

Our Full Product Line:



Flexible Shaft Couplings

Electrical Contacts

Edge Welded Bellows

Electrodeposited Bellows

Electroforms

Making the Impossible... Possible!



bellowstech.com

1289 N. US Highway 1, Suite #1, Ormond Beach, FL 32174 • Tel: 386.615.7530 • 386.615.7973



BellowsTech

MW Industries, Inc.

Edge Welded Bellows and Assemblies

Maximum Flexibility in the Smallest Space!

- Axial, Angular and Parallel Offset Motion
- Hermetic, All Metal, Pressure Barrier and Seal that Flexes
- Up to 90% Stroke Length
- Permits Extreme Temperatures
- Excellent Media Compatibility
- High Strength Construction



bellowstech.com



Introduction

DISCOVER THE NEXT GENERATION IN EDGE WELDED METAL BELLOWS

BellowsTech is a premier US manufacturer of high quality, dependable edge welded bellows and assemblies. Engineers in Aerospace, Medical, Semiconductor, UHV, and Oil and Gas industries rely on our bellows for highest cycle life, responsive design, wide material selection and leak tight performance. Our expert engineering partnerships produce truly optimized designs for either fast prototyping or full production runs.

We can manufacture in all sizes, shapes and material combinations to fit your application. With proprietary manufacturing processes, in-house tooling and machining, and custom solutions, BellowsTech can supply a completed assembly with the best price to performance ratio in the industry. Our company practices lean manufacturing techniques and standards and recognizes the importance of ITAR, RoHs and DFARS compliance. BellowsTech is ISO 9001:2008 certified, AS9100-C Compliant and dedicated to overall customer satisfaction.

Features:

- Leak tight to 1×10^{-9} std.cc/sec Helium as required
- Stroke up to 90% of free length
- Wide operating temperature range (-420 to 1300 °F)
- High pressure designs available
- All metal construction
- Over 100 die sizes
- Corrosion resistant
- Highest cycle life

HUNDREDS OF APPLICATIONS... THOUSANDS OF DESIGNS

BellowsTech is a key partner/supplier to leading OEM's worldwide. Although we serve various industries, the applications often share similarities. With thousands of designs available to us in our database, we can draw upon a wealth of knowledge and experience and apply this expertise to your application. We excel at new designs with custom capabilities and short lead times.

TYPICAL APPLICATION TYPES:

Aerospace

- Accumulators
- Aneroids
- Reservoirs
- Vibration Dampeners
- Face Seals

Vacuum/Semiconductor

- Feedthroughs
- Beamlines
- Vertical Lift
- Couplings
- XYZ Manipulators

Oil and Gas

- Sensors
- Leak Detectors
- Actuators
- Mechanical Seals
- Valve Stem Seal

Medical

- Valves
- Pumps
- Pulse Suppression



Misalignment Joints



Microscope Assembly



Seals and Actuators



UHV-Semi



Oil and Gas Artificial Lift Assembly



Mechanical Seal

Medical Pump

BELLOWS MATERIAL TYPES:

Select from a wide range of materials based upon your application requirements. Not sure? Our design engineers will help you choose the best possible material options that will fit not only your application but your price points as well.

Material Type	Temperature (°F)	Advantage
AM350	-100 to 800	High cycle life, low leak rate
Stainless Steel (316L, 304L, 347)	-420 to 800	Low cost, low leak rate
Inconel (625,718)	-420 to 1500	Corrosion resistance, high temperature endurance
Hastelloy® (276C / Haynes 242)	-420 to 1500	Corrosion resistance
Titanium (Grades 1 – 4) (ASTM-B265)	-420 to 800	Extremely lightweight
*Other alloys available upon request		

SIZE RANGE: OD: 0.358" (9.09mm) to 26" (660mm)
ID: 0.125" (3.175mm) to 23.2" (648mm)

THICKNESSES : .0015" to .020" depending on die size

BellowsTech is also able to design and manufacture a full range of diameters and thicknesses in both **round and non-round shapes**.



Rectangular and Oval Bellows

ASSEMBLY, REFURBISHMENT, WEBSITE

ASSEMBLY SERVICES

BellowsTech offers a complete range of assembly services, regardless of size, shape or quantity. Our team of professionals is ready to work with you to design and build your parts reliably, quickly and inexpensively.

SPECIALITY WELDING CAPABILITIES

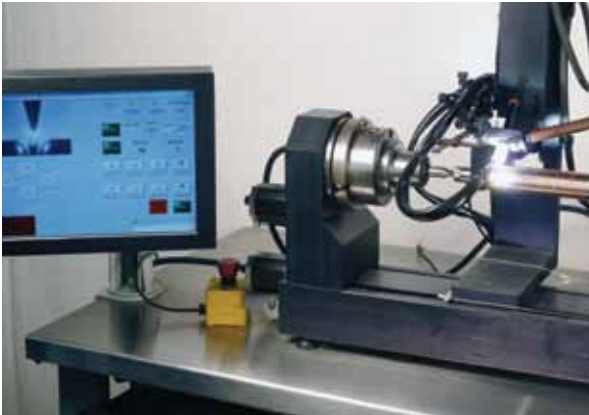
BellowsTech offers expert specialty and micro TIG fusion welding capabilities. Using our application of semi-automated, three-dimensional computer controlled weld paths, we are able to make complex welds with a superior cosmetic appearance, structural integrity, repeatability and accuracy, not to mention the savings of producing these complex components.

VALUE ADDED SERVICES:

- **SUB-COMPONENT SUPPLY**
BellowsTech can be your single source provider for all your sub-component needs from manufacture to procurement.
- **ENGRAVING**
Laser applied part identification is offered for serialization, production lot control, bore size identification, part number and/or special marking. Engraving is typically applied to custom end pieces.
- **HELIUM MASS SPECTROMETER LEAK TESTING**
Verified helium leak proof up to 1×10^{-9} cc He/sec, as required. Our equipment is NIST calibrated.
- **POST WELD PROOF PRESSURE TESTING**
Available upon request.



Diaphragm Fabrication



Automated Welding Vision System



Ultrasonic Cleaning Environment



Quality Inspection

BELLOWS ASSEMBLY REPAIR & REFURBISHMENT SERVICES

BellowsTech offers a valuable, cost-effective alternative for your consumable bellows assembly needs. With our unique abilities and industry experience, BellowsTech can often replace the bellows in expensive assemblies and re-use the machined components such as flanges to save you valuable time and money. Before you discard any bellows assembly, consult us for your consumable bellows replacement needs.

COMMITTED TO PRODUCT QUALITY

Our Quality Control department is “hands on”—inspecting and evaluating each and every part as required and assuring that our raw materials and products pass our stringent performance tests. We operate by the principles of root cause and corrective action and in the true spirit of continuous improvement.

CONVENIENT ONLINE ORDERING

For fast and low cost solutions, BellowsTech offers hundreds of parts online for convenient 24/7 ordering. Choose from a variety of stainless steel edge welded bellows with either A-style end plates or cuff flanges. Parts are in stock for fast turnaround and testing.

Visit buy.bellowstech.com

CUSTOM SOLUTIONS – FREE ENGINEERING DESIGN ASSISTANCE

We specialize in custom bellows and assemblies! If you require design assistance, call **386-615-7530** and ask to speak with one of our Technical Support Engineers or visit our website **bellowstech.com** and download a free design form. Once submitted, an engineering specialist will contact you within 24 hours for a FREE consultation. Pricing is determined by the complexity of the part, surface finish requirements, tolerances, and other variables.



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Bellows Design Data Form

Contact Name: _____

Company Name: _____

Address: _____

City, State, Zip: _____

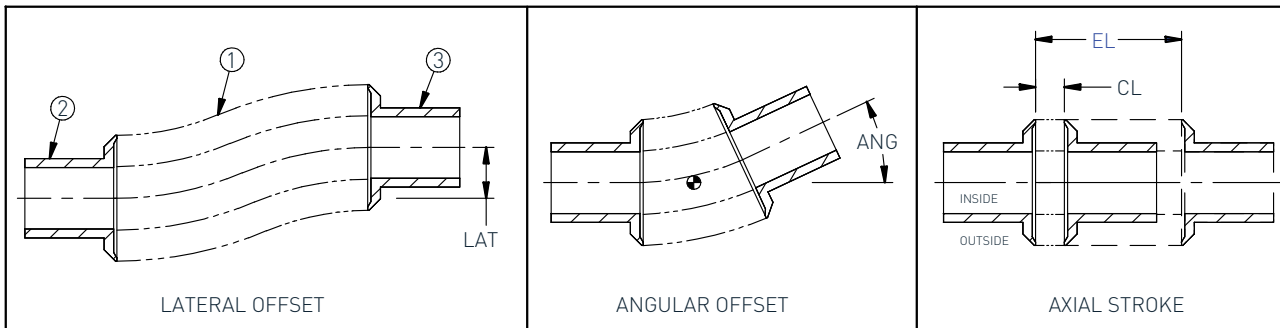
Country: _____

Telephone: _____

Email: _____

Please use this Guide to detail your bellows requirement. If you have any questions, please contact us.

Is this a commercial item? Yes: No: Is this for defense/military purposes? Yes: No: Will this ship outside of the USA? Yes: No:



1	Bellows Core OD _{max} :	
	Bellows Core ID _{min} :	
	Installed Length Core Only No Flanges(IL):	
	Free Length Core Only No Flanges(FL):	
	Extended Length Core Only(EL):	
	Compressed Length Core Only(CL):	
	Stroke(EL minus CL):	
	Lateral Offset:	
	Angular Offset:	
	Pressure Inside Core During Stroke:	
	Pressure Outside Core During Stroke:	
	Max & Min Temperatures:	
	Target Spring Rate:	
	Leak Rate:	
	Corrosive Gas or Liquid, Yes or No, Type:	
	Stroke Cycles:	
	Bellows Material:	
Shaft Size (if present):		
2	Flange One:	
3	Flange Two:	
2&3	Flange Material:	
	Quantity:	
	When are parts needed:	
	Target Price:	
Please provide a sketch of the assembly, or any visual reference.		

Application description, _____
 what Industry used in, _____
 & the intent: _____

BellowsTech is the sister company to Servometer and both now fall under the MW Industries umbrella. Servometer has been a trusted supplier and contract manufacturer to the OEM industry for more than 50 years. The company employs a unique, patented electrodeposition manufacturing process. Together BellowsTech and Servometer have developed a synergistic relationship to offer custom solutions and ensure their customers employ the right technology for their applications.

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 Cedar Grove, NJ 07009
 973.785.4630
 info@servometer.com
 www.servometer.com

METAL BELLOWS

Servometer electrodeposited bellows are available in a wide range of sizes, lengths and materials including nickel, copper, gold and silver. They can be custom manufactured in various wall thickness for exceptional flexibility and sensitivity. Outer diameters ranging from 0.020 inch to 12.0 inches and convolution lengths as long as 18.0 inches. Off-the-shelf solutions are available for low cost testing.

COUPLINGS

Servometer electrodeposited couplings deliver precise positioning under punishing environments without fatigue for today's most demanding motion control applications. They offer zero-backlash, high flexibility, ultra-sensitivity and extreme accuracy for reliable 24/7 operation. Order Online!

CONTACTS

Ideal solution as spring contacts on precision circuit boards, relays and switches for enhanced conductivity and a lifetime of reliable interconnection. Our contacts are gold plated to ensure the utmost reliable signal paths and can easily tolerate buildup and thermal expansion in critical assemblies.

ELECTROFORMS

These precision components can be customized to unusual shapes, miniature sizes, and close tolerances. They are extremely lightweight, exceptionally rugged and structurally rigid depending upon the application. They are a reliable solution for complex lightweight designs in Aerospace, Defense and Medical applications.



Metal Bellows



Couplings



Contacts



Electroforms