



WWW.PENNUNITED.COM

MANUFACTURING **SOLUTIONS**. ABSOLUTE **INTEGRITY**. EMPLOYEE **OWNED**.



Founded in 1971



An Employee-Owned Company since 1974



~ 9 Total Facilities

~ Approximately 600,000 sq. ft. of Manufacturing and Office Space

~ 625+ employees



ISO 9001 Certified, ITAR Registered, GIDEP Registered and FDA Registered











Major Markets





Precision Manufacturing Solutions

Precision Tooling & Engineering Services

Design for Manufacturing
Die Simulation Services
Prototyping
High Precision Stamping Dies
Metal Stamping/ Forming Tooling
General Precision Wear Components
Precision Machining
Precision Grinding
Powder Metal Compaction Tooling – Quala-Die



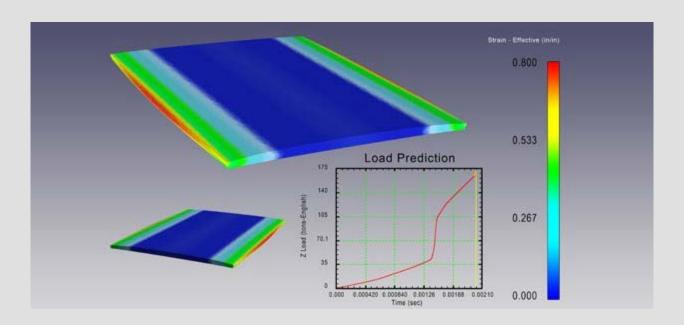
Design for Manufacturing



Assist in the product design phase to decrease up front prototype costs, reduce costly changes down the road, and shorten your time to market schedule.



Die Simulation Services



Our talented design engineering team can identify failure and fatigue issues with the die components as well as finished parts before any manufacturing processes have been performed.



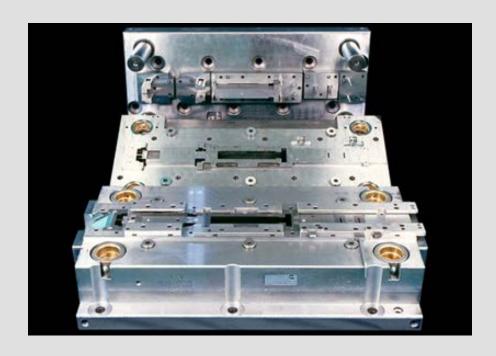
Prototyping



Services include: design and development of your concept from start to finish aided by design and simulation software, 3D plastic printing, laser cutting and hard tooled prototype options. We can provide first time units for concept evaluation or parts that will closely match the final parts you will see from established production processes.



High Precision Stamping Dies



Expert skills and comprehensive knowledge needed to produce the highest quality stamped parts, giving you durability and maintaining the utmost level of accuracy.



Metal Stamping/ Forming Tooling



Provide precision tooling solutions from low to high volume production, repairs and assemblies of high precision components.



Precision Machining & Grinding



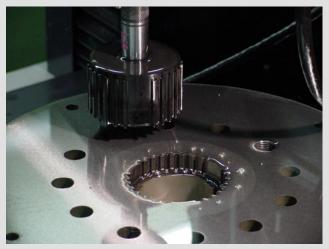


Tight tolerance machining and high precision grinding of critical-application components of various materials









Quala-Die is a leading producer of tooling for the powdered metal compaction industry.

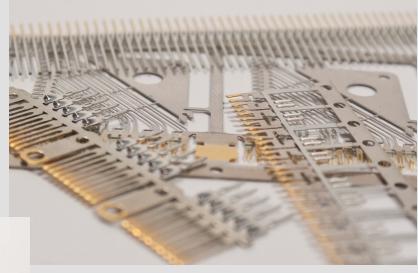
- 43,000 square foot manufacturing facility located in St. Mary's PA, "The Heart of P/M Technology".
- Focused tooling and precision machining facility producing state-of-the-art tooling at highest level of quality, with the quickest possible delivery, most competitive prices, and the highest level of customer service.
- Full service Engineering Department is equipped with the latest in CAD/CAM technology. We can also
 machine prototypes to customer specifications for early development of production parts.



Precision Manufacturing Solutions

Production Services

Metal Stamping
Laser Cutting
Reel-to-Reel Plating
Metal Finishing Services
Assembly





Metal Stamping



Complex flat or formed parts, steel laminations, bandolier pins, continuous reel stamping, prototype stamping, and other stamped metal and non-metal products.



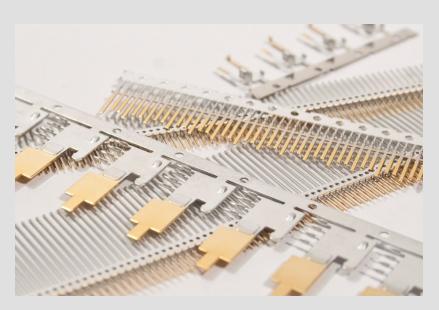
High Speed Fiber Laser Cutting

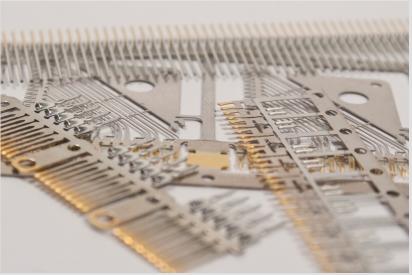


High Speed, 2 kilowatt fiber laser system with capability to cut up to 7/8" thick mild steel or 3/8" thick stainless steel. The laser system provides an additional option for prototype and development parts as well as a cost efficient option for lower volume production requirements.



Reel-to-Reel Plating





Processes include: electro polishing, electro cleaning, copper, nickel, palladium, palladium/nickel, gold, silver, tin 100%, lead free tin, tin/lead (various alloys).



Metal Finishing Services



Processes include: aqueous and solvent based cleaning, both citric and nitric passivation, plating and coating, and an in-house lab and testing area.



Assembly





Improve your supply chain management efficiencies with the skill, dexterity, dedication to process improvement, as well as meeting stringent deadlines with our on-site capabilities.

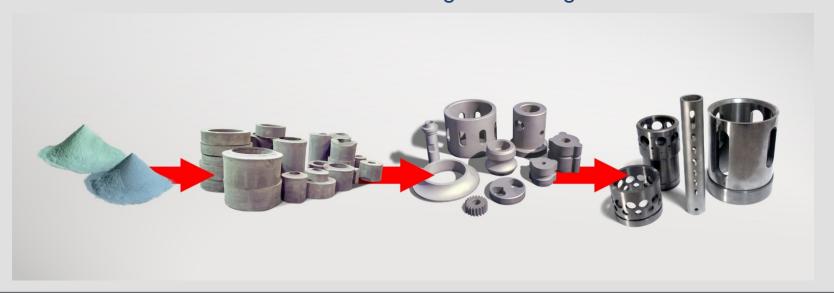


Precision Manufacturing Solutions

Penn United Carbide

Hard Materials & Wear Components

Tungsten Carbide
Silicon Carbide
Carbide and Metal Assemblies
Precision Wear Components
Precision Machining & Grinding





Tungsten Carbide & Silicon Carbide Components



Manufacturer of tungsten and silicon carbide components engineered for rigorous applications ranging from erosion and corrosion resistance to high impact strength.



Carbide & Metal Assemblies



Joining of tungsten carbide to a metal component is used to address manufacturing issues regarding fabrication, assembly and cost.



Precision Machining & Grinding





Tight tolerance machining and high precision grinding of critical-application, high wear components.









Precision CNC grinding machines and remanufacturing of manual precision grinders.



Manufacturing Training





At our L.I.G.H.T. center or your facility.



Renowned Quality Systems and Metrology Equipment





Penn United is ISO 9001certified, ITAR registered, GIDEP registered, and FDA registered to meet quality requirements of our customers. We excel at maintaining our customers confidentiality throughout our business processes.



Commitment to Quality

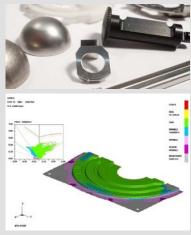
- Advanced Product Quality Planning APQP
- Failure Mode Effect & Analysis FMEA
- Measurement Systems Analysis –MSA
- In Process Inspection and Statistical Process Control
 - Real Time Inspection Results
 - Real Time Capability Analysis (Ppk, Cp and Cpk)
- OGP Quest Optical, Laser and Touch Probe Measurement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

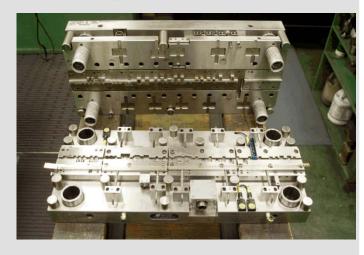




Vertically Integrated Manufacturing Solutions







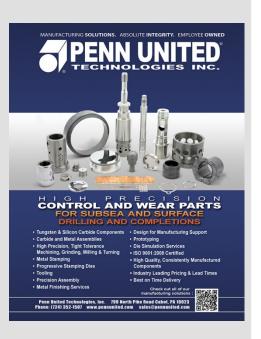
Penn United offers a large array of vertically integrated services to provide customers a value added solution. The crossover of our business groups allows us to utilize the best available resources to serve our customers' needs.



Financial Stability







Through productivity improvements, cost containment and sustainable financial controls Penn United is prepared to grow during eventual shifts in the global economy.



Committed to Work Force Development and Our













Our employees are not only our most important asset, but are committed to company success through their ownership. As a result Penn United is devoted to developing the talents, wellness, and lives of our employees.



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