

#### **OUR MISSION**

That men and women may work in safety and that they, their families and their communities may live in health throughout the world.

#### **OUR VISION**

To be the leading innovator and provider of quality safety and instrument products and services that protect and improve people's health, safety and the environment.

To satisfy customer needs through the efforts of motivated, involved, highly trained employees dedicated to continuous improvement in quality, service, cost, value, technology and delivery.

#### **BUSINESS OF MSA**

MSA is in the business of developing, manufacturing and selling innovative and sophisticated products that enhance the safety and health of workers throughout the world. Critical to MSA's mission is a clear understanding of customer processes and safety needs. MSA dedicates significant resources to research which allows the company to develop a keen understanding of the customer safety requirements for a diverse range of markets, including the fire service, law enforcement, construction, public utilities, mining, chemical, petroleum, HVAC, hazardous materials remediation, military and retail. MSA's principal products, each designed to serve the needs of these target markets, include respiratory protective equipment, thermal imaging cameras, gas detection instruments, ballistic protection, as well as head, eye, face, hearing and fall protection products.

MSA was founded in 1914 by John T. Ryan and George H. Deike, two mining engineers who had firsthand knowledge of the terrible human loss that was occurring in underground coal mines. Their knowledge of the mining industry provided the foundation for the development of safety equipment to better protect underground miners. While the range of markets served by MSA has expanded greatly over the years, the founding philosophy of understanding customer safety needs and designing innovative safety equipment solutions remains unchanged.

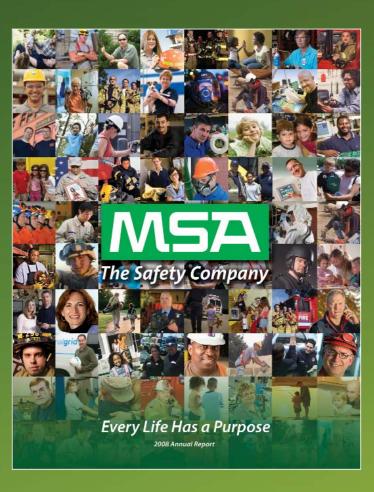
MSA is headquartered in Pittsburgh, Pennsylvania, with operations employing 5,100 associates throughout the world. A publicly held company, MSA's stock is traded on the New York Stock Exchange under the symbol MSA.

#### **ABOUT THE COVER**

**Every Life Has a Purpose...** and at MSA we're committed to ensuring that people all over the world, no matter where they live, work or play, have the opportunity to fulfill that purpose. Whether it's parenting a child, coaching a team, restoring peace, caring for the sick or teaching a new generation, MSA remains dedicated to protecting the health and safety of people in the workplace, so they can fulfill their mission and serve their families and communities in which they live.

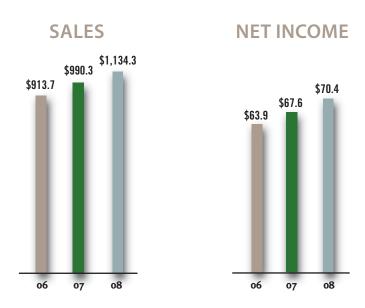
As MSA celebrates its 95th year in business, we remain committed to ensuring people live in health throughout the world. We'll be there to monitor and filter the air they breathe, protect them from falls and objects falling from above, keep them safe from projectiles on the frontlines of war or the streets of our communities; and safeguard consumers while tackling projects around the home.

Shown on the cover are people at work and play from across the globe. While their purposes in life are different, our mission to protect them remains unchanged. Some of their stories are featured on the pages that follow.

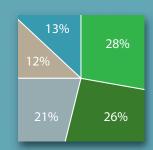


#### FINANCIAL HIGHLIGHTS

	2006	2007	2008
FOR THE YEAR (thousands, except per share)			
Net sales	\$913,714	\$ 990,252	\$1,134,282
Net income	\$ 63,918	\$ 67,588	\$ 70,422
Basic earnings per common share	\$ 1.76	\$ 1.89	\$ 1.98
AT YEAR END (thousands)			
Total assets	\$898,620	\$1,016,306	\$ 875,810
Working capital	\$289,424	\$ 287,861	\$ 258,088
Common shareholders' equity	\$436,926	\$ 460,604	\$ 392,841
Common shares outstanding	36,015	35,662	35,786



#### **ANNUAL SALES BY PRODUCT GROUP**



- Head Protection
   (Helmet Eye Face & Hearing)
- Air-Supplied Respirators
- Gas Detection Instruments
- Air-Purifying Respirators
- Fall Protection and Other

#### **ANNUAL SALES BY REGION**



- North America
- Europe
- Asia & Pacific Rim
- Africa
- South America

#### TO OUR SHAREHOLDERS...

IN 2008, MSA CONTINUED TO STRENGTHEN ITS BRAND POSITION AS THE GLOBAL LEADER IN SAFETY EOUIPMENT WHILE DELIVERING RECORD SALES THAT EXCEEDED \$1 BILLION FOR THE FIRST TIME IN THE COMPANY'S HISTORY.

Reflecting our balanced and diversified global portfolio of leading-edge safety products, MSA achieved sales growth in all three of our geographic business segments — North America, Europe and International.

In achieving record revenue, we were guided, as always, by the enduring principle that has defined our mission for 95 years. MSA protects the health and safety of working people everywhere, from firefighters, soldiers and police officers, to construction, mining, factory and oil and gas workers. We believe "Every Life has a Purpose" and that our purpose at MSA is to provide high quality products that protect people from workplace hazards so they can return, safe and sound, to their families, loved ones and friends at the end of each day.



"Product of the Year," the Altair® 4 Multigas Detector, left, and it's five-gas sister product, the Altair® 5.

#### 2008 Financial Results

Sales rose 15% to a record \$1.13 billion from \$990 million in 2007, as MSA achieved sales growth in nearly every key market. We benefited from a strong backlog of orders at the beginning of 2008, which proved to be a major contributor for reporting record sales. The strength of our business extended for most of the year, primarily due to large orders and several significant government contracts, both in the U.S. and abroad. However, the impact of the global economic slowdown on customer orders became very apparent near the end of the year.

In North America, our largest market, sales increased 16% as MSA benefited from three major factors: consistently strong orders for our new Altair® 4 and Altair® 5 Multigas Detectors; \$29 million in new contracts from the U.S. Army for additional Advanced Combat Helmets: and new contracts totaling \$25 million from the U.S. Air Force for our Firehawk® M7 Responder® Air Mask, a new multi-function respirator that MSA designed to meet stringent and unique needs of air base fire brigades. North American sales of our head protection products, primarily our V-Gard® Hard Hat, showed a healthy \$3 million increase over 2007, due to strength in most industrial and construction markets, at least through the third quarter of 2008.

Sales rose 18% in our European segment, reflecting favorable currency translation effects of the stronger Euro and strong shipments of ballistic helmets and body armor for police forces in France, and self-contained breathing apparatus for government agencies in Germany and Eastern Europe.

Sales in our International segment increased nearly 9%, driven primarily by continuing market penetration gains in the South African and Latin American markets. Currency translation effects were not significant on this full year performance in MSA International.

For the year, MSA's net income rose 4% to \$70.4 million, or \$1.98 per basic share, from \$67.6 million, or \$1.89 per basic share, in 2007. It's important to note that the 2007 results included after-tax gains of \$7.7 million from the sale of real estate. Excluding those gains from non-operating activities, MSA's adjusted net income grew by \$10.5 million in 2008, reflecting the stronger performance in North America, where net income rose 8%. Net income in our Europe segment was up 6%, while net income in our International segment was up 2% from the previous year.

It was especially gratifying that MSA achieved a record year in terms of pretax profit from operations. Profit from operations, excluding extraordinary items, was \$127 million, exceeding the company's previous high, which was set in 2005. The growth in sales and profit from operations was a testament to our efforts in product leadership, customer intimacy, emerging market focus and operational excellence.

#### **Innovations for MSA Customers**

Overall, MSA's performance in 2008 was fundamentally strong, led by our military product line and our impressive pipeline of new products. One of our greatest success stories in 2008 was the Altair® 4 Mulitgas Detector, an extremely durable, value-priced next-generation portable device that helps protect people in the oil, gas and petrochemical (OGP) industry, a key MSA market. Sales of the Altair 4 Detector exceeded our projections, earning this breakthrough product the honor of being named our "2008 Product of the Year." MSA also introduced the Altair® 5 Multigas Detector, a sister product with expanded capabilities and features.

Overall, combined handheld and permanently installed gas detection instrument sales increased nearly

\$13 million for MSA in 2008, as the OGP market showed strong demand for our products throughout most of

MSA launched many other innovative new products for customers in our key markets, including our "one-of-akind" Firehawk® M7 Responder® Air Mask for the U.S. Air Force; an advanced ballistic helmet for the Canadian military; firefighters saw a new stand-alone personal alert safety system, thermal imaging camera, and helmet visor for their MSA Cairns® helmets; new fall protection products were developed and introduced for the Construction and Industrial markets; new riot-control helmets and body armor for the Law Enforcement market; and a wide range of other outstanding products.

As a measure of our R&D effectiveness, roughly one third of MSA's global sales in 2008 were from products introduced over the last three years. I invite you to learn more about MSA's commitment to product innovation — one of the keys to our future success — on pages 4 and 5 of this annual report.

#### Striving for Operational Excellence

As MSA delivered growth in sales and earnings in 2008, we continued to implement a comprehensive operations plan that we believe will enhance customer loyalty and our competitive strength for years to come. Major initiatives under our plan to achieve Operational Excellence included:

- The implementation of Demand Flow Technology and application of global best practices to reduce costs, improve productivity, maximize efficiency and enhance our competitive ability to create innovative products that deliver greater value for our customers. Our conversion to Demand Flow Technology is vital because it is a process and system that is expected to enable MSA factories and warehouses worldwide to respond faster to the needs of our customers while reducing inventory and equipment costs. We have seen encouraging early results from this ongoing initiative, about which more detail is provided on page 6 of
- The grand opening of a world class factory and technology center in Suzhou, China that began operations in November 2008. As our new hub for meeting the growing demand in Asia for safety products, our new Suzhou facility provides the foundation needed for MSA to significantly increase its brand presence in China a key geographic market for the future of our company.
- The continued implementation of Project Magellan, a multi-year initiative that was launched at the start of 2007 to improve manufacturing efficiency and utilization in North America and reduce operating costs. More information about the progress we are making with Project Magellan is provided on page 7 of this report.

#### Focused on Key Markets

In 2008, MSA did a superb job of meeting ever-changing customer needs and product performance standards that exist within the key markets core to our mission: Fire Service, OGP, Law Enforcement, Military, Construction and General Industry. In select regions of the world,

such as China, Australia and South Africa, MSA was also a leader in providing mine safety products to continue the longstanding mission that first put MSA on the map in 1914.

Our major market wins in 2008 included new contracts to supply additional Advanced Combat Helmets to the U.S. military and the Firehawk® M7 Responder® Air Mask to the U.S. Air Force; orders from the Canadian military for our new CG634 ballistic helmets; and orders from the German defense forces for protective respiratory equipment. Our wins in the Law Enforcement market included orders in France for riot-control helmets and ballistic body armor, while orders to the OGP market fueled our gas detection instrument sales.

Despite the current economic downturn, MSA increased our market penetration in Asia, Australia, China, Europe, South America and Africa as more than half of our MSA International affiliates achieved sales growth of at least 20% for the year. Including the European and International segments, about 48% of MSA's sales in 2008 were outside of North America, a trend that we are determined to grow in the future with our aggressive global approach in marketing, sales and distribution.

One of the keys to driving such growth, today and in the future, is our heightened focus on building Customer Lovalty. A key metric MSA adopted in 2008 to assess our effectiveness in this area is the Net Promoter Score (NPS). Used today by many Fortune 500 companies, it is a straightforward measure to assess the gap between a brand's most vocal advocates (Promoters) and its detractors. More importantly, it holds all of us at MSA accountable for how we treat customers. I'm pleased to report that MSA earned high NPS marks in 2008. In 2009, our goal is to build on this success, and we will. Through focus on our Voice of the Customer processes, we are listening to our customers and working more closely with them than ever before. That's smart business that represents a "win-win" for MSA and our customers over the long haul.

#### Milestones and Achievements

Beyond receiving high marks for customer satisfaction, I'm also proud to report that MSA was recognized on several other important fronts in 2008. In February, MSA received the 2007 Pittsburgh Business Ethics Award from the Pittsburgh chapter of the Society of Financial Service Professionals and the University of Pittsburgh's David Berg Center for Ethics and Leadership. This award affirmed one of the greatest strengths of MSA — our commitment to conducting business in an ethical and socially responsible manner.

In June, MSA announced that the Occupational Safety and Health Administration had designated our Cranberry Township, Pennsylvania manufacturing plant as a national Voluntary Protection Program Star Site in recognition of the facility's health and safety practices and its exemplary safety record. Of the approximate seven million workplaces in the U.S. — large and small — fewer than 1,500 have earned this distinction since OSHA created the program in 1982. The Cranberry plant was the second MSA facility to receive this prestigious Star Site designation; our Murrysville, Pennsylvania plant was the first in 2006.

Other milestones in 2008 included celebrating MSA 50th anniversaries in Italy and Germany, two of our outstanding business affiliates in Europe, which ranks as our second largest market, after North America. Our teams in Italy and Germany personify the talent, dedication and ingenuity that make MSA a safety product leader around the world.

In May, John T. Ryan III retired as MSA's Chief Executive Officer after leading this company for 17 years. Under his strong leadership, MSA grew dramatically to become the world's leading manufacturer of sophisticated safety equipment. With steadfast integrity and energy, John transformed MSA with a strategic vision that accelerated our global growth and focused the company on innovative new product development, a vision that continues today. All of us at MSA wish John well in his retirement and are pleased that John continues to serve as non-executive chairman of MSA's Board of Directors. In his new role. John continues to share his wisdom and insights with me and with our strong management team, for which I am most grateful.

#### MSA's Future in 2009 and Beyond

When I was elected the eighth Chief Executive Officer in MSA's remarkable 95-year history as part of a planned management succession, I accepted this position knowing that MSA would face new challenges, as it has many times before. Frankly, the continuing global recession is our greatest immediate challenge in 2009.

With many challenges still in front of us, we are focused more intently than ever on implementing our multi-year strategy to achieve operational excellence, improve the efficiency and productivity of our global manufacturing network, reduce costs, enhance product quality and accelerate our introduction of innovative new products that deliver even better value, performance and protection for our customers.

To that point and in light of the global economic recession, we have implemented significant cost control measures on operating expenses across MSA and have taken actions to reduce staff and better align our factory workforce with customer demand. At the outset of 2009, MSA completed a voluntary retirement incentive program which resulted in an 8% decrease in our U.S. salaried workforce. This initiative is expected to deliver an estimated \$5 million in annual savings. MSA also implemented a pay freeze for all salaried U.S. and Canadian-based employees, which will serve to reduce annual expenses by an additional \$1.9 million. We also suspended hiring except for those positions deemed truly mission critical, and we implemented salary increase restrictions on a global basis. In our factories around the world, and while always difficult, MSA took steps to reduce overtime and responded to decreases in demand by adjusting our hourly workforce through what we hope will be temporary layoffs. Tight discretionary spending restrictions are also in effect around the world for MSA.

I can assure you that MSA has intensified our efforts to manage and reduce costs in all areas of the company. In these uncertain economic times, our global teams are closely monitoring the markets served by MSA, and we will continuously adjust our response to meet the market realities and challenges facing MSA.

Economic cycles are a fact of life, and MSA has contended with severe "down cycles" a number of times over our long history. We are meeting today's challenges head on, with our continuing initiatives to reduce manufacturing costs, improve operating margins, enhance our competitiveness in key product areas, and strengthen customer relationships by providing the best value in safety products.

Overall, I believe that MSA is well positioned for longterm growth in earnings and sales, once the global economy rebounds. Our strengths are many. MSA is a strong global brand that we are protecting through our uncompromising commitment to quality, innovation and customer satisfaction. We have a strong, balanced and diversified portfolio of superb safety products to help MSA weather the storm of volatile economic cycles. We have a growing global reach, with a strong network of manufacturing facilities and a growing number of distributors. We have proven expertise in advanced safety technology and know what it takes to create innovative safety products that are built to perform exceptionally well and built to last. We have earned a strong track record of customer satisfaction, loyalty and retention, backed by our strong team of MSA associates in more than 40 countries around the world.

MSA is determined to protect and build MSA's brand equity during this economic downturn. We will protect our core product lines, such as respiratory protection, gas detection and head protection, and nurture the development of new areas of strength. We will continue to focus on operational excellence to decrease our costs while increasing efficiencies. And we will do what we have always done best: drive product development through advanced technology and innovation.

Most of all, I am confident about the future of MSA because we have a "roll up our sleeves" culture; a strong, deep and experienced management team; and dedicated hard-working MSA associates who share a common bond — a personal commitment to the mission and principles that have propelled the global growth and success of MSA for almost a century. Much has changed at MSA since I joined the Company in 1981, but my vision stays true to MSA's vision — "That men and women may work in safety and that they, their families and their communities may live in health throughout the world."

I want to extend my thanks to the many people of MSA who are working around the world to build a strong foundation for the future of our company. I also want to thank the Board of Directors for their stewardship of the company, and our Executive Leadership team for their tireless efforts and support. I am proud to lead this great company and I am honored to work with the best people in the safety industry.

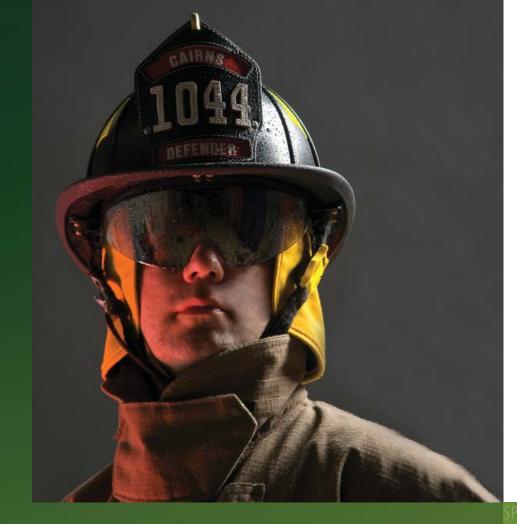
Finally, I want to thank our distributors and customers around the world for your continued loyalty to MSA, and our shareholders. MSA is focused on enhancing longterm value for our customers and for our shareholders in the years to come.

William M. Lambert

President and Chief Executive Officer

# 2008 AYEAR **IN REVIEW**

With hundreds of patents and thousands of products, MSA remains committed to protecting the health and safety of people in all kinds of settings, who face all kinds of hazards. Our focus on advanced technology and innovation helped us achieve record sales in 2008 as MSA, for the first time in our 95 year history, exceeded \$1 Billion in annual revenue. In fact, more than one-third of MSA's global sales in 2008 were from products introduced within the last three years, demonstrating great success in our focus on developing innovative, value-based, customer-desired products.



the Defender Visor provides a greater level of eye protection from dust, dirt and grit. Innovative and low-profile in design, its ability to retract means it's there when firefighters need it and out of sight when they don't. In 2008, the Defender Visor helped MSA gain market share in the highly competitive fire helmet segment. Since its introduction, approximately one-third of our MSA Cairns Fire Helmet customers have specified this market-leading feature. And, the number of customers selecting the MSA Defender Visor continues to grow every month.

• The motionSCOUT™ Personal Alert Safety System (PASS). A next-generation stand-alone device,

the motionSCOUT PASS sounds an alarm when a firefighter is down or becomes disabled. While many PASS systems today are integrated into the electronics of an SCBA, MSA designed this new product as a highly reliable, lower-cost alternative for the global market. The motionSCOUT PASS provides increased durability in extreme environ-

ments and greater ease of use with a significant cost reduction, as well as a solid state motion sensor for improved reliability. In 2008, the product was well received by customers, with nearly 10,000 units sold.

• The alpha<sup>™</sup> Personal Network. A new electronic personal monitoring and alarm system, the alpha Personal Network was designed for the European fire service to improve fire ground management. Deploying many innovative features, the alpha Personal Network consists of the alphaSCOUT monitor, a wireless Integrated Control Unit to monitor firefighter motion and cylinder pressure: the alphaHUD, which provides cylinder pressure status and battery life information within a firefighter's field of vision; the alphaBASE, a receiver for fire ground management; the alphaTAG, enabling firefighters to identify themselves and transmit data back to incident command; and the alphaCONTROL, MSA's unique monitoring software providing complete incident data that is automatically logged and analyzed.

During the year, MSA also strengthened its air-purifying respirator offerings with the successful roll-out of the OptimAir® TL Powered Air-Purifying Respirator (PAPR). Integrating engineering expertise and technology from Europe and North America, MSA created the OptimAir TL PAPR to be the most advanced product of its kind. Designed primarily for the North American market, this breakthrough respirator stands out as the pinnacle in PAPR performance. The OptimAir TL PAPR enhances safety by providing an automatically-activated cartridge switch that sets blower speed and optimizes battery run time. It even includes an internal pressure switch that adjusts flow rates for varying altitudes. In 2008,

customers who purchased the OptimAir TL PAPR included the City of Chicago, Department of Public Health; the Department of Energy's Hanford Reservation; and Newport News Shipbuilding.

Other key MSA product introductions over the past year included the smartCHECK™ System, a modular, automated test bench designed for the German Army to check the performance of an SCBA; the Advantage® 4000 Full-Face **Respirator** that appeals to broader international markets: the Evolution® 5800 Thermal Imaging Camera for the global fire service market; the G3 Gendarmerie Helmet for local and national police forces in France; the GasGard® XL Monitor for off-the-shelf monitoring, and the Workman® PFL, a personal fall arrest device that provides users freedom of movement while significantly limiting freefall distance.



The Evolution® 5800 TIC, with 2x digital zoom, provides best-in-class image quality in all temperatures displaying 4x the information of previous TIC designs.

#### PRODUCT INNOVATION: THE LEADING EDGE OF SAFETY

In 2008, MSA continued its tradition of safety innovation with the introduction of several new products that enhance performance, reliability and ultimately worker protection. In short, MSA met the ever-changing needs of our customers in key markets around the world by doing what we do better than anyone in our industry develop increasingly sophisticated safety technology that is highly dependable, cost-effective and easy to use.

Backed by our dedication to listening to the voice of the customer, world-class capabilities in R&D, our advanced manufacturing processes and our deep and long-term expertise in safety, MSA launched a number of new products that met stringent certification standards and the expectations of the men and women who depend on MSA to protect them on the job every day.

Major new products launched in 2008 included:

• The Altair® 4 and Altair® 5 Multigas Detectors. These next-generation portable gas-detection instruments are more rugged and durable than competitive devices, with enhanced safety features and advanced technology. The pocket-size, four-gas Altair 4 Detector provides an ideal safety solution for workers in the oil, gas, petrochemical, chemical, first responder and industrial markets. Easy to wear and use, MSA offers several versions of these next-generation devices, ranging

MSA's advanced MotionAlert and InstantAlert technology. MotionAlert automatically alerts others if the MotionAlert and InstantAlert features; but it's also user becomes disabled due to unforeseen hazards, and InstantAlert allows the user to manually activate all alarms in an emergency situation, if necessary.

Based on strong customer acceptance of the Altair 4 Detector in 2008, MSA named this innovative device its "Product of the Year." Its sister product, the Altair 5 Detector, offers the same rugged durability with the ability to measure up to five atmospheric hazards, making it ideal for confined space and industrial hygiene applications in a wide range of industries,

from one that is value-priced to another that incorporates including oil, gas, petrochemical, marine and mining. The Altair 5 Multigas Detector comes standard with the equipped with an enhanced graphical user interface that includes a high-resolution color display and more than 15 pre-programmed languages, making it a truly

> • The Firehawk® M7 Responder® Air Mask. This innovative, multi-function respirator was designed to meet the specific needs of United States Air Force firefighters who face a unique set of challenges and dangers. On any given day, Air Base fire brigades may face burning jet fuel, help fight forest fires, be called upon to battle a structure fire in Iraq or respond to a crisis involving chemical or biological weapons. The Firehawk M7 Responder Air Mask allows Air Force personnel to tackle each of these challenges because it's actually three respirators in one: it combines the state-of-the-art capabilities of an MSA self-contained breathing apparatus (SCBA) for conventional firefighting with those of a powered air-purifying respirator and gas mask. The U.S. Air Force ordered 11,000 of our M7 Responder Air Masks for shipment in 2008.

The **Defender® Visor**. This fully retractable eye protection system (shown above) is the first of its kind in North America. Designed to integrate with new and traditional versions of MSA Cairns® fire helmets,

## **EVERY LIFE HAS A PURPOSE**

#### ROSE CONLEY

Homeowner, Gardener, Grandmother Painesville, Ohio

"I'm not your sit-in-the-rocking-chair type person," said Rose Conley, who turned 82 at the beginning of 2009.

As soon as the weather turns warm she'll fire up the lawnmower and cut her grass — but not before donning a brand new MSA half-mask respirator.

"I'm allergic to dust and pollen," she explained.

Unlike Rose, the Respirator she'd worn for years was showing its age. She tried a "painter's mask" but knew that it didn't seal well.

So she called MSA Customer Service. Realizing a replacement was long overdue, MSA issued her a free Advantage® 200 Respirator.

"It's absolutely wonderful," she said, "it's nice and tight around my nose and mouth. No unfiltered air gets in, just what I'm supposed to breathe."

"The kids get a big charge out of it," she added. "My granddaughter says, 'Nana, you look just like a lady from outer space."

The Advantage 200 Respirator protects Rose from harmful allergens, so she can spend time making lasting memories with her grandchildren.



#### ENHANCING PERFORMANCE THROUGH **OPERATIONAL EXCELLENCE**

AT MSA, WE CONTINUE TO STRIVE TO BECOME A TRULY BEST-IN-CLASS GLOBAL ORGANIZATION WITH THE BEST PEOPLE, BEST PRODUCTS, BEST PROCESSES, BEST TECHNOLOGY AND BEST SAFETY PRACTICES IN OUR INDUSTRY.

In 2008, MSA took major steps to enhance our operational performance and optimize our processes to deliver even better products for MSA customers throughout the world. One of MSA's most important initiatives during the year was the first phase of our wall-to-wall conversion to Demand Flow Technology throughout our global Operational Excellence organization.

**Demand Flow Technology (DFT) is a business process** that makes manufacturing operations more flexible, responsive and predictable. DFT and its systematic,

quantitative methodology helps provide more accurate demand management, more efficient asset and inventory management, and more reliable customer fulfillment. DFT also enables our factories and warehouses to respond faster to the needs of our customers while reducing inventories.

The conversion to DFT at some of our international manufacturing facilities in Australia, Brazil, China and South Africa is already underway producing encouraging results, including product cost reductions, lower cycle

times, improved customer delivery, increased productivity, and improved inventory turns. To date, MSA has trained more than 450 global associates in DFT and will continue the global conversion throughout 2009 focusing on North America and Europe.

MSA also launched other initiatives during the year to achieve operational excellence, including establishing a process to consistently measure all of our global factories on select key performance indicators. This process now enables MSA to benchmark and compare each of our facilities and identify specific areas where we need to improve to achieve our goals of operational excellence.

In addition, MSA began using comparable global costing processes in North America, Europe and China, as well

as global processes to enhance the utilization of our manufacturing assets in ways that increase our return on those assets. We also implemented best practices for global sourcing, front-end logistics and inventory management.

Overall, MSA remains focused on achieving higher performance levels in our business for our customers, to give the company a sustainable competitive advantage that we believe will strengthen customer satisfaction and, ultimately, customer loyalty.

A key element in our continuing drive to achieve operational excellence is Project Magellan. A multi-year endeavor that was announced in January 2007, Project Magellan is aligning MSA's resources and manufacturing footprint to reduce costs and efficiently meet the needs of customers in key markets and regions with growth potential, like China and Mexico.

As an example, MSA opened a state-of-the-art manufacturing, warehouse and R&D center in Suzhou, China at the end of 2008 —

Marking 50 years of doing business in Mexico, MSA continued to strengthen our operational excellence capabilities by opening a new 77,000 square-foot facility in Querétaro at the end of 2007. As one of the company's premier manufacturing sites, this key facility in Mexico is producing head protection products, fall protection equipment and instrumentation, especially for North American customers in the Construction and Oil, Gas and Petrochemicals market.

our second manufacturing facility in that growing market. As a new hub for our business activity in China, the 172,000 square-foot Suzhou facility marks MSA's largest overseas investment in recent years and serves as one of the largest producers of safety equipment in China. Accordingly, the new facility in Suzhou will manufacture self-contained breathing apparatus, portable and permanent instruments, fall protection equipment, and other safety products for the general safety market. In addition, MSA also made investments to improve and modernize our manufacturing facilities in Sydney, Australia, and São Paulo, Brazil, in 2008.



The Workman® Harness is one of the principal products manufactured at MSA's new facility in Querétaro, Mexico.

New Methodology Drives Improvements at MSA do Brasil

**DEMAND FLOW TECHNOLOGY** 

THE WIN-WIN BENEFITS OF

AS ONE OF OUR FIRST OPERATIONS TO CONVERT TO DEMAND FLOW TECHNOLOGY (DFT), MSA DO BRASIL HAS ACHIEVED DRAMATIC IMPROVEMENTS AT ITS FACTORY IN SÃO PAULO. Using DFT and its systematic, quantitative methodology, São Paulo has improved inventory; eliminated most backorders in key products; and increased productivity by manufacturing hearing protection, air-purifying respirators and chin straps on an innovative "mixed model line."

DFT has made it possible for São Paulo to increase its per-shift output of chin straps and hearing protection 30-40%, meaning the same number of employees, working the same numbe of hours, are producing 30-40% more units. Thanks to DFT, São Paulo is also producing chin straps and hearing protection at sharply lower variable costs while using less factory floor space

The successful implementation of DFT at São Paulo earned our team in Brazil the well-deserved recognition in 2008 as MSA "Process of the Year."



DFT at work in Brazil.



Overall, 93% of the products that MSA manufactures in Brazil have been converted to DFT, resulting in greater manufacturing efficiency and quicker inventory turns.

MSA do Brasil has achieved outstanding DFT results by improving manufacturing efficiency, inventory management and order fulfillment and has paved the way for similar success in the future as MSA continues to implement DFT throughout our global Operational Excellence organization.

#### **EVERY LIFE HAS A PURPOSE**

#### DAVID KAZMIERCZAK

Firefighter, Husband, Father Buffalo, New York

Firefighter David Kazmierczak and Rescue 1 in Buffalo, New York, routinely respond to various life threatening situations, including structure fires, hazardous material spills, and automobile accidents, among others. Never did he think that while responding to a call that he would become the one needing rescued.

Kazmierczak was seated on a bench in the rear of one of the department's response vehicles, a boxy 1989 Pierce. The truck once served as a mobile command station and had a steel desktop built into the forward wall.

"A car failed to yield," recounted firefighter Kazmierczak, "and went through the light in front of us. Our driver hit the breaks to avoid a collision."

The sudden deceleration threw Kazmierczak forward. His head hit first, crashing into the corner of the desk, bending and cracking the side brim of his Cairns® N5A Helmet. Then his body slammed into the steel plated wall.

"We were traveling about 35-40 miles per hour," he recalled. "Basically it was like I got hit by a car while traveling in reverse."

The emergency room physician told him that if he didn't have that helmet on, his injuries would have been fatal.

MSA's Cairns N5A Helmet saved firefighter Kazmierczak so he could go home to his wife and 14-year old son, and continue protecting the citizens of Buffalo.





 $The \ conversion \ to \ DFT \ is \ already \ underway \ at \ some \ of \ our \ international \ manufacturing \ facilities, \ including \ Australia. \ Shown \ above \ is \ MSA's \ office \ in \ Sydney.$ 

# ENHANCING PERFORMANCE THROUGH OPERATIONAL EXCELLENCE CONT.



MSA employees in Berlin assemble the 3S Mask using DFT processes. Recognized for its comfort and classic design, the 3S Mask is an air-purifying device that has more than 5 million units in service.

This new facility in Mexico, which had more than 160 employees at the end of 2008, consolidates previous MSA operations in Torreón and Mexico City, and enables MSA to more effectively support and serve our customer and distributor base in Mexico, where MSA has experienced dynamic sales growth over the past five years.

Under Project Magellan, MSA also continued to relocate and consolidate certain manufacturing activities as part of our long-term strategy to reduce costs, improve operating margins, enhance our competitiveness in key product areas, and strengthen customer relationships by providing the best value in sophisticated safety products.

This strategic manufacturing reconfiguration included shifting most of the production of gas masks and other respiratory protection products at our facility in Evans City, Pennsylvania to other MSA facilities in the United

States. MSA also shifted fire helmet production from the company's facility in Clifton, New Jersey to our plant in Jacksonville, North Carolina, resulting in the closure of the Clifton site in late 2007.

In all, MSA operated 8 manufacturing facilities in North America in 2008 that employed approximately 1,500 associates at year end. In the rest of the world, MSA operated 9 additional manufacturing sites employing approximately 2,100 people.



Marking 50 years of doing business in Mexico, MSA opened its 77,000 sq. ft. facility in Querétaro at the end of 2007.

MSA's focus on boosting efficiency and reducing costs while improving deliveries and customer satisfaction included streamlining our North American staff by approximately 8% in early 2009 by instituting a hiring-freeze, and by offering a voluntary retirement incentive program. In light of the continuing global economic slowdown, this was a necessary step for MSA. Our goal is to be as competitive and responsive as possible while exceeding our customers' expectations for quality, product performance and value.

At MSA, improvement is truly a continuing process, regardless of economic cycles. Our people are dedicated to this improvement, as well as achieving operational excellence and striving to do the best for our customers around the globe.



MSA's new state-of-the-art manufacturing facility in Suzhou, China opened in January 2009. It will serve as a new hub for business activity there.

#### **EVERY LIFE HAS A PURPOSE**

#### MARY CLARE SHIBER PHD. \$ LUCINDA

Chemist, Volunteer EMT-B, Animal Caregiver Wayne, New Jersey

By day Mary Clare Shiber is a scientist. By night she rides the streets of Wayne, New Jersey responding to distress calls as a volunteer EMT-B. One night, she nearly sent one herself.

As a volunteer EMT-B she responded to a cardiac call; an elderly woman unconscious in her bed. Shiber and her partner administered oxygen and moved the patient to the floor to begin CPR. It was then that Shiber began to feel the symptoms of carbon monoxide poisoning.

Her partner, sensing something was wrong, ordered them to evacuate. They picked up the patient and raced to the hospital, administering CPR along the way. In the back of their minds was an important lesson.

"You never know what you're walking into," explained Dr. Shiber.
"If we'd had CO detectors, we'd have just grabbed the patient and transported her."

After that call the squad equipped all "jump kits" with Altair® Pro Single-Gas CO Detectors.

The new Altair Pro CO Detectors are helping to ensure that Clare and her team know exactly what they're walking into when responding to a call, allowing her to come home and care for what gives her one of her greatest joys in life — her dog Lucinda.



#### DRIVING GLOBAL GROWTH IN KEY MARKETS

AS THE SAFETY COMPANY FOR PEOPLE AROUND THE WORLD, MSA IN 2008 CONTINUED TO DRIVE GROWTH IN THE KEY MARKETS THAT ARE AT THE CORE OF OUR MISSION.

Since MSA's founding in 1914, the company has been dedicated to protecting workers with the best safety equipment that meets their various and specific needs and requirements. Over the years, MSA has expanded and strengthened our business, our "best-in-class" and "first-to-market" product lines, and our manufacturing capabilities to become a truly global safety company. Today, MSA is focused on serving key worldwide markets,

including: Fire Service; Oil, Gas and Petrochemical; Law Enforcement; Military and Construction. MSA also meets the safety needs of workers in the Utilities, Manufacturing, HVAC and Hazardous Materials Remediation markets. In geographic markets outside of North America, such as South Africa and China, MSA also continues to serve the mining industry, the market that was the first to benefit from our protective equipment when the company was founded 95 years ago.

In 2008, MSA reported record global sales of \$1.1 billion, with sales outside North America reaching 48%, as the company continued to target geographic markets around the world with growth potential.

Despite the challenging global economic slowdown, MSA continued to grow the MSA brand in markets such as China, Europe, South America and Africa. Overall, sales from our European and International segments finished the year up more than 18% and 9%, respectively. Ten of MSA's 19 international affiliates each achieved sales growth of at least 20% for the year.



#### **EVERY LIFE HAS A PURPOSE**

SGIT. ROY MITCHELL

U.S. Army Sgt. U.S. Army

One of the last things that Sgt. Roy Mitchell remembers before waking up in a Bethesda Naval Hospital was breaching a courtyard in the Diyala River Valley in Iraq. Mitchell, the second man in, was running through the doorway when a band of insurgents opened fire.

The bullet that hit Mitchell came from a rooftop across the street. It hit his Advanced Combat Helmet (ACH) about two and a half inches above his right ear, cracking his skull. After skimming his occipital lobe, it left through the same crack.

It was a lucky break. His doctors told him that the crack prevented the formation of a gaping exit wound and saved his life. They also said that without the ACH, the force of the round would have been

"I owe my life to it," he said, "it slowed the bullet down and saved me."

He also credits the soldiers who dragged him to safety.

"As much as the helmet you guys make saved me from the round," he recalls, "they hooked me up with good medical care."

These soldiers completed their tours and came home. Mitchell needed two years to recover before returning to Iraq in the winter of 2008.

MSA's ACH saved Sqt. Mitchell on the front lines of war so he can continue to do what he loves – serve his country and protect freedom.





In 2008, MSA received a \$4.5 million order for self-contained breathing apparatus (SCBA) from the Hong Kong Fire Brigade.

In North America, our largest geographic market, sales increased 16%, reflecting in part the strong performance of our manufacturing, sales and new product development teams. One of the most impressive performances in North America was in Mexico, where MSA has achieved a cumulative annual growth rate of 22% over the past five years.

Driving our global growth were several major new contracts and orders in our key markets. In 2008, these included:

#### Military

• The U.S. Army – \$29 million in new contracts to supply Advanced Combat Helmets (ACH). MSA has been

manufacturing this advanced helmet since 2002, when the company first partnered with the U.S. Army on its development. The ACH incorporates a lightweight design that offers soldiers advanced ballistic protection with greater comfort, stability and situational awareness. Since its adoption by the Army as the standard of issue, this helmet has been credited with saving the lives of many U.S. troops in Iraq and Afghanistan.

- Canadian National Defense Forces Nearly \$7 million in orders for our CG634 ballistic helmets.
- U.S. Air Force \$24.6 million in contracts to supply the Firehawk® M7 Responder® Air Mask to air base fire brigades. This newly developed SCBA provides a threeway, long-duration respiratory protection solution that exceeds the latest National Fire Protection Association (NFPA) performance standards with approved protection from chemical, biological, radiological and nuclear (CBRN) contaminants.
- German Federal Defense Forces \$19.2 million (€15 million) in orders to supply self-contained breathing apparatus (SCBA), M2000 gas masks and other safety products.

#### Fire Service

- Vienna (Austria) Fire Brigade A \$1.3 million (€1 million) order for F1® Fire Helmets.
- Hong Kong Fire Brigade A \$4.5 million SCBA order.

#### Law Enforcement

• Canadian Corrections Department – A \$4.4 million contract for our Firehawk® M7 Air Masks.

• French Police Forces – A \$15.3 million (€12 million) order, over three years, for 40,000 G3 Gendarmerie riot helmets, and a \$6 million (€4.7 million) order for 2,000 ballistic vests, reflecting superb teamwork between our U.S.-based Paraclete body armor business and our customer focus team in France.



Illustrating the growth potential for MSA's head protection products, the company received a 3-year order for 40,000 G3 Gendarmerie riot helmets for the police forces in France.

#### Oil, Gas and Petrochemical

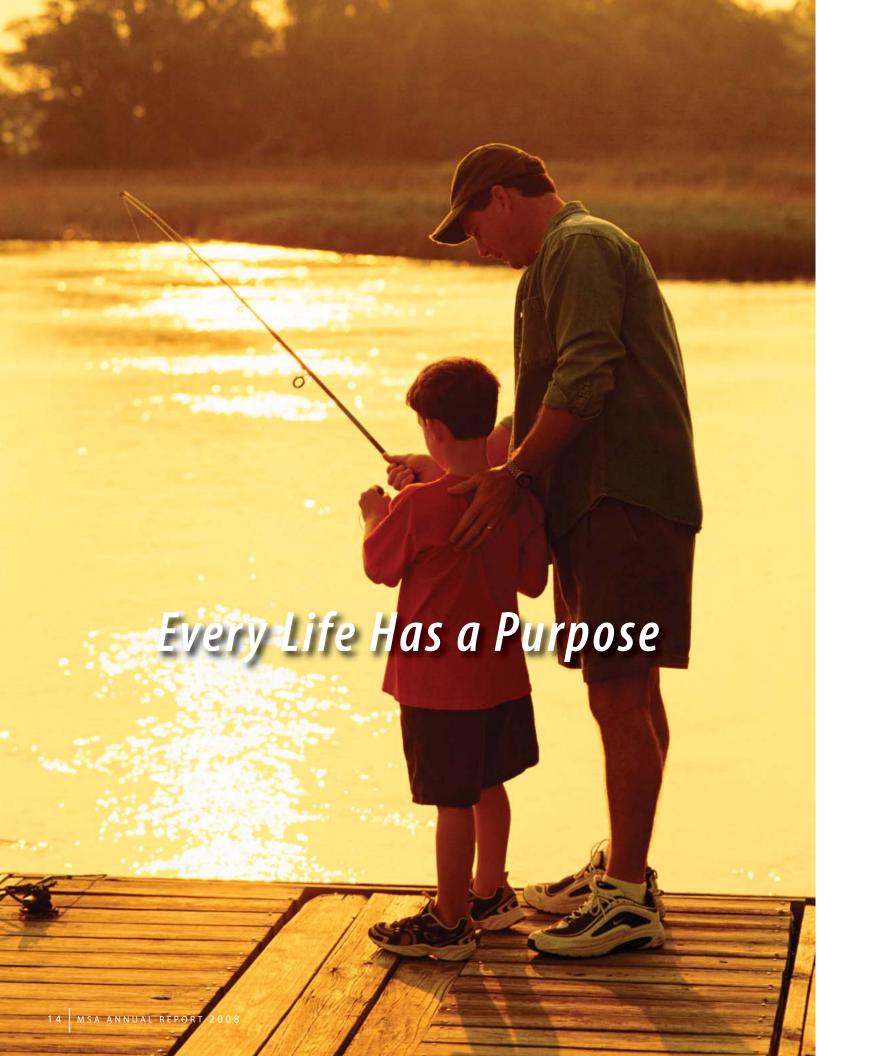
• PEMEX – A \$6 million contract to supply flame and gas detection monitoring systems to Mexico's state-owned petroleum company.



The Oil, Gas & Petrochemical market continues to be a growth driver for MSA. In early 2008 MSA secured a \$6 million contract from PEMEX for flame and gas monitoring systems.



In 2008 MSA secured a \$1.3 million order from the Vienna Fire Brigade for F1® Fire Helmets.



MSA Form 10K Starts Here

#### PRINCIPAL OPERATIONS

#### North America

Corporate Headquarters - Pittsburgh, Pa.

U.S. Manufacturing - Bowling Green, Ky;

Cranberry Twp., Pa.; Englewood, Co.; Evans City, Pa.; Jacksonville, N.C.; Murrysville, Pa.; Newport, Vt.; St. Pauls, N.C.

**Research** – John T. Ryan Memorial Laboratory, Cranberry Twp., Pa.

MSA Canada Inc., Toronto; Edmonton

MSA de Mexico, S.A. de C.V., Ouerétaro

#### Europe

MSA Europe GmbH (Headquarters), Berlin, Germany

Mine Safety Hungary Ltd., Budapest, Hungary

Mine Safety Romania S.R.L., Bucharest, Romania

Mine Safety Sp. z o.o., Raszyn, Poland

MSA-Auer GmbH, Berlin, Germany

MSA-Auer GmbH, Czech o.z., Praha, Czech (Service Center)

MSA-Auer GmbH Romania, o.z., Bucuresti, Romania (Branch)

MSA-Auer GmbH, Slovakia o.z., Pezinok, Slovakia (Service Center)

MSA-Auer Kiev, Kyiv, Ukraine (Representative Office)

MSA-Auer Miskolc, Tiszaujvaros, Hungary (Service Center)

MSA-Auer Moscow, Moscow, Russia (Representative Office)

MSA-Auer Petrosani, Petrosani, Romania (Service Center)

MSA-Auer Sicherheitstechnik Vertriebs GmbH, Absdorf, Austria

MSA Almay, Almaty, Kazakhstan (Service Center/Office)

MSA Azerbaijan, Baku (Registered Office)

MSA Belgium, N.V., Lier

MSA (Britain) Limited, Glasgow

MSA Safety, Czech, s.r.o., Ostrava, Czech

MSA Española, S.A.U., Barcelona

MSA Gallet, Chatillon sur Chalaronne, France; Mohammedia, Morocco

MSA Italiana S.p.A., Milan

MSA Nederland, B.V., Hoorn

MSA Nordic, Malmo, Sweden

MSA Poznan, Poznan, Poland (Service Center)

MSA Schweiz GmbH, Oberglatt, Switzerland

MSA Serbia, Belgrade (Registered Office)

MSA Sordin AB, Varnamo, Sweden

MSA Szczecin, Szczecin, Poland (Service Center)

#### International

Comsacol Ltda., Bogota, Columbia

MSA de Argentina S.A., Buenos Aires

MSA (Aust.) Pty. Ltd., Sydney

MSA (Australia), Auckland, New Zealand (Branch Office)

MSA do Brasil Ltda., São Paulo

MSA de Chile Ltda., Santiago

MSA (China) Safety Equipment Co., Ltd., Suzhou

MSA Egypt LLC, Cairo

MSA Hong Kong Ltd., Hong Kong

MSA (India) Limited, Calcutta

MSA Indonesia Ltd., Jakarta

MSA Japan Ltd., Tokyo

MSA Safety Malaysia Sdn Bhd, Kuala Lumpur

MSA Middle East, Abu Dhabi, U.A.E.

MSA Middle East FZE, Dubai, U.A.E.

MSA del Peru S.A.C., Lima

MSA S.E. Asia Pte. Ltd., Singapore

MSA Select Ltd., Kitwe, Zambia

MSA (Suzhou) Safety Equipment Research and

Development Co., Ltd., Suzhou, China

MSA (Thailand), Limited, Bangkok

Samsac Holding (Pty.) Limited, Johannesburg

Wuxi-MSA Safety Equipment Co., Ltd., Wuxi, China

#### DIRECTORS AND CORPORATE OFFICERS

#### **Board of Directors**

John T. Ryan III (1)

Chairman of the Board; Retired (2008); formerly Chief Executive Officer of the Company

Robert A. Bruggeworth (2)

President and Chief Executive Officer, RF Micro Devices, Inc. (high-performance radio systems and applications that drive mobile communications); Director, RF Micro Devices, Inc.

James A. Cederna (2) (3) (4)

Owner and President, Cederna International, Inc. (executive coaching)

Thomas B. Hotopp (3) (4)

Retired (2003); formerly President of the Company

William M. Lambert (1)

President and Chief Executive Officer of the Company

Diane M. Pearse (2)

Chief Financial Officer, Crate and Barrel (home furnishings retailer)

L. Edward Shaw, Jr.

Senior Managing Director, Breeden Capital Management LLC and its affiliates (investment management and multi-disciplinary professional services firm); Director of HealthSouth Corporation; Director of H&R Block, Inc.

John C. Unkovic (3) (4)

Partner and General Counsel, Reed Smith LLP (full service law firm)

Thomas H. Witmer (1) (2) (3)

Retired (1998); formerly President and Chief Executive Officer, Medrad, Inc. (manufacturer of medical devices)

- (1) Member of Executive Committee
- (2) Member of Audit Committee
- (3) Member of Compensation Committee
- (4) Member of Nominating and Corporate

Governance Committee

#### **Officers**

William M. Lambert

President and Chief Executive Officer

Roberto Cañizares

Executive Vice President: President, MSA International

Dennis L. Zeitler

Senior Vice President: Chief Financial Officer and Treasurer

Joseph A. Bigler

Vice President: President, MSA North America

Kerry M. Bove

Vice President, Global Operational Excellence

Ronald N. Herring, Jr.

Vice President, Global Product Leadership

Douglas K. McClaine

Vice President; Secretary and General Counsel

Stephen C. Plut

Vice President; Chief Information Officer

Paul R. Uhler

Vice President, Global Human Resources

## Section 302 Certifications and NYSE CEO Certification

In June 2008, the Company's Chief Executive Officer submitted to the New York Stock Exchange the annual certification as to compliance with the Exchange's Corporate Governance Listing Standards required by Section 303A.12(a) of the Exchange's Listed Company Manual. The certification was unqualified.

The Company's reports filed with the Securities and Exchange Commission during the past year, including the Annual Report on Form 10-K for the year ended December 31, 2008, have contained the certifications of the Company's Chief Executive Officer and Chief Financial Officer regarding the quality of the Company's public disclosure required by Section 302 of the Sarbanes-Oxley Act.

#### Shareholders' Inquiries

Additional copies of the company's 2008 Annual Report, including Form 10-K, as filed with the Securities and Exchange Commission, may be obtained by shareholders after April 1, 2009. Printed and electronic versions are available. Requests should be directed to the Chief Financial Officer, who can be reached at one of the following:

Phone: 412-967-3046
Fax: 412-967-3367
Internet: MSAnet.com
U.S. Mail: MSA

Chief Financial Officer
P. O. Box 426

Pittsburgh, PA 15230



Mine Safety Appliances Company

121 Gamma Drive RIDC Industrial Park OʻHara Township Pittsburgh, PA 15238

412-967-3000 www.MSAnet.com