



Advanced Fragmentation Structure

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Categories:

- Materials and Manufacturing
- NSWC Crane

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- Crane
- Defense & Space
- Materials and Manufacturing
- Materials Science
- Mechanical Engineering

The U.S. Navy seeks a partner for licensing and collaboration on a fragmentation structure with improved fragmentation and projectile generation properties and better storage and manufacturing capabilities.

NSWC Crane has developed and patented an improved design for a fragmentation hand grenade specifically the structure, manufacturing, and storage of such a device. The design has improved performance in the number of fragments, the mass, dispersion, and kinetic energy while keeping a traditional grenade form, fit, and functions. The design of the grenade allows it to be used with a wide range of explosive materials as well as many types of detonators depending on the application.

The grenade has an improved logistical life cycle through production, maintenance, safety, and processing. The design of the grenade includes a body that can be separated into individual components including an open body section, top cap section, removable detonator, and an explosive.

The solution to the fragmentation problem can be used with other applications where the end result is fragmented or widely dispersed.

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