

# TALON BOMB DISPOSAL SUIT

ST-TBS



## HELMET

With integrated fan and communications.

## SMOCK

With remote controller, power supply and integrated wiring harness

## HAND PROTECTORS

Attach MOLLE style to the smock

## SPINE PROTECTOR

Mounted on to the trousers

## BLAST PLATES

Double locking mounting system

## GROIN PROTECTOR

Integrated underneath the trousers

## TROUSERS

Articulated knee bend

## OVERSHOES

Cover existing worn boots

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The Talon Helmet is an optimally balance EOD helmet which is comfortable to wear. There is a built in forced air ventilation fan which ensures a constant strong flow of air to the operator. This fan also ensures that there is constant demisting on the visor. The fan is radial vibration reduction design to minimise unnecessary noise feedback and vibration in the helmet. The helmet has a easy adjust once quick-release buckle as well as nape pad for an extra snug fit. Comes standard with Max Bright LED adjustable headlamp.

## Internal Liner & Sizing Pads



The helmet is supplied with an internal liner that has a fire resistant outer cover, inner comfort foam & is outer shock absorbent. It is also supplied with a sizing pad system which join to the Internal Liner with Velcro.

## Spare Liner

For hygienic considerations a spare liner complete with microphone speakers and sizing pads is provided. This enables dual usage of the suit. Additional liners can be purchased for multi operator use.



The Talon Helmet has optimal visibility without compromising on protection



Quick release helmet buckle

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Smock in heavy duty Cordura Carry Bag

The Talon Smock (Jacket) incorporates our new front facing Double Skin Outer Shell. A Sarkar Tactical proprietary design of high tensile strength, blast resistant outer with a flame retardant core backing. The Smock is a side opening system which allows for close fitting adjustment on the shoulder and under the arm. The red emergency evacuation toggle allow the Smock to be removed in a few seconds. The Smock accommodates the Blast Plate mounting platform as well as the Collar which critically integrates the suit and helmet together to effect maximum protection in the event of a blast.



Emergency Evacuation using the evacuation toggles within 20 seconds

## Remote Controller



The Remote Controller Provides the operator with adjustment of the fan speed i.e. air flow in the helmet. Control of the volume of the communications from the base station whether by hardwire duplex or two-way radio. Provides the operator control of the volume of the ambient (environmental) sound. Each control is positioned so the operator knows exactly which control he is touching without the need to look at the controller.



Ambient  
Sound  
&  
Intercom

# TALON BOMB DISPOSAL SUIT



ST-TBS



*Blast plates in Trouser Bag*



*Double Locking Blast Plate Mounting System*

The Sarkar Tactical Talon Blast Plates are made of a matrix of composite materials resulting in a lightweight high level of protection from a wide variety of fragments. The plates have been tested with .22 Cal, .30 Cal and & .50 Cal FSP's (fragment simulation projectiles).

The Blast Plates are articulated to facilitate bending, kneeling and other movement.

The Blast Plates are affixed to the front of the Smock by means of our new Double Lock Mounting System which ensures that the plates stay 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 in the suit reducing the reflected blast effect.



*Blast Plates consist of articulated chest and groin plates*

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# TALON BOMB DISPOSAL SUIT



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## GROIN PROTECTOR



Waist Band

Velcro strap goes through the legs

Elasticated colour Coded straps



The groin protector, located in the trouser carry bag is a lightweight separate protector for the abdomen, groin and inner thighs.

designed for maximum comfort. The groin protector is worn underneath the smock. This area has the protection provided by the smock which comes down to mid-thigh and the trousers which are in front of the groin protection. The combination provides



Elasticated Velcro Straps

extremely high protection. The groin protector also has easy to use elasticated colour coded straps.

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# TALON BOMB DISPOSAL SUIT



ST-TBS

The Talon Trousers also incorporate our new proprietary front facing Double Skin Outer Shell technology, giving the trousers extra blast integrity. With the unique overlapping padded shin-guard 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 can be pulled and the trousers peel off the body immediately.



## Quick Release Zips with protection covers



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# TALON BOMB DISPOSAL SUIT



ST-TBS



*Spine Protector*

## SPINE PROTECTOR

The Talon Spine Protector covers the length of the spine from the top of the T-1 to the bottom of the L-5 vertebrae. It has unique articulation allowing for movement and flex of the spine whilst still providing protection in the event of an impact. The Spine Protector carries an independent certification of Level 2 against EN 1621-2 Standard. The Spine Protector secures to the HFS Talon Trousers by means of a Velcro attachment system.



*Hand Covers attached to the Smock sleeves*

## HAND COVERS

The Talon has Hand Covers as standard, the outer is flame retardant and the inner has a removable aramid insert which provides fragmentation protection. They are attached to the end of the sleeves by means of the MOLLE attachment system and can be positioned to suit the operators requirements. The hand covers have an elasticated strap that is designed to cover the palm of the hand keeping the hand closely protected without hinder the dexterity of the fingers.

# TALON BOMB DISPOSAL SUIT



## ST-TBS



Pump Assembly

Ice water bottle

Cooling Suit Connectors

Hand operated Primer Pump

Pump Controller

Suit attachment assembly

Strap & buckle to attach to the Left hand side of the smock

The Cooling Suit is designed to maximise the operators effective time spent in the suit. It prevents the body from overheating and operator fatigue as a result. It operates by means of circulating chilled water through tubes around the entire body core including head, neck, shoulders, arms torso front and back, upper thighs and lower legs. The water is chilled by means of 2 litre water container which is filled to a prescribed level and then frozen and kept ready for use. Then it is simply topped up with normal tap water. This water is then circulated at a variable flow rate by means of the pump controller.



Hood

Garment

Connectors



Cooling Suit Pump Assembly positioned under the left arm with easy access to the pump controller.

### COOLING SUIT TECHNICAL SPECIFICATIONS

The Cooling Suit is made from comfortable knitted fire-retardant fabric called Kermel®. The cooling tubes are sown into the suit and are worn against the body.

Medium	1.0kg
Large	1,2kg
XL	1,4kg

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# TALON BOMB DISPOSAL SUIT



ST-TBS



8800mAh Li-Ion  
Battery Pack



Intelligent Li-Ion  
Battery Charger

The Talon has an upgraded Lithium Ion Power pack which provides 8800 mAh. This system is capable of running both the Helmet Electronics System and the Cooling Suit System for more than 2 hrs. The Battery Pack is located in a pouch on the right hand hip of the suit. It is incased in sealed custom aluminum box where there are chassis mounted plug points to connect power to both the Suit Controller and the Cooling Suit Pump Controller. The entire electronics package is now set up to be IP67 compliant.

## Power Supply Pouch



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



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

# TALON BOMB DISPOSAL SUIT

## ST-TBS

Ground Cover Flap  
(Zipped Up)



Built in Wheels

Handle Bar

Stoppers

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 & roll up the flap at the back of the bag to reveal the shoulder straps.



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

### Opened up as a Ground Sheet



*Carry Bag Ground Sheet*

*It can be used as a ground sheet when opened up fully to unpack the suit.*

### TECHNICAL SPECIFICATIONS

The Bag from heavy duty Cordura® material for both robust strength and water resistance. The frame for the Backpack/Trolley is fabricated lightweight anodized aluminium.

# TALON BOMB DISPOSAL SUIT



ST-TBS



The Advanced Hardwire System is a duplex communications system linking the operator via the built in VOX microphone and headset in the Talon Helmet to a command center, the system utilizes a 120m Slip- Ring Reel with EMC shielded cable for superior communication clarity. The Talon Controller also accommodates a wide variety of wireless radio handsets that can also be utilised via a custom built patch cord.



Advanced Hardwire Communication System connected to the Talon EOD Suit

## Optional Equipment

*The Duplex Communication System:*



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 guide to facilitate easy deployment and retrieval. The built in Slip-Ring allows for comms to be maintained throughout the mission.

# TALON BOMB DISPOSAL SUIT



ST-TBS



*Helmet with NBC mask fitted*

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

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

The NBC liner is minimized to provide maximum space accommodation within the helmet to easily allow for the NBC mask to be worn underneath the EOD helmet.



*A range of low profile NBC Masks can be fitted under the Talon EOD helmet.*

## PAPR Air Filtration



*The PAPR air filtration system is mounted on the rear of the smock. The hoses are integrated through the rear of the collar to mate with the NBC mask underneath the helmet.*

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## ST-TBS

### I.1 OUTER COVER

High Tensile Strength – Blast resistant

Flame Resistant Nomex®/Kermel®

### I.2 VELCRO

External Velcro® fire resistant.

### I.3 BALLISTIC MATERIALS

Aramid. Kevlar®/Twaron®

### I.4 BLAST PLATES

Composite

### I.5 VISOR

Hardened Acrylic/Polycarbonate

### I.6 COOLING SUIT

Fire Resistant Kermel®/Nomex®

## PROTECTION

### Fragmentation

	Location	NIJ Location	.22 Cal 17grain FSP		.30 Cal 44grain FSP		.50 Cal 207grain FSP	
			NIJ REQ	HFS S 3+	NIJ REQ	HFS S 3+	NIJ	HFS S 3+
<b>1</b>	Blast Plates	A	N/R	<b>1800+</b>	1100	<b>1200+</b>	750	<b>800+</b>
<b>2</b>	Visor	B	775	<b>794</b>	N/R	<b>N/R</b>	N/R	
<b>3</b>	Helmet	C	625	<b>656</b>	525	<b>621</b>	N/R	
<b>4</b>	Trousers Rear	G	350	<b>402</b>	300	<b>387</b>	N/R	
<b>5</b>	Overshoes	F	525	<b>602</b>	500	<b>509</b>	N/R	
	Hand Protector							
	Helmet Beard							
	Sleeves Rear							
	Smock Back							
	Groin Protector							
	Collar Rear							
<b>6</b>	Sleeves Front	E	550	<b>645</b>	525	<b>540</b>	N/R	
<b>7</b>	Collar Front	D	625	<b>692</b>	550	<b>597</b>	N/R	
	Smock Front							
<b>8</b>	Trousers Thigh	F	525	<b>573</b>	500	<b>514</b>	N/R	
<b>9</b>	Trousers Shin	N/R	N/R	<b>892</b>	N/R	<b>N/R</b>	N/R	
<b>10</b>	Collar Front Centre	N/R	N/R	<b>1082</b>	N/R	<b>N/R</b>	N/R	
	Knee	N/R	N/R		N/R		N/R	

### Blast

	Explosive Charge	Standoff	Height	Chest overpressure reduction	Head overpressure reduction
1	567g of C4 (NIJ Test)	0.6m	0.77m	90%+	90%+

# TECHNICAL SPECIFICATIONS



## ST-TBS

SUIT SIZING	Height of operator In cm	Weight of operator In kg
Medium	165cm - 175cm	65kg - 80kg
Large	175cm - 185cm	80kg -95kg
X - Large	185cm - 195cm	95kg - 110kg

SUIT WEIGHTS	Weights In kg
Medium	31kg
Large	34kg
X - Large	37kg
Helmet with Visor	4,7kg

POWER SUPPLY	Weight In kg	Time In minutes
Lithium-Ion 8800mAh 12v DC	0,8kg	120min Suit and Cooling
Emergency C-cell	0.6kg	90min Suit or Cooling

HELMET	Litres per min
Ventilation Fan	0 - 220lt/min

COOLING SUIT	Litres per min
Water circulation pump	0 - 2.2lt/min

DUPLEX HARDWIRE	Weight In kg	Time In minutes
Base Station	5.2kg	
Slip-Ring Reel with 120m cable	14.3kg	
Lead-acid 4500mAh 12v DC		90min