

CNC Machining

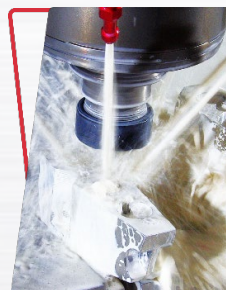
- **Integrated Turning & Milling**
- **CNC Vertical Milling with CNC Rotary Tables**
 - VF2 – 32X16X20 Capacity
 - VF3 – 50x20x20 Capacity
 - VF4(4) – w/ Pallet Changer – 50x20x20 Capacity
 - VF5 – 50x26x25 Capacity
 - VF6 – 64x32x25 Capacity
- **CNC Horizontal Milling**
 - EC-400 – w/ Pallet Changer – 20x20x20 Capacity
- **CNC Turning with Bar Feeders**
 - ST10 – w/ Live Tooling – 7.5x16 Capacity
 - SL10 – w/ Bar Feeder – 7.5x16 Capacity
 - ST20 – w/ Live Tooling, Spindle & Bar feeder
 - SL20(2) w/ Cobot & Bar Feeder – 20x10 Capacity
- **CNC Automated Precision Sawing**
- Automated Robotic Loading/Unloading System
- **Manual Turning** – up to 16" dia x 60"L
- **Manual Milling** – 9" x 50" Table Size
- Additional Job Shop Machining Services
- **Material Types:** Stainless Steel, Carbon Steel, Aluminum, Brass, Bronze, Plastics, and some Specialty Materials

Welding

- 24 Welding Machines - **MIG, TIG, SMAW**
- **Certified Welding** – AWS D1.1 – Comply with all applicable Domestic and International welding codes for structural fabrication.

Fabrication

- **Laser Cutting:** 4000-Watt Fiber Laser (5' x 10' table) w/ Fully Automated Load/Unload System
 - Materials and Thickness Capabilities
 - Mild Steel (Up to 1")
 - Stainless Steel (Up to 1/2")
 - Aluminum (Up to 1/2")
- **CNC Press Brakes:** 3 precision breaks offering accuracy and repeatable forming for all production levels(Up to 250 ton x 12')
- **CNC Shearing:** (1/4" x 10')
- **PEM Insertion:** Automated PEM with feed system
- **Pipe Bending:** Rotary-draw bending up to 2"Sch-40 pipe, manual indexing for repeat precision on small to mid-size runs.
- **Saw Cutting:**
 - Automated for repeat cut accuracy & volume throughput
 - Manual cutting up to 15" x 15" envelope



Finishing

- **Finish Prep:** Timesaver with integrated edge-rounding capability
- **Powder Coating** (24'L x 10'H x 10'W)
- **Sandblasting** (20'L x 10'H x 10'W)
- **Wet Spray Systems** (18'L x 10'H x 10'W)
- Heat Treating Grinding
- All Plating Types, Electro-polish, & Anodizing



3D Printing

- **Printer Properties**
 - Process Fused Filament Fabrication, Continuous Filament Fabrication
 - Build Volume 330 x 270 x 200 mm (13 x 10.6 x 7.9 in)
 - Print Bed Kinematic coupling — flat to within 80 µm
 - Laser In-process inspection, active print calibration, bed leveling
 - Extrusion System Second-generation extruder, out-of-plastic and out-of-fiber detection
- **Materials**
 - Plastics Available Onyx, Onyx FR, Onyx ESD, Nylon White
 - Fibers Available Carbon fiber, fiberglass, Kevlar®, HSHT fiberglass
 - Tensile Strength 800 MPa (25.8x ABS, 2.6x 6061-T6 Aluminum)
 - Tensile Modulus 60 GPa (26.9x ABS, 0.87x 6061-T6 Aluminum)
- **Part Properties**
 - Layer Height 100 µm default, 50 µm minimum, 250 µm maximum
 - Infill Closed cell infill: multiple geometries available

Assembly & Fulfillment

- 40,000sf Dedicated Assembly/Testing Facility
- Complete Fulfillment Logistics to End Users
 - Direct Drop Shipment
 - Warehousing & Inventory Management
 - Customer Supplied Instructions / Manuals
 - Arranging Transportation Services
- Scope of Assembly Services
 - Electrical Wiring
 - Circuit Board Integration
 - Motors and Drives Install and Testing
 - Software Integration and Testing UL Certification (3rd Party) Available
 - Hydraulic/Pneumatic Integration
 - Hardware Kits
 - Graphics Dev/Printing/Application
 - Lighting installation and testing
- Custom Packaging Solutions
 - Standard Packaging & Crating
 - Custom Retail Style Packaging
 - Unique Custom Labeling
 - UPC/Barcode labeling

Engineering Collaboration

- Concept to full production in collaboration with our sister company, Skyline Attractions
- 2D/3D Modeling Design - SolidWorks, SolidCAM, Autodesk
- Full Integration of Mechanical Components - Motors, Electronics, Circuit Boards, Controls
- •Project Consultation & Management
- “Design-For-Manufacturing” Engineering Review
- 3D Scanning and Reverse Engineering Available

