Welcome to BellowsTech, a Servometer® company.

BellowsTech is a premiere US manufacturer of high quality, dependable edge welded bellows and assemblies and a trusted supplier to the OEM industry. Engineers in Aerospace, Medical, Semiconductor, UHV, and Oil and Gas industries rely on BellowsTech products for the highest cycle life, responsive design, wide material selection and leak tight performance. We support our customers with expert engineering assistance helping them produce optimized designs to meet their exacting requirements. Whether producing parts for fast prototyping or full production runs we can manufacture in all sizes, shapes and material combinations to fit our customers’ unique applications. With proprietary welding, in-house tooling and machining, and custom solutions, BellowsTech can supply a completed assembly with the best price to performance ratio in the industry. We excel at new designs with custom capabilities and short lead times and also offer repair and replacement services. BellowsTech is ISO 9001:2008 certified and AS9100-C Compliant and is dedicated to overall customer satisfaction.

Product Features:
- Wide material selection (300 series SS, AM350, Inconel…..)
- Up to 90% stroke length
- Wide operating temperature range (-420 °F to 1300 °F)
- Maximum pressure 1000 PSI
- All metal construction
- Over 100 die sizes to choose from
- Corrosion resistant
- Highest cycle life
- Custom dies available
Application Types

BellowsTech edge welded bellows are typically used as face seals, vibration dampeners and feedthroughs. We offer low cost standard bellows for fast testing and development, however we specialize in custom designs that offer unique benefits and distinct advantages over other solutions.

Metal Bellows Accumulators Offer Longer Stroke Length

Unlike hydroformed or hydraulically formed bellows which only travel about 20% of their free length, BellowsTech edge welded metal bellows have the ability to stroke up to 90% of their free length, which allows for increased expansion and contraction of the bellows. This same 90% stroke length can be achieved in smaller, lighter weight assemblies also. Metal bellows accumulators are used to store energy of a liquid or gas, and are typically used in the aerospace, military, defense, oil and gas industries. BellowsTech edge welded metal bellows can be manufactured from a variety of materials offered, to match an application's specific media compatibility and stroke length. Learn more.
Valve Seals Eliminate O-Rings to Increase Compatibility and Reduce Potential Leak Paths

BellowsTech valve seals, manufactured using bellows technology, can eliminate O-rings to increase compatibility and reduce potential leak paths. Bellows technology creates a uniform outside wall for consistent movement under hydraulic pressure. Various stroke lengths and sizes are offered, and can be manufactured with O-ring grooves, flanges, and carbon-face seals to make the best possible connection to customer assemblies. BellowsTech valve seals are 100% visually inspected throughout the manufacturing process and confirmed with mass spectrometer testing. Learn more.

Volume Compensators for High Pressure

Edge Welded Bellows can be pressurized internally and externally. As pressure or temperature increases or decreases metal bellows will compensate for the volumetric changes of the liquid or gas through expansion and contraction. Custom machined components or standard threads and fittings can be integrated to ensure that the system or mechanism remains completely operational. Learn more.
BellowsTech Designing with Edge Welded Metal Bellows
(continued)

**Metal Bellow Actuators for Hydraulic and Pneumatic Systems**

Use BellowsTech edge welded metal bellows in actuator assemblies to transfer pressure or temperature into linear motion. Edge welded bellows allow a long stroke length, excellent media compatibility, and high temperature and pressure capabilities. Custom flanges, end pieces and hardware can be integrated to produce a complete assembly for maximum axial movement and lateral offset. Learn more.

**Semiconductor Lifter Bellows Solutions**

Lifter bellows are designed with custom face seals for semiconductor processing equipment. In order to move the silicon wafers being produced, the lifter bellows and actuator assembly produce a leak tight mechanism to transport the wafer. BellowsTech edge welded bellows have low leak rates, custom designs and flexibility for motion. BellowsTech's goal is to ensure proper wafer placement and seating. With in-house design expertise, our engineers will build a solution to match the speed and size requirements of the application. Lifter bellows assemblies are available in a variety of materials including AM350, 304L and 316L stainless steel. For applications requiring reduced weight, Titanium is also available. Learn more.
1 Bellows Comparison: Electrodeposited vs. Edge Welded

Not all metal bellows are created equal. When deciding which bellows type would be the best choice for an application, 13 key performance factors or "bellows basics" should be considered to make an educated selection. To help you choose the proper bellows for your application, Servometer® has prepared an infographic that compares the performance factors of both electrodeposited and edge welded metal bellows. View infographic.

2 Edge Welded Metal Bellows Product Video

Our newest product video focuses on the unique characteristics and parameters of edge welded metal bellows. Be certain edge welded metal bellows are your best option and view video here.
3. Are You Spending Too Much on Edge Welded Metal Bellows?

Finding the right material for your application’s performance requirements at the right price is easy. BellowsTech edge welded bellows are available in a wide variety of materials from Stainless Steel to Inconel with a range of media compatibilities. Our one-page “Material Selection Guideline” quickly helps you compare leak rates, temperature ranges, tensile strengths and more, of various typical applications and of course, our engineers can guide you in your selection for the best available options within your budget. View infographic…

4. Six Key Metal Bellows Design Factors Critical to Semiconductor and Ultra-High Vacuum Applications

Semiconductor manufacturing facilities and other high-vacuum environments have a reputation for being tough on components. These environments involve exposure to corrosive conditions or media (gases and/or liquids), and the equipment used in such extremes has an extremely low tolerance for contamination. Metal bellows find wide use in these industries because of their repeatable positioning capabilities and ability to work in severe conditions. Learn more here
Are You Struggling to Find a Metal Bellows Assembly?

Use this comprehensive list of BellowsTech standard diaphragm sizes to help you easily select the ideal outside diameter, inside diameter and radial span of edge welded bellows to meet your specifications. Our die sizes range in diameter from 0.036 inches to 22 inches but BellowsTech also provides free design assistance for custom configurations beyond these parameters. Click here to view our nearly 110 standard diaphragm sizes, which is also available as a downloadable PDF file.

Click here to learn more
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