

FEATURES AND BENEFITS

The McCannalok Metal Seated High Performance Butterfly Valve offers low torque and high temperature flow control in the most demanding applications.

DOUBLE OFFSET STEM AND DISC DESIGN

- > Reduced seat wear | lower torque | extended service life

BLOWOUT-PROOF STEM

- > One-piece | standardized design for interchangeability

METAL SEAT DESIGN

- > Inconel® metal seat | FCI 70-2 Class IV Leakage

NITRIDE HARDENED DISC

- > Superior galling resistance

3rd PARTY VALIDATION

- > High temperature | low torque

APPLICATIONS

- > High Temperature
- > Abrasive
- > Hot Oil
- > Hot Air and Gas
- > Saturated Steam
- > Slurries
- > Chemical Processing
- > Modulation and Control



TECHNICAL DATA

| | |
|--------------------------|--|
| Size Range | NPS 2 to 30 (DN 50 to 750) |
| Body Style | Wafer Lug Double Flanged |
| Temperature Range | -50 to +900 °F (-45 to +482 °C) |
| Pressure Rating | ASME Class 150 300 600 PN 10 16 25 40 |
| Leakage Rating | FCI 70-2 Class IV |

MATERIAL OPTIONS

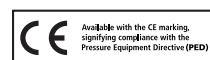
| COMPONENT | MATERIAL |
|-------------|----------------------------------|
| Body | Carbon Steel |
| | Stainless Steel |
| Disc | Nitride Hardened Stainless Steel |
| Stem | 17-4 Stainless Steel |
| | Nitronic 50 |
| Seat | Inconel® 718 |

DESIGN STANDARDS

| | |
|---------------------------|--------------------|
| Valve Design | ASME B16.34 |
| | MSS SP 68 |
| | ASME VIII |
| | API 609 Category B |
| | EN 593 |
| Face-to-Face | EN 12516 |
| | ASME B16.10 |
| | API 609 Category A |
| Flange Drilling | ISO 5752 |
| | EN 558 |
| Actuator Mounting | ASME B16.5 |
| Seat Testing | EN 1092-1 |
| | ISO 5211 |
| Fugitive Emissions | FCI 70-2 Class IV |
| | ISO 15848-1 |
| | API 641 |
| | TA Luft |

CERTIFICATIONS AND APPROVALS

| | |
|-----------------------|-----------|
| Certifications | CE/PED |
| | SIL |
| Approvals | ABS Type |
| | LRQA Type |



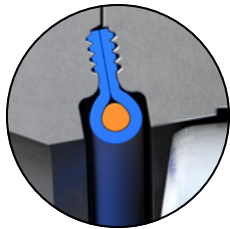
BIDIRECTIONAL SEAT DESIGN (STANDARD)

Bray’s unique, patented resilient seat design offers many exclusive advantages:

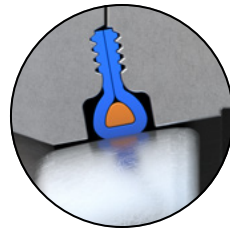
- > Proven zero-leakage shutoff in both directions.
- > Interference-fit sealing, even when there is no differential line pressure.
- > Pressure-assisted sealing is energized by line media pressure, providing a tighter seal in higher differential pressure services.
- > Resilient energizer ring is fully encapsulated by the seat and isolated from all line media contact.
- > Full-faced retainer secures seat in the correct position, even without mating flange.
- > Seat self-adjusts for wear and temperature changes, providing longer service life.
- > Simplified seat replacement.

INTERFERENCE-FIT SEALING

Provides bidirectional sealing for low pressure applications.



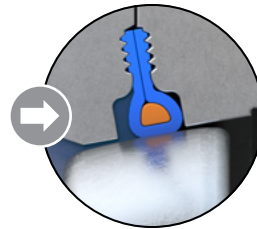
Seat Non-Compressed.
Disc approaches.



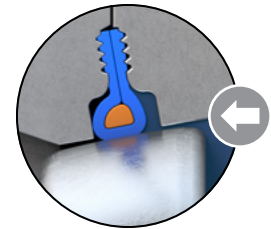
Disc in Closed Position.
No line pressure.

PRESSURE-ASSISTED SEALING

Provides tighter bidirectional sealing in higher pressure applications.



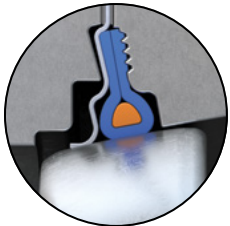
Disc in Closed Position.
Line pressure applied from the preferred flow direction.



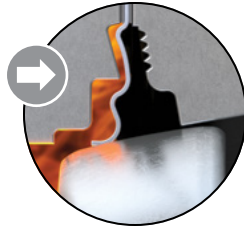
Disc in Closed Position.
Line pressure applied from the non-preferred flow direction.

FIRESAFE SEAT DESIGN OPTION

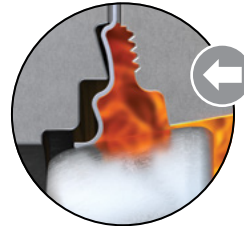
The available firesafe seat design adds an Inconel® metal seat to the bidirectional resilient seat assembly. With the valve closed, the firesafe seat assembly contacts the disc with both the resilient seat and metal seat. During and after a fire, when the resilient material has been partially or completely destroyed, the metal seat provides a bidirectional seal by remaining in contact with the disc.



Disc in Closed Position.
No line pressure.
Firesafe seat configuration.



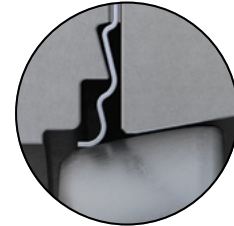
Disc in Closed Position.
During and after fire.
Resilient seat destroyed.
Line pressure applied from preferred flow direction.



Disc in Closed Position.
During and after fire.
Resilient seat destroyed.
Line pressure applied from non-preferred flow direction.

METAL SEAT DESIGN OPTION

Inconel® metal seat provides FCI 70-2 Class IV leakage in both the preferred and non-preferred directions. The seat and nitride hardened disc have a large difference in hardness, which eliminates the risk of the sealing elements galling each other and damaging the valve.



Disc in Closed Position.
No line pressure.
Metal seat configuration.

FIRE TEST STANDARDS — API 607 Certified

Bray’s proven firesafe valve design meets or exceeds the latest international fire test standards — in lab tests and in field applications.