



# EOD 10

SUIT & HELMET ENSEMBLE

# THE NEXT GENERATION BOMB SUIT

The EOD® 10 is engineered to give best-in-class balanced protection and support to bomb technicians worldwide. The development team took a user-centric focus to invent a suit that is lighter and offers higher overall protection. Every layer of protective material was carefully selected for optimum performance to weight ratio. An extensive Human Factors Engineering program completely redesigned and resized the helmet, jacket and trousers to reduce fatigue and give a better fit. This lighter, better fitting ensemble increases mobility and flexibility so technicians can operate more freely in difficult locations for longer periods of time.





## IMPROVED USER EXPERIENCE

The EOD 10 follows a completely new design from earlier generations. It transfers the weight from shoulders to the waist to reduce fatigue and improve comfort, increases situational awareness, provides upper body ventilation and adds new capabilities.



## HELMET RETENTION

The helmet is equipped with a unique inflatable bladder and multi-point retention system for a secure and customized fit that shapes closely to each user's head. This eliminates the need for additional fit pads.



## LIGHTER WEIGHT

All protective materials were evaluated and carefully patterned to reduce as much weight as possible. The results are outstanding: a lighter ensemble that reduces operator fatigue.



## FLEXIBILITY

The improved ergonomic design allows superior range of motion for the arms, legs and waist, and permits the head to look around more freely.



## MOBILITY

Users will immediately feel a noticeable improvement in mobility due to significant weight reduction, ergonomic design and the use of more advanced materials.



## EMERGENCY MEDICAL AID

A patented system enables emergency extraction by robot or manually. Several design features have been optimized to facilitate faster and simpler access to deliver medical aid.

# ADVANCED TECHNOLOGIES FOR MISSION SUCCESS

The EOD 10 is the first bomb suit to integrate multiple digital technologies at a system level to assist a user. They help the operator control functions, interact with their surrounding environment, communicate, perform their render safe procedures, configure their system and reduce risk. The EOD 10 is more than a protective ensemble: it is a forward-looking platform designed to support the addition of future electronic capabilities.





## MISSION-SPECIFIC LIGHTS

Users now have the choice of 3 LED lights: White, Red or Blue. Their physical properties enable the user to select the best option for the mission environment, such as tactical scenarios, reducing risk when a photosensitive device is suspected, or maximizing illumination of a dark space.



## SITUATIONAL AWARENESS

The development program emphasized the need to help technicians interact with their environment. The system includes stereophonic acoustics to determine the directional source of sounds, digital speakers, warnings and alerts, new lights and an increased field of view.



## VOICE COMMAND SYSTEM

The EOD 10 includes a built-in Voice Command System that allows a user to control the helmet and suit's many electronically activated features while using their hands to carry tools or use Hook & Line. This helps complete the mission more efficiently during manual tasks.



## REMOTE CONTROL UNIT

The EOD 10 Remote Control Unit is a significant advancement over the previous generation. It controls an array of new features and uses icons and numbers to convey information clearly and precisely. It is operated by voice commands or buttons that are raised and backlit.



## SYSTEM CONFIGURATION

The Remote Control Unit can configure and save several functions, such as audio settings, ventilation and lights. The system can save up to 4 sets of user preferences to serve multiple team members or be preset for different operational environments.



## CONFIRMATIONS, WARNINGS & DIAGNOSTICS

The helmet uses coloured lights inside the visor and audio signals to convey mission-critical confirmations and warnings, such as a low power level. In addition, the Remote Control Unit displays troubleshooting guidance to keep the system in service.



## INTEGRATED COOLING

The EOD 10 mitigates heat stress through two new ventilation systems: one in the jacket, the other in the helmet. The flow rates in these two systems can be controlled individually or simultaneously. Ambient air can also be chilled by the addition of optional cooling accessories.

# TESTED. PROVEN. TRUSTED.

The EOD 10 provides superior balanced protection against all four main blast threats.



10kg of C4 at 3m from instrumented mannequin wearing EOD 10

## OVERPRESSURE

The EOD 10 provides superior protection against both the blast overpressure and impulse associated with explosive threats. In addition, the EOD 10 Helmet offers significant improvements for ear overpressure protection against closer proximity blasts.



## IMPACT

A completely redesigned helmet protection system for the head and back areas provides industry-leading impact protection as tested in accordance with latest standards. This includes testing in extreme heat and cold conditions to better represent operational climates worldwide.




## FRAGMENTATION

The suit and helmet have been extensively tested against 17, 44 and 207 grain fragment simulated projectiles, by independent NIJ-approved test facilities. This range of fragment sizes and shapes better represents random fragments projected by an IED. Advancements in ballistic materials and processing techniques have yielded higher V50 protection levels in the helmet and suit while reducing armor weight.




## HEAT

The outer shell materials of the suit and helmet provide excellent flame protection, including afterflame, afterglow, flaming melt drip, and char length, as well as flash heat from an explosive event.



The EOD 10 ensemble and materials have been tested and validated against a variety of performance and reliability standards using Med-Eng laboratories and independent test facilities.



NIJ

## NIJ

The EOD 10 is officially certified to the US National Institute of Justice NIJ 0117.01 standard for Public Safety Bomb Suits. In addition, it offers additional enhancements in functionality and uses the latest technologies to provide the modern bomb technician with new capabilities and enhanced user interfaces.



## EMC COMPATIBILITY

The increasing threat of Radio Controlled IEDs means a bomb suit must be compatible with Electronic Countermeasures (ECM). The EOD 10 filters and shields its systems to suppress unwanted signals from being emitted, and prevents unwanted incoming signals from reaching its electronics. To ensure this, it conforms to the exacting electronic and electrical standards of MIL-STD-461E using a variety of frequency ranges.



## CHEM/BIO PROTECTION

The EOD 10 can be equipped with an optional Breathing Apparatus Visor that is compatible with many commonly-used respirators. An optional Chemical Protective Undergarment is also available from Med-Eng.



## FOOT PROTECTION

The Med-Eng engineering team has developed a new Foot Protection System that provides 360° protection and allows a much improved natural walking movement. A ratchet system secures it to the user's boot for a customized fit and makes it almost unnoticeable when worn.



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