

## Shield Introduces Next Generation Artillery Covers

Shield Technologies is proud to unveil the Next Generation Envelop® Protective Covers for artillery. The optimized designs are the result of fielding over 2,500 covers and receiving nearly ten years of feedback from Soldiers and Marines. The Next Generation Artillery Covers are simpler in design, lighter, easier to install, offer industry leading corrosion protection, and maintain the durability that has made them a favorite with the troops.

The designs for the Next Generation Artillery Covers have been simplified by reducing the number of cover components. As a

result the covers are lighter and installation becomes more intuitive. A new low-drag inner material has been developed that enables the cover to easily slide on and off equipment. Stress points have been identified and robustly reinforced. Updated inner materials eliminate water absorption weight gain. Lastly, all updated designs are less expensive than the systems that they replace due to improvements in design and manufacturing. With proper use these covers will lessen the burden on installers, reduce maintenance and repairs costs, and heighten readiness.



***M109A6 Paladin– (123063)/ FAASV-(123064)***

Made of the new Envelop® Magnum Series materials, this version of the Paladin is 35% lighter than its' predecessor. Low friction inner materials ease installation and removal. The Paladin cover can be installed with three crewman in six minutes. The FAASV is a one piece cover that can be installed by two crewman in six minutes. Both covers prevent water intrusion into the engine and hull compartments. Vapor Corrosion Inhibitors (VCI's) embedded into the covers prevent corrosion and keep equipment in optimal condition.



***M777 155mm Howitzer– (123095)***

The tube and main sections of the cover have been combined helping to ease installation and eliminate time consuming Velcro seams. Material improvements have reduced the weight by 20%. The cumbersome tenting pole has been replaced by an effortless strap system, that prevents pooled water from burdening removal. The cover can be installed with two crewman in five minutes and still offers unparalleled corrosion protection and maintenance cost reduction.



***HIMARS (right)- (123025)***

The previous four piece version has been consolidated into a more efficient and effective two piece design. The simplified design is compatible with both the A2 and A3 versions. Covering both the upper carriage and electronics sled, the new cover weighs 20% less than the previous design. The cover can be easily installed with two crewman in five minutes.

The new HIMARS cover is 35% lighter than the previous version and uses a straightforward design. A tenting feature has been added to prevent pooling at the front of the launcher, helping to ease removal. As with the other covers, improved inner materials allow effortless installation, decrease maintenance down-time, and increase readiness.



***M119A2/A3 105mm Howitzer (left)- (123096)***

## Custom Shipboard Deck Equipment Protective Covers Now Available

Shield Technologies Corporation is proud to offer the U.S. Navy, Coast Guard, and commercial maritime shipping companies a wide range of customized deck equipment protective covers and ship mooring line accessories. These include a variety of customized mooring line accessories such as chaffing gear and non-traditional foam padded rat guards. Shield also offers custom made capstan, underway replenishment, and damage control equipment protective covers.

Envelop® Protective Covers and mooring line accessories are manufactured according to customer's specifications, including preferred colors and graphics. Custom deck equipment covers provide a unique and appealing topside appearance, signify unit pride and professionalism, reduce crew time spent on tedious maintenance procedures, cut equipment replacement expenses, and help maintain a combat ready vessel.



USS San Diego (LPD-22)

## Customs and Border Patrol Procures Envelop® Stabilator Covers for UH-60M Aircraft



UH-60M Stabilator – Part Number 122035

In March, Customs and Border Protection purchased Padded Stabilator Covers for their new Miami and Puerto Rico based UH-60M aircraft. These padded covers provide impact protection from accidentally dropped tools or equipment used while performing maintenance on the tail rotor assembly or servicing the gearbox. Through extensive testing Envelop® has designed a cover that provides 100% impact protection to the area of the Stabilator below the gearbox from a tool weighing up to 6 pounds, dropped from a height of 8 feet. This type of protection is important because the costly composite Stabilators on both the UH-60M and AH-64E do not have an authorized repair and require replacement for any type of damage. Envelop® has cost saving Padded Stabilator covers designed for the UH-60A/L Part Number 122041, UH-60M Part Number 122035 and the AH-64A/D/E Part Number 122130.

## Stryker's Protected with Magnum Series Covers

Envelop's light weight Magnum Series, developed in mid-2012, has become the preferred means of protecting the U.S. Military's fleet of combat vehicles. The combination of unmatched durability, breathability, ease of use, and performance has rendered Envelop's Magnum Series as the premier protective cover for combat vehicles.

Shield's new Stryker designs are the most recent additions to this robust fleet of covers. Using the latest CAD technology, Shield created three composite designs that can be used to preserve ten Stryker variants, increasing the utility value of each cover. Envelop's Protective

Covers ensure that Strykers are combat ready, preservation costs are kept in check, and scarce funding is available for other uses.

### Stryker Covers Available

- **123139: ICV, NBCRV, ATGM, CV, FSV, ICVV, MEV, RV**
  - **123145: MGS**
  - **123148: ESV**



M1126 Stryker ICV- 123139



Stryker MGS- 123145

## Newly Designed CVRT Cover Gets Positive Reviews in the United Kingdom

The Defence Vehicle Demonstration (DVD) was hosted at Millbrook Proving Ground, England on 19-20 June, 2013. The only exhibition dedicated to land warfare platforms in the U.K. was jointly sponsored by the Army and Defence Equipment and Support (DE&S) Land Equipment, signifying the evolving Defence role.

As combat missions in support of Operation Herrick (Afghanistan) taper, the Army will shift to a contingent posture. Reduced funding and increased maintenance requirements will no doubt be a part of this realignment. Seeking innovative solutions for impeding austerity, the Army sought out the maker of Envelop® Protective Covers; Shield Technologies Corporation. They presented the exhibition with the newly designed CVRT Magnum Series Envelop® Protective Cover.

Envelop® Protective Cover's patented technology is at the

forefront of the preservation initiative. The multi-layered, waterproof, breathable, design wicks away moisture, reduces corrosion by up to 90%, and protects from dirt, dust, snow, sleet, sand, and UV rays. Designed for ground vehicles, the Magnum Series covers provide the same unparalleled protection, are 30% lighter than traditional Envelop® Protective Covers and have a low-friction inner-material that allows for easy installation and removal.

Providing unmatched return-on-investment of up to 24-1, Envelop® Protective Covers are the premier preservation cover of the U.S. military and growing worldwide. Magnum Series vehicle covers will reduce maintenance manpower requirements, decrease replacement expenses, provide flexibility in a multitude of environments, and ensure readiness.



CVRT-323101

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### The Prestigious Manufacturing Technology Centre and Rolls Royce Call Upon Envelop®

As part of a Project for Rolls Royce, the Manufacturing Technology Centre (MTC) has chosen Envelop® Protective Covers to provide anti-corrosion protection for their leading edge research in Net Shape Manufacturing, Metallurgy, and Materials Engineering.

The Manufacturing Technology Centre was established in 2010 with the objective of bridging the gap between academia and industry. Based in Ansty Park in Coventry, its purpose built facility opened in 2011. MTC's focus is to prove innovative manufacturing

processes and technologies in partnership with industry, academia and other institutions. MTC's facility provides an unparalleled environment for the development and demonstration of new technologies on an industrial scale offering flexibility to its growing membership and research partners. Shield Technologies is honoured to be contributing to this research by providing world leading anti-corrosion Envelop® Protective Covers to the MTC.

## DEGEL.US and Shield Team Up to Protect ORL Assets in Israel

Located in the Bay of Haifa, Oil Refineries Ltd. (ORL) is Israel's largest oil refinery. ORL recently approached DEGEL.US to provide comprehensive environmental protection for several critical assets using Envelop® Protective Covers. The company's close proximity to the Mediterranean Sea creates a caustic environment that is

rife with saline, humidity, and deteriorating UV rays.

Engineers designed a cover that will prevent premature failure of an electrode by preventing corrosion at the connection point between the cable and that electrode. The all-weather, breathable cover can remain installed for round the clock environmental protection.

Envelop® Protective Covers were created to protect ORL small engines when not in operation. The covers help extend the lifespan and promote fully functional, efficient operation of these small engines. The covers were also used to protect a multi-million dollar electric motor that is awaiting installation in the coming year.

With proper use, Envelop® Protective Covers ensure readiness of critical assets, reduce time spent maintaining valuable parts, and promote a long-life of smooth operation for protected components.



**DEGEL.US**

*Defense Technology Solutions*

Small Engine Covers (Left) Electrode Cover (Right)

## Israeli Air Force Selects Envelop® Protective Covers

Faced with asymmetrical and traditional threats to national security, it is paramount that the Israeli Air Force maintain the highest possible state of readiness. Spare parts to keep aircraft standing by is an essential part of this stance.

Envelop® Protective Covers were designed to keep spare propellers and engines in optimal working condition. The waterproof,

breathable covers reduce corrosion by up to 90%, prevent rubber fluid lines from being degraded by UV rays, and keep dirt, dust, sand and other debris off the spare parts. Envelop® Protective Covers promote readiness, reduce replacement costs, and keep aviators and maintainers focused on the mission.



Spare Engine Cover (Left) 4-Bladed Propeller Cover (Right)

## New Equipment? No Cover? No Problem

In the ever evolving worlds of industry and the military, change is a constant. Equipment is reconfigured, upgraded, downsized, and replaced. While the job of maintaining and preserving the equipment is frequently made easier or sometimes harder, the maintenance requirements remain. In the dynamic world of equipment improvement, Envelop® Protective Covers remain a static asset. Shield Technologies can create an Envelop® Protective Cover designed specifically for new or refurbished equipment. All it takes is a phone call or e-mail to a technical support representative to get the process started.

Envelop® Protective Covers are specifically designed to protect a particular piece of equipment and use the latest in design and fabrication techniques. The process begins with a site visit by a technical support representative who gathers vital information such as: the equipment's location, exposure, intended use, maintenance requirements, operational parameters, protection needs, and dimensions. If allowed, detailed photos of the equipment are taken, enabling Shield to use the latest in photo-modeling technology. Using these inputs, Engineers create a wireframe CAD drawing that serves as a template for custom cover creation and leads to the production of a prototype cover.

A second visit will be conducted by a technical support representative and design engineer to test the "fitting cover" on the equipment. At this stage, locations for openings, straps, and other features that will enhance the performance of the cover can be incorporated into the design. Once all parties are satisfied with the proposed design, a full Envelop® Protective Cover is built to specification.

Designs vary in complexity and some require additional fittings to ensure exceptional customer satisfaction.

Upon completion of design and production, an Envelop® Protective Cover will be delivered. With its highly engineered design, durable construction, and patented technology; the advanced materials of Envelop® Protective Covers will provide years of service and help reduce maintenance man-hours, increase equipment readiness, and reduce the Total Cost of Ownership of equipment.



## Envelop® Helicopter Products Excel on Deployment

"We used Envelop's® Cockpit/Chin Bubble covers on our Blackhawks during our last deployment. These covers helped save our cockpit instruments from becoming sun bleached and extend the life of our windscreens from dust storms and taxiing aircraft during 24 hour operations. As the Battalion Production Control Officer I thought I was going to have some issues getting the Line Pilots to use them but that was not the case because they were easy to put on and take off. These

covers proved to be so durable they will be used on the next deployment."

**-CW4 U.S. Army, Assault Helicopter Battalion**



UH-60A/L Cockpit Chin Bubble- 122038



Army/NG/USMC

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