ArcSafe™ Harness adds arc-flash protection

Does your job take you to heights near energized electrical sources? Take safety, versatility, and comfort with you. MSA’s new ArcSafe Full Body Harness is now available for utility and maintenance workers exposed to the hazard of a high-energy electric arc flash—who need fall protection and/or possible retrieval from a confined space.

New compact ICM® Tx PASS

MSA’s new ICM® Tx Integrated PASS and HUD Transmitter offers maximum reliability and durability, by combining the safety features of the ICM 3000 Plus Integrated PASS with the functionality of the Heads-Up Display (HUD) Transmitter.

MSA buys Microsensor Systems, Inc.

In September 2005, MSA acquired Microsensor Systems, Inc. (MSI), of Bowling Green, Ky., a world leader in Surface Acoustic Wave (SAW)-based chemical-sensing technology used to detect chemical warfare agents (CWAs).

New Safe Escape™ CBRN Respirator is NIOSH-approved for emergency escape

If you work in a high-profile office, such as a government agency or embassy, or in underground transit or law enforcement, you want to be prepared for terrorist threats. You may want to have an escape respirator on hand—protection that you can grab and pull over your head quickly—so you can breathe safely while escaping from unknown hazards.

Another FIRST from MSA!

If you work in a high-profile office, such as a government agency or embassy, or in underground transit or law enforcement, you want to be prepared for terrorist threats. You may want to have an escape respirator on hand—protection that you can grab and pull over your head quickly—so you can breathe safely while escaping from unknown hazards.

New MSA Police Line of Ballistic Helmets

Attention, Law Enforcement!

Have you heard about MSA’s new ForceField line of body armor? Three styles of ballistic vests have joined MSA’s ForceField ACH (Advanced Combat Helmet) to form MSA’s newly-established ballistic protection product line.

State-of-the-art ballistics, innovative design features, and increased comfort unite to “protect the protectors” on the job. If you’re in Law Enforcement, maybe you already wear MSA’s Millennium® Gas Mask. Now, whether you’re keeping the peace locally or responding to a specific incident, you can protect yourself with MSA’s Police Line of ballistic helmets and vests.

Significant investments and years of ballistics development are evident in MSA’s three in-house ballistic laboratories, relentless research and engineering, and materials science capabilities.

MSA began with our ACH ballistic helmet for military use. Next came the ForceField ACH for law enforcement use. It duplicates the desirable features of our military ACH—notably, the fragmentation-resistance capabilities—and adds the handgun ballistic capabilities demanded by law enforcement.

More on page 2

Another FIRST from MSA!

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We hope you’ll never have to use it, but if you do, choose MSA’s new Safe Escape CBRN Respirator—with practical operation, user-friendly design, and comfort, packed in a distinctive, easily-stored case. MSA’s new escape respirator is the first device of its kind to meet government standards for protection against chemical, biological, radiological, and nuclear (CBRN) agents.

NIOSH-certified for 15-minute escape protection, MSA’s Safe Escape CBRN Respirator is a translucent, chemical-resistant hood with self-adjusting cradle-type head straps, a bonded wide-view lens, and a CBRN high-efficiency particulate filter and activated carbon canister.

More on page 5
Cairns® Helmets save crew twice

Dravosburg, Pennsylvania’s Fire Department has nothing but praise for the protective powers of their Cairns® 1010 Helmets, proven recently during two firefighting experiences.

You never know what hazards fire will create.

During training classes in Somerset County (Pa.), Dravosburg firefighters Wayne Cosgrove, Dave Hobby, and Greg Drulo were performing a floor-by-floor search of a two-and-one-half story burn building with live fire.

As they worked their way down the stair steps, without warning, the fire got out of control. A sudden rush of flames rolled over the trainees. Their instructor shouted for them to exit immediately, and ran outside himself. But before the Dravosburg crew could move, the burning ceiling dropped on them.

This wasn’t supposed to happen.

Training exercises everywhere stopped, and all eyes focused on the burn building.

Inside, the three struggled to leave the stairwell, but the walls caved in on them. Drulo fell down the stairs. They knew how to get out, but they were swimming in burning debris, now having only themselves and their gear to save them.

Fortunately, the men got out, miraculously unhurt and to the amazement of their fellow firefighters. They credited their Cairns 1010 Helmets with fully protecting them in an unpredictable situation.

Not long after this horrendous training incident, these same firefighters responded with mutual aid to a three-building fire. They were the second engine called in, and the crew made its way to the second floor for ventilation.

“Because of the thick smoke, I couldn’t see my hand in front of my face,” Cosgrove said.

The four-man crew tried four times to battle down a hallway through intense flames, heat, and smoke—with no success.

Water turned to steam—instantly. Again, their Cairns 1010 Helmets saved them from injury.

All of the men’s helmets were blackened due to the intensity of the fire, but no one was injured. The buildings were a complete loss.

TIC detection of hot spot saves stored crop

On November 22, 2004, Texas firefighter Dickey Durr and his volunteer crew of three responded to a call from the Attebury Grain Corporation about a fire in their flat grain-storage facility. The size of a football field, the facility was filled with corn gluten, a high-protein cattle-feed supplement.

Seeing through smoke

There was no flame but plenty of smoke as the fire crew arrived. Durr looked at their thermal imaging camera and said, “Let’s put this to the test!”

It was fortunate that the Randall County Fire and Rescue Department had acquired their MSA Evolution® 5000 thermal imaging camera (TIC) the year before. However, they were not yet in the habit of operating it. “Until that day,” said Durr, “it was just another piece of equipment. We were unfamiliar with it, and therefore didn’t really use it. Now, I don’t get off the truck without it!”

Without the TIC, the crew’s task of locating the source of the smoke would have been next to impossible. “There was so much smoke that you couldn’t see 10 feet in front of you,” Durr declared, but TIC technology guided the crew right to the source of the problem.

Out, out, hot spot!

The hot spot, which Durr described as “looking like a lit cigar,” was about the size of a truck bed, smoldering about halfway down the facility. The Evolution TIC was used to guide front line leaders into the storage facility. The crew applied a minimum amount of water to the smoldering material, scooped it up, deposited it outside of the grain elevator, and hit it with foam to fully extinguish the remains.

To complete the job, Attebury employees worked with at least one firefighter daily for 14 days. But only minimal damage was done to the building and the stored crop, which would probably have been lost if water had been applied to the area in general.

Total estimated damage was less than $150,000 worth of product (25%) and NO structural loss.

Durr’s department’s TIC is now an indispensable tool, in both fire prevention and firefighting, and Durr proactively recommends its use almost everywhere.

Note: Hot spots are common in stored crops, and although most do not ignite, they usually spoil the stored product.
1-Touch® Suspension wins award for innovation & safety

MSA’s 1-Touch Suspension has won a 2005 Commitment to Worker Safety Award in the Head/Face Protection category. Sponsored by Compliance Magazine, this awards program annually recognizes achievements and innovation in safety equipment product development, according to impact on worker safety and ease of use.

Magazine publisher Marc Spector noted, “In a market that is relatively flat, this award recognizes companies that go above and beyond to strive for product differentiation through innovation and research.”

MSA’s revolutionary new helmet suspension is simple and easy to use. Hard hat wearers love the easy one-hand squeeze opening, one-hand slide adjustment and snap closure, and adjustable dual nylon straps, which offer a comfortable and stable fit.

[continued from page 1]

ArcSafe™ Harness adds arc-flash protection to fall protection

The ArcSafe Harness meets new criteria under ASTM F887-04 standards, including arc-flash exposure and drop testing, prohibition against harness ignition or melting as a result of arc-flash exposure, and harness sizing and design requirements. Notable features include a back Kevlar web loop to reduce overall harness weight and arc-flash potential. Optional front attachment belay loops allow connection to climbing systems or personnel riding systems, or during rescue. A Y-shaped back locator pad provides comfort by moving the webbing away from the wearer’s neck and allows for effortless adjustment of the back D-ring.

The need for MSA’s ArcSafe Harness is evident in almost any industry where high-voltage electricity is a complicating factor in the work environment. Some examples are power transmission, RF, and telecommunication tower climbing; installation and repair of roof-mounted electrical equipment; and in-plant maintenance of electrical machinery.

Work in confined spaces where the ArcSafe Harness affords extra protection includes maintenance within electrical vaults, electrical runs, or cargo holds of ocean-going ships; work in trenches with exposed electrical cables; and maintenance inside pressure vessels.

ADVICE FROM THE EXPERIENCED:

“Wear your helmet home!”

“Just had to call you and thank you for the helmet that saved my son’s life.”

The caller was Jim Miller, a 51-year-now-retired ironworker from Lawrence, Kansas, whose son Jerry proudly wears an MSA Skullgard® Helmet on the job.

Jerry and about 20 coworkers were leaving their construction workplace in Kansas City one day in 2004 when a 15-pound piece of tube steel accidentally fell from 11 stories up and struck Jerry on the head and shoulder. “One guy in front of me was wearing a ball cap. Another wore only a durag. I was the only one in the group still wearing my helmet,” reported Jerry. “The falling steel knocked my headband off and cracked my helmet—well, it basically blew up! The force of the impact was calculated to be 130 mph. It compressed my neck, bounced off and hit my shoulder, but didn’t tear my rotator cuff. And it never knocked me out. That helmet saved my head.”

Jerry’s neck injuries still cause him a lot of pain, but he is back to work. “Everywhere I go, I tell people my story. That MSA hard hat saved my life—most definitely! And I tell everyone to wear their hard hats into and out of the job. I had worked for 30 years without getting hurt. You never know when you’re going to get hit.”

Jerry’s father himself has a lot to be proud of. After serving in the Marine Corps, Jim Miller devoted his working years to building such notable structures as the St. Louis Arch, the Chicago Sears Tower, and the Truman Dam. He loved “the peace, quiet, and freedom of working up high.” He loved his MSA Skullgard Helmets, too, and wore them for almost 50 years.

MSA’s Gold Helmet award was never more deserved.
protect the protectors from head to toe, with helmets, body armor, instrumentation, and respiratory protection that deliver superior performance and reliability,” said Ron Herring, vice president and general manager of MSA’s Safety Products Division. “We look forward to meeting the future body armor needs of police departments in the U.S. and around the world.”

MSA’s ballistic expertise emerged with the development of our military ACH in 2003, a lightweight design that offers soldiers advanced ballistic protection with greater comfort and stability, and has been credited with saving several lives. Also, MSA designs and produces rifle plates with multi-hit capability for Canadian military forces.

For more information, call MSA Customer Service at 1-866-MSA-1001.

MSA’s ForceField Body Armor. It’s not just what goes into your body armor; it’s who stands behind it.

Calling all law enforcement!

Get online—on MSA’s Police Line, that is—to learn more about how MSA protects the protectors. Visit www.MSAPoliceLine.com, MSA’s new website for members of the Law Enforcement and Homeland Security community. Launched September 23, 2005, the new MSAPoliceLine.com incorporates features like these in an attractive, easily navigable design:

- Online product catalog of Law Enforcement-oriented products
- Online product training
- Ballistic vest configurator
- Videos and detailed information on MSA’s heritage and technical expertise
- Latest news and new product information highlighted on home page
- Regular updates

[continued from page 1]

MSA goes ballistic with new ForceField™ body armor line

“Getting into body armor was the natural next step to take,” said John Raimondi, product manager for the new line.

“We know that police officers and others need reliable, advanced body protection. Our specialized engineering and research capabilities have put us in a favorable position to introduce our new body armor line with two concealable and one tactical vest styles.”

MSA’s ForceField Alpha Vest is an innovative concealable armor design that adds new comfort and security features to solidly reliable protection. Protection is number one, but added comfort makes the job less taxing for officers.

Three MSA-exclusive features stand out:

- MSA’s exclusive Tri-T™ Comfort System pulls moisture away from your body and cools you, while reducing odor-causing bacteria.
- Flex Panel™ Sizing maximizes vest coverage while contouring it to fit your body shape.
- The MSA-exclusive Armor-Latch™ Closure gives you reliable front-to-back overlap—with a one-handed “forward pull” adjustment—for proper side coverage and comfort.

The second vest style, ForceField Bravo Vest, incorporates traditional styling, durability, and comfort within a concealable armor package.

Third is MSA’s first tactical vest, the ForceField Tango Tactical Vest, a side-opening modular tactical platform designed for SWAT team-type use.

“Our goal is to protect the protectors from head to toe, with helmets, body armor, instrumentation, and respiratory protection that deliver superior performance and reliability,” said Ron Herring, vice president and general manager of MSA’s Safety Products Division. “We look forward to meeting the future body armor needs of police departments in the U.S. and around the world.”

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Calling all law enforcement!
Canadian distributor lends TIC for police search & recovery

A sales rep from MSA’s distributor AJ Stone, Shawn Garrison, was demonstrating the MSA Evolution® 5000 TIC to the Elliot Lake Fire Department (in northern Ontario) when he learned of a 66-year-old man who had been missing for three days. Garrison, immediately sensing that the camera’s capabilities might be useful, traveled to Christa Lake, where the Ontario Provincial Police and Sault Ste. Marie Search and Rescue teams had been focusing the search.

In cooperation with MSA sales rep Don Landry, Garrison offered the use of the camera and gave a brief demonstration to senior officer Jamie Appleton. When he returned to the command site the next morning, Garrison learned that rescuers had been using the Evolution TIC during aerial helicopter searches.

Apparently, the helicopter was equipped with a FLIR system (forward-looking infrared), but it was unable to “see” through the canopy of trees beneath them, from altitudes of 900 to 1,700 feet.

The pilot, a senior officer from Orillia, decided to try the Evolution 5000 TIC, by aiming it out a port hole window. He was very impressed that not only was the resolution of the picture clearer than that of the FLIR system, but MSA’s TIC could also penetrate the canopy of trees to “see” the searchers walking through foliage.

Although the missing man had unfortunately drowned, searchers were so impressed with the thermal imaging camera technology that they recommended that each detachment in Ontario be equipped with TICs to aid in all police operations.

For more info about the NIOSH standard, go to http://www.cdc.gov/niosh/npptl/standardsdev/cbrn/escape/

For more info about the NTOA standard, go to http://www.cdc.gov/niosh/npptl/standardsdev/cbrn/escape/

[continued from page 1]
Natural gas is a precious commodity that can easily escape or go up in flames if not properly monitored. An incident at a large southern U.S. gas plant recently reaffirmed the crucial role that an MSA permanent instrument plays in monitoring this irreplaceable natural resource that heats millions of homes and businesses—at rapidly escalating prices.

"Just six months before, the company had switched from a competitive unit to our Triple IR FlameGard Flame Detector," reported MSA regional sales manager Paul Schmitt.

In the natural gas industry, according to Schmitt, companies commonly buy gas and liquefy it for summer storage. The liquid is then gasified for winter and supplied to utility companies for sale to consumers. It was during this seasonal switching cycle recently that an incident occurred at a rural 30-plus-acre gasification station.

"A valve overheated, natural gas leaked, and a fire began," said Schmitt, "but several of the Triple IR FlameGard sensors immediately detected it and alerted the plant's emergency system.

"Our instrument activated their fire suppression system and extinguished the fire. The company turned off the gas and repaired the valve, and went back on line in just three hours," Schmitt continued. "The engineer called to thank us for our great product.

"Without the Triple IR System's detection, at the very least, the operations would have been down for a few months. What if the leak had continued, undetected? The fire could have continued, causing tremendous monetary loss to the business and the community."
The military ACH
Who’s behind the helmet that comes between a soldier and a bullet

A lot of hard work goes into making MSA's Advanced Combat Helmet (ACH). U.S. Army First Sergeant Colin Rich credited an ACH for saving his life when he was hit in the back of the head by a high-speed bullet while serving in Afghanistan.

“Our helmet slowed the bullet down enough so that he didn’t die from it,” said Rick Moore, manager of product engineering in the Defense Technologies Group at MSA Cranberry (north of Pittsburgh, Pa.), and in charge of the helmet design. “I was very happy for Sergeant Rich, and of course, those kinds of success stories are very good for MSA.”

Since November 2003, MSA has secured six contracts from the Army to produce more than 500,000 helmets, a product the Army named on their greatest inventions list in 2002.

This makes Moore, a 19-year MSA veteran, very happy. “I am very proud,” he said. “A lot of people who worked on this for several years deserve much of the credit for this helmet’s integrity and popularity. MSA associates feel they have really served us well, and this just proves it further.”

Engineering and operations
Moore credits the material scientists and engineers in Cranberry and Quebec City, Canada, as well as operations personnel with designing and building a good product. “Most process improvements—from raw materials to final heat of Iraq and the snowy mountains of Afghanistan. “We use a range of environmental conditioning chambers, in which we test and test and test and then we test some more,” Moore said.

Customized fit
The ACH, which weighs about three pounds, is customized to fit each soldier’s head. The inside padding, made of special foam, comes in seven different shapes. “You can get the right fit by swapping pads until it fits and feels good,” Moore said. “That’s one of the things the soldiers like about the comfort.”

Ballistics testing
And how do they make sure the helmet’s as good as it can be? They shoot the helmet with different kinds of projectiles up to a 9 mm bullet. “You shoot around the perimeter and in the top,” Moore said. “You go out, you test and find out where the weak spots are, and try to come up with something better. It could take weeks; it could take months.”

But all this testing, more testing, upgrades, and technological changes are done for a simple reason—to ensure MSA is protecting the Protectors in the best way possible!

Cairns® Helmets save men from falling air conditioner

Responding to a three-alarm house fire, Soucy and fellow firefighter Steve Cote were climbing a ladder to a third-story window to remove a 70-pound air conditioning unit, when it fell 22 feet on top of them.

“It couldn’t have hit him (Soucy) any more dead center on the top of his head if he had had a bulls-eye painted on his helmet,” Nashua Assistant Fire Chief Mike Mansfield said. “I thought he was dead.”

The massive blow knocked Soucy off the fourth rung of the ladder, and he fell to the ground, unconscious. The air conditioner then bounced off Cote’s head, knocking him down as well.

Both men were treated and released from the hospital. Soucy suffered several fractured teeth, but did not have any serious neurological damage from the accident. Cote suffered from neck pain. Mansfield was shocked that the men didn’t suffer any serious injuries.

“Taste is only so much a helmet can do for compression injuries,” Mansfield said. “I can’t believe he doesn’t have any neck or spinal injuries. Tim is truly lucky to be alive.”

“The Cairns Helmet did its job. It took the force of the hit and literally saved his life. I’ve never seen anything like it in my 40 years of service. This is truly a testament to the product.”

Both men were wearing their MSA Cairns helmets at the time of the accident. The crown of Soucy’s helmet was broken and dented, but that was the extent of the damage. Twelve people were left homeless from the blaze, which caused more than $40,000 in damage.

“We’ve been using Cairns Helmets for over 40 years,” Mansfield said. “They have really served us well, and this just proves it further.”

MSA consumer display wins Marketing Award

MSA's entry, a freestanding spinner display for a new line of MSA Safety Works® Safety Glasses, was a winner in the hardware and home center division. More importantly though, the safety glasses that are shown on this display have become favorites with the customers, who are drawn to their quality by the attractive display!
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- AirHawk (Industrial) SCBA
- ICM T5 & First-stage Regulator for SCBA
- Gold Helmet Award
- Supreme Pro Hearing Protection
- Cairns Helmets
- Evolution 5000 Series TICs
- V-Gard Helmets
- ArcSafe Harness

Portland, Oregon

Portland, Oregon’s Assistant Chief of Police Jim Ferraris won the MSA Harley Davidson 883 Sportster “The Enforcer” at the IACP (International Association of Chiefs of Police) Conference in Los Angeles in November 2004. In turn, Ferraris donated the Harley to the Police Activities League of Greater Portland (PAL) to be raffled off, generating donations to support PAL’s youth programs.