

ESi consultants have a proven track record of providing technical expertise and assistance on projects involving firearms, ordnance, and ammunition. Our teams are led by licensed engineering professionals with the technical skills and industry experience to analyze the root cause of incidents, and we are retained extensively throughout the U.S. to help with matters involving firearm design, manufacture, specifications, and performance.

At ESi, we utilize a collaborative, multidisciplinary approach that allows us to provide the right expertise for almost any project, no matter how large or complex. Using the latest equipment and analytical methods, we provide a range of technical services, including failure analysis, finite element stress analysis, and thermal and infrared imaging.

Whether the issue is mechanical, metallurgical, or involves multiple technical areas, we have staff with the right expertise to help. In addition, our consultants are qualified experts in both federal and state courts, and can effectively communicate complex technical topics to any audience.

With state-of-the-art facilities and equipment located conveniently across the United States, we serve many manufacturers, designers, and component assemblers. These clients look to us to help trouble-shoot, develop, and improve the quality of their products and processes. We are often sought after for the analytical results we obtain by combining our high-tech SEM (Scanning Electron Microscope), CT scanner (Computed Tomography) and sensitive chemical analysis using EDS (Energy Dispersive X-ray Spectroscopy).

## FIREARMS/ORDNANCE/AMMUNITION ANALYSIS

- Component Codes & Specifications
- Criminal/Evidence Issues
- Design/Performance Improvement
- · Fabrication/Manufacturing Support
- Fracture & Failure Mode

- · Gun Shot Residue/EDS
- · Hazardous Ammunition
- · High Pressure/Velocity
- · International Suppliers
- · Metallurgy/Materials Adequacy
- · Propellant Composition

- · Re-Load/Velocity
- Scenario Replication & Testing
- · Storage/Fire Modeling
- Tool & Witness Mark Identification
- Wild Cat/Misuse/Abuse



## Contact ESi

To get in touch with the ESi firearms, ordnance & ammunition team, call Tony C. Dill, COL (USA Retired), at 678.990.3280 or email him at tcdill@engsys.com.