



Defense

Manufacturing Strength for Defense - Critical Components

Defense systems are built around components that must perform flawlessly when stakes are highest. Across aircraft, naval vessels, ground vehicles, and advanced weapon systems, every part must meet exacting requirements for strength, precision, traceability, and repeatability, often under extreme thermal, mechanical, and corrosive conditions. In this arena, reliability is not just a metric; it is a mission imperative.

Fisher Barton supports defense OEMs with mission-critical componentry engineered for consistent performance and long service life. We bring vertically integrated capability across the value chain, offering close-tolerance machining, large-scale machining, foundry operations, and advanced surface engineering. By combining deep materials expertise with rigorous manufacturing discipline, we deliver components that enable readiness, resilience, and operational confidence.



Manufacturing Strength For Defense Critical Components

Defense platforms—land systems, aerospace, unmanned systems, naval applications, and advanced weapons technologies—demand components that maintain structural integrity and functional performance under extreme mechanical, thermal, and chemical stress.

Fisher Barton brings engineering driven manufacturing capabilities that ensure top tier reliability, including:

Precision Machining & Forming

- Complex geometries and close tolerance machining
- Hardened steels, stainless, nickel alloys, bronzes, specialty and proprietary alloys
- Multi axis machining centers and automated work cells
- Integrated quality control and CMM verification on the production floor

Advanced Forming & Fabrication

- Stamping, forming, cutting, and bending for both short run and high volume defense components
- Automated welding, robotic joining, and laser welding for repeatable quality in structural components
- In house tool design and maintenance for strict dimensional and performance control

Surface Engineering & Engineered Coating Solutions

Modern defense systems rely heavily on components built for long term wear life, corrosion resistance, impact performance, and dimensional stability. Fisher Barton's engineered coatings and surface treatments enhance mission critical reliability across a broad set of defense applications.

Engineered Coatings for High Wear, High Threat Environments

- Thermal spray coatings (HVOF, plasma, flame spray, electric arc)
- Laser cladding and metallurgically bonded overlays
- Wear resistant, corrosion resistant, and fatigue resistant coating systems
- Precision post processing: grinding, lapping, superfinishing

These coatings improve the lifespan of defense components exposed to abrasion, erosion, chemical exposure, blast effects, and continuous mechanical loading.

Proprietary Technologies

- FluxFuse® fusing for low porosity, high bond strength coatings
- FUSIONbond® diffusion driven metallurgical bonding across coating interfaces
- Custom coatings engineered to defense specific environmental conditions

Deep Expertise in Metallurgy & Material Science

The foundation of our defense capability is our world class Technology Center, led by materials engineers specializing in:

- Microstructure engineering
- Wear mechanism analysis
- Alloy selection and development
- Heat treatment optimization
- Failure and fracture analysis
- Mechanical testing: impact, fatigue, abrasion, erosion

Our engineers evaluate operational loads, environmental threats, cyclic stresses, and component geometries to develop solutions that maximize service life and support mission assurance.

ITAR Registered & Defense Ready

Fisher Barton is fully ITAR registered and maintains strict controls over data handling, manufacturing workflows, and quality systems to support defense programs with security and compliance requirements.

- ISO 9001:2015 certified facilities
- Controlled manufacturing processes
- Documented quality systems and traceability
- Secure engineering collaboration for defense designs

We understand the expectations of Tier 1 and Tier 2 defense procurement—on time delivery, controlled processes, specification compliance, and lifecycle reliability.



Applications in the Defense Sector

Our manufacturing and surface engineering expertise supports components used in:

- Ground vehicle systems (power transmission, motion control, armor support, mobility)
- Aerospace & UAV structures and wear components
- Naval and marine defense systems
- Munitions, weapons platforms, and support equipment
- Actuation, cutting, sealing, and motion control subsystems
- High precision components requiring tight tolerances and engineered surface behavior

Why Fisher Barton for Defense

In an era of evolving mission demands, defense manufacturers require partners who bring more than production—they require deep engineering collaboration.

Fisher Barton delivers:

- Metallurgy forward component design
- Engineered coatings tailored to harsh defense environments
- Precision machining and forming built for repeatability
- ITAR compliance for secure defense manufacturing
- Vertically integrated production for cost, quality, and lead time control

Fisher Barton is more than a source for high quality defense components—we are your engineering partner for advanced materials, surface engineering, and manufacturing innovation.



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