

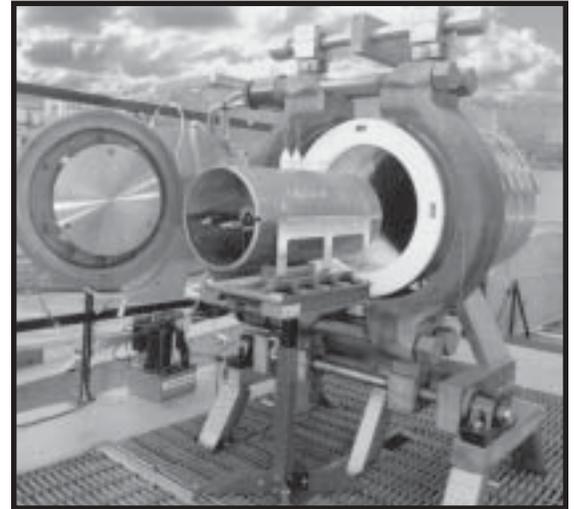
# information

## Explosive Destruction System (EDS)

The Explosive Destruction System (EDS) is a transportable system designed to help the U.S. Army accomplish its mission to dispose of recovered chemical warfare materiel in a safe, environmentally sound manner. The EDS' primary component is a sealed, stainless steel containment vessel providing total containment for treatment of chemical munitions. The EDS successfully opens chemical munitions while containing the blast, munition fragments and chemical fill— that is, there is no release into the environment.

System operations begin with a recovered chemical munition being placed inside the containment vessel. Commercial explosives are attached to the munition and remotely detonated, opening the munition and destroying its explosive components. Reagent, a substance used to reduce the hazardous properties of the munition's chemical fill, is then pumped into the containment vessel. The resulting waste is drained into drums and shipped to a commercially licensed disposal facility. Excess pressure generated inside the vessel during the detonation is vented through a carbon filter, removing any residual vapors that may exist.

The use of the EDS as a treatment system is extremely flexible because of its 316 stainless steel alloy construction. Stainless steel is resistant to corrosion enabling the EDS to



*The EDS containment vessel is resistant to corrosion, allowing it to treat a wide variety of munitions.*

treat and destroy a broad assortment of both military and commercial chemicals.

In 1999, fabrication of a useable prototype EDS was completed. This system, the EDS Phase 1, has a 50-gallon containment vessel and is equipped with three 25-gallon tanks for water and reagent. The prototype EDS is designed to withstand the explosive force from a number of commonly recovered munitions such as the 75-mm shell, 4.2-inch mortar, and 8-inch Livens projectile.

The EDS Phase 1 has been tested in the United Kingdom as part of a cooperative test and evaluation program. The United States and the United Kingdom share the challenge of how to safely dispose of recovered chemical warfare materiel. The EDS has proven to be a system that can help both countries resolve this problem.

The success of EDS Phase 1 led to the development and production of EDS Phase 2. This system is designed to accommodate larger materiel in both size and explosive content. EDS Phase 2 will undergo a similar test and evaluation program as the Phase 1 system.



*The Explosive Destruction System can be transported to sites where materiel may not be safe to store or transport.*

*For more information,  
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