



Personal Protective Equipment (PPE) for humanitarian demining in 2010

Security Devices (Pvt.) Ltd., has been supplying a range of PPE for Humanitarian Demining for more than twelve years.

Our equipment is always designed to meet (or exceed) the requirements of the UNMAS International Mine Action Standards (IMAS). The IMAS on PPE (IMAS 10.30) was revised in 2009, and our current range has been extended to take note of the changes.

This catalogue is made up of discrete data-sheets that are also available at our website.
Please always refer to our latest release.

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SD Standard full-face visor for humanitarian demining

The SD standard full-face visor is believed to be the most used facial protection in humanitarian demining worldwide. We have sold more than 20,000, supplying several equipment suppliers (under their Logo) and selling to many demining groups direct.



The standard SD full-face blast visor is made using 5mm untreated polycarbonate sheet, as required in the UN's International Mine Action Standards (IMAS. 10.30). It is usually supplied with a 1mm polycarbonate scratch-guard which you should replace when it becomes damaged. The head-frame supplied can be either our "standard" or the "comfort®" model. Both are made using durable and washable polyamide and are adjusted to fit using Velcro® straps. The head-frame includes a padded forehead strip that should be removed and washed regularly.

The head-frame and visor face should be adjusted so that the visor hangs straight down, then the bolts should be tightened. Nylock® nuts are used because the visor is not designed to be raised during use.



SD Part no.: SKU1010

All standard visors are stamped with a number for easy visor management. Your organisation's logo (one colour) can be printed onto the visor at no extra cost.

Because the properties of polycarbonate are degraded by sunlight, and because visors will become scratched no matter how careful you are, SD recommends that you follow the IMAS guidelines and replace visors annually (see http://www.mineactionstandards.org/tnma/TN_10.10_02_2004_General_Safety.pdf)

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SD Platinum full-face visor for humanitarian demining

SD Part no.: SKU1011

The new (December 2009) lightweight Platinum SD full-face blast visor is 20% lighter than our popular traditional model. Both are made using 5mm untreated polycarbonate, as required in the UN's IMAS 10.30. Both can be supplied with a 1mm polycarbonate scratch-guard.

The head-frame supplied is our latest "comfort" model (design registered®) with two Velcro fixing straps across the back of the head. The head-frame includes a padded forehead strip that should be removed and washed regularly.

If there is too much pressure on the sides of your head, the user can remove the visor bolts and reposition the head-frame supports on the outside of the visor. This makes the frame a full 2cm wider. The Nylock® fixing bolts should be tightened after adjustment so that it is not possible to lift the visor face during use.

Your organisation's logo (one colour) can be printed onto the visor at no extra cost.



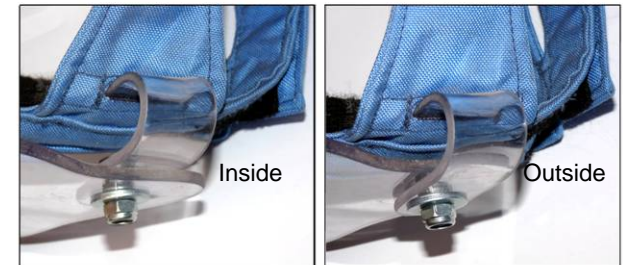
Creative trimming has reduced weight and helped to increase stability and comfort.



The Platinum visor alongside the traditional full-face visor.



Our "Comfort" head-frame® has double straps at the rear to increase stability.



The frame can be attached inside or outside the visor. When outside, the frame is wider to allow for those with wide heads.

Because visors must be worn in the sun, and will be scratched no matter how careful you are, SD recommends that you follow the IMAS guidelines and replace visors annually.*

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* See http://www.mineactionstandards.org/tnma/TN_10.10_02_2004_General_Safety.pdf)



SD Mask-visor for humanitarian demining

Having first made mask visors in 1996, SD have now adopted Andy Smith's "Mask-visor" design, first publicised by him in 2008. We are grateful for his no-strings "technology transfer" which has included helping us to make design refinements and establish a production line. We regret that Andy is always professionally unable to retain a commercial interest in his designs. The Mask-visor design is now the property of SD and has been duly registered®.

We have introduced the Mask-visor to try to serve the community better and help reduce the temptation to raise the visor, SD now offer the Mask-visor and the "Platinum full-face visor" (SKU1012), both of which are light and allow good air circulation. To make the visor more comfortable to wear for long periods, we have also introduced a refined "comfort head-frame®".

The SD mask-visor® is made using 5mm untreated polycarbonate. It has two "mandibles" with spaces between that allow air to the wearer's nose and mouth without leaving gaps for blast from below to enter. It is supplied with a coloured sunshield. This reduces reflections on the inside of the visor and also reduces the risk of scratching if the visor is put down carelessly. The nylock® nuts used to fasten the visor to the head-frame should be tightened so that the visor cannot be raised during use.

Your organisation's logo (one colour) can be printed onto the mask-visor at no extra cost.

Because visors must be worn in the sun, and will be scratched no matter how careful you are, SD recommends that you follow the IMAS guidelines and replace visors annually.*

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Anti-glare shield.

Wide air vents.

SD Part no.: SKU1012



Mandible fixings are flush on the inside.



The head-frame has a double strap for better stability and comfort.



The visor face can attach inside or outside the head-frame, allowing a comfortable fit on wider heads.



Anti-scratch stand-off.

* See http://www.mineactionstandards.org/tnma/TN_10.10_02_2004_General_Safety.pdf)



SD Head-frames for visors in humanitarian demining

We offer the "SD Standard" or the "SD Comfort®" head-frames.

Both head-frames are made from ballistic polyamide for durability. The fixings are made from heat-formed polycarbonate, which ensures durability and flexibility. The visor face bolts to the fixings to prevent the visor being raised at the wrong times. Inside both head-frames is a removable washable sweatband to add to the wearer's comfort.

SD Standard head-frame [SKU1014]

Our Standard head-frame design was introduced in 1998 and was immediately popular. It has a single Velcro fastening strap across the top of the head and another at the back of the head.

SD Comfort® head-frame [SKU1015]

Because there is no single head-shape, our 2009 alternative head-frame adds to comfort and stability with two straps across the back of the head. The lower strap ensures greater comfort and visor stability.

Our new Mask-visor and Platinum full-face visor have been designed to allow a further adjustment.

When the pressure on the wearer's head is uncomfortable, the attachments from the head-frame to the visor can be moved to the outside of the visor face, so allowing for wider heads.

The adjustment adds 2cm to the diameter of the head, greatly increasing the "hat-size".

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Our Standard visor and Platinum visor are shown above. The width adjustment described below is not possible on the Standard visor.

Both the SD Mask-visor (above) and the SD Platinum full-face visor (below) are designed to be used with the Comfort® head-frame.



To relieve pressure on wide heads, move the visor face inside the head-frame fixings.





SD 450 body-armour apron for humanitarian demining

Our popular SD 450 demining body-armour (NATO STANAG 2920 V50 – 450m/s) extends tailored protection over the deminer's frontal thighs while still being comfortable to walk and kneel in.

With a multi-layer Kevlar/polyamide inner inside a removable washable cover designed to be exceptionally longlasting and resistant to abrasions, tears and scuffs, it is lighter than many alternatives at 3.4kg.

The design includes a useful chest pocket - because access to other pockets is restricted after the apron is fastened.

Designed to interface with the SD Visor range, the collar overlaps the visor when looking down, but allows full head movement side-to-side when looking up.

The SD 450 body-is adjusted to fit using simple webbing straps and clips.

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SD Part no.: SKU2015





SD Falcon body-armour apron for humanitarian demining

The SD Falcon demining body-armour is a simple and lightweight armour that was originally designed at the request of a customer and is now offered as part of our range. With a multi-layer Kevlar/polyamide inner covered by a washable outer designed to be exceptionally long-lasting and resistant to abrasions, tears and scuffs, it weighs ???kg and offers protection above the IMAS 10.30 requirement of NATO STANAG 2920 450 m/s.

A variation of the SDV apron, this simple design has an open back and a flap to extend protection over the deminer's groin and frontal thighs. The flap can be raised when walking around. Protection is concentrated over the upper body and vital areas with a design that includes a double collar, one inside and one outside the visor. Shoulder-pieces allow full arm movement while protecting the vulnerable underarm areas.

The overall design makes it easy to work and walk in.

A generously sized outer collar ensures overlap with the SD visor range. The Falcon's open back and simple cross-over and waist straps make it comfortable and relatively cool.



SD Part no.: SKU2011



The double collar provides extra security against throat injury.

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Hawk body-armor apron for humanitarian demining

Always aiming to achieve comfort and value for money, our Hawk body-armor (NATO STANAG 2920 V50 – 450m/s) is versatile enough for deminers and supervisors, providing vital area protection whether walking around or excavating anti-personnel mines. It is lighter and more comfortable than alternatives, and includes several special design features.

The Hawk body-armor can be worn short, medium or long, depending on your activity at the time. Adjustment is as simple as unfastening a Velcro tab.

With a multi-layer Kevlar/polyamide inner covered by a washable outer designed to be exceptionally longlasting and resistant to abrasions, tears and scuff, it weighs less than 2.5kg.

The shoulder-straps are partly elasticated. After adjustment to suit the individual, they need not be undone again.

The Hawk includes genital-protection that can be worn when wanted, and folded away inside the armour cover when it is not wanted.

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SD Part no.: SKU2016



The Hawk body-armor seen from the back, showing the (design-registered) genital protection that can be folded inside the armour when it is not wanted.



SD Raptor body-armour apron for humanitarian demining

The SD Raptor demining body-armour is a refinement of our popular (and still widely used) MK 1 and SADEC Aprons. This simple apron extends protection over the deminer's frontal thighs while being easy to walk and kneel in. It is designed to make it easy to keep the apron between the deminer and the mine even if the deminer squats and twists to work from the side. When kneeling to excavate, the apron can be made to extend to the ground and provide full frontal coverage.

Unusually, this apron has two collars, one inside the visor and one outside. This ensures an interface between visor and apron even if the deminer is lying down - and while lying down is rare, it is sometimes appropriate. Shoulder pieces allow full arm movement while protecting the vulnerable underarm areas.

With a multi-layer polyamide inner covered by a washable outer designed to be exceptionally long-lasting and resistant to abrasions, tears and scuffs, it weighs 3.9kg complete with a polyamide chest insert that brings vital area protection above the IMAS requirement of STANAG 2920 450 m/s.

The Raptor's open back and minimal straps make it comfortable and relatively cool. It is adjusted to fit using simple webbing straps and clips.

It is stated in the conclusions of independent SADEC tests conducted in 2001 that "The [SD] MK1 Apron was shown to be capable of withstanding the blast of a detonating PMD-6 wooden anti-personnel blast mine and a PMN blast mine with an ADDITIONAL 200g charge at 30 cm." That is a total of 640g TNT at 30cm, which does not surprise us, but often surprises our customers.

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SD Part no.: SKU2012





SDV body-amour apron for humanitarian demining

The SDV body-armor (NATO STANAG 2920 V50 – 450m/s) is versatile enough for deminers and supervisors, providing vital area protection whether walking around or excavating anti-personnel mines. The design is simple and effective.

The SDV body-armor can be worn short or long, depending on your activity at the time. Adjustment is as simple as unfastening a Velcro tab.

With a multi-layer Kevlar/polyamide inner covered by a washable outer designed to be exceptionally long lasting and resistant to abrasions, tears and scuffs, it weighs 2.5kg complete with a polyamide chest insert that brings vital area protection above the IMAS requirement of STANAG 2920 450 m/s.

The ventilated high-performance Nylon-6,6 back does not provide protection, but does ensure that the weight rests on the shoulders and so increases comfort.

A large collar interfaces with the SD visor range, so providing assured frontal protection in line with IMAS 10.30.

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SD PPE Sizing information

One size fits all...?

Many claim this, but of course it does not.

However, the intelligent design of adjustable straps and fixings can allow a wide range of sizes to be covered with a single "standard" design. This makes sense to the manufacturer and helps to keep production costs down. It also makes sense for the purchaser, who avoids having to measure the deminers and order a range of sizes. If this were not the case, demining groups might have to buy new PPE every time there was a staff turnover.

Our demining PPE is designed to be adjusted to fit the average range of sizes. To give us confidence that this will almost always be true, we try our products on selected staff as a test. One is a fairly average 1 metre 70cm. The other is an unusually tall 1 metre 91cm. This allows for a wide variation in height, but not for unusual girth. It would make no sense to oblige an average sized person to carry around enough protection to cover an unusually broad frame, and it would also make the standard armour considerably more expensive.

If the "standard" size does not work for you, we will always try to accommodate the special needs of those who are unusually short, tall or stout. Unfortunately, because this means using special templates and guides, there is a cost penalty if you specify "small", "large" or "broad". Ask us and we will try to meet your needs as economically as possible.

Our Standard visor head-frame has been very popular and successful, but it can prove unstable or uncomfortable on some heads. To overcome this, we have introduced the Comfort® head-frame and the new Platinum visor, Half-visor and Mask-visor - combinations that allow for extra width and the cranial lumps and bumps that many of us have.

One size does not fit all - but it can come close!

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Adjustable straps, sometimes part elasticated, and quick-release buckles allow SD armour to be readily adjusted to fit a wide range of sizes.





Blast-resistant tools for humanitarian demining

In line with IMAS 10.30 (and recommendations arising from US funded research conducted ten years ago) Security devices has been supplying genuinely blast-resistant tools for more than ten years. Be aware that some tools offered as “blast-resistant” are poor copies. Others break the design rules by having many parts, being short, or by using very hard steels.

Blast resistance does not mean “blast-proof”. The tools are designed to distort in a blast event (which reduces the risk of breakage) and to remain in one piece, so reducing the risk of injury from parts of the tool. They are also designed to keep the user’s hand low to the ground and far enough from an anti-personnel mine blast to avoid severe hand injury.

Our blast-resistant tools are designed to be used when exposing a mine, and augment our other “demining tools” that are also designed for purpose but do not need to be blast-resistant.

The blast resistant tools shown here can be supplied in a tool-roll when purchased together.

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- | Order numbers | |
|---------------|----------------------------------|
| A | – Demining brush (SKU3018) |
| B | – Oval-profile prodder (SKU3010) |
| C | – Demining trowel (SKU3012) |
| D | – T profile pick-prod (SKU3011) |
| E | – Tool-roll (SKU3013) |





More tools designed for humanitarian demining

In addition to our Blast-resistant tools, SD makes and supplies other tools designed specifically for use in demining.

Shown here are:

- A** – Folding mine-marker (SKU3023)
- B** – Detector signal indicator (SKU3024)
- C** – Excavation guide (20cm) (SKU3025)
- D** – EOD pulling set (SKU3022)
- E** – Standard pulling set (SKU3021)
- F** – Neodymium magnet stick (SKU3015)
- G** – Neodymium magnet clip (fits trowel blades) (SKU3016)
- H** – The Mine-grab (SKU3027)

We can also supply a wide range of off-the-shelf tools essential for ancillary tasks.

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Ancillary tools for humanitarian demining

We understand the convenience of being supplied from as few sources as possible. To make this possible, Security Devices offers a wide range of off-the-shelf ancillary tools that demining teams need. *If you need it – we will try to source it!*

Some typically requested tools are shown alongside, but we can supply many others.



SKU No.	Description
4010	Measuring tape 50m
4011	Measuring tape 100m
4012	Measuring tape 200m
4013	Pruners (bypass)
4014	Pruners (anvil)
4015	Pruners (ratchet, anvil)
4016	Shears (standard)
4017	Shears (extending handles)
4018	Hammer (small)
4019	Hammer (1kg)
4020	Hammer (sledge) large
4021	Axe small
4022	Axe large
4023	Pruners (long, bypass)
4024	Wire cutters small
4025	Wire cutters (heavy duty)
4026	Pliers
4027	Machete
4028	Panga
4029	Bow saw
4030	Hand saw
4031	File (medium)
4032	Sharpening stone (2 grades)
4033	Spade
4034	Shovel (with sides)
4035	Folding knife
4036	Compass
4037	Nylon rope (100m)
4038	Plastic warning tape (200m)
4039	Nylon (woven) warning tape (200m)

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Security Devices (Pvt.) Ltd

Security Devices (Pvt.) Ltd has been in business for more than twenty years. We started making alarm systems, safes and metal-detectors, diversifying into PPE for demining in 1996. Since that time, the PPE side of the business has grown to dominate all others.



The picture shows the SD management team and some of our loyal staff. Reading the portraits clockwise from the top left, the Company Directors are Oddia Mabika, Washington Mbundire, Trevor Thomsen, and Fiona Mackay. Making up the office team (lower right) is Rita Kunaka. When you telephone us, you will be put through to one of these people.

And every good manager knows that they rely on the workforce, some of whom are pictured above. Our workforce are skilled tailors and artisans - good people one and all. Many of them have been with us for over a decade, which makes us proud because, as managers, we are serving them as well as our customers.

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