For customers who have special requirement of cost saving, sand blasting and acid-washing is implemented instead of zinc coating.



Sweat Proof Coating

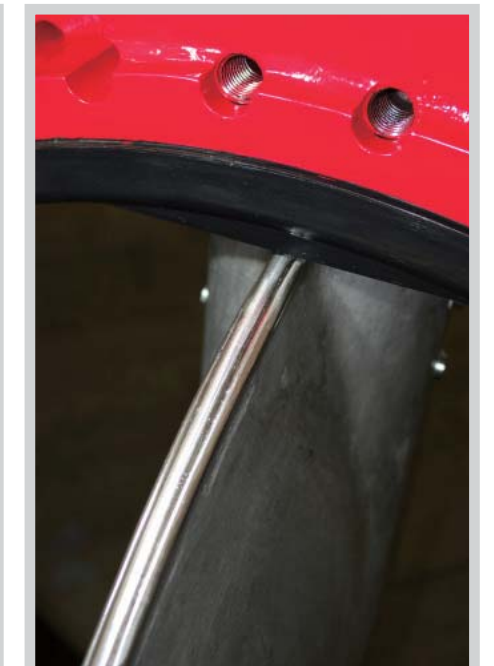
Wafer Resilient Seated Butterfly Valve



## LEADING DESIGN

### Disc

The high strength casting discs are casted by once, the sealing edges are spherically machined, and then hand polished to provide 360 ° concentric seating bidirectional bubble-tight shut off, minimum torque and longer seat life. The symmetrical disc profile enhances valve performance by increasing the Cv values, reducing turbulence and increasing pressure recovery. The disc O.D. clearance is designed to work with all standard piping.



# RBV010

Butterfly Valve Series

## LEADING DESIGN

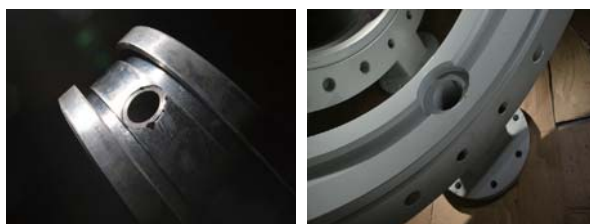
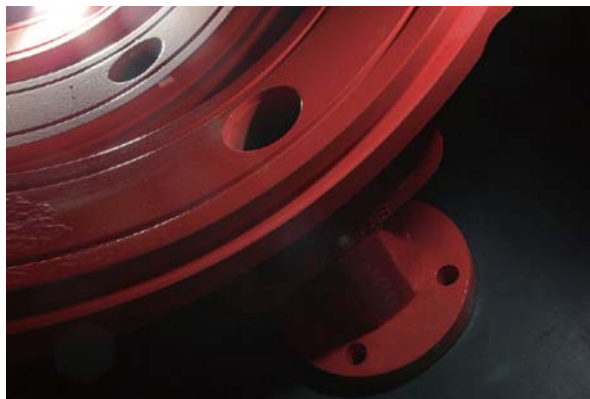
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### Seats

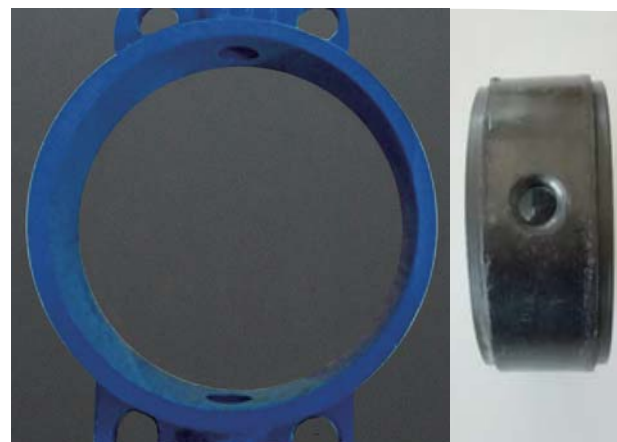
The replaceable tongue and groove resilient seat offers lower torque and provides complete isolation of flowing medium from all valve components (excluding the disc) by a totally encasing design. The seat features a molded tangential O-ring eliminating any need for flange gaskets.

**EPDM** is the abbreviated name for Ethylene Propylene Diene Monomer. In general industry, one may see other abbreviations or trade names used in lieu of EPDM such as EPT, Nordel, ECD, or EPR. Typically these are the same materials as EPDM. EPDM is a standard seat material offered in SISCO resilient-seated butterfly valves. It is the most universal and economical of seat materials offered by SISCO; that is, it may be used in a wider range of applications than BUNA-N.

### Soft backup seat



### Hard backup seat



## LEADING DESIGN

### Shaft

Single shaft pin-less disc connection and double shafts pin-less disc connection are both available to be chosen according to customers' preference.

Alternative to high corrosion resistance shaft materials, RBV010 is equipped with the dry shaft design because of its concentric nature and axial sealing design, where standard material shaft is completely isolated from the flowing media.

Precision machining of the disc and the stem connection minimizes hysteresis and produces maximum strength engagements.

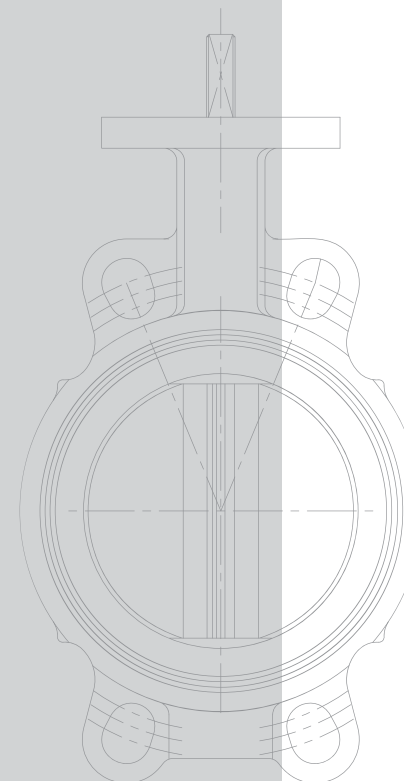
Both disc/stem designs inherently provide complete protection from particle entrapment and bacterial decay, protection that is required for sanitary performance. For superior erosion and abrasion resistance, the one-piece disc/stem is fully encased in either EPDM or BUNA-N.

For double shafts pin-less design, precision double "D" or "Square" disc to stem connection drives the disc without the need for screws or pins. The close tolerance, double "D" or "Square" connection that drives the valve disc are exclusive features of the SISCO valve. Disassembly of the shaft is just a matter of pulling the stem out of the disc.

All stem designs incorporate a blow-out proof feature.



Wafer Resilient Seated Butterfly Valve



# RBV010

Butterfly Valve Series

## LEADING DESIGN

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# Wafer Resilient Seated Butterfly Valve

# RBV010 Series



### Blow-out Proof

A retaining ring, installed between the machined stem groove and gland retainer step, provides full retention of the stem in the unlikely event of internal stem failure.

### Shaft Bushing

Non-corrosive, phenolic resin bushing absorbs actuator side thrust. Brass bushing is also available to choose.

### Primary & Secondary Seals

These seals prevent line media from contacting with the stem or body. Primary Seal is achieved by an interference fit of the molded seat flat and the disc hub. Secondary Seal is created because the stem diameter is bigger than the diameter of the seat stem hole. Self-adjusting triple O-ring sealing is also applied to give positive sealing in both directions and prevents external substances from entering the stem bore.

