

# BELLOWS MANUFACTURING

*Unleashing Flexibility, Ensuring Reliability*

For almost a century, Alloy Precision Technologies has delivered superior Bellows and Bellows Assemblies engineered for extreme reliability and longevity in the most demanding applications. Our precision-crafted Bellows perform in high-temperature, high-pressure environments, resisting vibration and ensuring zero leakage even after extensive duty cycles. When failure is not an option, industry leaders trust our bellows to maintain system integrity in the most challenging scenarios.

## OUR GUARANTEE

- ✓ Your growth partner for products and projects
- ✓ Certified and specialized expertise
- ✓ Proven reliability in demanding applications
- ✓ Integrated, turnkey solutions



## PROUDLY CERTIFIED



CYBER SENTINEL  
ALLOY PRECISION TECHNOLOGIES



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# PRECISION, PASSION, PERFORMANCE

# OUR PROCESS



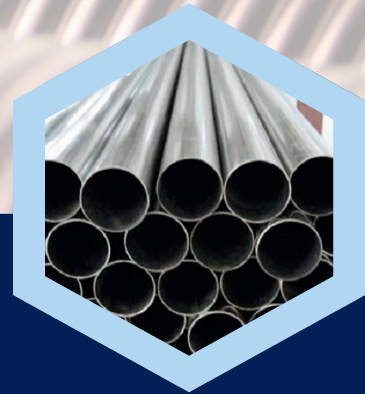
## APPLICATIONS

- Seals
- Aneroids
- Valves
- Expansion Joints
- Pressure Regulators
- Ball and Gimbal Joints



## INDUSTRIES

- Aerospace & Defense
- Instrumentation & Controls
- Energy & Power Gen
- Oil & Gas
- Industrial Manufacturing



## MATERIALS

- Stainless Steel
- Inconel
- Monel
- Hastelloy
- Titanium
- Yellow Metals

## HYDROFORMED BELLOWS

Alloy's exclusive hydroforming process meticulously crafts our metal bellows, ensuring unparalleled dimensional accuracy and structural integrity. Each convolution shape, specially designed in-house, is perfect along the profile, ensuring superior performance in even the most critical applications.

- Bellows components and complete bellows assemblies
- Proprietary tooling & automated manufacturing technologies
- Outer diameters between 0.200" - 8" diameter
- Wall Thickness: 0.005" – 0.030"
- Bellows are custom made to your requirements (variety of materials, single or multi-ply, and closed-end capabilities)

## Quality Assurance & Validation

- X-Ray Film & Computer Radiography
- Spring Rate Test
- Fatigue Cycle Test
- Fluorescent Penetrant Inspection (FPI)
- Nitrogen Bubble Testing
- Helium Leak Testing to  $1 \times 10^{-9}$
- Pressure Test & Helium Bomb Test
- AI Inspection Technology
- Metallographic Evaluation

