Detonating Cords

Overview
Braided textile explosive cord products represent the earliest origins of Ensign-Bickford Aerospace & Defense Company. These products utilize an explosive or pyrotechnic core, surrounded by a braided layer of a textile yarn. Many of these products then include a polymer or wax over jacket to provide water resistance. This basic construction gives textile cord products the look and feel of rope. EBA&D also supplies detonating cord assemblies that incorporate initiation provisions as well as booster output charges.

Application
Textile cord products are used for a wide variety of applications in the defense community. Many EBA&D systems utilize detonating cord as a key component of their assembly, such as the APOBS line charge and SAPLIC line charge. In addition, explosive nets using detonating cord have demonstrated the capability for wide path mine clearance. Other common applications of textile cord products include Explosive Ordnance Disposal, Breaching Systems, Explosive Testing, Ignition Delay, and several other general demolition applications. These products provide a controlled burn rate and energetic output to ensure mission to mission repeatability.

Design Considerations
Textile cord explosive and pyrotechnic products are heritage products that have wide applicability. Depending on the application, these products can be used in a cut-to-fit mode to provide flexibility. Explosive loading can be tightly controlled and maintained in low coreload to high coreload products. PBX based detonating cords can be used as part of systems requiringInsensitive Munition (IM) classification. Standard initiation and output interfaces are well characterized to minimize the risk in new application scenarios. With the expertise of the EBA&D technical staff, system assemblies and cord networks can be developed to meet a wide range of overall system requirements.

Primacord® Detonating Cords
Ensign-Bickford Aerospace & Defense Company is proud to be the premier supplier of Primacord® Detonating Cord to the US DOD and military users worldwide. Primacord® is a detonating (exploding) cord consisting of a continuous explosive core bound by textile yarns and finished with plastic and yarns as waterproofing agents. Cord manufacture begins with the production of PETN, RDX, or other high explosives. Textile yarns, polymers, and waxes are used through a stringently controlled production process to complete the manufacture. EBA&D has the capability to design, develop, produce, package, and test a wide range of detonating cord products as specified by customer requirements.
PBX Detonating Cords

In applications requiring detonating cord, increased moisture resistance and reduced sensitivity over standard dry and wet spun cords is necessary; in such cases detonating cords based on extruded Plastic Bonded Explosive (PBX) technology are preferred. The cords can be manufactured using different over braid constructions and materials depending on the application requirements. EBA&D is a leading provider of Plastic Bonded Explosive (PBX) products to the aerospace and defense industries. EBA&D’s staff of scientists and engineers have extensive experience in the scale up and production of PBX products to meet DOD, aerospace and commercial requirements as well as developmental and specialty applications.

M151 and M152 Booster Assembly

The M151/M152 Booster Assemblies are advanced military demolition tools that will greatly enhance the mission success. EBA&D has taken our detonating cord technology and created a low coreload product that is lightweight, low-volume and highly reliable. No.12 strength booster charges and J-hooks are crimped on the detonating cord to complete the device. The use of M151/M152 Booster Assemblies adds ease of use to demolition missions without sacrificing paradigm use of detonating cords or the reliability associated with textile based detonating systems.

Safety Fuse

Safety fuse is a heritage linear textile/pyrotechnic cord used to create a delay time of an explosive event. William Bickford, the founder of The Ensign-Bickford Company, was the original inventor of this technology dating back to 1834.