

# MANUFACTURING SOLUTIONS



General Atomics Electromagnetic Systems (GA-EMS) Manufacturing Solutions offer OEMs and system integrators convenient, on-shore contract manufacturing services for fabricating, assembling, testing, and finishing specialized components for aerospace/defense, energy, industrial, and commercial applications. Our 424,000 square foot facility near Tupelo, Mississippi combines extensive manufacturing and testing expertise with cutting-edge equipment to support exacting component and product designs.

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## CAPABILITIES AND SERVICES

GA-EMS Manufacturing Solutions offers prototyping through to full production, short to long runs, and low to large volume manufacturing and assembly services. We machine, assemble, and test components to meet tight tolerances and harsh environments, and measure each product against the highest quality, compliance, and safety standards in the industry. We have a proven track record for competitive pricing, on-time delivery, and a high pass rate for final acceptance.

GA-EMS has extensive experience in manufacturing complex electronics, precision metal components, and turnkey assemblies, including our own line of highly specialized permanent magnet motors and generators, high voltage capacitors and drives, electromagnetic railgun and aircraft launch and recovery systems, electrostatic oil separators, and radiation monitoring systems. We understand the challenges component obsolescence places on products with long lifecycles, and actively work with customers to implement serviceable solutions to ensure continued support.

- Surface Mount Technology, Printed Circuit Board Assembly (SMT/PCBA)
- Cabling
- Machining and enclosure
- Complex electrical motor winding
- Multi-megawatt test capabilities
- Testing:
  - High voltage
  - Discharge
  - Routine electrical (surge comparison, AC & DC HI-POT, Micro-PHM)
  - Structure and airborne noise
- Backplanes
- Build-to-order, configure-to-order
- Tool & mold design
- Assembly
- Prototyping
- ASME, AWS and NAVSEA 248 welding certified
- Supply chain management
- Logistics services
- Aftermarket services  
(RMA, repair/warranty, failure analysis)



## QUALITY AND CERTIFICATIONS

We manage all departments with clearly defined processes to ensure each product manufactured by GA-EMS adheres to our customers' exact specifications. We thoroughly document, track and review specification conformance at each stage of the manufacturing process, helping ensure strict quality control and efficient workflow management.

Our staff undergoes extensive training to support the latest processes and techniques in manufacturing, testing, and equipment operation. In addition to demonstrated conformance to quality and safety standards, GA-EMS is also compliant with the U.S. government's International Traffic in Arms Regulations (ITAR) for export of defense-related products and services. Our commitment to continuous workforce development translates into a highly skilled, experienced team dedicated to providing optimal results and superior customer service to meet the most challenging requirements.

- ISO 9001:2015
- NQA-1 Compliant
- MIL-STD-2037 Sealed Insulation System
- IPC-A-610/IPC i-Std-001 Soldering
- Fiber optics
- Six Sigma (green and black belts)
- Lean management
- ESD Control Certified
- EPS/DOT
- ANSI Y.14 GD&T
- Hazardous Toxic Waste Management (RCRA)
- Hazardous Materials Transportation (HMT P30)
- OSHA Certifications:
  - 24 hour HazWoper Certified Emergency Response Team
  - NIMS Incident Command System
  - 10/30 hour Safety Certifications
  - Crane, forklift, incident command system
- ISO 14001:2015

## EQUIPMENT

- Sophisticated electronics and automated PCBA
- Multiple punch and drill presses, band saws, grinders, waterjet cutting, and finishers
- Complex electrical motor winding equipment
- Computer Numerical Controlled (CNC) machining, lathe, milling, boring and turning machinery
- Plasma and laser cutting
- Manual and robotic welding
- Robotic paint and sandblast

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## FACILITIES

- 20-acre fenced site with 24-hour security
- Dedicated facility power line
- Engineering offices with latest CAD/CAM technology
- On-site customer representative and DCMA offices
- Lifts and jacks with capacities from 300 lbs to 45,000 lbs
- 10-, 20-, and 50-ton bridge cranes
- Conformance to industry guidelines for e-waste, recycling

