DEVCOM ARMAMENTS CENTER

NONDESTRUCTIVE TESTING (NDT) RESEARCH AND ENGINEERING LAB

LABORATORY INFORMATION FACT SHEET

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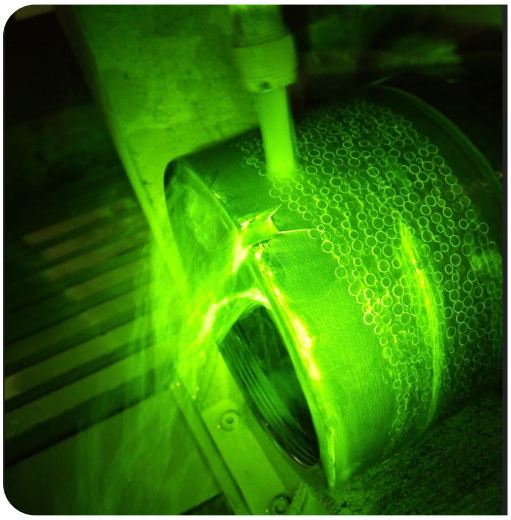
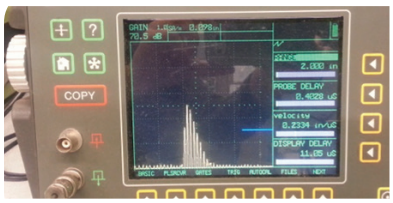
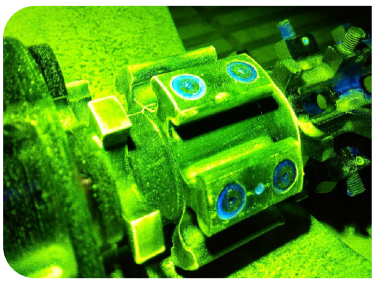


The Nondestructive Testing (NDT) Laboratory provides subject matter expertise in evaluating a variety of armament components for the presence (or absence) of discontinuities that may affect the usefulness of that product. The method of NDT does not alter or interfere with a product's final use.

TECHNOLOGY/FACILITY DESCRIPTION:

The NDT Laboratory provides research and identification of the most appropriate NDT method for munition and armament system components, and development of the Tech Data Package (TDP) requirements to ensure suppliers repeatedly and reliably perform contractual inspections. Selecting the appropriate method is based on factors such as material, geometry of the part, defect characteristics, and access to surfaces. NDT methods are unlike destructive testing (such as Charpy tests, Rockwell Hardness tests, etc.), as these methods do not alter or interfere with a product's final use. As such, NDT can provide a cost-effective means to inspect and evaluate components before they reach the Warfighter. NDT inspection occurs on vast number of components on a wide range of weapons, munitions and vehicles. Inspection on these components can occur at different stages in the manufacturing process, including, forging, pre/final machining or pre/post coatings. Additionally, NDT is used to screen fielded assets for development of fatigue and stress over the life cycle, malfunction investigation, and experimental commodities.





EQUIPMENT AND EXPERTISE AVAILABLE:

- Ultrasonic Testing
- Magnetic Particle Inspection
- Eddy Current Testing
- Penetrant Testing
- Conductivity Testing
- Visual Testing and measurement
- Audit CONUS and OCONUS Vendors/ NDI Facilities
- Applied R&D in NDT
- Detect internal or external discontinuities
- Measure geometric characteristics (thickness)
- Level I, II, III certified government and contractor personnel across multiple methods including MT, PT, UT, and ET
- Writes technical requirements for NDT equipment specifications and Statements of Work (SOW)
- Works with NDT equipment vendors to develop new inspection equipment
- Designs calibration standards for automated NDT equipment
- Prove-out testing of NDT equipment
- Reviews/approves contractor NDT documents for AAIE/AIE and FAT
- Publishes papers and briefings on specific NDT topics