



#### **PRODUCT OVERVIEW**

The Talon EOD Bomb Disposal Suit is the big brother of the EOD Suit. The Talon has a host of new and upgraded formidable features including improvised blast protections.

In essence, it is an upgraded and enhanced version of the talon, with the core focus on improving the critical systems using the original solid platform.

The Talon also addresses the requirements of NIJ 0117.01 Bomb Suit Standard, including the required blast and fragmentation performance.

Suit Components: Helmet Smock Blast Plate Trousers Spine Protector Overshoes and Groin Protector

#### FEATURES

All the ballistic insets used in the EOD Bomb Disposal Suit are made of waterproof treated Kevlar.

HT inserts are enclosed in a spherical, waterresistant, anti-ultraviolet light membrane. The outer cover is made of flame-retardant NOMEX III.

In hot and humid countries, the EOD Bomb Disposal Suit can be supplied in conjunction with the Cooling Suit.

#### **AVAILABLE COLOURS**

#### AVAILABLE SIZES

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### EOD BOMB DISPOSAL SUIT ST-TBKS

#### HELMET

Made of GRP skin with an elastomeric aramid core, the helmet is fully adjustable to fit various sizes perfectly by means of the four-point suspension harness and the removable spacer pads that velcro to the inside. The helmet incorporates a very powerful variable speed fan that can deliver a forced airflow of up to 200 litres per minute, ensuring maximum cooling for the operator. The helmet contains speakers for monitoring communication and ambient surround sound, plus a microphone and an automatic ambient sound facility that cuts out any noise above 70 decibels. All the helmet functions are regulated and adjusted by the remote controller.

Helmet upgrade aspects:

- Advanced helmet liner with combined attenuation and ergonomic comfort layer.
- Quick-release helmet buckle.
- NBC mask accommodation .
- New four-point helmet-stabilising retention system.
- Increased downward periphery visibility.



#### JACKET

The Talon EOD Bomb Disposal Suit jacket has long sleeved with MOLLE strips at the bottom of each to accommodate additional tools. The jacket is sideopening and contains flexible Kevlar Armour. A rigid neck, chest and groin protector blast plates can be attached to the front with webbing security straps and Velcro.

#### TROUSERS

The groin protector is a separate lightweight protector for the abdomen, groin and inner thighs. Designed for maximum comfort, the protector is worn underneath the smock. This area has the protection provided by the smock that comes down to mid-thigh and the trousers in front of the groin protection. The combination provides extremely high protection.

Suit upgrade aspects:

Improved suit integrity during blast exposure with enhanced over-pressure attenuation layers. New front-facing Double Skin Outer Shell, incorporating our new proprietary design of high tensile strength blast resistant core backing. Double locking blast plate mounting system. Incapacitated doffing. Dual grab handle.



#### **ARMOURED BLAST PLATES**

The EOD blast plates are made of composite materials resulting in a lightweight, high-level protection from a wide variety of fragments. The plates have been tested with .22 Cal, .30 Cal and .50 Cal FSP (Fragment Simulating Particles).

The blast plates are affixed to the front of the smock by means of a new double locking mount system, which ensures that the plates remain in position during a blast. The plates are also dynamically shaped to deflect as much of the blast wave around the side of the operator.

#### TROUSERS

The trousers also incorporate our new proprietary front facing Double Skin Outer Shell technology, giving the trousers increased blast integrity. With the unique overlapping padded shinguard and bottom of the thigh articulation, a high degree of bend and flex is achievable with the legs whilst wearing the suit. The trousers have an adjustable cummerbund and shoulder brace system which provides a wide range of fit. the trousers have heavy duty solid brass zips up the back of the legs which end in emergency evacuation toggles, allowing for a quick and efficient doffing system. Once the zips have been disengaged, the emergency red toggles on the front of the trousers peel off the body immediatley.



#### SPECIFICATIONS

Helmet weight:	4.7 Kg
Suit weight:	19 Kg without blast plates
Sult weight:	34 Kg with blast plates
Helmet HS Code:	6506 t0 80
Suit HS Code:	6211 33 10
Delivery (2 x Boxes):	Box 1 104 x 55 x 31cm @ 35 Kg
	Box 2 61 x 41 x 37cm @ 20 Kg

#### PROTECTION

#### STANAG 2920 Test Results SDMS MANTIS EOD Bomb Disposal Suit

Soft armour components	V50 m/s
Helmet	656
Visor	794
Throat Protector - Beard	602
Collar Front	602
Collar Centre	892
Collar Back	602
Smock Front	645
Smock Back	602
Arms Front	692
Arms Back	602
Hand Covers	602
Boot Covers	602
Groin Protector	602
Trousers & Thigh Guard Front	692
Trousers & Shin Guard Front	573
Trousers Back	-902
Hard armour components	V0 m/s
Blast plates	1800+



The harness cable will provide power to the hetmet fan & communications

#### **POWER SUPPLY**

The EOD has an upgraded Lithium Ion Power Pack which provides 8800 mAH. The system is capable of runnning both the Helmet Electronics System and the Cooling Suit System for more than 2 hours.

The Battery Pack is located in a pouch on the right hand hip of the suit. It is concased and sealed in a custom aluminium box where there are chassis mounted plug points to connect power to both the Suit Controllerand the Cooling Suit Pump Controller. The entire electronics package is now set up to be IP67 compliant.





The power supply is provided in a pouch which is worn on the right hand side of the suit.



8900mAH Li-Ion Battery Pack



Used as a Carry Bag on wheels or as a Back Pack

#### **CARRY BAG**

The two heavy duty Nylon bags containing the smock, spine protector, trousers, overshoes, groin protector and blast plates are packed into a main transportation bag.

It is designed to function as both a carry bag and as a back pack. To convert the carry bag to a back pack; unzip and roll up the flaps at the back of the bag to reveal the shoulder straps.



#### **TECHNICAL SPECIFICATIONS**

The bag is made from heavy duty Cordura® material for both robust strength and water resistance. The frame for the backpack/trolley is fabricated lightweight anodized aluminium.





#### DUPLEX HARDWIRE COMMUNICATIONS

The EOD Advanced Hardwire System is a duplex communications system linking the operator via the built in VOX microphone and headset in The Talon's helmet to a command centre, the system utilises a 120m Slip-Ring Reel with EMC shielded cable for superior communication clarity.

The Controller also accomodates a wide variety of wireless radio handsets that can also be utilised via a custom built patch cord.





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The Base Station is housed in a robust aluminium case which also contains its own 12v DC power supply which can be charged directly from 110/220v or a 12v car charger cable.

The reel is custom built with a juice to facilitate easy deployment and retrieval. The built in Slip-Ring allows for comms to be maintained throughout the mission.

### EOD BOMB DISPOSAL SUIT ST-lpgm



#### **NBC INTEGRATION**

The EOD can accommodate a range of low profile NBC gas masks.

This is achieved by swapping out the standard EOD helmet liner with the specialised and dedicated NBC helmet liner.

The NBC helmet liner is minimised to provide maximum space accomodation within the helmet to easily allow for the NBC mask to be worn underneath.





### BK EOD BOMB DISPOSAL SUIT BKOD



**AVAILABLE SIZES** 

Available in sizes S - L.

#### **AVAILABLE COLOURS**

#### **PRODUCT OVERVIEW**

A contemporary bomb disposal suit used by armed forces worldwide as well as diverse internal government security agencies and prominent highprofile non-governmental organization (NGOs) (e.g., the United nations).

Designed from the outset to be 3E compliant, the BK arguably provides the best value and highest level of protection of any comparable bomb suit currently manufactured. The ballistic levels and materials used in the various components of the mantis EOD Bomb Disposal Suit have been tested and evaluated to the internationally recognised NATO 2920 Standard by which all ballistic apparel is judged today.

#### FEATURES

- All the ballistic inserts used in the BK EOD Bomb Disposal Suit are made of waterproof treated Kevlar HT.
- Inserts are enclosed in a special, light ,waterresistant, anti-ultraviolet membrane.
- The outer cover is made of flame-retardant NOMEX III.
- In hot and humid countries, the Mantis EOD Bomb Disposal Suit can be supplied in conjunction with the Cooling Suit.

### **BK EOD BOMB DISPOSAL SUIT** BK5EOD

#### HELMET

Made of a GRP skin with an elastomeric aramid core the helmet is fully adjustable to perfectly fit various sizes using the three-point suspension harness and the removable spacer pads that Velcro to the inside. The addition of an anti-blast throat guard (known as the beard) to the bottom front of the helmet closes any possible frontal gap between the helmet and the collar. The helmet incorporates a very powerful variable speed fan that can deliver a forced airflow of up to 200 litres per minute, ensuring the operator maximum cooling comfort. The helmet contains speakers for monitoring communication and ambient 'surround' sound, plus a microphone, and an automatic ambient sound facility cuts out any noise above 70 decibels. All helmet functions are regulated and adjusted by the remote controller.

#### JACKET

The BK EOD Bomb Disposal Suit jacket has long sleeves with MOLLE strips at the bottom of each to accommodate additional tools. The jacket is sideopening and contains flexible Kevlar armour. Provision is made on the front for attaching rigid neck, chest and groin protector pads by means of webbing security straps and Velcro. The high collar provides overlap protection to the helmet and visor. The jacket and blast plates can be removed rapidly using the quick release straps attacked to the side and shoulder.

#### TROUSERS

The BK EOD Bomb Disposal Suit trousers contain flexible Kevlar armour and have fully adjustable supporting braces and a wide Velcro waistband catering for small, medium and large sizes. The knees are reinforced with heavy-duty kneeling pads. The articulated groin protector blast plate is attached by a flexible webbing strap.



# BK5 EOD BOMB DISPOSAL Suit



**BK5E0D** 





#### **ARMOURED BLAST PLATES**

Three separate armoured blast plates covering neck, chest and groin, are incorporated in one carrier that attaches to the front of the Mantis Bomb Suit by means of a webbing harness over the shoulders and a strap on the bottom that passes between the legs and attaches to the back of the trouser waistband.

#### COMMUNICATIONS

The remote controller has an external plug that the optional hard-wire communications system can be plugged into. This hard-wired communication system option consists of 100m of wire supplied on a heavy-duty reel connected to a base station from which full duplex communications can be maintained with the operator. Alternatively, a VHF or UHF radio transceiver, kept in a pocket on the right-hand sleeve, can be plugged into the remote controller via an optional patch cord. If the radio system has a 'vox' facility, the remote controller can be modified to ensure the helmet electronics are compatible.

#### **REMOTE CONTROLLER**

Mounted on the front of the smock, the BK remote controller is simple and easy to use and requires no visual interaction. The operator simply memorises the position of the three controls and manipulates them by touch alone.

### **BK5 EOD BOMB DISPOSAL SUIT** BK5EOD



#### SPECIFICATIONS

Helmet weight:	4.7 Kg
Suit weight.	15 Kg without blast plates
Suit weight.	29 Kg with blast plates
Helmet HS Code:	6506 10 80
Suit HS Code:	6211 33 10
Delivery (2 x Boxes):	Box 1 104 x 55 x 31cm @ 31 Kg
	Box 2 61 x 41 x 37cm @ 17 Kg

### PROTECTION

STANAG 2920 Test Results SDMS MANTIS EOD Bornb Disposal Suit		
Soft armour components	V50 m/s	
Heimet	600	
Visor	720	
Threat Protector - Beard	450	
Collar Front	600	
Collar Centre	600	
Collar Back	550	
Smock Front	600	
Smock Back	550	
Arms Front	550	
Arms Back	550	
Hand Covers	450	
Boot Covers	450	
Grain Protector	450	
Trousers & Thigh Guard Front	550	
Trousers & Shin Guard Front	550	
Trousers Back	550	
Hard armour components	V0 m/s	
Blast plates	1600	

### BKOD-PACK-AIR BKMPAR



Wrist mounted touch display gives the operator easy view of temperatures and battery life. A shield is available for night use.

175 and 350 Wh batteries are available for best combination of weight and duration.

Simple modular dip together system.

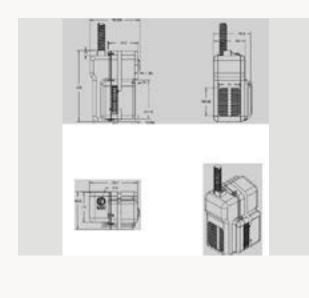
#### **BOMB SUIT COOLER**

The BK EOD-Manpack-Air is a lightweight cooling system for explosive ordnance disposal operators. it provides a flow of cooled and dehumidified air directly to the operator's helmet and body.

The EOD-Manpack-Air drastically changes the experience of hot climate EOD - from users discarding proper protection because it is too hot and humid to operate, to fully protected ongoing safe operations at peak efficiency.



### BKEOD-PACK-AIR BKMPAR



#### **PRODUCT FEATURES**

Cognitive funtion is never more critical than in EOD.

The BK EOD-Manpack-Air is transformative. An operator can wear full protective gear in temperatures of up to 46°C with no time limit. The heat and humidity inside of the suit is removed and therefore the thermal burden is effectivley removed.

#### REPORTING

Visi makes it very simple to produce PDF reports from the on-board data logger, or drill down into data to find anomalies.

It is as simple as this; import the file from the SD card, set your reporting info (once per user), add any notes required, and print.

Visi allows you to combine multiple data files to a single report, and present the data in simple form, or with all parameters displayed.





#### MODULAR SYSTEM

The BK EOD-Manpack-Air comprises the cooling unit, an air splitter/attenuator to feed the torso and helmet, a back pad to distribute air inside the suit and measure body temperature, and a switch box or wrist controller to adjust cooling, airflow and display battery life.

175Wh and 350Wh batteries are available for lowest weight or longest life. Batteries can be hotswapped whilt in use.

## COOLING SUIT MBK5





#### PRODUCT OVERVIEW

The MBK5 Cooling Suit uses iced water to remove body heat during strenuous work in hot and humid environments. The garment is particularly suitable for use in EID/EOD operations in conjunction with either the MK5 or the MK5A Bomb Disposal Suit.

Made from flame-resistant, knitted Kermal material, the Cooling Suit's outstanding cooling capacity has been extensively tested to ensure technicians can work with greater efficiency and concentration. The one-piece Cooling Suit covers the trunk of the body as well as the upper arms and upper leg areas. This gives the wearer extended work time with the ability to control excess energy loss due to heat exhaustion.

#### FEATURES

- Heat Removal Rate: 270
  Watts (full suit)
- 1.5kg iced water bottles
- Rechargeable batteries and charger
- Endurance: 45 minutes at 35°C
- Control: on/off
- Pump 12V
- Cold Source: ice cubes and water
- Power: external pack
- No hazardous pressurised cannister or toxic cooling agents required
- Made from machinewashable, fire-retardant nomex or Kermel

#### AVAILABLE COLOURS

#### **AVAILABLE SIZES**

S - L

