



CONSUMABLE STRUCTURAL MATERIALS FACILITY

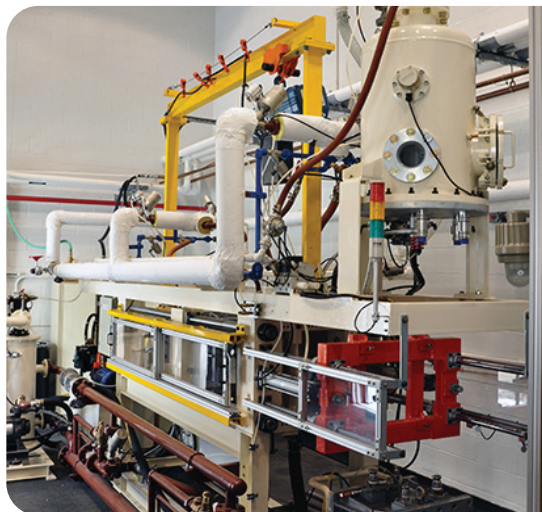
LABORATORY INFORMATION FACT SHEET

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The Consumable Structural Materials (CSM) Facility is a dedicated Department of Defense facility established to integrate all combustible case material technologies and processing techniques that enable the development and transition of new CSM to existing and future weapon systems.

TECHNOLOGY/FACILITY DESCRIPTION:

CSM and their related technologies may be used in propulsion systems and other munitions components to house

and protect energetic materials prior to burning, deflagration, or detonation. They also provide an alternate solution to existing combustible cartridge case materials and metal cases for a wide range of small, medium and large caliber systems, as well as specialty munitions components. The benefits of CSM include: (1) Reduced weight; (2) Simplified manufacturing techniques; (3) Robust protection in storage and transport; (4) Rapid and complete combustion upon ignition of the energetics inside; (5) Reduced overall munitions costs; (6) Improved sensitivity & Insensitive Munitions performance and (7) Potential for increased propulsion system energy. The CSM Facility supports the development and prototyping of DEVCOM AC consumable structural material and manufacturing technologies for future advanced munitions.



EQUIPMENT AND EXPERTISE AVAILABLE:

- Sigma Blade Mixer
- Horizontal extruder
- Blocking machine
- Slicing machine
- Hydraulic presses
- Automated beads molding machine
- Thermoformer
- Dry/solventless vibrational welding
- Edge bending machine
- Sheet foaming machine
- Filament winding
- Braiding
- Injection molding
- Consumable Structural Material and process development
- Foam materials
- Pre-expansion of materials
- Thermoforming
- Beads molding
- Form complex geometries