

OVERVIEW

Featuring Bray's patented, award-winning design, this double offset high performance butterfly valve is precision engineered to deliver **quality**, **value**, and **reliability** in high temperature, high pressure, high cycle, and critical service applications.

APPLICATIONS

- > Caustic
- > Chilled Water
- > Pressure Swing Adsorption (PSA)
- > Seawater
- > Sour Gas (NACE)
- > Steam
- > Vacuum

MEDIA

- > Acids
- > Alkalies
- > Corrosive Chemicals
- > Dry Chlorine (Gas or Liquid)
- > Gases
- > Hydrogen
- > Oxygen
- > Water

SPECIFICATIONS

Size Range	NPS 2 to 66 (DN 50 to 1500)
Body Style	Wafer Lug Double Flanged
Temperature Range	Resilient Seated -62 to 500°F (-52 to 260°C)
	Firesafe -62 to 500°F (-52 to 260°C)
	Metal Seated up to 900°F (up to 482°C)
Pressure Ratings	ASME Class 150 300 600
	PN 10 16 25 40 63 100
Leakage Rate	Resilient Seated Zero Leakage
	Metal Seated FCI 70-2 Class IV

NOTE

- > Firesafe or metal seated control options available; not in all sizes and pressure classes.

FEATURES AND BENEFITS

1 DOUBLE OFFSET STEM AND DISC DESIGN

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

2 BLOWOUT-PROOF STEM

- > Does not rely on actuation to prevent stem blowout

3 ADJUSTABLE STEM PACKING

- > Easy access | field serviceable | low fugitive emissions

4 ENERGIZED RESILIENT SEAT DESIGN

- > Zero leakage | self-adjusting | isolated from line media

5 BIDIRECTIONAL PRESSURE ASSISTED SEALING

- > Optimal sealing performance for low and high pressures

6 FULL-FACED SEAT RETAINER

- > Secured outside sealing area | easy seat replacement

7 STEM BEARINGS

- > Stem support | minimizes deflection | corrosion resistant

8 INTERNAL OVER-TRAVEL STOP

- > Minimizes possible seat damage | extends service life

9 DEAD END SERVICE

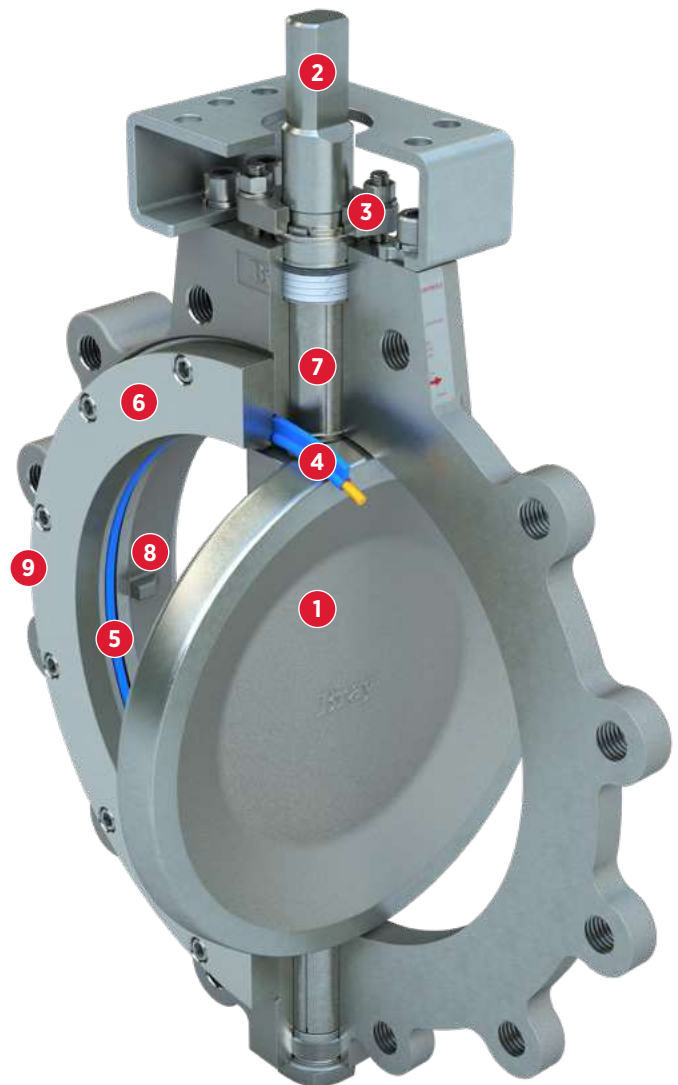
- > Bidirectional full rating for lug and double-flanged bodies

FIRESAFE DESIGN OPTION (API 607)

- > Inconel® metal seat | graphite packing | bidirectional

METAL SEATED CONTROL VALVE AVAILABLE

- > Inconel® metal seat



HIGH PERFORMANCE BUTTERFLY VALVE

McCANNALOK SERIES

DESIGN STANDARDS

Valve Design	ASME B16.34
	MSS SP 68
	ASME VIII
	API 609 Category B
	EN 593
	EN 12516
Top Flange	ISO 5211
Flange Drilling¹	ASME B16.5
	ASME B16.47
	EN 1092-1
Seat Tightness Test	API 598
	MSS SP 61
	EN 12266
	ISO 5208
Face-to-Face	ASME B16.10
	API 609 Category B
	EN 558
	ISO 5752

NOTE

¹ Additional flange drilling options available.

CERTIFICATIONS & APPROVALS

Certifications	CE: PED 2014/68/EU ANSI/NSF 61 SIL
Fire Test	API 607 ISO 10497
Fugitive Emissions	API 641 ISO 15848-1 TA-Luft VDI 2440
Approvals	ABS Type ATEX 2014/34/EU Bureau Veritas Type China Classification Society (CCS) Type CRN DNV EC1935 TR CU (GOST)

NOTE

> A complete listing of certifications and approvals can be found at BRAY.COM.

MATERIAL OPTIONS

Body Materials	Carbon Steel
	Stainless Steel
	Nickel Aluminum Bronze
	Hastelloy® C
	Titanium
Disc Materials	Stainless Steel
	Nickel Aluminum Bronze
	Monel®
Stem Materials	Stainless Steel
	Monel® K500
	Inconel® 718
Seat Materials	RPTFE with Resilient Energizer
	PTFE with Resilient Energizer
	UHMWPE with Resilient Energizer
	TFM with Low Temperature Resilient Energizer
	(Firesafe) Inconel® & RPTFE with Resilient Energizer

NOTE

> Other materials are available on request.

SERIES 40/41

ASME Class 150

SERIES 42/43

ASME Class 300

SERIES 44/45

ASME Class 600

SERIES 4A

ASME Class 150

SERIES 4B

ASME Class 300



NPS 2 to 66
DN 50 to 1650

NPS 2 to 54
DN 50 to 1350

NPS 3 to 36
DN 80 to 900

NPS 2 to 54
DN 50 to 1350

NPS 3 to 42
DN 80 to 1050

NOTE

> Firesafe, high cycle, or metal seated control options available; not in all sizes and pressure classes.