



Mechanical Feedthroughs

OVERVIEW

Edge welded bellows act as a flexible seal when designed as a feedthrough, allowing movement of a tool within a sealed environment. Linear and angular motion for “wobble stick” applications is also available. Bellows are also used within a bearing housing to translate rotation from an input shaft to a co-linear output shaft while sealing hermetically, eliminating the need for a dynamic seal.



SPECIFICATIONS

Material	Stainless Steels, Alloys, & Titanium available. 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	0.396" (10.058mm) to 26" (660mm)
Inside Diameter	0.2" (5.08mm) to 25.5" (648mm)
Shapes	Round; Non-Round avail. Contact Factory
Length	Up to 96" (244 cm)

TYPICAL INDUSTRIES

BENEFITS

Semiconductor

All Metal Seal

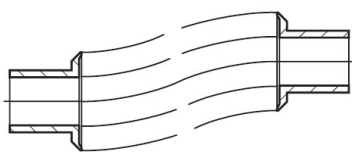
Cryogenic

Flex Distance

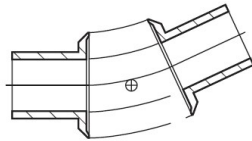
Automation

Rotational Capability

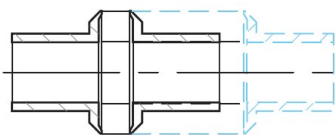
Outlines



Lateral Offset



Angular Offset



Axial Compression and Extension

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.