



Personal Protective
Equipment (PPE)
for humanitarian demining



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Security Devices (Pvt.) Ltd.

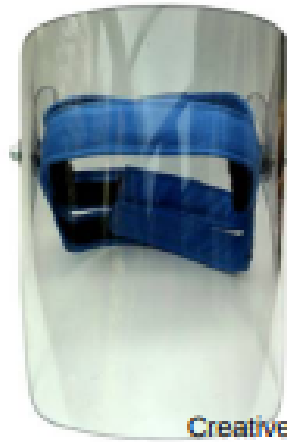
Personal Protective Equipment (PPE) for humanitarian demining

The lightweight Platinum SD full-face blast visor is 20% lighter than our popular Standard visor model. Both are made using 5mm untreated polycarbonate, as required in the UN's IMAS 10.30. Both can be supplied with a thin polycarbonate scratch-guard. The head-frame supplied is our latest "comfort" model (design registered®) with two Hook and Loop fixing straps across the back of the head. Improved to give greater comfort around the ears, this 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.

SD Part no.: SKU1011



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.



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The SD standard full-face visor is believed to be the most used facial protection in humanitarian demining worldwide. We have sold more than 25,000, 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 thin 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 Hook and Loop straps. This year, the "comfort" model has been refined to give even greater comfort behind the ears. Both designs of head-frame include 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. 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.



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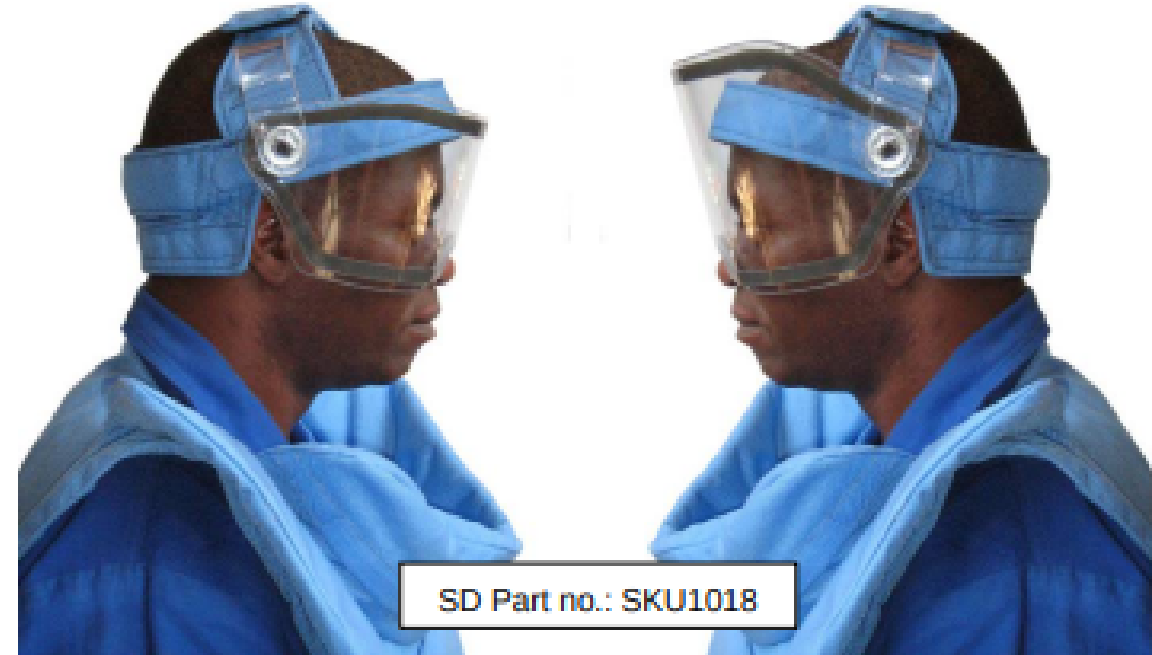


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SD have offered a half-visor for more than ten years. It was designed for use by dog handlers or supervisors who need to make clear and unobstructed voice commands. With the recent revisions to IMAS 10.30, it can now be used by any deminer when the risk-assessment allows this. It may, for example, prove popular as an alternative to goggles worn by deminers standing to excavate using rakes. The SD Half-visor is made using 5mm untreated polycarbonate and meets the requirements of IMAS 10.30 (2009). It can be made Long or Short – as shown in the photograph on the right.

The longer version covers more of the wearer's forehead. Please specify long or short when ordering. Each visor is numbered for identification and replacement purposes. The complete Half visor and head-frame weighs around 500g). The half-visor can be fitted to a Comfort head-frame® that is made from polyamide for durability. A 2013 refinement makes the Comfort head-frame even more comfortable around the ears. The fixings are made from heat-formed polycarbonate, which provides durability and flexibility. The nylock® nuts used to fasten the visor to the head-frame should be tightened so that the visor cannot be raised during use. An optional Scratch-guard [SKU1019] is available. This is a thin sheet of polycarbonate that mounts securely over the half-visor to protect it from scratches during use, storage and transport. Your organisation's logo (one colour) can be printed onto the Half-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



The visor face can be bolted inside or outside the head-frame wings, so accommodating broader heads.



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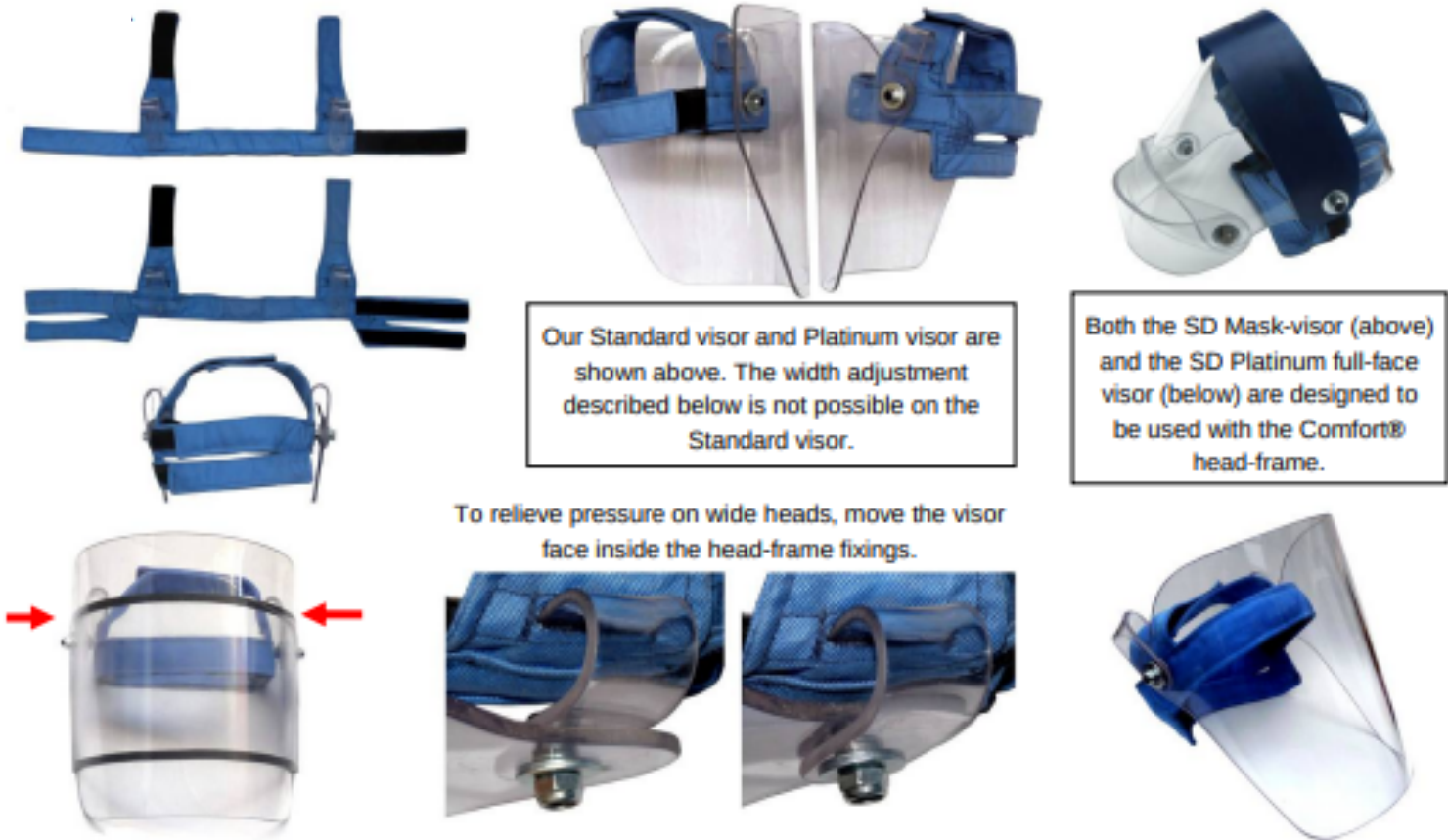
We offer the "SD Standard" or the "SD Comfort®" head-frames. Both head-frames are made from ballistic polyamide for durability. The fixings are made from heat-formed polycarbonate, which ensures durability and flexibility. The visor face bolts to the fixings to prevent the visor being raised at the wrong 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 Hook and Loop 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. A 2013 refinement gives even greater comfort around the ears. 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".



All SD visors are made using untreated polycarbonate. The material is flexible and blast resistant, but is easily scratched. To give our visors a longer life, we began fitting an easily removable and replaceable scratch-guard when we started manufacture in 1998. We now make variations to fit most current visor designs. During visor use, transport and storage, it is the scratch-guard that gets damaged rather than the face beneath - which remains clear and unscratched.

Replace the scratch-guard and the visor can be as good as new. Our scratch-guard is a transparent cover for that part of the visor face that the wearer looks through. It is held away from the visor-face by a thin foam gasket. All our scratch-guards are cut from 0.75 - 1 mm polycarbonate sheet. This adds to the overall thickness of the protection available during a blast.

Unlike foils and appliqués that are stuck to the visor face, the SD scratch-guard offers enhanced performance without the possibility of poor vision or eye strain caused by the optical interference common with foils. However, we also offer an appliqué with the best optical properties we can find. Please contact us to discuss that. Each scratch-guard is fastened to the visor face using the head-frame bolts and can be easily replaced - at low cost.



The pictures at the lower right opposite show a visor after an anti-personnel mine blast and a man showing that, with the scratch-guard removed, the main area of the visor remains undamaged.

With large mines this may not happen, but it illustrates the way that the scratch-guard protects the visor surface beneath it.



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Always aiming to achieve comfort and value for money, our Hawk body-armour (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-armour can be worn short, medium or long, depending on your activity at the time. Adjustment is as simple as unfastening a Hook and Loop tab. With a multi-layer Aramid/polyamide inner covered by a high tenacity textured nylon cover (according to US Mil Spec - C43734D) that is exceptionally long-lasting and resistant to tears and abrasions, it weighs less than 2.5kg.

The cover is removable and washable, so can be replaced at a later time. A variant with a protected back is available on request. 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.

Available in S, M, L, XL and other sizes on request. Colours may vary between dye lots.

NOTE: Like most other PPE, SD armour is designed to be water-resistant. Users should avoid getting the core of any armour wet because this can reduce the protection it offers.



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



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Security Devices (Pvt.) Ltd.

Personal Protective Equipment (PPE) 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 Aramid/polyamide inner inside a washable high tenacity textured nylon cover (according to US Mil Spec - C43734D) that is exceptionally long-lasting and resistant to tears and abrasions, it is lighter than many alternatives at 3.4 kg.

The cover is removable and washable, so can be replaced at a later time. A variant with a protected back is available on request. 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-armour apron is adjusted to fit using simple webbing straps and clips.

Available in S, M, L, XL and other sizes on request. Colours may vary between dye lots.

NOTE: Like most other PPE, SD armour is designed to be water-resistant. Users should avoid getting the core of any armour wet because this can reduce the protection it offers.



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At a customer's request, we have modified the Kestrel Mk1 and come up with something rather different. Still meeting the IMAS requirements and with a NATO STANAG 2920 V50 of 450m/s), the Kestrel Mk2 is exceptionally light and comfortable, providing vital area protection whether standing or kneeling to excavate anti-personnel mines.

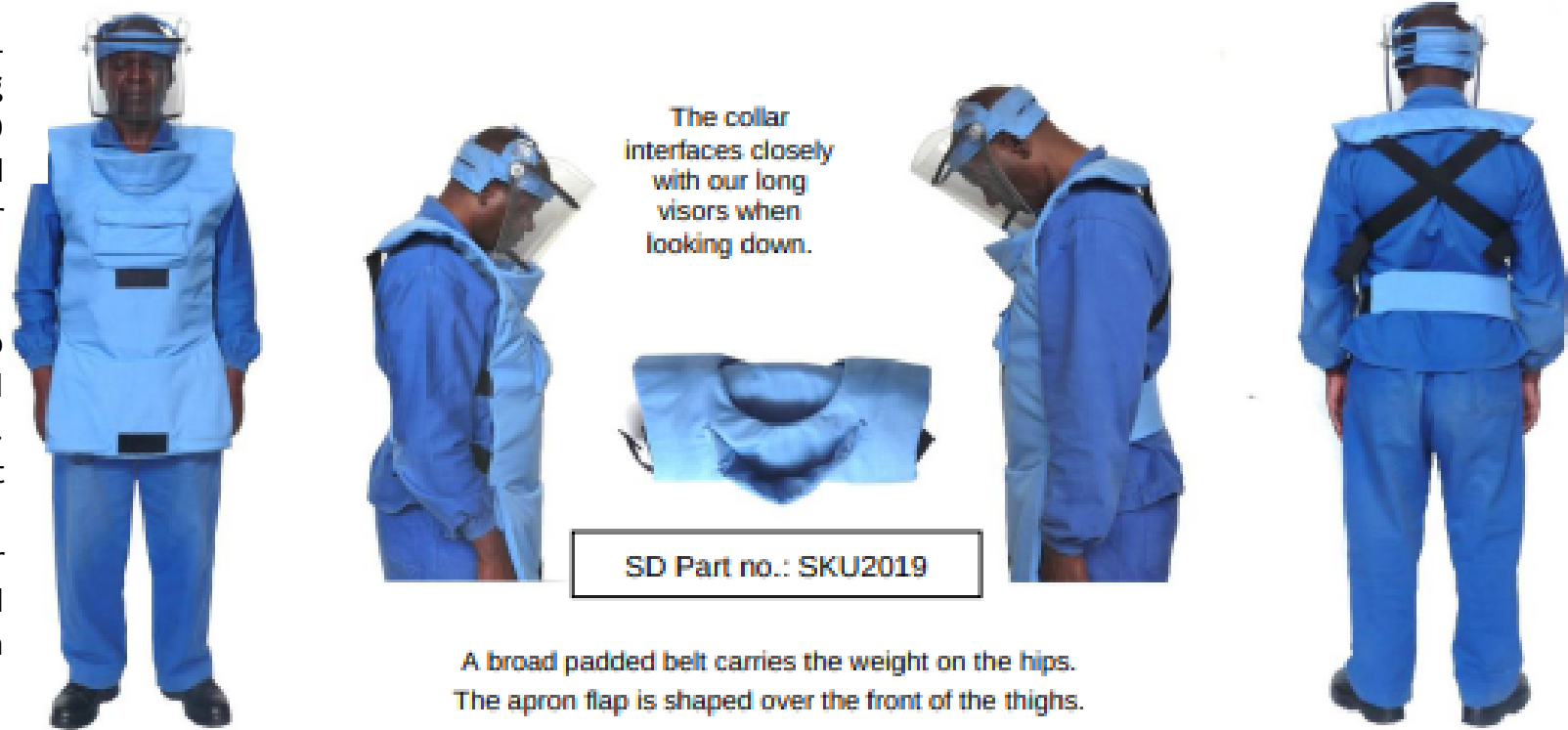
The weight is carried on the hips, with the fold-down flap hanging over the thighs. Our SD design-registered shaped inserts over the thigh mean that leg straps are not needed. Leaving the apron unfastened on the legs increases comfort whether walking or kneeling/squatting.

A generous chest pocket and optional shoulder straps for clipping a radio make the armour suitable for deminers and supervisors. The apron flap is intended to be raised when walking about, and down when excavating a device.

The collar has been designed to interface with our visor range. By making a small, upright collar we allow the wearer an easier view of their feet without compromising safety. With a multi-layer Aramid/polyamide inner covered by a high tenacity textured nylon cover (according to US Mil Spec - C43734D) that is exceptionally long-lasting and resistant to tears and abrasions, the SD Kestrel armor weighs less than 2.7kg. The cover is removable and washable, so can be replaced at a later time. A variant with a protected back is available on request.

Available in S, M, L, XL and other sizes on request. Colours may vary between dye lots.

NOTE: Like most other PPE, SD armour is designed to be water-resistant. Users should avoid getting the core of any armour wet because this can reduce the protection it offers.



The collar interfaces closely with our long visors when looking down.



SD Part no.: SKU2019

A broad padded belt carries the weight on the hips. The apron flap is shaped over the front of the thighs.



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Security Devices (Pvt.) Ltd.

Personal Protective Equipment (PPE) for humanitarian demining

Our Kestrel body armor (NATO STANAG 2920 V50 - 450m/s) is lightweight and comfortable, providing vital area protection whether standing or kneeling to excavate anti-personnel mines. The weight is carried on the hips, with the fold-down flap hanging over the thighs with shaped inserts so that leg straps are not needed. Protection for the genitals can be folded back inside the armor cover when not wanted. A generous chest pocket and a shoulder strap for clipping a radio make the armor suitable for deminers or supervisors.

The collar has been designed to interface with our SD Platinum visor or the SD Mask Visor, but can also be used with our Standard visor or Half visor. The small upright collar allows the wearer an easier view of their feet without compromising safety.

With a multi-layer Aramid/polyamide inner covered by a high tenacity textured nylon cover (according to US Mil Spec - C43734D) that is exceptionally longlasting and resistant to tears and abrasions, the SD Kestrel armor weighs less than 2.9kg. The cover is removable and washable, so can be replaced at a later time. A variant with a protected back is available on request.

Available in S, M, L, XL and other sizes on request. Colours may vary between dye lots.

NOTE: Like most other PPE, SD armor is designed to be water-resistant. Users should avoid getting the core of any armor wet because this can reduce the protection it offers.



The Kestrel's (design-registered) genital protection can be folded inside the main chest panel of the armor when it is not wanted. It can be used whether the apron-flap is up or down.

The SD Raptor demining body-armour is a refinement of our MK 1 and SADEC Apron (first sold in 1998 and widely used). 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 when 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.

The Raptor armour 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 from a frontal blast. Optional shaped polycarbonate shoulder inserts ensure that the armour hangs correctly. Our latest refinement is a flexible polycarbonate insert inside the lower collar which keep it standing at the right angle to ensure a visor overlap. With a multi-layer polyamide inner covered by a high tenacity textured nylon outer cover (according to US Mil Spec -C43734D) that is exceptionally long-lasting and resistant to tears and abrasions, the armour features a stand-off lining to improve ventilation in the shoulder and upper chest area. It weighs 4kg and offers vital area protection above the IMAS requirement of STANAG 2920 450 m/s. The cover is removable and washable, so can be replaced at a later time. A variant with a protected back is available on request.

Available in S, M, L, XL and other sizes on request. Colours may vary between dye lots. 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. Independent SADEC tests conducted in 2001 found that "The [SD] MK1 Apron [of which the Raptor is a variant] was shown to be capable of withstanding the blast of a total of 640g TNT at 30cm, which does not surprise us, but often surprises our customers.

NOTE: Like most other PPE, SD armour is designed to be water-resistant. Users should avoid getting the core of any armour wet because this can reduce the protection it offers.



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 Hook and Loop tab.

With a multi-layer polyamide inner covered by a removable high tenacity textured nylon cover (according to US Mil Spec - C43734D) that is washable and exceptionally long-lasting and resistant to tears and scuffs, the SDV weighs 2.5kg complete with a polycarbonate chest insert that brings vital area protection above the IMAS requirement of STANAG 2920 450 m/s. The cover is removable and washable, so can be replaced at a later time. A variant with a protected back is available on request.

The ventilated high-performance Nylon-6.6 back does not provide protection, but does ensure that the weight rests on the shoulders and so comfort.

A large collar interfaces with the SD visor range, so providing assure protection in line with IMAS 10.30. Available in S, M, L, XL and other request. Colours may vary between dye lots.

NOTE: Like most other PPE, SD armour is designed to be water-resistant. Users should avoid getting the core of any armour wet because this can reduce the protection it offers.



SD Part no.: SKU2014



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In line with IMAS 10.30 (and design rules arising from US funded research) Security Devices has been supplying blast-resistant tools for more than ten years. Be aware that some other 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.

NOTE: Our blast-resistant tools have been tested against AP blast mines and performed well, BUT each blast is different and we cannot guarantee that this will always be the case. See Blast Testing on our website.



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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 two-tined Stainless Steel Heavy rake (SKU3028)

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



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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

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
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 Stones (2 Grades)
4033	Spade

SKU No.	Description
4034	Shovel (With Sides)
4035	Folding Knife
4036	Compass
4037	Nylon Rope (100m)
4038	Plastic Warning Tape (200m)
4039	Nylone (Wooven) Warning Tape (200m)

SD Visors and head-frames	
SKU No.	Description
1010	Standard full-face visor
1011	Platinum full-face visor
1012	Mask-visor
1014	Standard single-strap head-frame
1015	Comfort double-strap head-frame
1016	Full-face visor scratch-shield
1017	Platinum visor scratch-shield
1018	Half-visor (comfort head-frame)
1019	Half-visor scratch-shield
1020	Demining goggles
1021	Visor face protector
1022	ABS helmet mounted visor

SD body armour aprons	
SKU No.	Description
2010	SD Rapier Apron
2011	SD Falcon Apron
2012	SD Raptor Apron
2014	SDV Apron
2015	SD 450 Apron
2016	SD Hawk Apron
2017	SD Kestrel Apron
2019	SD Kestrel Mk2 Apron



SD demining tools (Blast-resistant)	
SKU No.	Description
3010	SD Oval probe (MIT)
3011	T-profile pick-prod
3012	Demining trowel
3015	Magnetic stick
3016	Magnetic trowel clip
3018	Demining brush

3021	Standard Pulling set
3022	EOD Pulling set
3023	Mine Marker (folding)
3024	Signal indicator
3025	Excavation guide (20cm)
3026	Demining spade
3028	Stainless Steel Heavy rake



...in search of safety

Security Devices (Pvt.) Ltd has been in business for more than thirty years. We started making metal-detectors, diversifying into PPE for demining in 1996.

Since that time, the PPE side of the business has grown to dominate all others. We acknowledge support from the Sir Halley Stewart Trust in UK and US Army CECOM NVESD for supporting our early product development work in the 1990s.



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