

EOD BOMB DISPOSAL SUIT

Art.No. 4700100

Currently in service in many countries throughout the world with Bomb Disposal Teams, the EOD Bomb Disposal Suit is a state-of-the-art garment specifically designed to give the highest level of protection with the maximum comfort and flexibility to the user. The ballistic levels and materials used in the various components of the EOD Bomb Disposal Suit are tested and evaluated to the full quality assurance standard laid down by the appropriate Government organizations.

The suit consists of the following separate items, which collectively make the complete garment.

Smock with attached collar Hand protectors Spine protector Trousers – adjustable in length and width with quick release zips. Overshoes Throat blast plate Chest blast plate Groin blast plate Helmet, with built in fan, and visor Integral speaker, ambient sound and microphone in helmet Aluminum case for helmet, 220v charger, 12v charger, headlamp charger and fitting instructions. Smock carry bag with spine protector. Trouser carry bag with blast plates and overshoes.

Transit bag for smock and trouser bags.

Optional custom designed steel storage box.

Protection performance figures are for the Stanag 2920 17 grain (1.1gm) (Mil Std 662) fragment simulator. Also conforms to Mil Std 1472 re fitting

<u>and sizing</u>

Front Collar 600 V50 (m/s) Back Collar 450 V50 (m/s) Jacket front 600 V50 (m/s) Jacket rear 450 V50 (m/s) Sleeve front 560 V50 (m/s) Sleeve rear 450 V50 (m/s) Hand covers 450 V50 (m/s) Front trousers with groin protection V50 690 (m/s) Rear trousers V50 450 (m/s) Front Thigh 690 V50 (m/s) Front shin 620 V50 (m/s) Back legs 450 (V50) Shoe covers 450 V50 (m/s)

Protection provided with Blast Plates attached to the front of the suit:

Type I V50 Collar 850 m/s Chest I 400 m/s Groin I 400 m/s Protection Matrix Aramid Anti trauma system. Outer material : Nomex ® 111



Trauma Reduction:

Type I and 2 Up Armour Blast Plates have a double layered backing of a resilient, closed cell, linear foam which has a comprehensive modulus of 4350 psi (astm d 1621). The collar chest groin and front of the legs have built in anti trauma inserts.



MATERIALS

Helmet *Molded GRP skin with elastomeric Aramid core. *Anti – ballistic visor made from hardened acrylic/ polycarbonate laminate. *Suspension harness – webbing and ballistic nylon. *Weight – 4.5kg *V50 (helmet) – 610m/s *V50 (visor) – 600m/s Optional 700m/s acket and trousers ^{*}Ballistic inserts made from multi-layered water-repellent Aramid. *Outer cover – Nomex *Color – Military green *Weight – 15kg *V50 – 600m/s **Blast plates** *Armored steel Standard Type I.V50 800 (m/s) Optional Type 2 V50 1100 (m/s) Weights: Suit without up Armour Blast Plates 15.3 kg Suit with Type I Up Armour Blast Plates 26.2 kg Suit with Type 2 Up Armour Blast Plates 31.2

Power Pack:

A 12V power pack is provided with the suit, which has a special pocket on the back to accommodate it.

Output: 12v x 7a/h. Battery types Starved Electrolyte Lead Acid.

The battery has 2 outlets:

I. Dedicated to helmet ventilation and demisting system.

2.12v outlet for accessories.

Recharging: A mains charger is provided plus a 12v - charger cord for plugging into a 12v -dc source such as a cigarette lighter. A 90 % rapid recharge can be achieved in 15 minutes by plugging into a vehicle cigarette lighter with the engine running.





Ballistic EOD helmet with fan and NBC filter configuration
BALLISTIC EOD HELMET

The EOD helmet is made from a sandwich construction system developed by and unique to the company and is fully adjustable by means of the three-point suspension. Incorporated in the helmet is the communication set consisting of an integral speaker and microphone.

Also incorporated in the helmet is an Air Ventilation system, which directs the flow of forced fresh air over the top of the helmet liner, across the visor and down over the operator's face ensuring efficient demisting and clear view. This system can be used in conjunction with a canister (NBC or chemical) configuration. The visor is removable.
 Protection Performance: Helmet 600 m/s Stanag 17 grain (1.1) fragment simulator and visor 600m/s. Optional 700m/s

Ventilation and Demisting:

This is provided by a helmet mounted fan. Maximum capacity: 250 liters/min. Controls: Single knob variable speed. This is operator accessible on the top of the controller on the front lower RH side of the smock.

Weight 4.7kg Communications:

The helmet has a built in speaker and microphone which are connected to a controller mounted on the lower RH front of the smock. An external socket is provided on the controller for connection to a wireless or hardwire system. The hardwire communications system is designed specifically for EOD teams using EOD bomb disposal suits. The system provides communication between the bomb disposal operator and his back up at the base station. This is via 100m of cable mounted on a reel

The optional Hardwire duplex communications is supplied with the base station, headset, and 100m wire on a reel. The wire plugs into the side of the controller on the front of the smock.

If two way radios are to be used the same socket is used. However the type and make of the radio must be specified so the correct interface can be assured. There is a

switch on the side of the controller to change between hardwire or wireless.

The controller on the EOD suit has three controls, one for volume control of communications between the EOD technician and the base station. The second controls the **ambient sound*** volume and the third, which is on the top of the controller, the fan speed in the helmet.

The controller is supplied as part of the EOD suit therefore all systems come with an ambient sound facility.

The base station for the Duplex Hardwire system contains a battery which will power the communications in the EOD suit in event of a failure of the battery in the EOD suit.



*Ambient Sound Feature: An external microphone is mounted on the outside of the helmet and a speaker in the helmet on the LH side enabling the operator to hear noises in his environment. This has an automatic high decibel cut out. This facility is controlled with an ON/OFF switch and volume control accessible to the operator in a pocket provided on the suit.

*Flashlight: A bracket and small flashlight is provided on the front of the helmet which is self powered .



JACKET

The jacket is a long sleeved, side opening design filled with flexible Kevlar ballistics. Provision is made on the front for the attachment of the rigid throat, chest and groin blast plates by means of buckles webbing waist strap and Velcro on the collar. The high collar provides overlap protection to the helmet and visor. Immediate removal of the jacket is achieved by use of the quick-release straps attached to the side and shoulder of the smock and quick release zips on the trousers.



TROUSERS

The trousers have fully adjustable supporting braces and wide Velcro waistband catering for small, medium and large sizes.

At the rear of the legs a full-length zip is used. This offers the option of two widths,

depending on the circumference of the operators legs.

The overshoes are worn over the protective flap on the bottom of the trouser.

Cooling Suit OPTION:



The suit can be worn with commercially available equipment. Pockets to accommodate the power pack, controls and ice reservoir can be provided at no extra cost on the back of the suit. The Cooling Suit is designed to offer a safe and cool environment for people who must maintain a high level of efficiency and concentration under extreme heat. The system is ideally suited for persons involved in bomb disposal and surveillance operations, as well as personnel in non-air-conditioned armored vehicles. The Cooling System uses ice water to remove body heat produced during strenuous work, especially in hot environments. The suit requires no hazardous pressurized canister or toxic cooling agents. Made from machine washable, fire retardant Kermel, the Cooling Suit also offers protection against heat and flash fire balls. Testing of the suit on the effects of over-pressure, fragmentation, ballistics, body impact and heat have shown this suit is suitable for use under bomb suits, chemical suits and many other applications where body heat removal is desirable. The kit includes a longsleeved shirt with cooling on trunk and arms, long legged pants with cooling on legs, a close fitting open faced hood for head, a cooling unit and pouch, two water bottles, battery pack and carrying bag.



SPECIFICATIONS:

Performance:

Heat Removal Rate: 270 watts (full suit) Endurance min. 45 min at 35 ° C (95 °F) **Cooling Unit:** Control: On/Off Variable speed Pump: I2V Cold Source: Water circulating over ice Power: Connected directly to the EOD 12V power supply.. Weights: Suit: 1.0 kg Cooling Unit Dry: 0.5kg Ice: I.2kg Water: 0.7kg Material: Garment: Kermel stretch knit fabric, flame retardant. Sizing: Small: 150-175 cm; 40-75 kg Medium: 170-185 cm; 70-90 kg Large: 175-193 cm; 85-110 kg Compatibility: Worn next to skin under any clothing Cooling unit can attach securely to bomb suit via Velcro, strap and buckle Second water/ice bottle supplied for stand-by

Optional Extras:



LIGHTWEIGHT DECONTAMINATION SUIT

PRODUCT DEFINITION:

The lightweight decontamination suit is used to cover the body during decontamination of vehicles and equipment. The suit prevents water containing decontaminants and chemical agents from coming into contact with the skin for a specified duration.

WEIGHT:

550 grams size medium.

SIZES:

Available in three sizes to allow acceptable fit over a garment without restricting movement: Small, medium ,large.

PERFORMANCE :

The suit gives satisfactory wear during the decontamination process for a minimum of 2 hours without the penetration or permeation of liquids or gases.



MAINTAINABILITY:

The suit is a disposable suit. The suit is wash and maintenance free during its shelf life. If opened but not used the suit can ,after inspection to ensure that the seams are in perfect condition, be resealed and used later.

DESIGN AND CONSTRUCTION:

One piece with an opening at back from shoulder to shoulder. The zip is covered with an outer flap fastening of Velcro. There is an attached hood with elastic around the face opening. The sleeves have elastic bands at the wrists.

MATERIALS:

Basic suit : Manufactured from TYVEK F . Sealing tape : TYVEK F sealing tape.

POST USAGE DESTRUCTION:

Depending on the chemical contamination on the garment it can be either incinerated without any harm to the environment or buried in a responsible way.

2. Wireless: Two way hand held radios (two) VHF/UHF as specified by the customer.

3. Hardwire: 100m range. A base station is provided with speaker, microphone, headset and tape outlet. Slipring facility enables communications to be maintained whilst the "hard wire" is being deployed. A control amplifier is provided with speaker, microphone and tape outlet. Hardwire with Slip ring facility.

4.Video Camera: A bracket can be provided on the helmet for a small video camera powered from the 12v power pack. Transmission of data can be either by wireless or hardwire.

Packing information:

The complete EOD suit with all the paraphernalia helmet, hardwire system, etc. are packed in 3 cartons with the dimensions:

Suit:	99 x 51 x 30mm
Helmet and protective box:	60 x 45 x 90mm
Hardwire:	60 x 45 x 30mm
Volume:	55,5
Total weight of all the above:	65kg