

Curtis Machus

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Aerospace Manufacturing Machinist

Machinist • Composite Fabrication • Precision Assembly • Aviation Operations Support • Previously Held Secret Clearance

Professional Summary

Aerospace manufacturing machinist and technician with hands-on experience in composite fabrication, aircraft operations support, and precision assembly. Background includes aerospace manufacturing work with prototype companies such as Scaled Composites, Northrop Grumman, and aviation mission support in the United States Coast Guard involving MH-60 Jayhawk and MH-65 Dolphin aircraft operations. Known for strict adherence to safety, quality standards, and technical precision in high-reliability environments. Takes pride in creating high quality products that perform their essential function flawlessly.

Core Technical Skills

Composite & Aerospace Prototype Manufacturing

- Aerospace component manufacturing
- Blueprint and technical drawing interpretation
- Precision assembly and fabrication techniques
- Composite fabrication and structural assembly for multitude of prototype aerospace vehicles
- Machine shop assistant; operation of mill, lathe, press, machining and troubleshooting various structural parts using CAD and engineering team partnership

Equipment & Shop Operations

- Forklift and scissor lift operation
- Production equipment and tooling fabrication
- Mill, lathe, and press machine shop operations

Aviation & Operations Support

- Aircraft tie-down and deck operations
- Aviation ground support procedures
- Emergency aircraft refueling operations

Safety & Quality

- OSHA-focused safety compliance officer
- Aerospace quality awareness
- Hazard mitigation and operational risk control
- AS9100/AS9110, SDS, FOD Prevention
- EMT, First Aid, BLS and CPR Certified Instructor

Professional Experience

Machinist

Electric Propulsion Laboratory – Apprenticeship Contract, April 2026 – Current

- R&D prototype Machinist/ Product Line Lead
- Manufacturing, troubleshooting, maintaining and improving all aspects of various spacecraft components
- Reverse engineering and duplicating parts/components with precision tolerances

- Manual Machining on a variety of 'over the hill' vertical mills and engine lathes with multiple jaw capabilities. Aluminum, SS (all types), high carbon Tungsten, Molybdenum, Tantalum, Copper, Brass, G11, Carbon Fiber, Ceramics.
- Responsible for entire prototype manufacturing process; to include: CAD modeling, blueprint development, tooling offsets & jig setup, Turn-Mill machining with multiple axes &/or operations, finishing, deburring, ultrasonic cleaning, materials tracking, inspection, print finalization, Assembly &/or installation on spacecraft.
- Proficient in precision measurements, Manual Machining, Part Geometry, Tooling, Assembly, function troubleshooting, Gas Tungsten Arc Welding on mild steel, SS, Aluminum and Molybdenum.
- Working knowledge of multi-process CNC programming, CAM toolpaths, speed & feed rates, Trigonometry, fishing techniques.

Business Owner

AVLifeSavers, September 2019 – Current

- Provides instructional training and certification for First Aid, Life Support, and CPR
- Educates and trains on emergency response
- Owns and operates business certifications, licensing and accounting

Composite Fabricator / Area Lead

Scaled Composites, LLC, Mojave Ca, May 2014 – September 2019

- Fabricated and assembled advanced composite aerospace components in a high-precision manufacturing environment
- Interpreted engineering blueprints and technical drawings to ensure structural accuracy and quality standards
- Maintained strict safety and process compliance during fabrication operations
- Operated forklifts, scissor lifts, and production equipment supporting manufacturing workflow
- Assisted team production coordination to maintain efficiency and quality targets
- Executed leadership responsibilities to include performance management, hiring, terminations, cost and schedule, timecard review and approvals, quality assurance of team output of over 40 technicians
- Held Secret Security Clearance

Woodworking – Various Independent Projects

Owner, 2012-2014

- Worked on various projects for local businesses and churches
- Designed, built and sold custom furniture pieces using reclaimed wood, steel and iron

Health Services Technician (E-5)

United States Coast Guard, 2007-2012

- Supported aviation missions involving MH-65 Dolphin and MH-60 Jayhawk helicopters
- Performed aircraft tie-down, deck operations, and aviation ground support during maritime flight operations
- Assisted in emergency aircraft refueling procedures and aviation safety operations
- Worked in high-risk operational environments requiring strict adherence to safety protocols and mission readiness

Technical Training & Certifications

- Composite Fabrication & Assembly Certification
- Aviation Fabrication & Assembly Program — Antelope Valley College
- AFAB-110 Blueprint Interpretation
- Forklift & Scissor Lift Certification
- Mill & Lathe Machine Shop Training
- Safety Officer Certification — Heavy Equipment Operations
- Certified EMT

Additional Skills and Hobbies

- Plans and facilitates weekly recreational ice hockey games for disabled military veterans
- Assistant Team Captain Charlie Division Colorado Warriors Disabled Veterans Hockey Team
- Amateur gunsmithing; milling and assembly
- Hockey stick and skate repairs using carbon fiber and resin systems and techniques

*Personal and Professional References Available Upon Request