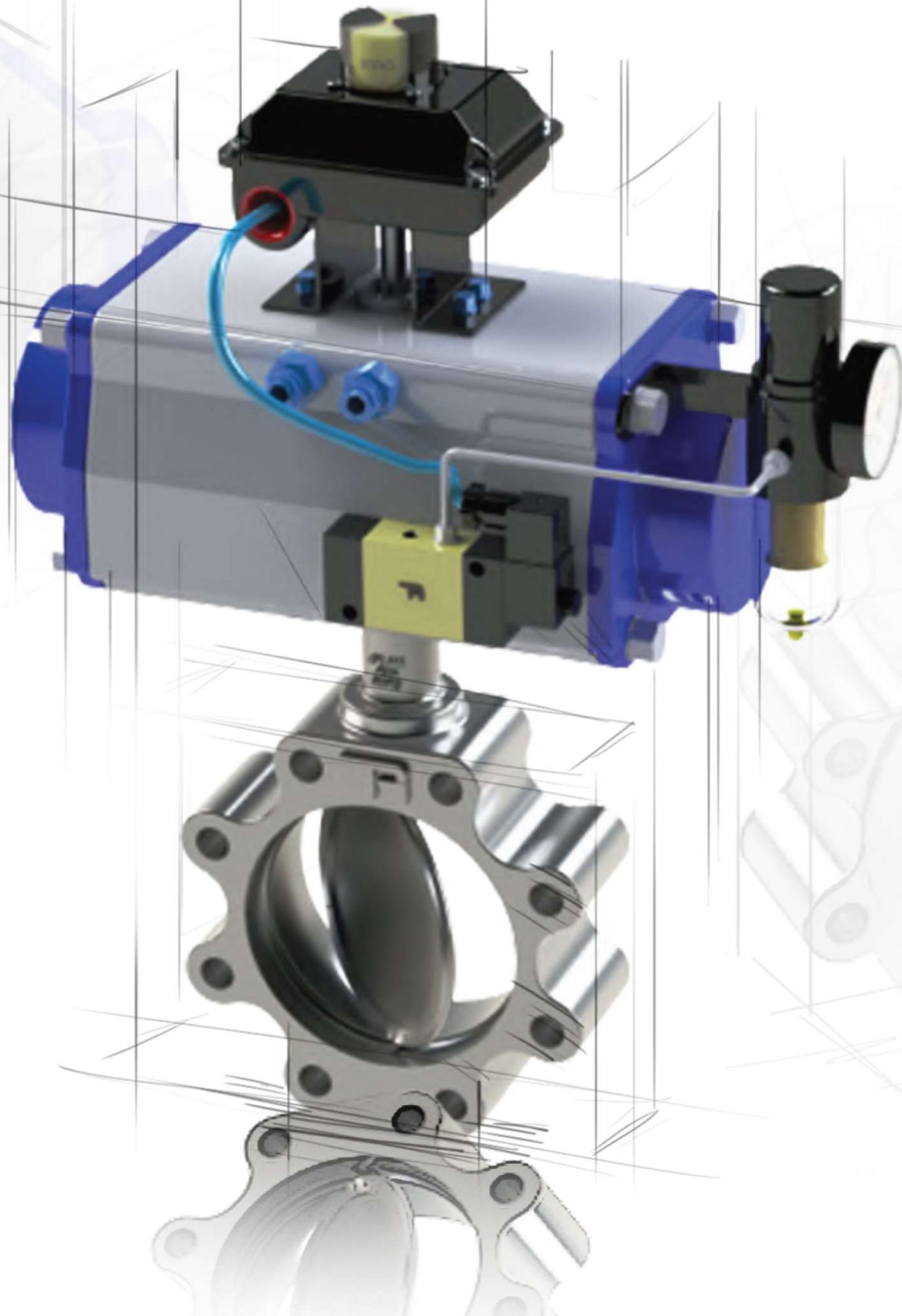


# FRETURE

EMISSION FREE PROCESS

## PROCESS AUTOMATION & CONTROL



INNOVATION FOR SUSTAINABILITY

### BUTTERFLY VALVE

[www.freture.com](http://www.freture.com)

ISO 9001 - 15000 | ISO 14000 | ISO 45001 | PED 2014 / 68 / EU

## **ABOUT US**

Freture Techno, a prominent precision valve manufacturer with 15 years of experience, prioritizes excellence in every aspect of their work. Our valves, crafted by skilled professionals by taking Sustainability in a central theme, as they strive to minimize environmental impact through efficient manufacturing, ensuring exceptional products while reducing resource consumption and waste.

With a diverse clientele spanning Oil, Gas, pharmaceuticals, chemicals, petrochemicals, and food industries, Freture Techno exhibits versatility and adaptability to dynamic sector needs. As the company continues to innovate, they remain committed to providing sustainable Valve & Piping solutions that align with the evolving demands of clients globally.

### **VISION**

Our vision is clear to provide precision products and services that enhance and strengthen relationships with our clients. We aspire to be the leading provider of valve solutions, renowned for our unwavering commitment to quality, reliability, and customer satisfaction.

Our vision is not just about delivering products; it's about fostering trust, reliability, and mutual growth in every interaction.

### **MISSION**

At Freture Techno, our mission is to serve our precision products and services on a global scale, supporting industries in maintaining their critical flow processes. We are dedicated to providing innovative valve solutions that optimize efficiency and sustainability for our customers worldwide.

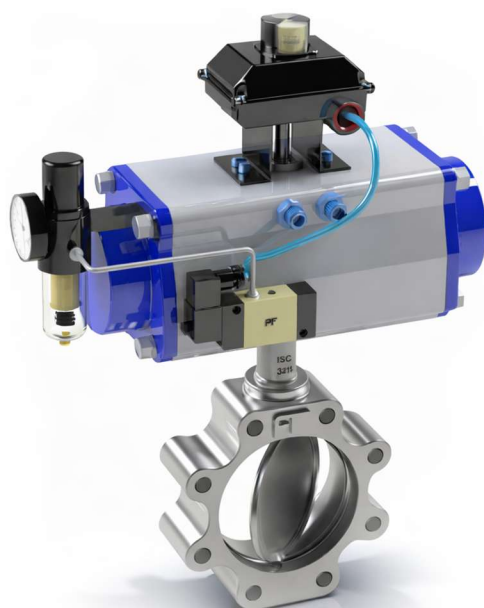
We ensure that every client, regardless of location or industry, can count on Freture Techno to deliver the products and support they need to thrive.

## ABOUT BALL VALVE

The butterfly valve was originally utilised in situations when a tight closing was not required. However, over time these valves have been created with relatively tight seals made of rubber or elastomeric materials that give good shut off in the same way that other types of valves do. Butterfly valves are utilised in situations where space is limited. Butterfly valves, unlike gate valves, can be used to throttle or regulate flow as well as in the completely open and fully closed positions. When compared to a gate valve, the pressure loss through a butterfly valve is minimal. This type of valve has an L/D ratio that is around one-third that of a gate valve. Butterfly valves are available in both big and small sizes. They can be operated by hand wheel or by a wrench or gearing system.

Butterfly valves are less expensive than gate valves because they require less material and civil construction. They are also easier to use in the presence of imbalanced water pressures since the disc pivots around an axis parallel to or near the pipe axis. As a result, butterfly valves are now widely employed in water distribution systems. Butterfly valves can be metal seated or resilient seated; in the latter instance, the seat is often constructed of natural or synthetic rubber and is commonly attached to the body of smaller valves or the disc.

Even after extended use in silty water, resilient seated valves can stay essentially waterproof. As a result, resilient seats are commonly used to specify isolating valves in distribution systems. Resilient seated valves can also be utilised for control, however the seal may be destroyed if operated at small apertures. Solid rubber is the most commonly used material for resilient seating: inflated seals have been employed on very large valves, although not always successfully. Metal-seated butterfly valves do not have tight shut-off characteristics and are primarily suitable for flow control applications where they must be held partially open.



# FEATURES OF BUTTERFLY VALVE

Butterfly valves are widely used for reliable flow control in industrial piping systems. Their compact design, quick operation, and durable construction make them an efficient and cost-effective solution for various applications such as water treatment, HVAC, and chemical processing.

## Longer Life Cycle



The vulcanized liner's strength and strong connection with the body prevent it from being bent and torn by the disc during valve operations. Furthermore, friction during operations is reduced as a result of the liner's surface is smooth. The sturdy seat and low friction considerably improve life span of the valve.

## Low Torque Emission Free Sealing

The tight interference fit between liner and disc results in bubble-tight sealing. Because the in-situ molded seat does not deform with age, the operating torque remains low and stable throughout the valve's life cycle. Because of its excellent durability and uniform torque, Freture is the valve of choice for actuated systems.



## Positive Stem Sealing



The flat features on the top and bottom of the disc interact with similar profiles on the body liner, preventing leaking to the atmosphere. A secondary seal is provided by integrally molded O-rings that compress around the top shaft. A weather seal is supplied to prevent extraneous particles from entering valves with flow control levers.

## ISO Mounting

The integrated ISO 5211 platform allows for direct Mounting of actuators and Gear-Box units, boosting system reliability and efficiency.



## Low Resistance Flow



The discs are hydro dynamically constructed to provide the least amount of resistance to flow while also improving flow coefficients.

# FEATURES OF BUTTERFLY VALVE

## Ease of Installation

The valve's integrated liner serves as a gasket between the valve and the companion flange. Unlike loose liners, the liner that is connected to the body is neither stretched nor damaged during installation.



## Reliable



A key feature is the positive shaft-disc connection with anti-blow out. The shaft has a coating that reduces friction and increases wear resistance. Furthermore, self-lubricating bearings minimize torque and improve valve durability.

# CONCENTRIC BUTTERFLY VALVE

The concentric butterfly valve is a kind of butterfly valve that is often used. The shaft is positioned in the disc's center. Some sections of the disc are constantly in touch with or scraping the seat while opening or shutting. When the valve is turned on, this configuration causes friction in the seat. Because of the seat shape, this concentric butterfly valve is restricted to class 150 in most applications.



| SPECIFICATION    |   |
|------------------|---|
| End Connection   | Flange (B16.5) / Lug Type / Wafer Type                    |
| Size             | 50 NB - 600 NB  |
| Pressure Rating  | #150 - PN 10 - PN 16                                      |
| Temp. Rating     | -190° C to 350°C  |
| MOC              | Carbon Steel / Stainless Steel / Alloy                    |
| Seat             | Soft Seat Nitrile Rubber, EPDM, Viton / Metal Seat        |
| Design Standard  | EN 593 (BS 5155), API 609, MSS SP-67                      |
| Operation        | Manual / Actuator / Gear                                  |
| Face to Face     | API 609 CAT A / MSS SP-67 (Narrow Body), ISO 5752 (Short) |
| Fire Sign Design | API 607   |
| Testing          | API 598 REV 2009  |
| Documents        | BS/EN 10204-3.1 REV 2019                                  |

| NPS | DN  | #150              |                      |             | #300              |                      |             |
|-----|-----|-------------------|----------------------|-------------|-------------------|----------------------|-------------|
|     |     | Center Height (H) | Face to Face (F - F) | Weight (Kg) | Center Height (H) | Face to Face (F - F) | Weight (Kg) |
| 2   | 50  | 86                | 44                   | 5           | -                 | -                    | -           |
| 3   | 80  | 102               | 48                   | 6           | 118               | 48                   | 11          |
| 4   | 100 | 124               | 54                   | 11          | 146               | 54                   | 18          |
| 6   | 150 | 152               | 57                   | 16          | 178               | 59                   | 28          |
| 8   | 200 | 181               | 64                   | 27          | 210               | 73                   | 42          |
| 10  | 250 | 229               | 71                   | 40          | 243               | 83                   | 78          |
| 12  | 300 | 254               | 81                   | 62          | 279               | 92                   | 131         |

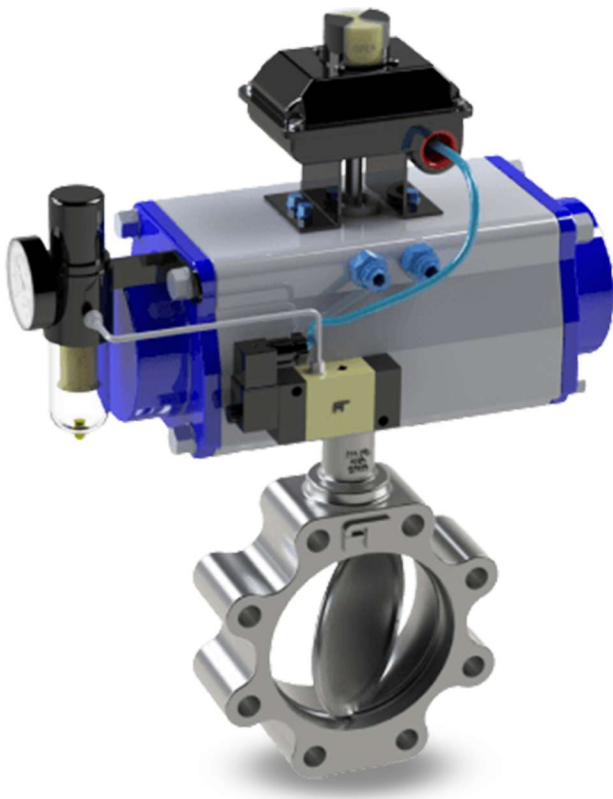
Note: Dimension are according to Lug type handle operated butterfly valve.

# SINGLE OFFSET BUTTERFLY VALVE

The shaft of a single offset butterfly valve will be placed behind the midline of the sealing region. Furthermore, the shaft on a single eccentric butterfly valve is centred to the valve centerline.

The stem of a single-offset butterfly valve is placed behind the disc. Because of the introduction of the double-offset, or high-performance, valve, there are few, if any, valves of this type left on the market today.

The stem's single offset causes the disc to make contact with the seat with three to four degrees of travel remaining, with the assumption that less seat contact will allow the valve to last longer.



| SPECIFICATION    |   |
|------------------|---|
| End Connection   | Flange (B16.5) / Lug Type / Wafer Type                    |
| Size             | 50 NB - 600 NB  |
| Pressure Rating  | #150 - PN 10 - PN 16                                      |
| Temp. Rating     | -190° C to 350°C  |
| MOC              | Carbon Steel / Stainless Steel / Alloy                    |
| Seat             | Soft Seat-Nitrile Rubber, EPDM, Viton / Metal Seat        |
| Design Standard  | EN 593 (BS5155), API 609, MSS SP-67                       |
| Operation        | Manual / Actuator / Gear                                  |
| Face to Face     | API 609 CAT A / MSS SP-67 (Narrow Body), ISO 5752 (Short) |
| Fire Safe Design | API 607   |
| Testing          | API 598 Rev 2009  |
| Documents        | BS/EN 10204-3.1 Rev 2019                                  |

| NPS | DN  | #150              |                      |             | #300              |                      |             |
|-----|-----|-------------------|----------------------|-------------|-------------------|----------------------|-------------|
|     |     | Center Height (H) | Face to Face (F - F) | Weight (Kg) | Center Height (H) | Face to Face (F - F) | Weight (Kg) |
| 2   | 50  | 86                | 44                   | 5           | -                 | -                    | -           |
| 3   | 80  | 102               | 48                   | 6           | 118               | 48                   | 11          |
| 4   | 100 | 124               | 54                   | 11          | 146               | 54                   | 18          |
| 6   | 150 | 152               | 57                   | 16          | 178               | 59                   | 28          |
| 8   | 200 | 181               | 64                   | 27          | 210               | 73                   | 42          |
| 10  | 250 | 229               | 71                   | 40          | 243               | 83                   | 78          |
| 12  | 300 | 254               | 81                   | 62          | 279               | 92                   | 131         |

Note: Dimension are according to Lug type handle operated butterfly valve.

# DOUBLE OFFSET BUTTERFLY VALVE

When compared to a concentric butterfly valve, a double-offset butterfly valve has two offsets. The first offset is the shaft, which is not at the centre of the disc but slightly behind it. Because of this misalignment, the valve will have a continuous sealing surface on the disc.

The second offset is the shaft, which is not in the centre of the pipe but slightly to the right of it. When the valve is fully opened, this offset ensures that it does not come into contact with the seat (see illustration above). This configuration causes less friction in these at than the concentric type butterfly valve, extending its life. In a typical application, this double-offset butterfly valve is only available in class 600.



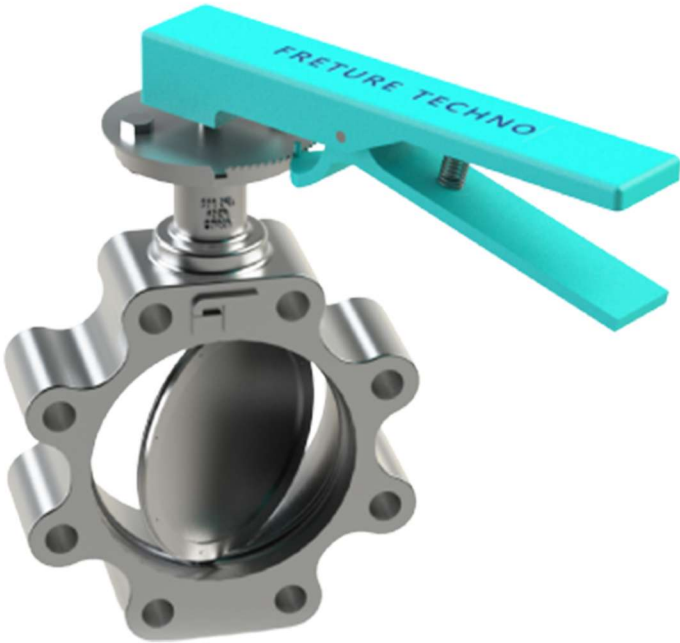
| SPECIFICATION    |  |
|------------------|--|
| End Connection   | Flange (B16.5) / Lug Type / Wafer Type                       |
| Size             | 50 NB - 600 NB   |
| Pressure Rating  | #150 - #600 - PN 10 - PN 16                                  |
| Temp. Rating     | -190° C to 350°C   |
| MOC              | Carbon Steel / Stainless Steel / Alloy                       |
| Seat             | Soft Seat-Nitrile Rubber, EPDM, Viton/<br>Metal Seat         |
| Design Standard  | EN 593 (BS 5155), API 609, MSS SP-67                         |
| Operation        | Manual / Actuator / Gear                                     |
| Face to Face     | API 609 CAT A / MSS SP-67<br>(Narrow Body), iso 5751 (Short) |
| Fire Safe Design | API 607  |
| Testing          | API 598 Rev 2009   |
| Documents        | BS/EN 10204-3.1 Rec 2019                                     |

| NPS | DN  | #150              |                      |             | #300              |                      |             |
|-----|-----|-------------------|----------------------|-------------|-------------------|----------------------|-------------|
|     |     | Center Height (H) | Face to Face (F - F) | Weight (Kg) | Center Height (H) | Face to Face (F - F) | Weight (Kg) |
| 2   | 50  | 86                | 44                   | 5           | -                 | -                    | -           |
| 3   | 80  | 102               | 48                   | 6           | 118               | 48                   | 11          |
| 4   | 100 | 124               | 54                   | 11          | 146               | 54                   | 18          |
| 6   | 150 | 152               | 57                   | 16          | 178               | 59                   | 28          |
| 8   | 200 | 181               | 64                   | 27          | 210               | 73                   | 42          |
| 10  | 250 | 229               | 71                   | 40          | 243               | 83                   | 78          |
| 12  | 300 | 254               | 81                   | 62          | 279               | 92                   | 131         |

Note: Dimension are according to Lug type handle operated butterfly valve.

# LINED BUTTERFLY VALVE

Lined Butterfly valves are well renowned for their corrosion-resistant construction. Such valves are excellent for usage in humid environments due to their anti-rust surface finish. These valves are able to withstand high working pressures and have a long service life.



| SPECIFICATION    |   |
|------------------|---|
| End Connection   | Flange (B16.5) / Lug Type / Wafer Type                    |
| Size             | 50 NB - 600 NB  |
| Pressure Rating  | #150 - #600 - PN 10 - PN 16                               |
| Temp. Rating     | -190° C to 350°C  |
| MOC              | Carbon Steel / Stainless Steel / Alloy                    |
| Seat             | Soft Seat-Nitrile Rubber, EPDM, Viton / Metal Seat        |
| Design Standard  | EN 593 (BS 5155), API 609, MSS SP-67                      |
| Operation        | Manual / Actuator / Gear                                  |
| Face to Face     | API 609 CAT A / MSS SP-67 (Narrow Body), ISO 5752 (Short) |
| Fire Safe Design | API 607   |
| Testing          | API 598 Rev 2009  |
| Documents        | BS/EN 10204-3.1 Rev 2019                                  |

| NPS | DN  | #150              |                      |             | #300              |                      |             |
|-----|-----|-------------------|----------------------|-------------|-------------------|----------------------|-------------|
|     |     | Center Height (H) | Face to Face (F - F) | Weight (Kg) | Center Height (H) | Face to Face (F - F) | Weight (Kg) |
| 2   | 50  | 86                | 44                   | 5           | -                 | -                    | -           |
| 3   | 80  | 102               | 48                   | 6           | 118               | 48                   | 11          |
| 4   | 100 | 124               | 54                   | 11          | 146               | 54                   | 18          |
| 6   | 150 | 152               | 57                   | 16          | 178               | 59                   | 28          |
| 8   | 200 | 181               | 64                   | 27          | 210               | 73                   | 42          |
| 10  | 250 | 229               | 71                   | 40          | 243               | 83                   | 78          |
| 12  | 300 | 254               | 81                   | 62          | 279               | 92                   | 131         |

Note: Dimension are according to Lug type handle operated butterfly valve.

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## CLIENTELE



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