Fleet Readiness Services
(Maintenance, Repair, and Overhaul Support)
Supporting your Mission with New and Obsolescence Part Production

CTC has 30 years of experience as a complete service provider to address your manufacturing, maintenance, and sustainment issues. Our engineering & manufacturing team consists of experts with in-depth experience in materials, design, analysis, rapid prototyping, testing, and manufacturing. Our services include:

- Laser Scanning and Geometry Development
- Technical Data Package Development
- Material and Failure Analysis
- Prototyping, Production, and Logistics Support

CTC’s quality management system is certified to the ISO 9001:2015 and AS9100D:2016; CTC’s environmental management system is certified to 14001:2015.
CTC provides the following services to ensure your objectives are met with a cost-effective solution.

- **Laser Scanning and Geometry Development**
  - Laser Based Metrology (FARO and Surphaser hardware)
  - High Accuracy Discrete Point Inspection (GD&T Inspection and Reporting to ASME and ISO standards)
  - CAD-to-Model Inspection, Mold Inspection, Surface Analysis, and Point Cloud Generation (PolyWorks and SpatialAnalyzer software)
  - Assembly guidance and reverse engineering for complete surface / solid models
  - Virtual alignment of large structures
  - Customized measurement plan development
  - Industrial / field measurement (on-site or in-house scanning of small and large scale components / structures)

- **Technical Data Package Development**
  - Solid model development in various formats (Creo, SOLIDWORKS, AutoCAD Inventor, CATIA)
  - Level III drawing packages per MIL-STD-31000 and ANS-E Y100
  - Design engineering and finite element modeling (ANSYS, ABAQUS, etc.)

- **Material and Failure Analysis**
  - Fully outfitted materials characterization and mechanical testing laboratory
  - Failure determination and alternative process recommendation / qualification to ensure extended life
  - Conduct repair assessment to provide cost-effective means to repair
  - Repair processing utilizing advanced technologies

- **Prototyping, Production, and Logistics Support**
  - Tooling, fixture design, and fabrication
  - Testing and validation: Develop mockups to simulate appropriate environment or conditions to validate prototype components or systems.
  - System prototype and LRIP builds
  - Additive and subtractive manufacturing machines (FDM, SLM, cold spray, conventional machining and fabrication equipment)
  - Quality and production planning
  - Production support. Vendor establishment, training and spin-up support
  - Integrated logistics support for DoD Assets (NAVAIR, NAVSEA, and US Army)

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**Industries Served:**
- Marine / Shipbuilding
- Aerospace
- Power Generation
- Architectural Design / Construction
- Historical Preservation
- Ground Vehicle
- Medical
- Research & Development / Prototyping

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**Contact**

Mike Pollock, Senior Director, Advanced Engineering & Manufacturing, (814) 269-6817, pollockm@ctc.com

www.ctc.com/AEM