



Medical Industry Applications



||| **MANUFACTURING SOLUTIONS. ABSOLUTE INTEGRITY.** |||



An Employee-Owned Company

Founded in 1971



- **8 Total Facilities**
- **Approximately 550,000 sq. ft. of Manufacturing & Office Space**
- **580 employees**
- **ISO 9001:2008 Certified and FDA Registered**

Precision Manufacturing Solutions

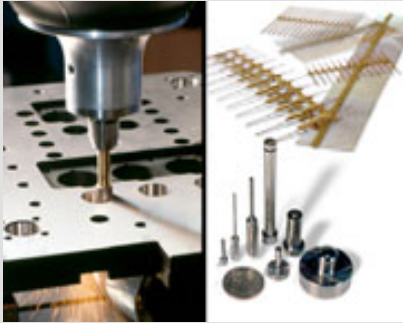
Dies
Plating
Tooling
Stamping
Assembly
Carbide
Prototype

Automation
Container Tooling
Production Machining
Grinders and Spindles
Component Manufacturing
Manufacturing Training

Divisions



||| **MANUFACTURING SOLUTIONS. ABSOLUTE INTEGRITY.** |||



Major Markets



Medical Device and Instrument

Automotive

Aerospace and Defense

Telecommunications

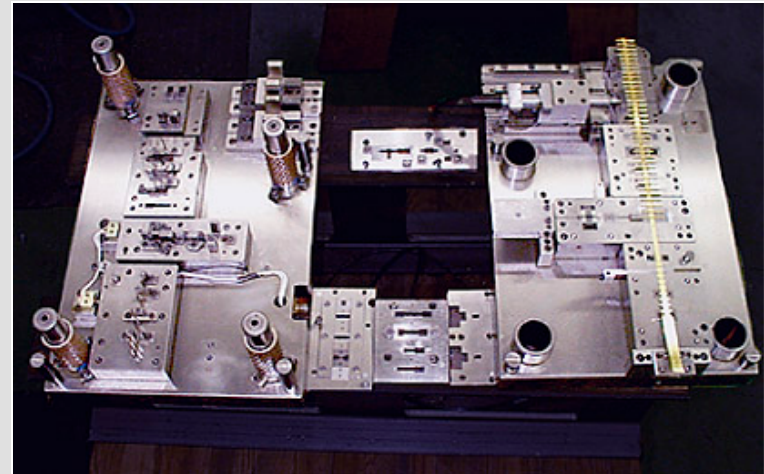
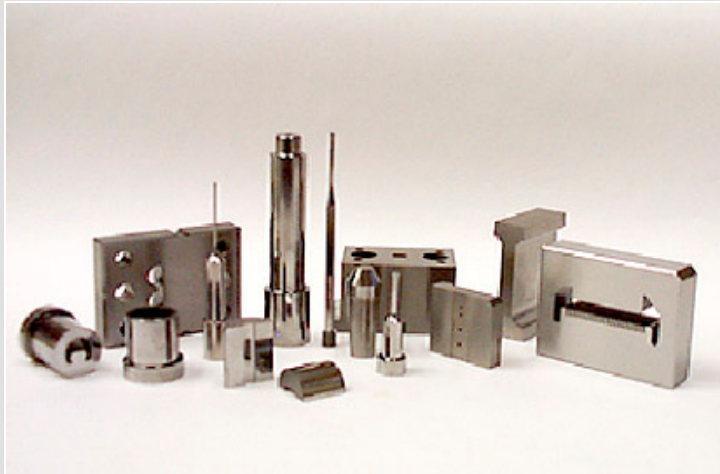
Electronic Connectors

Oil and Gas

Fluid Handling

Energy





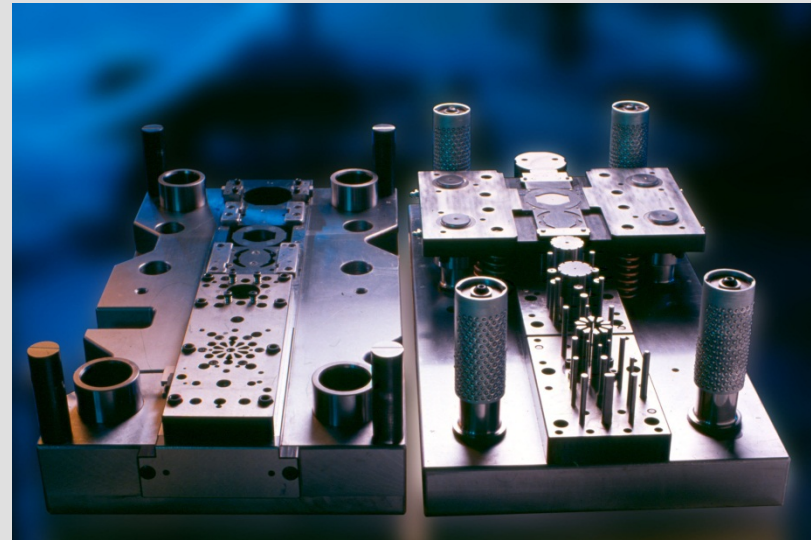
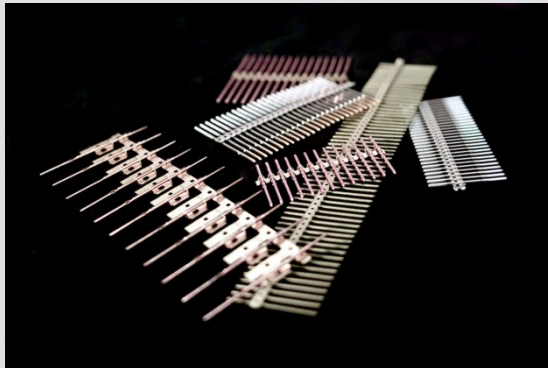
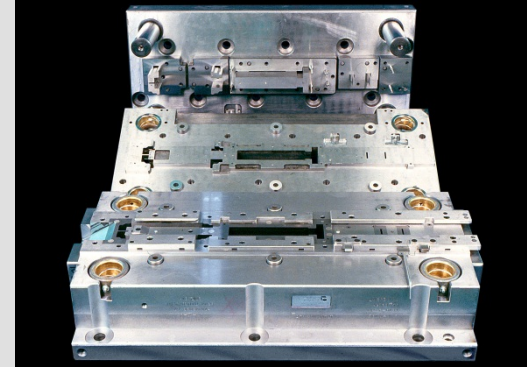
High Precision TOOLING and DIE Manufacturer

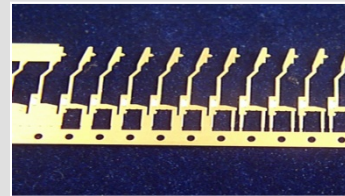
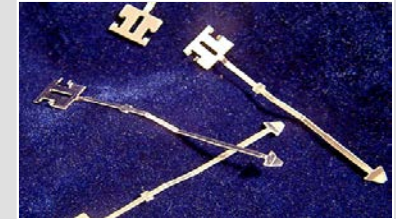
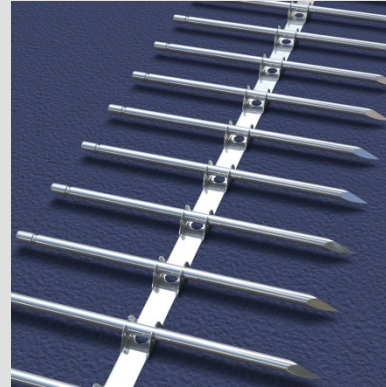
Die Design

Custom Built Progressive Dies

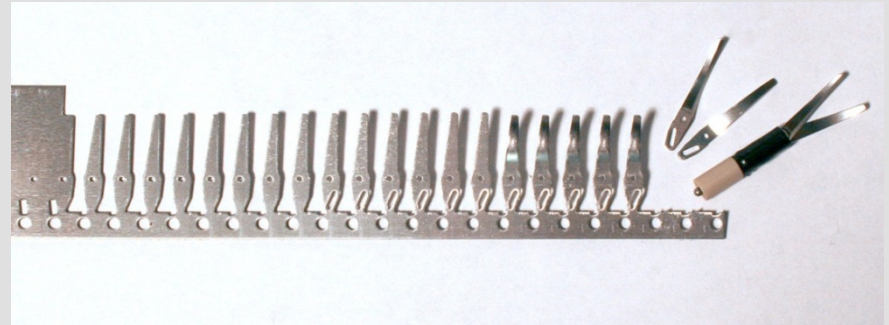
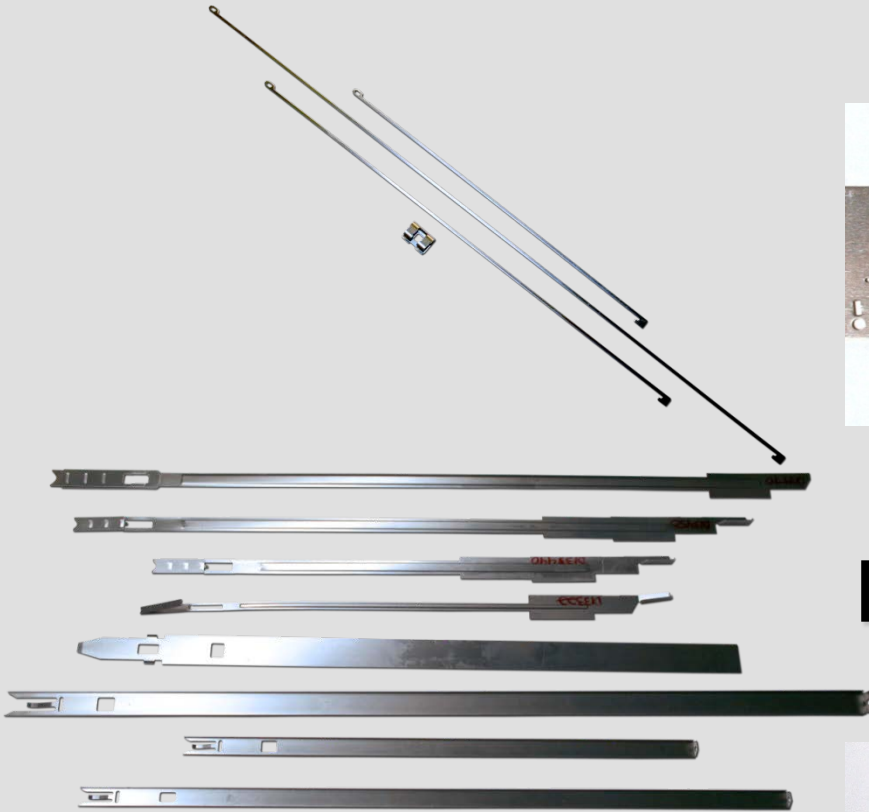
Stamping

LEAN Manufacturing





Prototype to Production



Precision Stamping



Production Machining



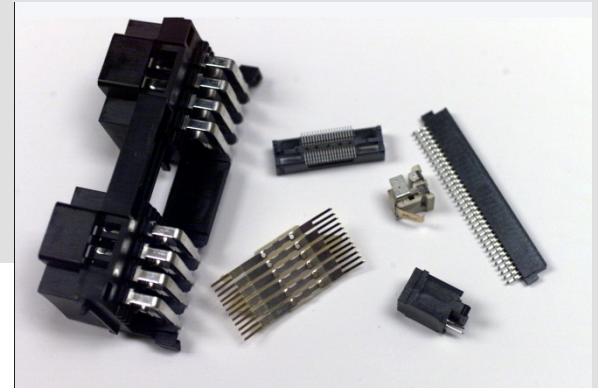
In Process Cleaning and Passivation

- Citric and Nitric Acid Passivation
- Nitric Copper Sulfite Testing
- ASTM Compliant ASTM-967 and ASTM-380
- Reel to Reel & Loose Piece Cleaning



Pad Printing Capabilities





Precision Assembly

High Precision Machining and Grinding
- Quality Assurance

First Article Inspection

CMM Capabilities

Inspection Reports

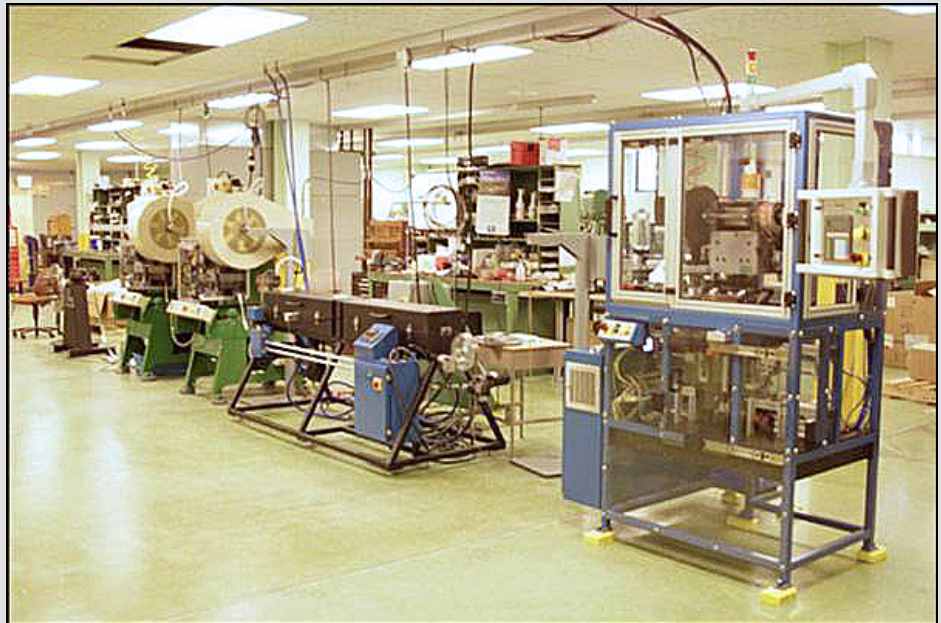
- Critical Application Components



Turnkey production systems

**Individual cells to assist with
assembly or inspection
operations**

**Expertise in high-precision
applications**



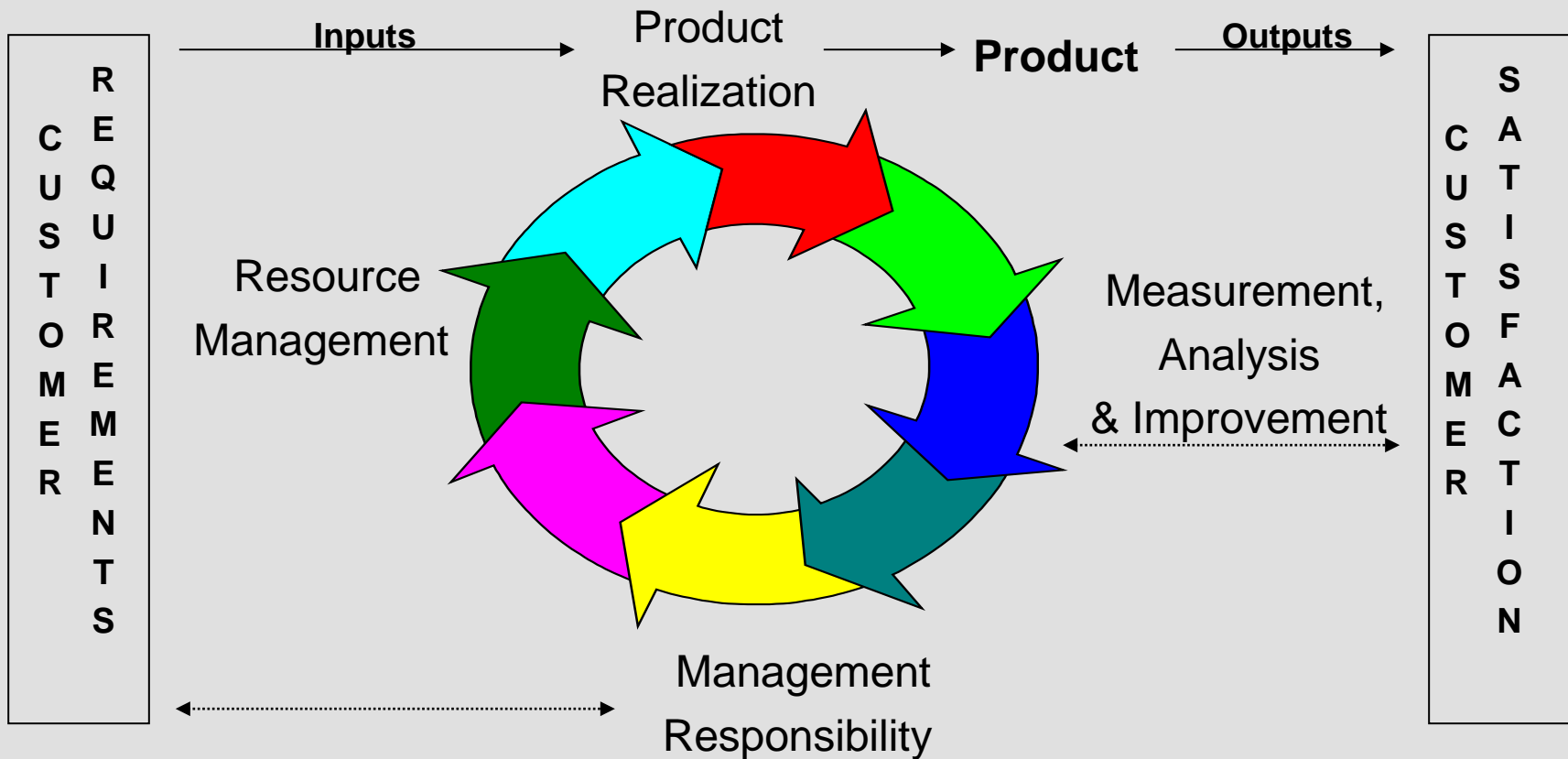
AUTOMATION

Commitment to Quality

- **Advanced Product Quality Planning - APQP**
- **Failure Mode Effect & Analysis - FMEA**
- **Measurement Systems Analysis - MSA**
- **In Process Inspection and Statistical Process Control**
 - **Real Time Inspection Results**
 - **Real Time Capability Analysis (Ppk, Cp & Cpk)**
- **OGP Quest Optical, Laser and Touch Probe Measurement**
- **Vision System Capability**
- **Program and Fixture Design**
- **Over 9000 Calibrated Devices used Daily**



Continuous Improvement Initiative





Manufacturing Training

On-going Improvements in Communications

- **Webx Video Conferencing**
- **More up-front participation in early product development (DFM)**
- **Dedicated Customer Service Team**
- **Sales Representation in Puerto Rico, UK, and Costa Rica & Southeast Asia.**



Simulation Software



- **Benefits**

- Lower Costs (less prototyping, fewer stations, less development)
- Shorter lead times
- Use simulation before making actual changes during development
- Early design for manufacturing process to detect potential design problem issues

Implemented in 2009

3D Printing

Rapid Prototyping and 3D Complex Modeling

Computer Generated 3D STL & SCL Files to Actual 3D Prototype Models

Thin walls down to .024” and horizontal layers to .0006”

Medical Stamping Facility



A reflection of our commitment to quality and service for the Medical Industry

Penn United Costa Rica



Flexi Park S.A. Free Zone
www.flexi-park.com



Penn United Costa Rica

- **Flexi Park S.A.** www.flexi-park.com
 - **10,000 Sq Ft Facility (with option to expand)**
 - **Focus on Product Assembly**
 - **Electronic Housing Assemblies**
 - **Medical Assemblies**
 - **Laparoscopic scissor assemblies**
 - **Full assembly and packaging of skin staplers**
 - **Plans for adding classified clean room as needed**
 - **Production launch – March 2011**

WWW.PENNUNITED.COM



MANUFACTURING
SOLUTIONS

ABSOLUTE
INTEGRITY

- DIES
- TOOLING
- STAMPING
- PLATING
- ASSEMBLY
- PROTOTYPE
- MACHINING
- AUTOMATION
- CONTAINER TOOLING
- CARBIDE MANUFACTURE
- GRINDERS AND SPINDLES
- MANUFACTURING TRAINING