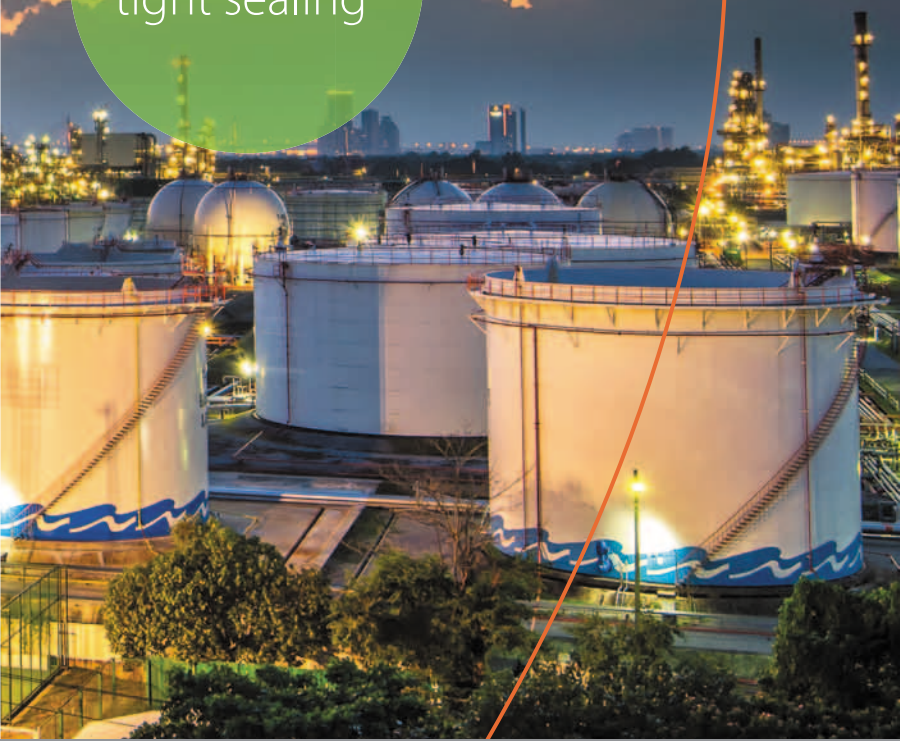


Jamesbury®
High-Performance
Butterfly Valves



Trouble-free
tight sealing



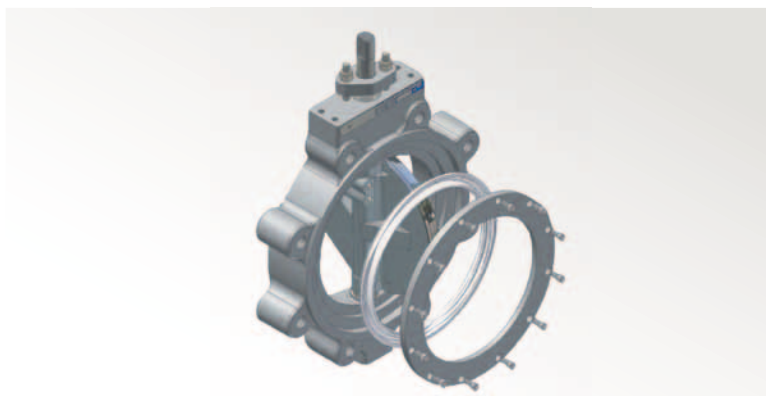
Wafer-Sphere® high-performance butterfly valves.

Tighter, more reliable sealing by design.

The *Wafer-Sphere* butterfly valve is no ordinary butterfly valve. It combines a special off-center disc with proprietary seat designs and revolutionary Xtreme® sealing technology to offer a tight-sealing, long-lasting, cost effective solution for a wide range of applications.

This unique design creates a cam effect that eliminates any wear points between the disc and seat only a few degrees into the open cycle. When closed, the disc cams tightly into its seat to create a dependable, tight seal.

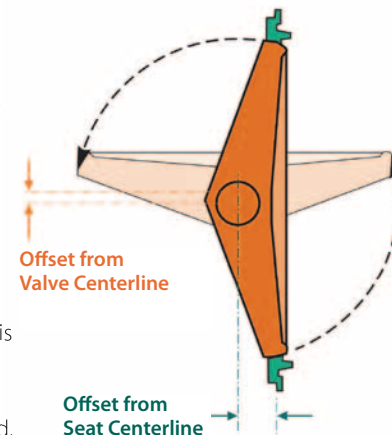
The elimination of the wear points coupled with the proprietary seat design and *Xtreme* sealing technology offers unparalleled performance and longer life.



The combination of the double-offset disc and the flexible-lip seat are especially effective across a wide range of applications from high vacuum (1×10^{-5} Torr) to 1440 psi (99.3 bar).

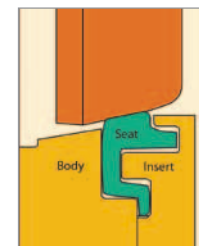
Double-offset design

The unique sealing system also incorporates a double eccentric disc and shaft design to further extend the effectiveness of the seat. This unique offset design transmits a camming action to the disc and swings the disc completely away from the seat, no jamming or squeegeeing. This design eliminates wear points around the disc at the top and bottom of the seat. When closed, the disc cams tightly into its seat to create a double-tight seal. The combination of the double-offset disc and the flexible-lip seat are especially effective in a full range of applications from high vacuum (1×10^{-5} Torr) to 1440 psi (99.3 bar).



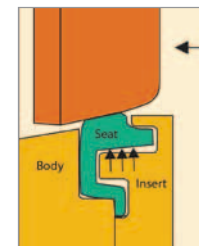
Energized seat

The valve as assembled and fully compressed allows the flexible lip seat to contact the disc and become "energized." While energized, the seat's sealing surface is constantly pushing against the sealing profile of the disc creating tight sealing throughout the pressure range of each valve.



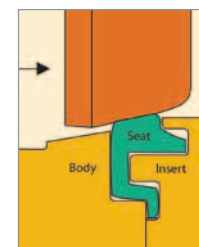
Pressure on insert side

With the insert side upstream to the flow, pressure is allowed into the flexure zone behind the seat lip, further amplifying the sealing force between the disc and the seat.



Pressure on non-insert side

When pressure is on the non-insert side, the disc moves into the seat. Because of the spherical profile of the disc, the disc can move further into the seat without any adverse effects while maintaining tight shut off.



A variety of options to suit your needs.



Series 815, 830 and 860 Butterfly Valves

The *Wafer-Sphere* Butterfly valves is available in ASME 150, ASME 300 and ASME 600 pressure classes with either a wafer or single-flanged lugged style body design. Lugged style valves are suitable for dead-end service applications and are ideal for applications where exposed bolting is undesirable. All are available to meet NACE requirements.

ANSI Class 150 Series 815 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
2 1/2" – 30" (65 – 750DN)	Wafer	285 psi (19.6 bar)	500° F (260° C)	Carbon Steel 316SS Alloy 20 254SMO® Monel® Hastelloy®	Teflon® <i>Xtreme</i> UHMW	W101-6
2 1/2" – 60" (65 – 1500DN)	Lugged					

ANSI Class 150 Series F815 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
3" – 30" (80 – 750DN)	Wafer	285 psi (19.6 bar)	500° F (260° C)	Carbon Steel 316SS Alloy 20 254SMO® Monel® Hastelloy®	316SS/PTFE 316SS/XT	W101-6
3" – 60" (80 – 1500DN)	Lugged					

ANSI Class 300 Series 830 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
3" – 30" (80 – 750DN)	Wafer	740 psi (51 bar)	500° F (260° C)	Carbon Steel 316SS Alloy 20 254SMO® Monel® Hastelloy®	Teflon® <i>Xtreme</i> UHMW	W101-6
3" – 36" (80 – 900DN)	Lugged					

ANSI Class 300 Series F830 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
3" – 30" (80 – 750DN)	Wafer	740 psi (51 bar)	500° F (260° C)	Carbon Steel 316SS Alloy 20 254SMO® Monel® Hastelloy®	316SS/PTFE 316SS/XT	W101-6
3" – 36" (80 – 900DN)	Lugged					

ANSI Class 600 Series 860 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
3" – 24" (80 – 600DN)	Wafer	1440 psi (99.3 bar)	500° F (260° C)	Carbon Steel 316SS	<i>Xtreme</i>	W104-1
	Lugged					

ANSI Class 600 Series F860 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
3" – 24" (80 – 600DN)	Wafer	1440 psi (99.3 bar)	500° F (260° C)	Carbon Steel 316SS	316SS/PTFE	W104-1
	Lugged					

Monel is a registered trademark of Speciality Metals Corporation.

Hastelloy is a registered trademark of Haynes International, Inc.

Teflon is a registered trademark of E.I. duPont de Nemours and Company.

254SMO is a registered trademark of Avesta Sheffield.

Consult factory regarding other materials of construction that are not listed.



Series 835 Butterfly Valves

Process-rated *Wafer-Sphere* Series 835 ANSI Class 150 valves, in sizes 30" and larger, are an excellent, cost-effective solution for shut-off pressures up to 100 psi. Their unique body, disc and shaft design offer higher flow capacities with the same long-lasting tight shut-off and long service life as full rated ASME 150 products.

ANSI Class 150 Series 835 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
30" – 60" (750 – 1500DN)	Lugged	100 psi (6.9 bar)	500° F (260° C)	Carbon Steel 316SS Alloy 20 254SMO® Monel® Hastelloy®	Teflon® <i>Xtreme</i>	W105-1

ANSI Class 150 Series F835 Butterfly Valves

Sizes	Body Style	Max Pressure	Max Temp.	Body/Trim Materials	Seat Materials	Bulletin
30" – 60" (750 – 1500DN)	Lugged	100 psi (6.9 bar)	500° F (260° C)	Carbon Steel 316SS Alloy 20 254SMO® Monel® Hastelloy®	316SS/PTFE 316SS/XT	W105-1

Special Service

Series K815, K830 and K860 Cryogenic Butterfly Valves

These superior-performing products are engineered to operate in cryogenic applications such as liquefied gases to -320°F.

ANSI Class 150 Cryogenic Services Series K815 Butterfly Valves

Sizes	Body Style	Max Pressure	Temperature Range	Body/Trim Materials	Seat Materials	Bulletin
3" – 12" (80 – 300DN)	Wafer	275 psi (19 bar)	-320°– +100° F (-196°– +38° C)	316SS Monel®	316SS/PTFE	W130-1
	Lugged					
14" – 30" (350 – 750DN)	Wafer					
	Lugged					

ANSI Class 300 Cryogenic Services Series K830 Butterfly Valves

Sizes	Body Style	Max Pressure	Temperature Range	Body/Trim Materials	Seat Materials	Bulletin
3" – 12" (80 – 300DN)	Wafer	720 psi (49.6 bar)	-320°– +100° F (-196°– +38° C)	316SS Monel®	316SS/PTFE	W130-1
	Lugged					
14" – 30" (350 – 750DN)	Wafer				KEL-F	
	Lugged					

ANSI Class 600 Cryogenic Services Series K860 Butterfly Valves

Sizes	Body Style	Max Pressure	Temperature Range	Body/Trim Materials	Seat Materials	Bulletin
3" – 12" (80 – 300DN)	Wafer	1440 psi (99.3 bar)	-320°– +100° F (-196°– +38° C)	316SS Monel®	316SS/PTFE	W130-1
	Lugged					

Other options are available for the following services:

- Fire-Tite® (API 607 and BS 6755 qualified)
- Emissions control (utilizing live-loaded packing)
- Steam service
- Chlorine service
- Oxygen service
- NACE service
- Abrasive services
- Vacuum services
- Hydrogen peroxide service

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web site www.metso.com/valves

