



**DEVCOM**  
ARMAMENTS  
CENTER

# R&D SCALE EXPLOSIVES MIXING, PRESSING, AND LOADING LAB

## LABORATORY INFORMATION FACT SHEET

### CONTACT US:

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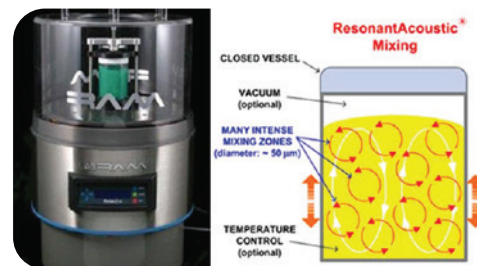


*The R&D-Scale Explosives, Mixing, Pressing and Loading facility produces and post-processes explosive formulations to complete explosive characterization testing. The facility can fabricate explosive tablets, pellets and billets of diverse composition for formulation development and munition prototyping.*

### TECHNOLOGY/FACILITY DESCRIPTION:

The R&D-Scale Explosives, Mixing, Pressing, and Loading facility features a variety of traditional and state-of-

the-art equipment to process melt-cast, cast-cure and pressed formulations on scales up to 50 lbs according to program needs.



## EQUIPMENT AND EXPERTISE AVAILABLE:

### • Mixers

- Pint, Gallon and 5-Gallon Planetary Mixers
  - Heated Bowl
  - Vacuum
- 5-, 7.5-, and 10-Gallon Melt Kettles
  - PLC Control
  - Custom Agitation
  - Heated Bowls
  - Vacuum
- Resonant Acoustic Mixing
  - Low and High Viscosity Paste Capabilities
  - In-Item Mix and Cure Capabilities
  - High Solids Explosive Formulations (cast-cure, pressed and melt pour)

### • Presses

- 1.5-, 8-, 35- and 50-Ton presses
  - Heated Tooling
  - Vacuum Dies
  - Booster Charge Dies
- Stokes Models R&F Tableting Presses
  - High Throughput
  - Initiator and Detonator Capabilities
- 190- and 420-Ton Hydraulic Presses
  - Double-acting
  - Heated Tooling and Vacuum
  - SCADA Controls
  - Warheads, Shaped Charges and Billet Capabilities
- Isostatic Press
  - High L/D Ratio
  - Complex Geometries

### • Loading

- Loading Capabilities for Grenades, Mortars, Projectiles, Pyrotechnics, Smokes and Reactive Armor
- Loading Capabilities for Multiple 120-mm Simultaneous Cartridge Loading
- Vacuum
- Carousel
- Curing Ovens
- Controlled Cooling Ovens
- Conductive Tools, Benches and Floors
- CMM and X-Ray Inspection
- Density Testing
- Integrated Q/A