



Mechanical Seals

OVERVIEW

Mechanical seals with bellows technology have various benefits and applications. Edge welded bellows technology allows for a variety of materials including stainless steel, Inconel, and Hastelloy. With these options, various liquids and gases can be measured as well extreme temperatures.

Bellows mechanical seals can eliminate O-rings to increase compatibility and reduce potential leak paths. The metal bellows design allows for higher flow rates and less clogging than traditional spring seals. With precision stamping and proprietary welding techniques, BellowsTech manufactures its edge welded bellows within tight tolerances in its Ormond Beach, Florida facility. Special flanges and sealing surfaces can be integrated into the bellows assembly to customer requirements.

BellowsTech edge welded bellows are manufactured to low leak rates and confirmed with mass spectrometer testing.



TYPICAL INDUSTRIES

Oil/Gas/Petrochemical

Pharmaceutical

Pulp & Paper

BENEFITS

Media Compatibility

Wide Operating Temperature Range

Eliminates Springs and O-Rings

SPECIFICATIONS

Material	Stainless Steels, Alloys, & Titanium avail. Consult Factory
Thickness	From 0.002" and up every 0.001"
Standard Leak Rate	From $<1 \times 10^{-9}$ std CC He/sec (check material)
Size Ranges	
Outside Diameter	0.358" (9.0932mm) to 22.205" (564mm)*
Inside Diameter	0.198" (5.029mm) to 19.921" (505.99mm)*
Shapes	Round; Non-Round avail. Contact Factory
Length	Up to 96" (244 cm)

Why Choose Edge Welded Bellows?

Of the three major metal bellows technologies, edge welded metal bellows have the highest stroke length, reaching 90% of its free length. This flexibility allows for increased expansion and contraction of the bellows. Edge welded bellows can be exposed to extreme temperatures and media with a wide selection of materials. Both the inside and outside of the bellows can be exposed liquids and gases. Edge welded metal bellows also have a high cycle life to produce repeatable results and round or square shapes.