Based on its historic knowledge heritage, after being formed out of Dynamit Nobel in 2002, DynITEC GmbH is a leading manufacturer and developer of energetic materials, explosive devices and electronic initiation systems for military and civil applications in over 35 Countries worldwide within the specific industries and open markets.

Apart from the electronic initiation devices and other products mentioned above, DynITEC manufactures electronic blasting caps designed to supply an extremely safe and usable product for harsh environments with key properties such as waterproof with a depth limit of up to 110 meters and operational temperature range of -40 - +63 °C.

The picture shows the DM42 / M2226 and ESK3 with 1, 3 and 20 meter cable.
The electronic blasting cap is tested to MIL-STD 810 in temperature and humidity, vibration, thermal shock and electrostatic discharge, and the performance test on 8mm thick lead plate creates a minimum 7mm diameter breakthrough.

The electronic blasting cap ESK3 can be used in environments where standard electric blasting caps are unusable or forbidden. For example: near to high voltage pylons, cell phone masts, radio masts, catenary systems, railway stations, radar stations on airports, harbors or sea vessels. Due to the design and its packaging, the blasting cap is safe against sympathetic detonation.

Handheld radio operator safety has been considered during the design stage. It can be worn and used during operations; it won’t be affected by a static discharge of the uniform or PPE, as the ESK3 is safe against any of these interferences. The use of a jammer during operation will not have any influence on the ESK3.

The main advantage for the operator is that ESK3 is equipped with a 20-meter wire that creates a smaller pack size than a NONEL Firing System with the same length of firing capability. Also, when under firearm attack, the ESK3 gives increased safety as the volume of a sensitive hazardous substance is considerably smaller compared to the NONEL mentioned earlier. The wire length of the detonator is available in various lengths and adaptable to customer requirements. The possibility of misuse of the ESK3 by an unauthorized or subversive person attempting to detonate using standard blasting machine, battery or another power source of the electronic blasting cap is almost impossible, due to its necessity of a digital signal instead of a high current. Therefore, the ESK3 is the choice for C-IED or Explosive Method of Entry (EMoE) missions in hazardous environments or relocation of troops via land, air or sea transport.

In the cases where operators require a safe standard electrical blasting cap for environments, where class 1 and class 2 blasting caps are too risky, and class 4 blasting caps cannot be used as existing blasting machines are not suitable or too heavy for the mission intended, Dynitec has the following solution: a class 3 blasting cap, the DM42 / M2226, which has been developed, manufactured and tested to military standards.

The DM42 / M2226 is also waterproof with a depth limit of up to 110 meters and an operational temperature range from -46 to +71°C. Also, these are tested to MIL-STD to vibration, thermal shock humidity and electrostatic discharge. The performance test of the DM42 / M2226 on 5mm lead plate, the breakthrough is in diameter 9.5mm.

For any questions, please contact us at:

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