

OVERVIEW

The McCannalok Series 41R is a double offset high performance butterfly valve designed for low-pressure steam service. The valve provides bidirectional zero-leakage shutoff, a pressure-assisted RPTFE seat, simplified seat maintenance, and compatibility with manual, pneumatic, or electric actuation.

APPLICATIONS

- > Sugar mill evaporators
- > Evaporator steam service
- > Evaporator escape valves
- > Low-pressure steam systems
- > Sugar processing plants
- > Low-pressure steam
- > Evaporator steam
- > Escape steam

MEDIA

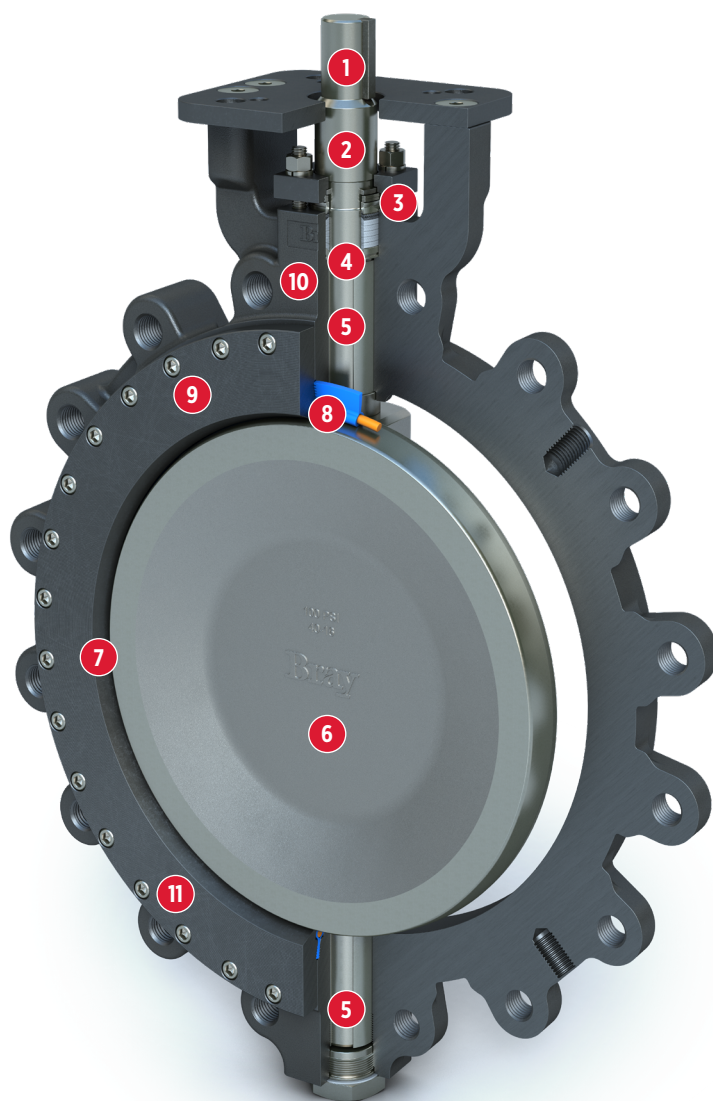
- > Low-pressure steam
- > Evaporator steam
- > Escape steam

SPECIFICATIONS

Size Range	NPS 16 to 54 DN 400 to 1400
Temperature Range	-20°F to 500°F -29°C to 260°C
Pressure Rating	100 psi
Body Style	Lug Double Flanged
Shutoff Rating	Bidirectional Zero Leakage

FEATURES & BENEFITS

- 1 STEM DESIGN:** High-strength, one-piece stem
- 2 BLOWOUT-PROOF STEM:** Does not rely on actuation to prevent stem blowout
- 3 ADJUSTABLE STEM PACKING:** Easy access enables field serviceability and low fugitive emissions.
- 4 STEM SEAL SYSTEM:** PTFE packing with carbon fiber anti-extrusion ring maintains positive sealing.
- 5 STEM BEARINGS:** Corrosion-resistant stem support minimizes deflection.
- 6 DISC:** Maximizes flow while minimizing resistance.
- 7 INTERNAL OVER-TRAVEL STOP:** Minimizes possible seat damage and extends service life.
- 8 BIDIRECTIONAL RESILIENT SEAT:** Optimal sealing performance for low and high pressures
- 9 FULL-FACED SEAT RETAINER:** Secured outside the sealing area for easy seat replacement.
- 10 BODY:** Extended neck provides access to stem packing and actuator mounting with 2" of insulation.
- 11 DEAD-END SERVICE:** Bidirectional full rating for lug and double-flanged bodies



DESIGN STANDARDS

Valve Design	API 609 Category B
	ASME B16.34
	ASME BPVC VIII
	EN 593
	EN 12516
	MSS SP 68
Top Flange	ISO 5211
Flange Drilling¹	ASME B16.5
	ASME B16.47
	EN 1092-1
Seat Tightness Test	API 598
	EN 12266
	ISO 5208
	MSS SP 61
Face-to-Face	API 609 Category B
	EN 558
	ISO 5752

NOTE

1 Additional flange drilling options available.

MATERIAL OPTIONS

Body	Phosphatized ductile iron or phosphatized carbon steel
Disc	Carbon steel with stainless steel edge
Stem	17-4 PH stainless steel
Seat	RPTFE

CERTIFICATIONS & APPROVALS

Certifications²	ANSI/NSF 61/372
	CE: PED 2014/68/EU
	SIL 3 Capable
Approvals	CRN

NOTE

2 For a detailed list of product certifications please contact your local Bray representative.

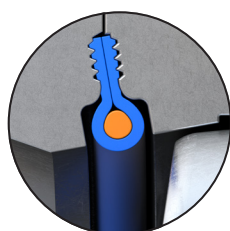
ENERGIZED SEAT DESIGN

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

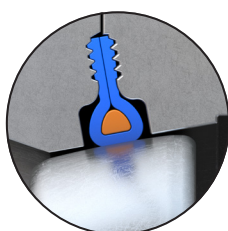
- > Proven zero-leakage shutoff in both directions.
- > Interference-fit sealing, even when there is no differential line pressure.
- > Pressure-assisted sealing is energized by line media pressure, providing a tighter seal in higher differential pressure services.
- > Extended service life with reliable sealing after 1 million cycles.
- > 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.



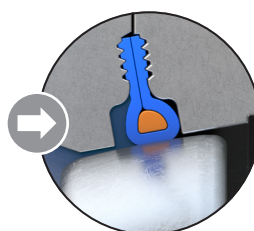
Disc in Open Position.
Seat non-compressed.



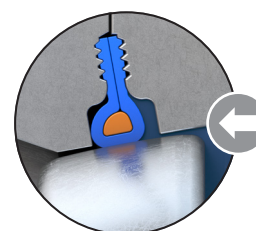
Disc in Closed Position.
No line pressure.

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.