



Specifications and Capabilities

Maximum Workpiece Dimension:	<ul style="list-style-type: none"> • Maximum Machine Travel (5-Axis): 23.6" (600mm) X 21.6" (550mm) X 17.7" (450mm) • Maximum Weight (5-Axis): 661 Pounds (300 kg)
Materials:	<ul style="list-style-type: none"> • Aluminum Alloys: 6061, 7075, 7175, 2618, etc. • Stainless Steels: 15-5, 17-4, 13-8, 300/400 series, etc. • Titanium and Nickel Based Alloys: 6AL-4V, 6AL-6V, Inconel, Hastelloy, Monel, etc. • Plastics: Delvin, ABS, PEEK, HDPE, Nylon, Acrylic, UHMW, Specialty Plastics, etc. • Steels: Alloy Steels (4140, 4130, 4340, etc.), Carbon and Tool Steels (D2, A36, 1018, 12L14, etc.), Specialty Steels (Maraging Steel, Ferrium C61, etc.) • Other Types of Materials, Castings, Forgings, and Assemblies
Tolerance Capabilities:	<ul style="list-style-type: none"> • Feature Dimensions: Typically, +/- 0.0001" to 0.0002" depending on the feature and materials. • Tight GD&T Requirements: True Position, Profile of Surface, Flatness, Perpendicularity, Runout, Parallelism, Cylindricity, Circularity, and Concentricity (Tolerance capabilities based on feature and materials)
Quality and Process Control:	<ul style="list-style-type: none"> • Quality Management System modeled off the ISO 13485:2016 Medical Standard • ITAR Compliant and DDTTC Registered • Fully temperature-controlled facility • CMM Measurement Capabilities
Internal Capabilities:	<ul style="list-style-type: none"> • Simultaneous 5-Axis Milling, 3+2 Milling, and 3-Axis Milling • DFM Consulting • CNC and CMM Programming Services, Fixture Design, and Turnkey Manufacturing Solutions • Small Parts Bending, Bending Fixtures, and Assembly
Subcontracted Services:	<ul style="list-style-type: none"> • EDM: Wire EDM, Sinker EDM, and EDM Hole Popper • Inspection: Ultrasonic Testing, Fluorescent Penetrant Testing, Magnetic Particle Testing, ect. • Grinding: Cylindrical Grinding, Surface Grinding, Polygon Grinding, Gear Hobbing and Grinding • Welding: Tig Welding, Mig Welding, Brazing, and Laser Welding • Additional Machining Processes: Honing, Gun Drilling, Waterjet Cutting, Swiss Turning, etc. • Surface Finishing: Shot Peening, Deburring, Polishing, Vibratory Finishing, Sand Blasting, etc. • Coating: Anodizing, Hard Coating, Passivation, Electropolishing, Black Oxide, Electroless Nickel Plating, Powder Coating, Chrome, Chemfilm, etc. • Balance and Overspeed testing for Critical Rotating Components • Heat Treatment: Annealing, Stress Relieving, Vacuum Heat Treating, Carburizing, Gas Nitriding, etc. • Laser Marking
Lead Time:	<ul style="list-style-type: none"> • Lead times are quoted job-by-job based on customer requirements, material availability, and any required vendor lead times. • We are capable of taking on rush work and have turned around complex jobs in just a few days when required by the customer. • For repeat work, we can work with you to create a schedule to fulfill your weekly, monthly, quarterly, or yearly demands.
Software and Data Storage:	<ul style="list-style-type: none"> • Software: MasterCAM, SolidWorks, Revu Bluebeam, TNCremo, Microsoft Office (Excel, Word, PowerPoint), Adobe Acrobat, and Adobe Illustrator • Data Storage and Security: ITAR compliant facility, 256-Bit Encryption offline secure file storage, Cross-Cut Shredder on sight for secure disposal of all physical documents
File Formats:	<ul style="list-style-type: none"> • We can work with almost any 3D model or drawing file type. If in doubt, STEP (.stp, .step) format works well with our software.