



A black and white photograph of industrial machinery, featuring large pipes, valves with handwheels, and flanges. The image is taken from a low angle, looking up at the complex network of pipes.

BELLOW AND  
BELLOW ASSEMBLY  
CAPABILITIES

DESIGNING FUTURE TECHNOLOGIES TODAY

 **FLEX-WELD**  
INCORPORATED

 **GUARDIAN**  
ENGINEERING AND MANUFACTURING

UNIQUE DESIGN CAPABILITIES  
PROVIDE UNIQUE DESIGN SOLUTIONS

Our expertise is in the design and engineering of motion and flow control products to meet our customers' specific needs. Our products are ideally suited to perform in extreme environments of temperature, pressure, vibration, and corrosion. Formed from precision welded materials such as Stainless Steel, Monel, Inconel, Hastelloy, Titanium, or Copper Alloys, Flex-Weld's products provide superior engineered characteristics for all types of applications, including liquid oxygen, nitrogen, or acid.

SOLUTIONS FOR MECHANICAL  
& HYDROFORMED BELLOWS  
AND BELLOW ASSEMBLIES

- pressure sensing devices
- thermostatic controls
- mechanical seals
- packless valve construction
- expansion & volume compensators
- flexible couplings & connectors
- mechanical joints, connectors & seals
- engine/exhaust bellows
- expansion joints
- flexible metal hose
- braided pump connectors

From design concept to production—faster, proven solutions for every industry.

S P E E D

PRECISION BELLOWS



CAPABILITIES:

- Single to multi-ply
- Wide material selection
- Proprietary forming techniques produce metallic bellows of consistent quality and close tolerances
- In-process testing & inspection results in the most reliable bellows
- Welding: laser, lap, MIG, TIG, RSEW
- Soldering
- Brazing
- Pressures ranging from vacuum to 10,000 psi (application dependent)
- Diameters ranging from 1/8" I.D. to 280" I.D.
- Temperatures ranging from cryogenic to 2800° F
- Axial movements up to 14" (size dependent)
- Variety of leak testing methods
- Heat treating
- Teflon coating
- Plating
- Custom flange and end component designs
- Machining & stamping
- Failure analysis
- Cleaning
- Concurrent engineering
- Electro-polishing
- Prototype/modeling
- Special testing
- CAD/CAM

MARKETS AND  
INDUSTRIES SERVED:

- Automotive
- Aerospace
- Medical
- Industrial
- HVAC
- Semiconductor
- Power Generation/Distribution
- Diesel
- Instrumentation & Controls
- Vacuum
- Process
- Electronic
- Military
- Cryogenic
- Nuclear
- National Labs
- Valves
- Valve Repair
- Petrochemical
- Pharmaceutical
- Renewable Energy





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