



Research and Development FORGING



Program Info

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DLA'S TRANSFORMATION IMPERATIVES



Build Organization Agility Through Our People and Culture

Calibrate Resilient And Responsive Logistics Solutions On Support Of Military Readiness

Enhance Support To Integration Deterrence Across The Continuum Of Conflict In Contested Logistics Environments

Lead Logistics Interoperability Across The Department, Allies, Whole Of Government, And Industrial Base

OBJECTIVE

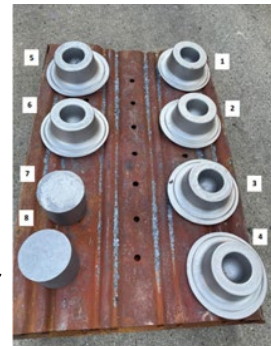
The DLA R&D Forging program includes work to develop new and improved forging capabilities in the areas of inspection, design, modeling and manufacturing processes. The implementation of these capabilities will support the forging industry, where the technologies will be tested, implemented, and in turn, benefit the DLA and the DoD.

INNOVATION & TECHNOLOGY

- Laser cladding additive technologies to extend the life of forging dies.
- Die and material coatings to extend the life of manufacturing tooling and reduce waste.
- Workforce development to provide education on processes and safety.
- Sensors and machine learning methodology to automate forging processes.



Steel Billets before Forging



Steel Billets after Forging

STRATEGIC THRUSTS

- Materials
 - Billet Coatings
 - Improved Die Materials
- Workforce Development
- Manufacturing Processes
 - Die Coatings
 - Automation & Robotics
 - Additive Manufacturing



Research & Development FORGING



THE CHALLENGE

- Ensure the DoD continues to have viable sources for the procurement of quality parts with forged content
- Decrease material cost by improving the manufacturing process and material
- Improve customer service by expanding and strengthening our collaboration with suppliers



Deck Lashing Gear
Assembly, Hook



MK80 Series Bomb Lug

WARFIGHTER READINESS

THE BENEFITS



Improved mission readiness and cost effectiveness



Decreased cost and lead times



Improved material availability and quality



Improved manufacturing and sources of supply



Higher strength forged components



Workforce development / education

INDUSTRY AND WHOLE OF GOVERNMENT PARTNERSHIPS

- Forging Industry Association
- Forging Industry
- Research Universities
- Joint Defense Manufacturing Technology Panel (JDMTP)
- DLA Land & Maritime
- DLA Aviation



<https://www.dla.mil/Information-Operations/Research-And-Development/>

ACCOMPLISHMENTS & ONGOING EFFORTS



Developed manufacturing methods and design resources to aid in the production of forged components supporting the Warfighter.



FORGE-IT Team provides valuable resources to DLA and suppliers; assistance requests, should costs, and workforce development seminars.



Billet coatings which reduce weight loss of billets by 80-90% and decrease decarburization depth by 20-45% in laboratory environment.