

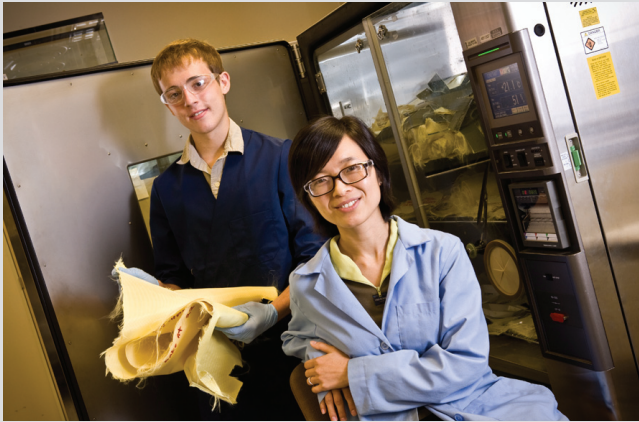
MSA Safety Equipment **Catalog**

Volume 2



*Because every life has a **purpose...***

Almost 100 Years of Products, Service and Expertise MSA offers more than safety



Promoting Protection is Part of our History

Mine Safety Appliances Company was founded in 1914 by two mining engineers who designed or improved safety, rescue and protective gear. MSA has continued to help protect people from hazards great and small, and today helps protect millions of workers in many industries worldwide. MSA has sold gas masks for military use since World War I. We have always understood the demands placed on crucial protective equipment in extremely hazardous conditions. MSA historically and steadfastly has helped first responders before, during, and after emergencies, from small house fires to multiple explosions at chemical plants, from hazardous materials spills to hurricanes.

MSA makes and markets respiratory protection, gas-and-flame-detection instruments, head, eye, face, and hearing protection, fire and police helmets, fall protection, thermal imaging cameras, ballistic protection, and mining, emergency, and specialty equipment via a national network of trained distributors, product specialists and knowledgeable contacts. MSA has been a global company for decades, protecting millions of people around the world. What have we done for YOU lately?

MSA Offers More than Safety on the Job

Great Products



MSA began making high-quality safety products in 1914. Technology enhances our innovation in product development, with computer-aided design and the latest rapid prototyping capability. MSA responds quickly as your needs change. Within most product groups is a wide selection of models, sizes, colors, materials, options, accessories and prices. Many components of MSA products are formulated, machined, tooled or molded in-house from raw materials, allowing for greater manufacturing control as well as quality assurance. MSA processes are certified as meeting ISO 9001-2000 quality assurance requirements of the International Standard Organization (ISO).

MSA continues to enhance our operations and expand/improve our product lines by acquiring companies and/or new capabilities to better serve our customers. In 2002, MSA began manufacturing specialized helmets for military and law-enforcement use, and in 2004 added passive and electronic hearing protection. In 2005, MSA created a new ballistic protection product line, offering ballistic vests to protect law enforcement and military personnel.

Great Plans for the Future

MSA continues to enhance our operations and expand/improve our product lines by acquiring companies and/or new capabilities to better serve our customers. In 2002, MSA began manufacturing specialized helmets for military and law-enforcement use, and in 2004 added passive and electronic hearing protection. In 2005, MSA created a new ballistic protection product line, offering ballistic vests to protect law enforcement and military personnel.

Great People and Resources

Your personalized MSA service starts with a trained MSA-authorized distributor near you and the largest team of field representatives in the safety industry. They understand your hazards and the regulations with which you must comply, and will help to analyze your safety requirements and recommend solutions. MSA-authorized distributors are knowledgeable, well-trained and proficient at providing the services you need and also can assist in training your in-house trainer. Training your employees properly in the use, care and maintenance of our products is easy with MSA University, our on-line application for 24/7 training. See pages 189-190 for a partial list of available programs. New programs are being added regularly. MSA's website includes on-line product information offering the basics of most products in this printed catalog, plus links to PDF versions of printed literature and other materials that you can print yourself.

Go to www.MSAsafety.com.

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Supplied Air **Respirators**



Independent of the Ambient Atmosphere

MSA offers various Supplied Air Respirators (SAR) that function independently of the ambient air.



BD2100

A reliable economical model Breathing Apparatus to suit fire fighting and industry applications. Wherever sudden outbreaks of hazardous gases and oxygen deficiency are to be expected, in particular in industry and merchant marine, the BD2100 is ready to immediately provide breathing air. The basic MSA BD2100 is supplied complete with a comfortable carrying plate, reliable pressure reducer, easy to read gauge and demand valve. MSA BD2100 features an innovative state-of-the-art 1st stage pressure reducer. Offering the same high performance as other MSA SCBA, it boasts a new, modern design. The easy-to-maintain construction provides low cost of ownership.

Contact your local MSA Representative for ordering information.



AirXpress

With the AirXpress, the SCBA system made for tight budgets, MSA has concentrated on those features most essential for safety and performance. World-reknowned MSA quality combined with advanced technology make the AirXpress an outstanding value in SCBA equipment. The firststage pressure reducer is the same one used in all MSA systems. This patented and choice component distinguishes itself through reduced parts and low maintenance—and that translates into reduced cost of ownership. Like our other SCBA systems all components on the AirXpress are designed to last long in rugged circumstances. They are EN 137:2006 approved to withstand high temperatures, flames and rough handling plus they are intrinsically safe and ATEX approved for zone 0 environments.

EN 137: 2006 type 2 ATEX II 1 G IIA T6 or II 1 G IIB T6 or II 1 G IIC T6 or II 1 G IIC T6 (according to configuration)

MED 96/98/EC Leaflet 01-106.2

Contact your local MSA Representative for ordering information.



AirGo compact

Rule #1: expect the unexpected. The AirGo compact SCBA preset is specifically designed for emergency response and escape. On ships or industrial facilities where such units are mandatory, the AirGo compact is an obvious choice. The lung governed demand valve AutoMaXX-AS is fixed to the medium pressure line. The no-frills system keeps costs at a minimum without sacrificing safety. The vital pneumatic and carrier components are the same as those used in the high-end MSA presets, making AirGo compact a fully-fledged device for the toughest applications including firefighting.

EN 137: 2006 type 2 ATEX II 1 G IIA T6 or II 1 G IIB T6 or II 1 G IIC T6 (according to configuration)

MED 96/98/EC Leaflet 01-102.2, 01-167.2

Contact your local MSA Representative for ordering information.



Supplied Air **Respirators**

AirGo pro

When you are looking for a strength carrier for firefighting and for a wide range of maintenance or rescue operations, the AirGo pro is ready for deployment. Its rugged reliability, flexibility and great value make it a popular choice for fire brigades, plant, sub-surface or offshore use. Weight is distributed evenly and kept close to your body to reduce stress and fatigue. The alpha SingleLine pneumatic system integrates warning signal, second connection and gauge in an easily accessible manifold at your chest. The optional alpha Personal Network offers extended electronic and telemetric monitoring and communication capability. Firefighters and industrial workers around the world who are looking for high quality, solid reliability and comfort use AirGo pro for their respiratory protection.



EN 137: 2006 type 2 ATEX II 1 G IIA T6 or II 1 G IIB T6 or II 1 G IIC T6 (according to configuration)

MED 96/98/EC Leaflet 01-102.2, 01-103.2

Contact your local MSA Representative for ordering information.

AirMaXX®

For high-frequency and extended SCBA wear, maximum user comfort translates directly into increased performance and good health. The AirMaXX SCBA preset combines premium ergonomic features with advanced technology to provide the best experience in SCBA wearability available today. The ergonomically designed and optimally balanced AirMaXX backplate is adjustable to fit all body sizes. This works in conjunction with the premium S-swing shoulder pads and swivelling hip belt to distribute weight evenly while increasing freedom of movement. Stress and fatigue are reduced as you perform your job without restrictions. The AirMaXX stays with you even when you are turned upside down. The alpha SingleLine pneumatic system integrates warning signal, second connection and gauge in an easily accessible manifold at your shoulder. The optional alpha Personal Network offers further electronic and telemetric monitoring and communication capability. If you are using your SCBA frequently, for long periods at a time or require absolute concentration in your work, the AirMaXX is the system of choice.



EN 137: 2006, type 2 ATEX II 1 G IIA T6 or II 1 G IIB T6 or II 1 G IIC T6 (according to configuration)

MED 96/98/EC

Contact your local MSA Representative for ordering information.

AirHawk® II

The new AirHawk® II Air Mask is built upon MSA's established AirHawk MMR Air Mask and is a lightweight, durable, and economical SCBA for many industrial IDLH (immediately dangerous to life or health) applications. This SCBA fits any budget by keeping its lower-cost options while offering many new choices not offered with any other industrial air mask. In addition, the AirHawk® II Air Mask is available in both low-pressure and high-pressure versions. MSA's AirHawk® II Air Mask is a pressure-demand apparatus designed to maintain a slight positive air pressure inside the facepiece during inhalation and exhalation. Positive pressure helps to prevent contaminants from seeping in and around the facepiece, even if small breaks in the face-to-facepiece seal should occur. The AirHawk® II Air Mask is built from six major components: facepiece, carrier and harness assembly, cylinder, first-stage regulator, mask-mounted regulator, and End-of-Service-Time-Indicator (EOSTI).

Contact your local MSA Representative for ordering information.



Industrial Air Cart

MSA's airline system function independently of the ambient atmosphere. They can be used in all place where the ambient air is not breathable because of contaminants or oxygen deficiency and where filtering devices do not provide sufficient protection. Compressed air is supplied from an external source (e.g. factory airline), from a compressed air cylinder or from a compressor.

EN139

Contact your local MSA Representative for ordering information.



TransAire® 5, TransAire® 10 and Custom Air V® Escape Respirators

When you need to bail out quickly, the TransAire 5 and TransAire 10 Escape Respirators deliver a consistent air supply at 40 lpm (liters per minute). This standard-flow rate makes for a smooth escape in normal aerobic escape applications. The TransAire 10 Escape Respirator is pressurized to 3000 psig, and the TransAire 5 Escape Respirator is pressurized to 2216 psig. The compact units employ aluminum cylinders that can withstand exposure to temperatures from 0° to 160°F. Despite their durability, the units are extremely lightweight. The Custom Air V Escape Respirator is designed with a high flow rate and meets stringent air flow requirements for extremely aerobic escape applications. It provides a five-minute, constant air flow at 72 lpm and is available with either an aluminum or a carbon fiber cylinder.

Contact your local MSA Representative for ordering information.



Supplied Air **Respirators**

PremAire® Cadet Supplied-Air Respirator

Demand with this high-performance, Type C, supplied-air respirator. Mask-mounted regulator responds quickly to changing breathing requirements. Maintains a slight positive pressure to prevent contaminants from invading the face piece. Ideal for chemical and petrochemical processing, municipal utilities, and asbestos and lead paint abatement, as well as non-IDLH environments such as pharmaceutical applications and hazardous materials clean up. Available as a basic supplied air device or as a combination air-line/air-purifying respirator.

Contact your local MSA Representative for ordering information.



PremAire® Cadet Supplied-Air Respirator

The PremAire Combination Respirator, a combination supplied air respirator with escape cylinder, is designed to be versatile, comfortable, and affordable. A streamlined design offers a first stage pressure reducer and cylinder valve within one assembly, creating a very small size and profile that is less likely to snag when working in confined spaces or tight places. The holster cylinder carrier assembly secures the air cylinder to the carrier, while allowing one hand operation for connecting and disconnecting the while allowing one hand operation for connecting and disconnecting the air while maneuvering in confined spaces. The PremAire Combination can be equipped with either the 3S or the Ultra Elite full face mask in combination with the AutoMaXX-AS lung governed demand valve.

To make ordering easier, we have created some PremAire Combination ready kits with options of QuickFill (QF) and Automatic Switch Valve.

EN 402 Leaflet 01-226.2

Contact your local MSA Representative for ordering information.



MSA Compressor

Designed to quickly charge 200-bar and 300-bar cylinders at the same time, MSA compressors work seamlessly as part of an air purification system that meets the highest, most stringent standards. Low operating speed for continuous, reliable operation. All moving parts are electronically balanced to run smoothly.

Contact your local MSA Representative for ordering information.



S-Cap Air

This compressed-air emergency escape device provides 15 minutes of life-saving respiratory protection in extremely toxic or oxygen-deficient environments. Featuring fast, automatic activation, fluorescent protective carrying bag, and three liters of 200 bar compressed air, this device is ideal for use on ships, off-shore oil rigs, refineries, water utilities and confined spaces.

Contact your local MSA Representative for ordering information.



BD mini

The MSA compressed air breathing apparatus BD mini is especially suited for short-duration work in confined spaces. Its small size and the variable design permit various carrying modes. With a connection for compressed airline breathing apparatus (available as accessory) the BD mini can be connected to a factory airline system or a cylinder cascade.

EN 137 (PED 97/23/EG for the cylinders) Leaflet 01-154.2

Contact your local MSA Representative for ordering information.



FireHawk® M7

MSA's FireHawk® M7 Air Mask represents a true technological achievement in critical personal protection. As firefighters determined the safety requirements that would be needed to meet the NFPA 1981 and 1982–2007-edition standards, MSA's engineering teams began designing the solutions. The FireHawk® M7 Air Mask has seven lifesafety design components built on a modular Air Mask platform, developed to exceed the new NFPA 2007 requirements and provide firefighters with the highest-quality SCBA currently available.

Contact your local MSA Representative for ordering information.



Air Purifying **Respirators**



Ambient-Air-Dependant Respiratory Protection

In order to use filtering respirators, the type, properties and composition of the hazardous agent in the ambient air must be known.



Advantage® 200 LS Half-Mask Respirator

The economical, lightweight Advantage 200 LS Respirator is extremely lightweight yet subtracts none of the toughness or performance. The unit's patented MultiFlex® System equalizes pressure on the face-seal area, ensuring the respirator doesn't collapse during wear. The respirator also has the AnthroCurve™ sealing surface, which instantly conforms to the wearer's face.

815696	Respirator, ADV 200LS, 2-PC NECK, Small
815692	Respirator, ADV 200LS, 2-PC NECK, Medium
815700	Respirator, ADV 200LS, 2-PC NECK, Large



Advantage® 410 Half-Mask Respirator

This innovative half-mask respirator features MSA's patent-pending, single-loop head harness and user-friendly design. Easy to don, doff, or drop down, it contains just three major components, making it extra easy to clean. The one-piece MultiFlex nose cup is made of soft, smooth, co-molded silicone and rigid plastic for a unique combination of durability and comfort.

10102276	Respirator, ADV 410 RD40, Small
10102277	Respirator, ADV 410 RD40, Medium
10102278	Respirator, ADV 410 RD40, Large



Advantage® 420 Half-Mask Respirator

With its UniBond over-mold facepiece, AnthroCurve™ face seal, and low profile design, the Advantage® 420 Half-Mask Respirator is the superior option for respiratory protection. The over-mold facepiece and face seal ensure the unit provides an excellent fit and comfort to the wearer. The unique yoke and harness design (patent pending) allows a user to easily don and doff the state-of-the-art respirator while maintaining a customized fit. Other features include a Comfort-Top headband, a built-in moisture release chin cup hole, and the extra-wide head and neck straps.

10102182	Respirator, ADV 420, Small
10102183	Respirator, ADV 420, Medium
10102184	Respirator, ADV 420, Large



3 Step Donning Process

Flexible, patent-pending, one-piece Easy-Don Head Harness assembly simplifies donning and doffing.



Place cradle on head.



Place facepiece into position and lock down.



Attach neck buckle.

Air Purifying Respirators

Advantage® 3200 Full-Facepiece Respirator

Engineered for comfort and versatility, the twin-port respirators of the full face Advantage 3200 offers ease of use and low breathing resistance. The preset upper straps make it easy to don and remove while also providing a tighter, more secure seal. Users can also opt for the European-style Advantage Head Harness, which dons like a catcher's mask. The unit also features a scratch-resistant, wraparound faceplate that eliminates distortion and increases peripheral vision, while the components can be replaced by hand in seconds.

10028996	Respirator, ADV 3200, RUBBER HARN, SM
10031309	Respirator, ADV 3200, Medium
10027726	VM Advantage 3221
10027728	VM Advantage 3231 Large



Advantage® 3100 Full-Facepiece Respirator

Crafted to provide convenience and comfort, the Advantage 3100 full face respirator is the top choice for worker protection. Our state-of-the-art design allows for extremely low breathing resistance, while the standard nosecup reduces fogging and the pliable silicone face-piece increases comfort. The respirator also features a scratch-resistant, wraparound lens that eliminates distortion and increases peripheral vision. Pre-adjustable straps ensure the mask delivers a consistent fit, while the preset upper straps provide a tighter, more secure seal. Users can also opt for the European-style Advantage Head Harness, which dons like a catcher's mask. The 3100 offers a single-port, standard thread filter connection.

10028998	Respirator, ADV 3100, RUBBER HARN, MD
10028999	Respirator, ADV 3100, RUBBER HARN, SM
10027723	VM Advantage 3121 Med.



S-CAP

This highly visible, one-size-fits-all yellow hood offers protection against smoke and gas from fires, especially carbon monoxide. The easy-to-use unit dons quickly and features a nose cup for a wide variety of head and face sizes, while the cotton neck seal ensures a tight fit. The high-performance filter offers thorough protection, while the wide lens provides an increased field of vision and the low breathing resistance reduces claustrophobia.

10064644	ESCAPE HOOD, S-CAP, IN CARTON
10064645	ESCAPE HOOD, S-CAP, IN WALL BOX



miniSCAPE

Using cutting-edge technology, the miniSCAPE respirator provides minutes of safety when seconds count. The portable respirator uses the new-generation TabTec filter, fits in a user's pocket and protects against numerous gases and vapors.

10038560 MiniScape



Respirator Accessories

Improve visibility with MSA respirator accessories, including spectacle kits and towelettes. Spectacle kits hold corrective lens in the facepiece while towelettes refresh equipment.

697383 TOWELETTES, 100/BX
10029298 SPECTACLE KIT, ADV 3000



Eye Protection



See Safe, Look Good, Feel Great

MSA eyewear helps the wearer to comply with demanding labour safety regulations, ensures wearer acceptance and prevents eye injuries caused by mechanical, chemical or radiation hazards that exist in countless working environments.



Optimized for Asian Market



Janus

Length and angle adjustable temples provide users customized fit, Flexible temple width, Built in side protection, Polycarbonate lens provides 99.9% protection against, Meet ANSI Z87.1 and CE EN166 standards

10108428 Janus - AC
10108429 Janus - AG



Wright

Built-in brow guard and cheek protection, Ergonomic 9.5-curve base lens, Flexible temples, no stress for long working time use, Very lightweight-22g only, Uncoated, Anti Scratch and Anti Fog lenses for options. Uncoated lens can be the one-time-use or visitor's spectacle, Meet ANSI Z87.1 and CE EN166 standards

9913250 Wright - C



Oute-CAF Spectacle

High quality polycarbonate lens, with high quality impact feature, and cover with good anti-scratch and anti fog coating. Full coverage design with best safety protection and full visual field. The lens can protect eyes from 99.9% UV, and avoid related harms.

10108311 Oute-CAF
10108312 Oute-GAF



Bent

- High quality polycarbonate lens, with high quality impact feature, and cover with good anti-scratch and anti fog coating.
- Full coverage design with best safety protection and full visual field.
- The lens can protect eyes from 99.9% UV, and avoid related harms

10113317 Visitor - AC
10113968 Visitor - CAF
9913252 Bent - C
9913263 Bent - CAF

Eye Protection



ChemPro Goggle

- Co-injected soft rubber frame provides comfort for long time wearing
- Flexible housing fits most prescription eyewear (over-spec.)
- Universal fit nose bridge conforms to facial contours to ensure a comfortable fit
- Fully adjustable headband fits most users
- Indirect venting system offers ventilation and dust/splash resistance simultaneously
- Anti fog, Scratch resistant polycarbonate lens filters out more than 99.9% of harmful UV radiation
- Meet ANSI Z87.1-2003 and CE EN166 standards

10108427

ChemPro Goggle



StreamGard Goggle

Flexible goggle body with indirect vents, Excellent protection against liquid splash and dust entry, Impact resistant against flying particles, Optical class 1 polycarbonate lens, Fully adjustable elastic band, Meet ANSI Z87.1 and CE EN166 standards

9913225

StreamGard CAF Goggle

9913226

StreamGard GAF Goggle



Alladin-C

Ratchet angle adjustable temple, Length Adjustable temple, Built-in brow protection, Soft Co-injection nosepiece and earpiece prevent slipping while providing a pillow soft fit, RX insert is available for this model, Scratch-resistant, hard-coated 100% polycarbonate lenses filter out more than 99.9% of harmful UV radiation

9913280

Alladin - G

9913281

Frame od Correcting Lens

9913282

Alladin - C

Global Product

Aurora Protective Eyewear

- Constructed of polycarbonate lens that stand up against impacts
- Tuff Stuff™ Anti-scratch Coating provides excellent scratch resistance, extending lens life — a “must have” in abrasive work environments (as noted)
- Wraparound style offers maximum protection and unobstructed vision
- Soft tip, straight back temples with ratchet temple adjustment ensure a comfortable fit
- Soft cover arms provide a comfortable fit in the ear
- Arm length adjustable to provide a custom fit
- Easy-Fit nose bridge offers comfortable, non-slip support

10026006	Spectacles, Aurora, Gray, Anti-Fog
10026008	Spectacles, Aurora, Blue Mirror, Antifog



Vista Protective Eyewear

- Tuff-Stuff Anti-scratch Coating provides excellent scratch resistance, extending lens life — a “must have” in abrasive work environments
- Lens angle adjustment using panto/retroscopic tilt
- Filters 99.999% of UV rays (as noted)
- Special indoor/outdoor lens for multi-environment work

10070914	Spectacles, Vista, Clear
10070916	Vista - Indoor/outdoor (I/O) Mirror



Arctic

- Impact-resistant eye protection with a low profile design for closer fit
- Tuff-Stuff Anti-scratch Coating provides excellent scratch resistance, extending lens life — a “must have” in abrasive work environments

10008179	Arctic - Blue Mirror
697514	Arctic - Clear
697515	Arctic - Gray



Discovery II Eyewear

- Lightweight construction offers all day comfort
- Nylon-tipped temple arms provide flexible fit that eliminates pressure and maximizes comfort
- Tuff-Stuff™ scratch-resistant coating provides excellent scratch resistance, extending lens life — a “must have” in abrasive work environments
- Soft rubber nose bridge offers comfortable, non-slip support

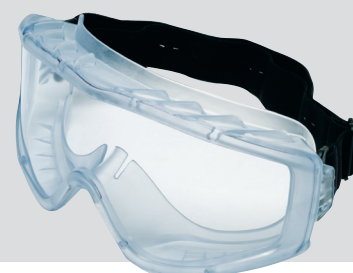
10106382	Discovery II - Clear
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Flexi-Chem™ IV Goggles

- Chemical resistant acetate lens for maximum protection
- Anti-fog coating for improved visibility
- Indirect venting for comfortable, lasting wear
- Adjustable band for a close-fitting seal

10106281	Flexi-Chem iV - Clear
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Head **Protection**



Real Protection Systems

MSA develops solutions that provide greater safety and effectiveness in global head protection systems, including integrated accessories like lamps and communication systems.



V-Gard® Protective Cap

These V-Gard® Protective Caps are part of the same family of products and accessories recognized as the best-selling in North America. Polyethylene shell and self-adjusting crown straps provide comfortable, lightweight protection. Available in slotted (to work with MSA accessories) or non-slotted. Three size options make these the ideal protectors for the entire work crew. ANSI/ISEA Z89.1-2009 (Class E, Type I) CSA Z94.1-2005 (Class E, Type I) Small and Large V-Gard® Caps are NOT CSA-certified. Standard-size V-Gard® Caps and Hats are CSA-certified only when assembled with MSA Fas-Trac® or 1-Touch® Suspension.

Contact your local MSA Representative for ordering information.



V-Gard® Protective Hat

These V-Gard® Protective Hats are part of the same family of products and accessories recognized as the best-selling in North America. Polyethylene shell and self-adjusting crown straps provide comfortable, lightweight protection. Available in slotted (to work with MSA accessories) or non-slotted. Three size options make these the ideal protectors for the entire work crew. ANSI/ISEA Z89.1-2009 (Class E, Type I). CSA Z94.1-2005 (Class E, Type I) when assembled with MSA Fas-Trac® or 1-Touch® Suspension. EN 397.

Contact your local MSA Representative for ordering information.



V-Gard® 500 Non-Vented Protective Cap

These non-vented caps, which provide Class E head protection, are part of the best-selling family of helmets and accessories : V-Gard®. Featuring a robust design, durable shell construction, and around-the-brim rain trough, these caps are popular for good reason.

Contact your local MSA Representative for ordering information.



Head Protection

V-Gard Protective Caps with GB 2811-2007 Approval

These V-Gard Protective Caps with GB approval are MSA's entry-level head protection line. They meet all applicable requirements for a Type (top impact) helmet as outlined in GB 2811-2007 Standard.

Contact your local MSA Representative for ordering information.



MSA Bump Gard

When head protection is desired but not required, Bump Caps reduce exposure to lacerations and abrasions caused by minor bumps to the head. Bump Caps are appropriate ONLY for work situations which do not require ANSI compliant head protection.

Contact your local MSA Representative for ordering information.



Face Protection

NEW V-Gard Accessory System

V-Gard Accessory products have also met some pretty strenuous global standards requirements. Tests some V-Gard Accessories have passed include:

- Resistance to surface penetration by molten grey iron metal, heated to 2642°F/1450°C.
- Conditioning to temperature extremes between 23°F/-5°C and 131°F/55°C, then impact testing with a metal ball moving > 268 mph.
- Resistance to surface penetration by a steel ball super-heated to 1652°F/900°C.

V-Gard Accessory System: Going beyond the standards to Make the World Safer, One Person at a Time.®

Contact your local MSA Representative for ordering information.



V-Gard® Helmet Frames

This frame works with any MSA slotted or non-slotted helmet and features our unique sloped design to help material slide off the frame and out of site. Can be used with earmuffs, half-mask respirators and other personal protective equipment. Stays securely on the cap, thanks to the heavy-duty, flat, rubber strap. The elevated temperature model withstands temps up to 350°F (176°C).

Contact your local MSA Representative for ordering information.



Adapter Kits for Welding Shields

Adapter kits permit the easy attachment of Welding Shields and Sparkgard Faceshields with visors to MSA's helmets.

Contact your local MSA Representative for ordering information.



Goggle Retainer

Keep eye protection conveniently at the ready with these goggle retainers. Specially designed for use with MSA goggles, caps and hats, these retainers hold goggles securely in place. Easy to install, MSA goggle retainers require no tools. Plus, they can be adjusted for optimal fit.

449895 Goggle Retainer, for hats

459458 Goggle Retainer, for caps

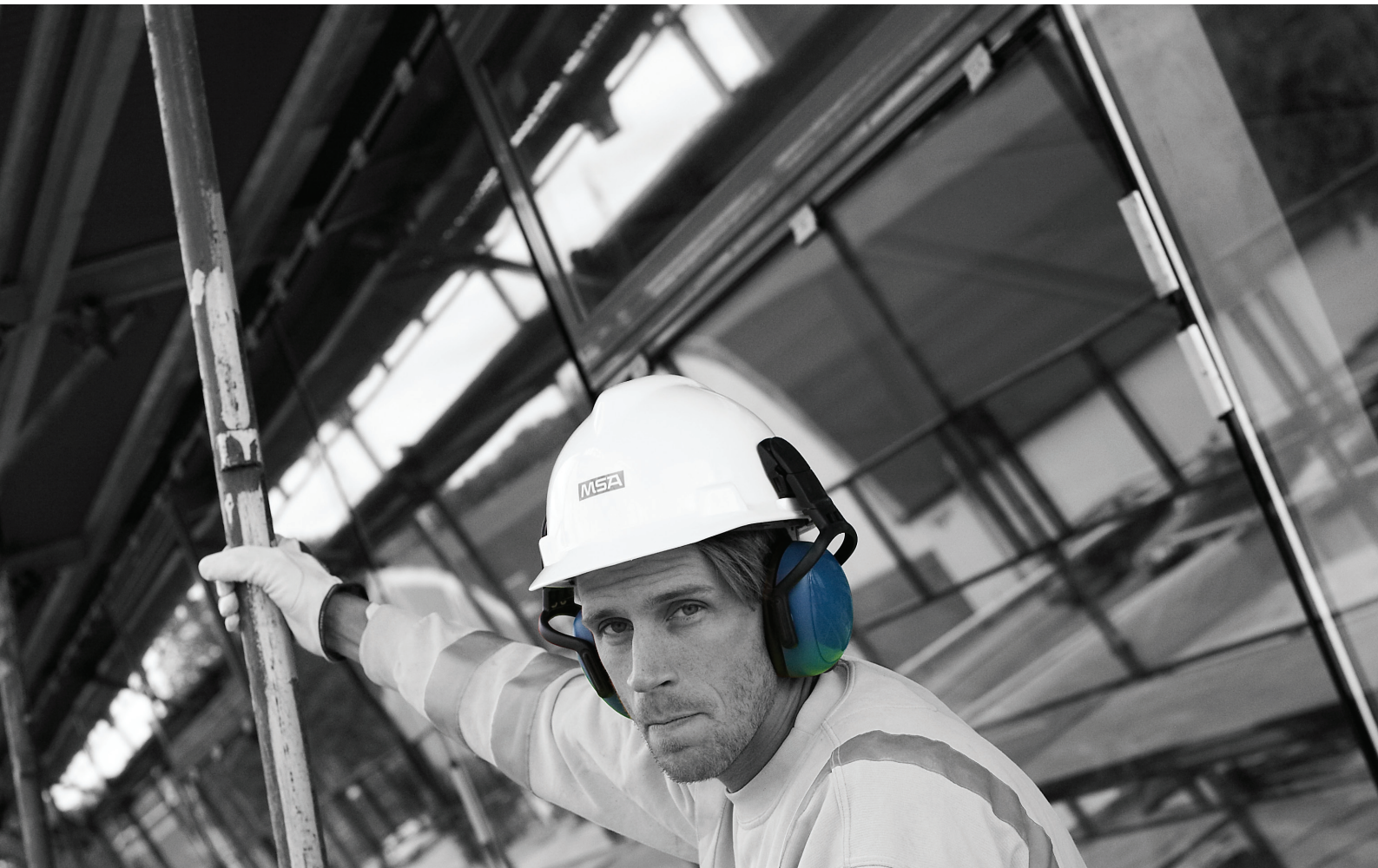


Helmet Lights and Slot Adapter

Contact your local MSA Representative for ordering information.



Hearing **Protection**



Protection for Professional, Leisure & DIY Use

MSA offers a wide range of passive and electronic ear muffs as well as ear plugs for DIY [Do-It-Yourself] use, construction, industry, police and other applications. All products are comfortable hearing protectors, designed to prevent the wearer from feeling isolated. The ear muffs are available as headband and helmet mounted versions.



left/RIGHT AM/FM – Rotating Knob Version ALL

- Individual cups for left and right ears
- Anatomically-shaped cushions
- Large space for ears inside ear cups offers long-wear comfort
- Maximum audio input to not exceed 82 dB(A) through speakers:
 - Entry level AM/FM radio, ideal for lawn mowing and do-it-yourself applications
 - Tune into your favorite radio station and maintain your hearing protection
 - Large rotating knobs allow for easy tuning and volume adjustment
 - Battery save function
 - Available in white, yellow, and blue

10087433	left/RIGHT, AM/FM, Headband, White
10087431	left/RIGHT, AM/FM, Headband, Yellow
10087432	left/RIGHT, AM/FM, Headband, Blue



left/RIGHT FM Pro – Pushbutton Version

Built-in FM radio receiver:

- FM radio
- Excellent radio reception and superior sound quality
- Automatic tuning function and volume adjustment using three pushbuttons
- Battery save function
- Low battery warning system
- AUX input for .mp3 or communication radio connection

10108381	left/RIGHT, FM Pro, med, Headband, Blue
10111829	left/RIGHT, FM Pro, M, Blue, Hel Type 60614



left/RIGHT CutOff Pro

Level-dependent hearing protector:

- Enables face-to-face communication while protected
- Enables the wearer to hear important sounds and warning signals
- Amplification of weak signals through the electronic system
- Battery save function
- Low battery warning system
- AUX input for for .mp3 or communication radio connection

10111789	left/RIGHT CutOff Pro, M, Headband, Yellow
10108383	left/RIGHT CutOff Pro, M, Headband, Blue
10111823	left/RIGHT CutOff Pro, M, Yellow, Type 60614
10111826	left/RIGHT CutOff Pro, M, Blue, Type 60614



Hearing Protection

left/RIGHT Dual Pro

Combines the features of CutOff and FM radios:

- Individual balance adjustment between level-dependent and FM radio functions enables wearers to adjust to working environments
- Push-to-listen function for easy face-to-face communication
- Battery save function
- Low battery warning system
- AUX input for for .mp3 or communication radio connection

10108385	left/RIGHT, Dual Pro, M, Blue, Headband
10111832	left/RIGHT, Dual Pro, M, Blue, Type 60614



left/RIGHT Earmuffs

Unique design/BETTER FIT Each cup is specifically designed for the left or right ear in order to conform to your head: Adjust individually to ear angle, Raise and lower muffs independently

10087436	left/RIGHT, Low, White, Headband model, NRR 21
10087439	left/RIGHT, Low, White, Helmet Mounted, NRR 21
10087426	left/RIGHT, Medium, Blue, Headband Model, NRR 25
10087429	left/RIGHT, Medium, Blue Helmet Mounted, NRR 25
10087428	left/RIGHT, Medium, Yellow, Helmet Mounted, NRR 25
10087399	left/RIGHT, High, Yellow, Headband Model, NRR 28
10087422	left/RIGHT, High, Yellow, Helmet Mounted, NRR 28
10087432	left/RIGHT, AM/FM, Medium, Blue, Headband Model, NRR 23
10092878	Hygiene kit, left/RIGHT, Low
10092879	Hygiene kit, left/RIGHT, Medium
10092880	Hygiene kit, left/RIGHT, High
10094605	Hygiene kit, left/RIGHT, AM/FM Radio Ear Muff



Headband Earmuff

Providing the highest-rated protection available for low-frequency environments, the MSA Headband Muffs are designed specifically for very high noise levels and is ideal for airfields, power plants and other areas with intense noise. A padded headband and super-soft ear cushions guarantee all-day comfort while ensuring full-time protection.

10061271	HPE headband model
10061229	EXC headband model
10061291	Hygiene Kit, HPE Earmuff
10061292	Hygiene Kit, EXC Earmuff



Cap Mounted Earmuff

Comfortable for all-day wear with unique injection molded inserts providing excellent attenuation and maximum space for the ears inside the cup. Features a spring design that offers low pressure tension and a high level of comfort.

10061272	Earmuff, HPE, Cap Mounted
10061230	Earmuff, EXC, Cap Mounted



Economuff™ Multi-Position Earmuff

The Economuff Multi-Position Earmuff comes with comfortable ear pads and padded headband to ensure all-day wearing without fatigue, and the durable design provides protection in dirty environments.

- Extremely lightweight
- Multi-position (over head/under chin/behind head)
- Includes crown strap

10061273 Earmuff, Economuff Multi-Position, Hdband



Economuff™ Earmuff (NRR 20)

The Economuff Earmuff comes with the features you expect from MSA hearing protection. Comfortable ear pads ensure all-day wearing without fatigue, and the durable design provides protection in tough, dirty environments. Lightweight at just 8.0 ounces.

10004291 Earmuff, Economuff, Headband



FormFit™ Round Disposable Foam Ear Plugs (NRR 29)

For users who prefer to dispose of their plugs after each use, FormFit Ear Plugs are the answer. Easy to use and affordable, FormFit Ear Plugs offer substantial noise reduction and are very comfortable to wear. NRR is tested in accordance with ANSI S3.19-1974 and CSA Class A.

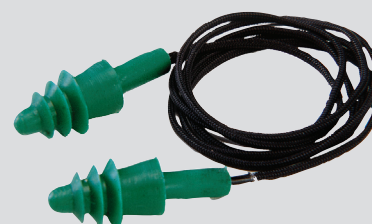
10009332 Earplugs, Foam, Round, Corded, 200 PR
10009333 Earplugs, Foam, Round, Uncorded, 200 PR



Tri-Seal™ Reusable Silicone Ear Plugs (NRR 25)

- > Reusable ear plugs are easy to insert in the ear and economical
- > Ruggedly designed cord made of soft, comfortable silicone
- > Available in dispenser boxes of 100 individually packaged pairs. Dispenser box is suitable for wall hanging

10005607 Earplugs, Reuseable, 100 PR



Fixed Gas and Flame **Detection**



Complete Safety Solutions

MSA's portfolio on Permanent Gas and Flame Detection Systems includes: Controllers, Detectors, Sensors, Monitors, Fire and Gas Detection Systems





SUPREMATouch

Modular Fire & Gas Detection System

MSA permanent gas detection systems are used throughout the world to protect plant and personnel from hazardous gases in a wide range of industries from simple applications to large systems including complete fire & gas systems.

SUPREMATouch modular design meets the requirements of this diverse range of industries and applications and complies with all relevant global safety standards. It builds on the success of the original innovative SUPREMA design and includes a large color touch screen display, enhanced processing power and addressable fire and detector capability. It can be used with a wide range of detectors including flammable and toxic gas, oxygen, smoke, fire and heat and manual call points. A range of outputs are provided including relays, analogue and digital for communication between racks and allows interfacing to external systems using Modbus or Profibus.

The modular SUPREMATouch design provides a gas & fire detection system that can be configured to meet the requirements of virtually any application including redundant systems with up to Safety Integrity Level SIL 3 rating (IEC 61508).

Whatever the application our long experience in gas and fire detection allows us to recommend the best combination of detectors, field devices, components and systems that will ensure reliable and secure protection of your personnel and facilities.

Modular Design for Individual Solutions

SUPREMATouch is compatible with all MSA gas and fire detectors and can accommodate a variety of third party devices such as 4–20 mA transmitter and heat and smoke sensors.

Open-collector driver outputs (24V, 0.3A) provide direct control of relays or other circuit elements such as contactors, switches or solenoid valves.

With SUPREMATouch digital signal transmissions is possible via Modbus and Profibus and there is also the option for analogue outputs.

Designed around standard industrial 19" racks, SUPREMATouch provides signal processing for up to 256 inputs and 512 outputs and the ability to distribute the system over up to 8 racks using satellites to minimize installation cost. The modular design allows input and output connections to be mounted on the backplane or DIN rail mounted.

Contact your local MSA Representative for ordering information.

Technical Specifications

Enclosure

Standard 19" rack 3U high (up to 8 racks per system)

System

Satellites for decentralized inputs and outputs up to a distance of 2 km. Optional redundant configuration. Event and fault diagnosis logging.

Inputs

Up to 256 per system

Up to 64 per rack

Outputs

Up to 512 relays per system, up to 80 per rack

Up to 256 analog 4–20mA per system, up to 80 per rack

Switched open-collector driver (24V, 300mA)

Relays – SPCO or SPST redundant (230V, 3A)

Optional solid state relays for low current applications

Software-control of switched outputs/relays

- creation of groups
- n out of m alarms
- alarm multiplication

Power Supply

Operating voltage range 18 to 32 VDC

Optional rack power supply 85 to 265 VAC, 150W, 50/60Hz

Internal, external, and battery backup (24VDC) with automatic switch-over

Display

Touch screen color LCD with backlight, 5.7" TFT with 320 x 240 resolution

Controls and indicators

Alarm reset and acknowledge keys

Front panel LED's for alarms 1, 2, 3, and 4, signal fail, inhibit, power and system fail. 3 level password or key switch for secure access control

Sensors

Catalytic or IR for combustible

4–20 mA transmitters

Electrochemical for toxic and oxygen

Conventional smoke, heat, and fire detectors

Addressable smoke, heat, and fire detectors via external fire panel

Approvals

ATEX (EN 50104, EN 50271, EN 61779-1, EN 61779-4, EN 61779-5), UL/cUL, SIL 3 (EN 50402, EN 61508), GB16808-2008 Combustible Gas Alarm Control Units (China)

Interfaces

Optional interface to external bus systems (Modbus RTU and TCP, Profibus), 2 x RS-232 and 1 x USB electrically isolated interfaces for data transfer, Printer report of system events (standard ASCII, 80 CHR)

Fixed Gas and Flame **Detection**



PrimaX IR Gas Transmitter

Every feature of the SIL 2 designed PrimaX IR Gas Transmitter is designed with reliability in mind to withstand the most challenging environmental conditions throughout the product's life. MSA's PrimaX IR Gas Transmitter offers LEL (Lower Explosive Limit) combustible gas detection through a patent-pending PrimaX Gas Transmitter IR dual source design. A redundant IR source provides reliability and uninterrupted monitoring should a source failure occur. Furthermore, the possibility of obscurations due to rain, fog, dirt, dust, and other environmental conditions is minimized due to dual source design. In addition, optics is optimized for maximum signal, resulting in a product of extraordinary stability.

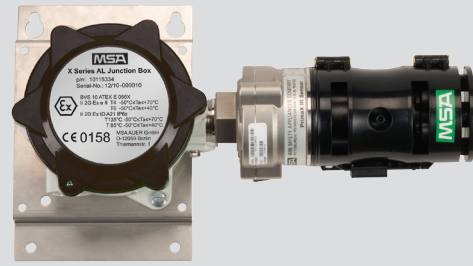
Features & Benefits

- Patent-pending dual source design provides redundancy and reliable, uninterrupted performance
- Patent-pending environmental guard sensor housing for fast, efficient response time
- Heated optics prevent condensation buildup
- 4–20 mA analog output
- User-friendly setup, calibration diagnostics, and maintenance via HART digital communication
- One-person calibration is easily performed using calibration cap
- Easy connection using aluminum or stainless steel junction box
- 316 stainless steel, IP67-rated, rugged housing protects unit from environmental extremes
- Factory-calibrated for fast commissioning
- Wide temperature range of -50°C to +80°C

PrimaX

Ease of use, versatility and reliability

The new PrimaX gas transmitter offers proven MSA quality and reliability, HART digital communication option and is available in flameproof or intrinsically safe versions. Innovative enclosure design, ease of use, fast installation and being suitable for both indoor and outdoor installations makes the PrimaX transmitter your choice for versatile gas detection.



Technical Specifications

Gas Types and Ranges

Hydrocarbon gases & vapors; 0-100%LEL

Temperature Range

-50°C to +80°C (-58°F to +176°F)

Repeatability

±1% full-scale

Linearity

3% of gas level

Response Time

90 < 5 sec. without environmental guard

90 < 10 sec. with environmental guard

Humidity

15%–95% RH, non-condensing

Sensor Warranty

10 years for IR source

Power Input

18–32 VDC, 5 watts (-40°C to +80°C)

Signal Output

4–20mA 3-wire current source with HART protocol

Physical

316 stainless steel

Approval Ratings

Europe/International:

- CE EMC Directive: 2004/108/EC
- CA ATEX Directive: 94/9/EC II 2G Ex d IIc T4

US and Canada:

- cFMus (pending)
- Class I, Div. 1, Groups A, B, C, & D
- Class II, Div. 1, Groups E, F, & G
- Class III

ANSI/ISA 12.13.01

CSA C22.2 No. 152 Combustible Gas Performance

IEC

China Ex/CMC/CCCF

Russia Ex/GOST R

Ingress Protection

IP67

Source Redundancy

100% redundancy with failure of 1st source

HART

Compatibility with HART 7.0

Safety Integrity level

SIL 2



Series 47K Gas Sensor

MSA remote sensors, Series 47K, are designed to detect potentially hazardous concentrations of flammable gas and vapor in air. A cost effective range of sensors for detecting up to 100% LEL including Poison Resistant, Standard and High Temperature versions. Series 47K sensors are available with either Ex d ¾" NPT or Ex e M25 junction boxes.

A complete range of accessories for calibration, environmental protection, sampling and duct mounting makes it suitable for virtually all applications in combustible gas detection. Series 47K sensors used in combination with MSA Controllers fully meet the requirements of ATEX Directive 94/9/EC, including performance, and being SIL 2 capable they can be used as part of a safety related system.

Features & Benefits

- 0–100% LEL
- Ex e junction box with M25 cable gland thread
- Ex d junction box with ¾" NPT cable gland thread
- Standard (ST), Poison Resistant (PRP) and High Temperature (HT) versions
- Suitable for use in safety related systems (ATEX 94/9/EC)
- 3 or 5 wire connection
- Stainless steel body
- Complete range of accessories
- Fast response time
- Excellent performance cost ratio
- Safety Integrity Level –SIL 2

Sensor Types

MSA sensors are available as standard in a stainless steel body.

Series 47K-PRP: high resistance to atmospheres containing silicones, lead, sulfur compounds and halogenated hydrocarbons over a temperature range –40°C to +90°C

Series 47K-ST: for general purpose applications over the ambient temperature range –40°C to +90°C

Series 47K-HT: to operate over a temperature range –40°C to +160°C

Technical Specifications

Power Consumption

1 watt typical

Measuring Range

0–100% LEL

Response Time

50 ≤ 10 sec. 90 ≤ 30 sec.

Operating Life

3 years minimum in clean air @ STP

Storage Life

5 years minimum in MSA container @ STP

Storage Temperature

–20°C to +40°C

Operating Temperature Range

–25°C to +55°C (ST & PRP)

–40°C to +90°C (extended range*)

–20 °C to +160 °C (HT)

Operating Humidity Range

5% to 95% RH non-condensing

Operating Pressure Range

100 ± 20 kPa

Air Velocity

0–6 m/s (with duct mount flange 0.5–20 m/s)

Poison Resistance

PRP sensor only: 10 ppm HMDS for 40 min.
(max. signal loss 5% of reading)

Material

Stainless steel

Accessory Thread

M36 x 1.5 mm

Sensor to Junction Box

¾" NPT or M25 x 1.5 mm

Approval

EC Type Certificate: II 2GD INERIS 03 ATEX 0208

Safety Integrity Level

SIL 2 (IEC 61508)

Portable Gas **Detection**



Reliable Protection whatever the Demands

Portable measuring instruments and personal monitors can be grouped into three application areas:
Combustible Gases, Oxygen and Toxic Gases



ALTAIR® Single-Gas Detector

Designed for superior lifespan—patented sensors operate for over two years—and high performance, the ALTAIR Single-Gas Detector is the smart choice for market-leading, cost-effective gas monitors. Features sensor options for carbon monoxide, hydrogen sulfide, and oxygen coupled with LED/audible/vibrating alarms. Superior dust/water protection, high RFI resistance, and one-button operation provide heightened safety, plus increased durability and ease-of-use.

ALTAIR® Pro Single-Gas Detector

Based on the industry-standard ALTAIR Single-Gas Detector—but with added features and functionality—ALTAIR Pro toxic gas and oxygen detectors combine reliable detection and LED/audible/flashing/vibrating alarms with clear, backlit LCD displays. Electrochemical sensors measure concentrations of toxic gas (ammonia, carbon monoxide, chlorine, chlorine dioxide, hydrogen cyanide, hydrogen sulfide, nitrogen dioxide, phosphine and sulfur dioxide) or percent oxygen. Purpose-built for superior dust and water protection, excellent impact resistance and excellent RFI performance.

Sirius® Multigas Detector

The Sirius Multigas Detector integrates MSA's proprietary patent-pending PID sensor into a durable four-gas detector that's designed and built for safety and reliability across multiple applications and hazards. Fast response times let users constantly monitor for both VOCs and combustible, toxic, or oxygen-deficient atmospheres.

ALTAIR® 4X Multigas Detector

The ALTAIR 4X Multigas Detector surpasses industry standards in several crucial areas. Its four-year sensor life is 60% longer than the industry average, while its 24-hour run time exceeds the industry average by 71%. This versatile portable detector is a perfect match for industries ranging from fire fighting to welding, and its digital sensor output makes it less likely to suffer from RF interference. The unit features exclusive MotionAlert™, which lets others know if the user has become immobile, and InstantAlert™, a manual alarm that alerts others of potentially dangerous situations. This rugged unit is designed to withstand a drop of up to 20 feet and uses less than half as much calibration gas as the industry average.

ALTAIR® 5X Multigas Detector

The rugged, multi-featured ALTAIR 5X Multigas Detector boasts several options that provide maximum safety and make it easy to use in even the most demanding situations. It features large buttons for easy use, and its polycarbonate housing protects the detector for drops of up to 10 feet. The detector also boasts the exclusive MotionAlert™, which lets others know if the user has become immobile, and InstantAlert™, a manual alarm that alerts others if a dangerous situation has arisen. The glow-in-the-dark housing makes it easy to see in a confined space, while the large buttons and bright display makes operation possible even when the user is wearing gloves.

Sirius® Multigas Detector



ALTAIR® 4X Multigas Detector



ALTAIR® Single-Gas Detector



ALTAIR® Pro Single-Gas Detector



ALTAIR® 5X Multigas Detector



NEW



GALAXY® GX2 Automated Test System

Simplicity counts with the MSA GALAXY® GX2 Automated Test System for advanced safety management and effortless operation. The GALAXY GX2 Automated Test System provides simple, intelligent testing and calibration of MSA ALTAIR® and ALTAIR PRO Single-Gas Detectors and ALTAIR 4X and ALTAIR 5X Multigas Detectors. Easy-to-use automated test stand offers high performance as either stand-alone unit or integrated portable detector management system, enabling total data access and control of the MSA ALTAIR family Gas Detector fleet. New MSA Link™ Pro Software for proactive safety management; gas exposure email alerts, direct data input, live filtering, test and exposure queries, collecting and printing reports.

Contact your local MSA Representative for ordering information.

Fall Protection



Solutions for Safety at Heights

Fall Protection personal protective equipment is used by workers in many industries. It is designed and used to prevent accidents at work or to protect against consequences of accidents at work.



MSA Workman Light

The MSA Workman Light, single D-ring harness, provides comfortable protection, due to its lightweight components and durable webbing.

The vest-style harness fits a wide range of body types and sizes.

Colour-contrasting

thigh and torso straps simplify donning.

Certified to EN 361.

10115526	MSA Workman Light Full Body Harness, small, Qwik-fit leg straps, D-ring
10115527	MSA Workman Light Full Body Harness, medium, Qwik-fit leg straps, D-ring
10115528	MSA Workman Light Full Body Harness, large, Qwik-fit leg straps, D-ring



MSA Workman Premier

The MSA Workman Premier offers the user an additional attachment point at the front, with extra adjusters on the torso for even greater adjustment. The harness also offers shoulder loops for use with the MSA Spreader bar.

Certified to EN 361, EN 1497.

10115541	MSA Workman Premier Full Body Harness, small, Qwik-fit leg straps, D-ring
10115542	MSA Workman Premier Full Body Harness, medium, Qwik-fit leg straps, D-ring
10115543	MSA Workman Premier Full Body Harness, large, Qwik-fit leg straps, D-ring
10115545	MSA Workman Premier Full Body Harness, medium, Bayonet leg straps, D-ring
10115546	MSA Workman Premier Full Body Harness, large, Bayonet leg straps, D-ring



MSA Workman Utility

The MSA Workman Utility offers everything the Premier harness offers and more, incorporating a waist belt and pad and hip positioning D-rings, making this the perfect harness for utility work.

Certified to EN 358, EN 361, EN 1497.

10115547	MSA Workman Utility Full Body Harness, small, Bayonet leg straps, D-ring
10115548	MSA Workman Utility Full Body Harness, medium, Bayonet leg straps, D-ring
10115549	MSA Workman Utility Full Body Harness, large, Bayonet leg straps, D-ring



Fall Protection

MSA Workman Spreader Bar

The MSA Workman Spreader Bar is used in conjunction with the Premier or Utility harness for raising and lowering a person into or out of a confined space, or for rescue. When used for rescue, the attached web loops can be used to secure an incapacitated victim's arms when lifting or lowering. Certified to EN 1497.

10115550	MSA Workman Spreader Bar, steel snaphook
10115551	MSA Workman Spreader Bar, aluminium snaphook



Energy-Absorbing Lanyards

Energy-absorbing lanyards are a component of a personal fall arrest system. They provide a means of connection between the back (dorsal) D-ring of MSA full body harnesses and a qualified anchorage and anchorage connector. The energy absorber keeps fall arrest forces below ANSI limits and deceleration distance is controlled to a maximum of 106cm. The lanyard is available in web, rope, and wire rope configurations with a variety of snaphooks.

MSA Workman Energy-Absorbing Lanyards

MSA Workman energy-absorbing lanyards are lightweight with a low-profile body. The energy absorber includes a clear, durable protective cover over the labels to increase service life and allow for easy inspection.

- Tear-tape design to keep fall arrest forces below 4kN
- Choice of single or twin-leg configurations
- Choice of adjustable or tie-back configurations
- Certified to EN 355



10115741	MSA Workman Single-Leg Energy-Absorbing Lanyard, Steel Screwgate Carabiners
10115759	MSA Workman Single-Leg Energy-Absorbing Lanyard, Steel Screwgate Carabiners
10115750	MSA Workman Twin-Leg Energy-Absorbing Lanyard, Steel Screwgate Carabiners
10115777	MSA Workman Twin-Leg Energy-Absorbing Lanyard, Steel Screwgate Carabiners

MSA Workman Single-Leg Energy-Absorbing Lanyards

10115741	MSA Workman Single-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, steel screwgate carabiners
10115742	MSA Workman Single-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, steel screwgate carabiner and steel scaffold hook
10115745	MSA Workman Single-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium screwgate carabiners
10115747	MSA Workman Single-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium screwgate carabiner and aluminium scaffold hook
10115748	MSA Workman Single-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium screwgate carabiner and aluminium snaphook
10115749	MSA Workman Single-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium autolock carabiners
10115759	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, steel screwgate carabiners
10115760	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, steel screwgate carabiner and steel scaffold hook
10115763	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium screwgate carabiners
10115765	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium screwgate carabiner and aluminium scaffold hook
10115766	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium screwgate carabiner and aluminium snaphook
10115767	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium autolock carabiners
10115768	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, steel screwgate carabiners
10115769	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, steel screwgate carabiner and steel scaffold hook
10115772	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium screwgate carabiners
10115774	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium screwgate carabiner and aluminium scaffold hook
10115775	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium screwgate carabiner and aluminium snaphook
10115776	MSA Workman Single-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium autolock carabiners

MSA Workman Twin-Leg Energy-Absorbing Lanyards

10115750	MSA Workman Twin-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, steel screwgate carabiners
10115751	MSA Workman Twin-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, steel screwgate carabiner and steel scaffold hook
10115754	MSA Workman Twin-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium screwgate carabiners
10115756	MSA Workman Twin-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium screwgate carabiner and aluminium scaffold hook
10115757	MSA Workman Twin-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium screwgate carabiner and aluminium snaphook
10115758	MSA Workman Twin-Leg Energy-Absorbing Lanyard, webbing, 2m adjustable, aluminium autolock carabiners
10115777	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, steel screwgate carabiners
10115778	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, steel screwgate carabiner and steel scaffold hook
10115781	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium screwgate carabiners
10115783	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium screwgate carabiner and aluminium scaffold hook
10115784	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium screwgate carabiner and aluminium snaphook
10115785	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 1.5m fixed, aluminium autolock carabiners
10115786	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, steel screwgate carabiners
10115787	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, steel screwgate carabiner and steel scaffold hook
10115790	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium screwgate carabiners
10115792	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium screwgate carabiner and aluminium scaffold hook
10115793	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium screwgate carabiner and aluminium snaphook
10115794	MSA Workman Twin-Leg Energy-Absorbing Lanyard, kernmantel rope, 2m fixed, aluminium autolock carabiners

ArcSafe Lanyards

ArcSafe Lanyards are SEI-certified to the requirements of ASTM F887-05 standard for electrical arc flash protection. ArcSafe energy-absorbing lanyards utilise a tear-tape design to keep fall arrest forces below 4kN.

- Constructed of 25mm nylon webbing
- Includes sewn loop on energy absorber end, and 19mm snaphook on lanyard leg
- Adjustable in length (1.8m down to 1.2m)
- Incorporates a protective cover over the energy absorber
- Certified to EN 355 and also meets ANSI A10.32, ANSI Z359.1-2007

10101886	ArcSafe Lanyard, single-leg, hitch loop, 1 x 19mm snaphook
10101887	ArcSafe Lanyard, twin-leg, hitch loop, 2 x 19mm snaphooks

Thermatek Lanyard

This specialised energy-absorbing lanyard features a Tuffweld protective cover that is superior to Nomex, and a unique energy absorber design that incorporates a Kevlar back-up strap that is resistant to charring and burning.

- 6mm cable
- 1.8m length
- Certified to EN 355

10101888	Thermatek Lanyard, cable, 2 x 19mm snaphooks
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Fall Protection

Sure-Stop EN Lanyards

The Sure-Stop EN Energy-Absorbing Lanyards are engineered with precision and are manufactured using only those components that meet our high quality standard. With a compact, tear-tape energy absorber design, the Sure-Stop EN lanyards ensure that the fall arrest forces transmitted to your body do not exceed 6kN. In addition, Sure-Stop EN lanyards feature:

- A clear energy absorber cover to protect product labels from damage and make inspection easier
- A choice of high-strength web, rope, or cable models
- A variety of snaphook options for virtually any application
- Single-leg and twin-leg models (twin-leg models provide 100% continuous connection)
- Fixed and adjustable lengths (1.8m adjustable length lanyards adjust down to 1.2m)
- A standard length of 1.8m
- Certified to EN 355



10114328	Sure-Stop EN Lanyard, 25mm nylon web, fixed length, 2 x 19mm snaphooks
10114323	Sure-Stop EN Lanyard, 25mm nylon web, adjustable length, 2 x 19mm snaphooks
10114326	Sure-Stop EN Lanyard, 25mm nylon web, adjustable length, 1 x 19mm snaphook, 1 x 52mm snaphook"
10114329	Sure-Stop EN Lanyard, 25mm nylon web, twin-leg, fixed length, 3 x 19mm snaphooks
10114330	Sure-Stop EN Lanyard, 25mm nylon web, twin-leg, adjustable length, 3 x 19mm snaphooks"
10114324	Sure-Stop EN Lanyard, 25mm nylon web, twin-leg, adjustable length, 1 x 19mm snaphook, 2 x 52mm snaphooks"
10114334	Sure-Stop EN Lanyard, cable, fixed length, 2 x 19mm snaphooks
10114335	Sure-Stop EN Lanyard, cable, twin-leg, fixed length, 3 x 19mm snaphooks

FP5K Tie-Back Energy-Absorbing Lanyard

- Uses the FP5K carabiner, a new Tie-Back lanyard connector
 - 22.24kN gate strength in any direction allows the FP5K carabiner to be tied back directly to the lanyard
 - Unique carabiner body shape helps avoiding confusion with standard connectors not designed for tie-back applications
 - FP5K carabiner design allows for maximum clearance inside the body of the carabiner 25mm gate opening
- Utilises Monster Edge webbing with 53.38kN minimum breaking strength
 - Monster Edge webbing is designed for increased abrasion resistance
 - Internal wear indicator consists of two yellow threads that, when visible, alert a user as to when the lanyard should be removed from service due to severe abrasion
 - Available in both single and twin-leg configuration



10114327	Sure-Stop EN Lanyard, 25mm Monster Edge web, adjustable length, 1 x 19mm snaphook, 1 x 25mm FP5K snaphook
10114325	Sure-Stop EN Lanyard, 25mm Monster Edge web, twin-leg, adjustable length, 1 x 19mm snaphook, 2 x 25mm FP5K snaphooks

Expanyard Energy-Absorbing Lanyards

- Designed to stretch to a 1.8m length (relaxed length is 1.4m)
- When relaxed, it stays close to the user's body, reducing the possibility of trip and snag hazards



10114331	Sure-Stop EN Lanyard, Expanyard style, 2 x 19mm snaphooks
10114332	Sure-Stop EN Lanyard, Expanyard style, twin-leg, 3 x 19mm snaphooks
10114333	Sure-Stop EN Lanyard, Expanyard style, twin-leg, 1 x 19mm snaphook, 2 x 52mm carabiners

Restraint Lanyards

A fall restraint lanyard connection is used between the anchor point and the body harness to prevent the user from reaching the fall area and should never be used to arrest a fall.

Restraint Lanyards

To meet all your application needs and environments, MSA Restraint Lanyards are made available in web, 16mm rope, wire rope and kernmantel rope.

Certified to EN 354 (Restraint Lanyard) and EN 358 (MSA Workman Restraint Lanyard).

10102692	Restraint Lanyard, cable, 1.5m fixed length, 19mm snaphooks, 35mm width
10102693	Restraint Lanyard, polyester rope, 1.8m fixed length, 19mm snaphooks, 35mm width
10115795	MSA Workman Restraint Lanyard, webbing, 1.5m fixed length, steel screwgate carabiner
10115796	MSA Workman Restraint Lanyard, webbing, 1.5m fixed length, aluminium screwgate carabiner
10115797	"MSA Workman Restraint Lanyard, webbing, 2m fixed length, steel screwgate carabiner
10115798	MSA Workman Restraint Lanyard, webbing, 2m fixed length, aluminium screwgate carabiner
10115799	MSA Workman Restraint Lanyard, webbing, 2m adjustable length, steel screwgate carabiner
10115800	MSA Workman Restraint Lanyard, webbing, 2m adjustable length, aluminium screwgate carabiner"
10115801	MSA Workman Restraint Lanyard, kernmantel rope, 2m adjustable length, aluminium carabiner



Rebar Assemblies

Designed for work positioning applications such as tying rebar or constructing concrete forms.

Certified to EN 358. Also meets ANSI A10.32.

10102695	Rebar web assembly, 25mm polyester, 33cm legs, with sliding large snaphooks
10102689	Rebar chain assembly, 19mm snaphook with 52mm gate



Lineman's Pole Strap

The Lineman's Pole Strap is used to assist a lineman in climbing wooden poles and for work positioning. Certified to EN 358. Also meets ANSI A10.32.

10102694	Lineman's pole strap, nylon, adjustable to max. length of 1.78m, steel snaphooks
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Fall Protection

Anchorage Connectors

Anchorage Connectors are compatible for use with MSA fall arrest and confined space entry/retrieval components. They have a minimum breaking strength of 22.24kN. Certified to EN 795. Also meet ANSI Z359.1-2007, ANSI A10.32.



PointGuard Anchorage Connector Strap

The PointGuard Anchorage Connector provides a secure point of attachment for residential construction applications.

- Quick and easy to install
- Economical
- Residential construction
- Durable polyester webbing

10103224 PointGuard anchorage connector strap, 0.9m with D-ring



MSA Workman Anchorage Sling

- 25mm webbing
- 1.5m or 2m lengths available
- Certified to EN 354, EN 795

10115802 MSA Workman anchorage sling, 1.5m
10115803 MSA Workman anchorage sling, 2m



Thermatek Anchorage Connector Strap

- Kevlar webbing and stitching
- Contrasting colours allow for easier inspection
- Includes replaceable wear pad to protect webbing from abrasion
- Heat- and burn-resistant

10103221 Thermatek anchorage connector strap, 1.8m



Anchorage Connector Cable

- Standard 1.5m length
- Vinyl coated
- 6.35mm galvanised cable
- Flemish eye spliced

10103219 Anchorage connector cable, 1.5m



Anchorage Connector Strap

- Standard 1.5m length (custom lengths available)
- D-ring on one end and a sewn loop on the other end
- Available in nylon or polyester webbing

10103223 Anchorage connector strap, nylon, 1.5m
10103222 Anchorage connector strap, polyester, 1.5m



Anchorage Cable Sling

- Standard lengths of 1.2m and 1.8m (custom lengths available)
- Vinyl coated
- 6.35mm galvanised cable
- Flemish eye spliced

10110162 Anchorage cable sling, 1.2m
10110163 Anchorage cable sling, 1.8m

Carabiners

MSA carabiners have a minimum breaking strength of 22.24kN. They are certified to EN 362.

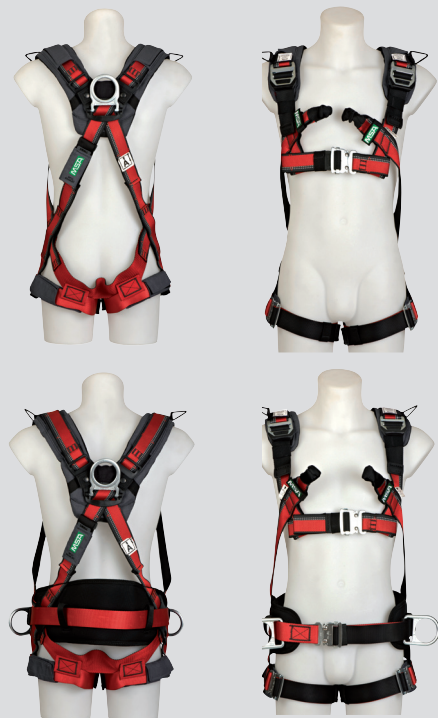
10113001	Steel screwgate carabiner, 15mm gate
10080675	Steel autolock carabiner, 22mm gate
10080678	Steel autolock carabiner, 25mm gate
10080676	Steel autolock carabiner, 52mm gate
10113006	Aluminium screwgate carabiner, 19mm gate
10080677	Aluminium scaffold autolock carabiner, 52mm gate



EVOTECH® Full Body Harnesses

For the latest design features that improve user comfort, ease of use, durability, and user safety, choose the EVOTECH® Full Body Harness. The EVOTECH Harness is RFID enabled, offering the Field ID Safety Network with Field ID access to provide a reliable, on-line inspection and safety compliance (ISCM) management system.

10123403	EN EVOTECH HARNESS,VST,FTL,BKD,SM
10123406	EN EVOTECH HARNESS,VST,FTL,BKD,2SD,SM
10123411	EN EVOTECH HARNESS,VST,FTL,EXTD,2SHD,SM



Gravity® Harnesses

Available in vest and cross-over styles and rated to a 400 pound capacity, Gravity Harnesses are suitable for controlled descent, positioning, ladder climbing, rescue, and fall arrest.

A variety of options are available to meet your specific needs.

All Gravity Harnesses now include a load-indicator to alert you when the harness has been involved in a fall event.

Contact your local MSA Representative for ordering information.



Fall Protection

Rope Grabs and Vertical Lifelines

The perfect solution for roof work, or any vertical application.

SureGrab Rope Grab and Vertical Lifeline Kit

The SureGrab device and lifeline is used to provide temporary fall protection on ladders, or when climbing vertical structures. This system can also be used to provide a secondary lifeline for suspended positioning systems used by building/structure inspectors, window cleaners, and maintenance personnel. The SureGrab device moves freely up or down an approved 16mm diameter lifeline. When sudden downward movement occurs, a camming lever is activated, arresting the fall. The device can be installed or removed from the lifeline at any point along its length.

The Vertical Lifeline Kit consists of a 16mm diameter, 18m length polyblend rope and a 19mm snaphook on one end. It comes with rope grab (Part No. 10104072) and is certified to EN 353-2. The Termination Plate is used to terminate rope rather than relying on the use of knots.

10104072	Rope grab fall arrester, automatic/manual, open body, 44.5mm x 30.5cm web lanyard, 19mm snaphook
10110161	Vertical Lifeline Kit, 18m, 19mm snaphook, incl. rope grab
10112824	16mm termination plate



Temporary Horizontal Lifelines

Designed for easy installation and removal, these temporary horizontal lifeline systems were created for a wide range of applications. The system may be mounted to any suitable 22.24kN-rated anchorage and can be rigged using many standard components, reducing the need for special or "engineered" equipment.

SureLine HLL

The SureLine system is a temporary lightweight synthetic rope system that is suspended between two anchorage points.

- Includes integral energy absorber
- 16 mm black nylon kernmantel rope
- Length adjustable (3m to 18m)
- Rated for two workers
- Includes 2 cable anchor slings
- Comes with storage bag
- Certified to EN 795, Class C



10110164	SureLine Temporary Horizontal Lifeline, 18m black rope (Put the table from Fall Protection Catalog EN Page 15)
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SureLine Rope HLL Minimum Clearance Required Below Working Surface

Line Length	1-Worker-System		2-Worker-System	
	1.8m Lanyard	SRL	1.8m Lanyard	SRL
3m	4.34m	3.78m	4.44m	4.01m
6m	4.72m	4.19m	5.18m	4.57m
9m	5.21m	4.62m	5.89m	5.05m
12m	5.64m	5.00m	6.60m	5.58m
15m	6.09m	5.38m	7.36m	6.17m
18m	6.53m	5.81m	7.92m	6.75m

Clearances based on lifeline 1.2m above working surface

Rescue Equipment

It is essential that there is a specific rescue plan and adequate resources in place for each worksite where work at height is carried out. MSA rescue equipment provides an easy-to-use solution for prompt rescue.

SuretyMan Rescue Utility System

The SuretyMan Rescue Utility System incorporates all the features professionals have come to expect from a first class rescue system. The system is primarily used for raising and lowering people or equipment in rescue and industrial work access, and is ideal for confined space applications.

The SuretyMan Rescue Utility System features:

- Pulleys equipped with a built-in anti-reversing lock
- Only a 0.04kN force is required to hold a 90kg load
- SuretyMan ascender attached to both the operating rope and the user via a securing rope – if the operating rope accidentally releases, the ascender automatically stops the descent
- Rapid deployment
- Virtually maintenance free
- Rated for 2-person load
- Compact and lightweight with a standard system weight of 7.7kg
- Versatile for rescue and access
- Multi-purpose ascent or descent
- Rated capacity of 272kg for personnel and materials
- Standard rope length of 60m with a maximum rope length of 240m
- Certified to EN 1496, class A

10104070 SuretyMan Rescue Utility System, 60m length

PLEASE NOTE: Due to a 4:1 mechanical advantage, the user should order the Rescue Utility System with 4 times the length of rope necessary for their application. For example, the 60m system listed above provides a 15m working length. A 240m system provides a 60m working length.



Rescue Pole/Remote Hook

The Rescue Pole/Remote Hook is designed as a rescue tool for the retrieval of a worker suspended in a fall arrest system or for remote rescue access.

In most cases, the need for the rescuer to go to the fallen worker (victim) is limited. The Rescue Pole can be used in a wide variety of rescue applications and will serve as an excellent tool to help perform a safer, efficient rescue. The system consists of an adjustable fibre glass pole, pole adapter, and remote hook. A nylon storage bag is optional.

SFP675009 Adjustable pole, fibre glass 1.8m to 3.6m

SCE109001 Pole adapter, aluminium/rubber

SRCA401 Remote hook, aluminium, with web sling

SRB675009 Storage bag for pole and remote hook



Fall Protection

Self-Retracting Lanyards

Self-Retracting Lanyards are fast-acting fall arresters that limit free fall distance, deceleration distance and free fall forces while allowing the user freedom of movement. SRL devices are ideal for climbing ladders or any other application where vertical mobility is needed.

MSA Workman PFL EN Lanyard

- Field-replaceable lifeline
- No annual factory recertification required
- Integral load indicator
- Integral swivel at PFL/SRL connector
- Durable, engineered thermoplastic housing
- Certified to EN 360

10119074	MSA Workman PFL EN, 25mm nylon web, 3.6m, steel snaphook
10119075	MSA Workman PFL EN, 25mm nylon web, 3.6m, aluminium snaphook
10119076	MSA Workman PFL EN, 25mm nylon web, 3.6m, aluminium carabiner
10119077	MSA Workman PFL EN, 25mm nylon web, 3.6m, steel scaffold hook, back d-connector
10119078	MSA Workman PFL EN, cable, 3.6m, steel snaphook
10119079	MSA Workman PFL EN, cable, 3.6m, aluminium snaphook
10119080	MSA Workman PFL EN, cable, 3.6m, aluminium carabiner
10119081	MSA Workman PFL EN, cable, 3.6m, steel scaffold hook, back d-connector



Workman® Self-Retracting Lanyard

MSA's new Workman SRL provides the best value for your dollar! With lightweight design and durable, thermoplastic housing with impact-absorbing bumpers, the Workman SRL will not only be accepted by users, but also provides years of dependable service.

10119507	Workman SRL, 30', GALV CABLE, 36CS, NA
10120724	Workman SRL, 30', SST CABLE, 36CS, NA
10121778	Workman SRL, 50', SST CABLE, 36CS, NA
10121834	Workman SRL, 50', GALV CABLE, 36CS, NA



Workman Twin Leg PFL

The Workman Personal Fall Limiter (PFL) and the Workman Twin Leg Personal Fall Limiter are two of the most versatile fall protection devices available on the market today. The Workman PFL has a fast acting brake mechanism and the Workman Twin Leg PFL offers a great alternative to twin leg shock-absorbing lanyards.

Contact your local MSA Representative for ordering information.



Dyna-Lock SRLs

The Dyna-Lock Self-Retracting Lanyards (SRLs) are fast-acting fall arresters that limit free-fall distance, deceleration distance, and fall arrest forces, while allowing user freedom of movement. They are ideal for climbing applications where vertical mobility is needed. Certified to EN 360. Meet ANSI A10.32

Arrest Force	Arrest Distance
• 0.33 – 1.37kN < 4k	• 0.33 – 1.37kN < 101.6cm
• 1.38kN – 1.78kN < 8kN	• 1.38kN – 1.78kN < 13cm

10114516	Dyna-Lock SRL, 25mm nylon web, 6m, with swivel snaphook
10103343	Dyna-Lock SRL, galvanised wire rope, 9m, with swivel snaphook
10117437	Dyna-Lock SRL, galvanised wire rope, 16m, with swivel snaphook
10103346	Dyna-Lock SRL, galvanised wire rope, 22m, with swivel snaphook
10103344	Dyna-Lock SRL, galvanised wire rope, 30m, with swivel snaphook
10103342	Dyna-Lock SRL, stainless steel wire rope, 6m, with swivel snaphook
10114518	Dyna-Lock SRL, stainless steel wire rope, 9m, with swivel snaphook
10117438	Dyna-Lock SRL, stainless steel wire rope, 16m, with swivel snaphook
10103345	Dyna-Lock SRL, stainless steel wire rope, 22m, with swivel snaphook



Fall Protection Kits

The off-the-shelf solution for many fall arrest applications.

Confined Space Entry Kits

Confined Space Entry Kits with MSA Workman tripod allow for nonentry rescue of a confined space entrant. Each kit comes with pulley and carabiners. Certified to EN 795 and EN 1496.

10105271 Kit, Confined Space, Workman Tripod



Bosun Chair

Designed to be used in conjunction with our full-body harnesses, the bosun chair attaches to harnesses with a chest D-ring. It will keep the user in the upright position and provides the best method to sit suspended for long durations.

SSH3505017 Bosun Chair



MSA Workman Harness Kits

Your basic fall protection needs for construction and general maintenance are now available in one, easy-to-order kit. All fall protection kits include the MSA Workman Light Harness, lanyard and anchorage connector in an easy to stow bag. Certified to EN 354, EN 355 and EN 361.

10115529	MSA Workman Light Full Body Harness, small, Qwik-fit leg straps, single-leg lanyard, aluminium carabiner
10115530	MSA Workman Light Full Body Harness, medium, Qwik-fit leg straps, single-leg lanyard, aluminium carabiner
10115531	MSA Workman Light Full Body Harness, large, Qwik-fit leg straps, single-leg lanyard, aluminium carabiner
10115532	MSA Workman Light Full Body Harness, small, Qwik-fit leg straps, single-leg lanyard, aluminium scaffold hook
10115533	MSA Workman Light Full Body Harness, medium, Qwik-fit leg straps, single-leg lanyard, aluminium scaffold hook
10115534	MSA Workman Light Full Body Harness, large, Qwik-fit leg straps, single-leg lanyard, aluminium scaffold hook
10115535	MSA Workman Light Full Body Harness, small, Qwik-fit leg straps, twin-leg lanyard, aluminium carabiner
10115536	MSA Workman Light Full Body Harness, medium, Qwik-fit leg straps, twin-leg lanyard, aluminium carabiner
10115537	MSA Workman Light Full Body Harness, large, Qwik-fit leg straps, twin-leg lanyard, aluminium carabiner
10115538	MSA Workman Light Full Body Harness, small, Qwik-fit leg straps, twin-leg lanyard, aluminium scaffold hook
10115539	MSA Workman Light Full Body Harness, medium, Qwik-fit leg straps, twin-leg lanyard, aluminium scaffold hook
10115540	MSA Workman Light Full Body Harness, large, Qwik-fit leg straps, twin-leg lanyard, aluminium scaffold hook



Fall Protection

Fall Protection Accessories

Suspension Trauma Safety Step

The Suspension Trauma Safety Step is designed to help workers in a post-fall suspension position avoid the effects of suspension trauma. The Safety Step allows workers to relieve pressure by inserting a foot into one of the step loops and then standing up in the harness. The flexing of leg muscles and release of harness leg strap pressure stimulates blood flow, helping to prevent the onset of suspension trauma.

Workers can use a single Safety Step or two Safety Steps (one for each leg) to provide additional support, balance, and comfort.

- Compact, lightweight, versatile
- Multiple attachment point options
- Fast, easy installation and deployment
- Attaches to any harness
- Multiple loop design accommodates all heights and sizes

10063431	Suspension Trauma Safety Step with carabiner
10063441	Suspension Trauma Safety Step without carabiner



Lanyard Connector Adaptor

505318	Lanyard Connector Adapter, nylon, 1 D-ring, 18" (Back D-Ring Extension)
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How to put on a Harness



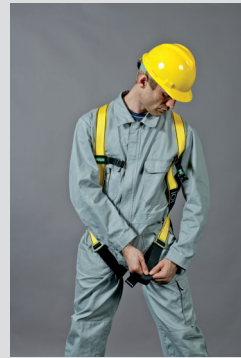
① Hold harness from back D-ring locator pad and gently shake it to remove any twists in straps



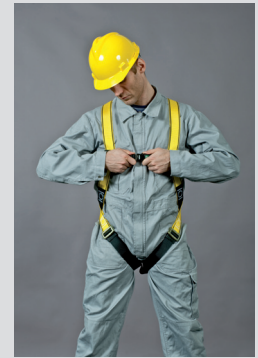
② Slip straps over shoulders so to position back D-ring in the middle of your back between your shoulder blades



③ Pull each thigh strap between legs and fasten to buckle

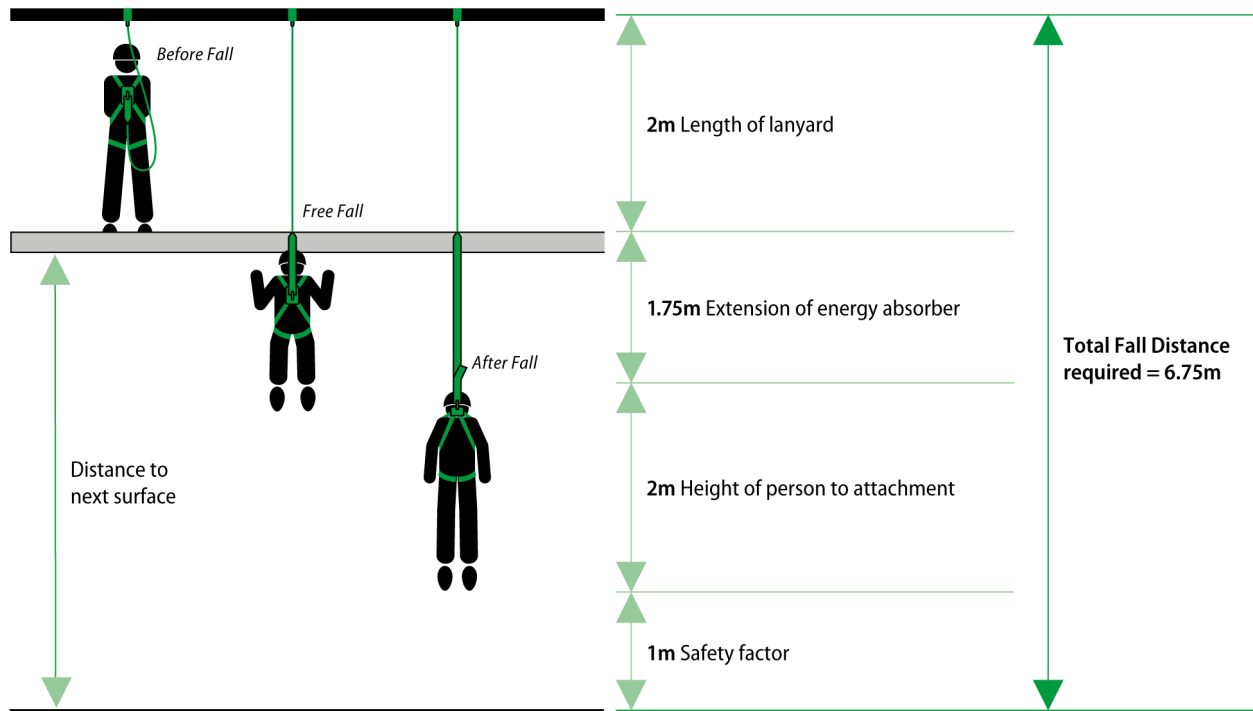


④ Pull leg straps to adjust the harness for a snug and comfortable fit. If harness has a belt, connect after leg straps



⑤ Connect chest strap and position in mid-chest area. Tighten to keep shoulder straps firm and pass excess webbing through keepers

How to calculate Total Fall Distance



Drawing only representational. NOT TO SCALE.

Fire Head **Protection**



Real Protection Systems

The total range of helmets for firefighters provides head protection during fires in various types of operation, like structural firefighting, operations during forest fires, rescue missions, traffic rescue and hazardous environment operations.



F1SF Helmet

The standard-setting F1SF, approved to EN 443:2008, offers comfort and state-of-the-art protection for urban and industrial firefighters. The high-temperature polyamide shell pairs with impact-absorbing reinforced padding for unsurpassed shock absorption and thermal protection. The fireproof three-points chinstrap is adjustable to the wearer's morphology to allow total-helmet stability. The face shield comes in two options, and the inner-ocular visor provides eye-protection in rescue and other operations (Note: face shield and inner visor are used independent from each other.) CE marking according to PPE directive 89/686 Approved to EN 443:2008, type B Including optional requirements (depending on model): Very low temperature (-30°C), Chemical products (C), Extended protection area (3b), Surface electrical insulation (E3) Faceshield according to EN14458:2004 MED certified for use on Ships



Contact your local MSA Representative for ordering information.

F2 X-TREM

Multifunctional and advanced protection helmet for various applications : forest fires and rescue missions, high level industrial protection, hazardous environment .

- EN 397 standard
- CE marking
- EN 12492 standard protection, traffic rescue protection.



Contact your local MSA Representative for ordering information.

Cairns Fire Helmets

Our lowest-profile NFPA 1971 compliant helmet, the Cairns 360R offers excellent fire and impact protection. The brimless helmet features a Ultem thermoplastic shell and non-corroding, high-temperature, glass-filled polymer goggle hardware. The ultra high-temperature (TPR) edge trim won't melt or drip, and the Nomex chinstrap with one-hand quick release buckle and postman slide allows quick and easy adjustment. A choice of Nomex or Pbi/Kevlar earlap offers increased neck/ear protection, while a high-temperature foam cap increases thermal and impact protection. Certified to both NFPA 1971-2007 for structural firefighting as well as NFPA 1951-2007 for urban search and rescue (USAR)



Contact your local MSA Representative for ordering information.

Protective **Clothing**



The Clever Choice Against Aggressive Hazards

MSA suit materials are proven products, such as Vautex SL+ and Champion Elite, but the range also includes the latest multilayer film compound material Vautex Elite, a combination of elastomer-coated fabric and film laminate.



Vautex Elite ET

The chemical protective suit for Emergency Teams [ET] has a combination of elastomer coated fabric and multilayer film laminate. Vautex Elite ET provides optimal protection against solid, liquid and gaseous hazards. It features increased resistance against mechanical stress, flames and low temperatures [- 60°C], while being flexible and allowing freedom of movement. The large integrated lens allows weight reduction in the head section for better wearing comfort. Additional features are the removable rucksack reinforcement, electronic identification by transponder gas-tight zipper with cover and replaceable glove system and boots. As an option the suit can be equipped with: Dual Air System [ventilation, not adjustable], Dual LVS 600 D [ventilation, adjustable], Dual SCBA [no ventilation, external air supply possible]

PPE 89/686/EEC

EN 943 (part 1 & 2, type 1a ET) EN 533, EN 1073-2, EN 14126

II 1G IICT6

SOLAS 74/88 Section II-2 Regulation 19.3.6.1, latest version Leaflet 13-100.2, 13-154.2

Can be configured per individual requirements

Contact your local MSA Representative for ordering information.



Vautex Elite S

All Vautex Elite S suits offer reliable protection against gases, vapours, solid and liquid chemicals, infective agents, low temperatures (- 60°C) as well as radioactive contamination. A double glove system, replaceable boots and gloves, and an integrated transponder are standard features. MSA offers various Vautex Elite S models to meet all your needs and requirements. The economic Vautex Elite S Expert model features a fully integrated lens. The spacious head section allows to wear various helmets. PPE 89/686/EEC

EN 943, part 1, type 1a

Leaflet 13-100.2, 13-156.2

D3020825 CPS Vautex Elite S medium

D3020826 CPS Vautex Elite S

D3020867 CPS Vautex Elite S (Expert)



Chempion Elite ET

Total encapsulating limited-use suit for protection against solid, liquid and gaseous or vaporous hazards (type 1a ET). Air supply provided by compressed air breathing apparatus inside the suit. Suit material: multilayer film laminate on carrier fleece. Lightweight, good wearing comfort. PPE 89/686/EEC

EN 943, part 1 and 2, type 1a ET

Leaflet 13-100.2, 13-124.2

D3020895 CPS Chempion Elite



PLASTIKLOS

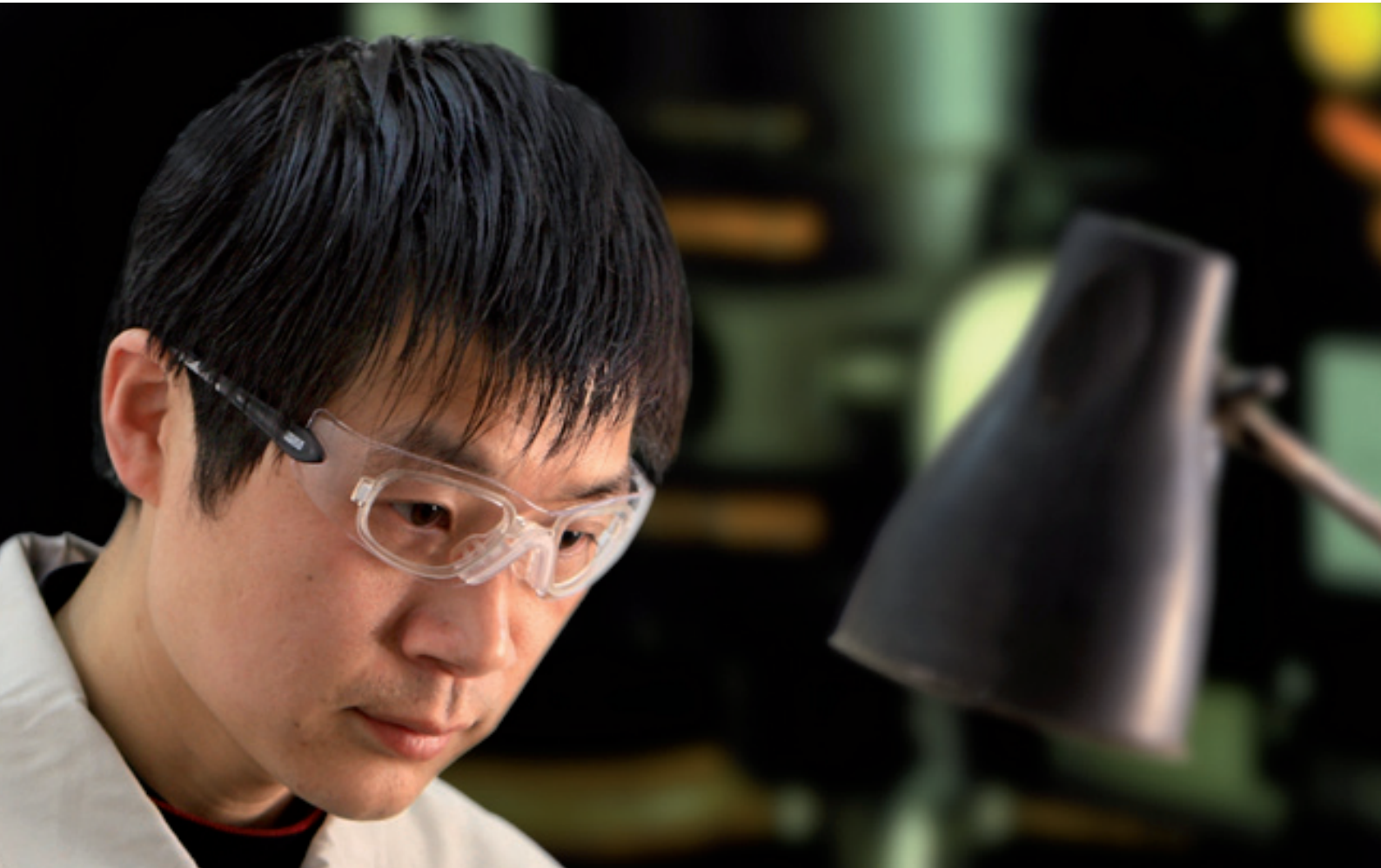
Protective clothing against liquid chemicals [type 4]. As an overall with hood or as a two-piece suit (jacket and dungarees), each in 6 sizes. The material is a plastic fabric, coated on both sides. PPE 89/686/EEC

EN 14605:2005+A1:2009

Leaflet 13-100.2, 13-421.2

Contact your local MSA Representative for ordering information.





Your Key To Lasting Performance

MSA's customer service representatives and service engineers are always on hand to advise and assist you in the SouthEast Asia.





Service

MSA Service Professional, Safe & Flexible

MSA is one of the leading companies in the development, production and distribution of innovative personal protective equipment and gas detection systems. Alongside the extensive range of top quality products, MSA also provides a high level of customised service. MSA's comprehensive and versatile range of services ensures that your equipment and systems will always be reliable, economical and ready for use. MSA is always at your service to provide you with the support you need, when you need it.

- Project Planning & Development
- Installation & Commissioning
- System Modification
- Maintenance
- Repair & Service
- Training

Permanent Gas Detection Systems

Project Planning & Development

MSA service starts from the beginning of the planning stage through to the complete project management of facilities. MSA works in close co operation with you the customer to arrive at the optimum, made-to-measure solution that best meets your requirements.

Installation & Commissioning

MSA also provides support throughout the installation phase. This includes areas such as the calibration of sensors, the programming of logic systems or the certification of the total facility.

Maintenance

After the successful commissioning of the facility, MSA offers a comprehensive range of maintenance services, if these are required. In the interests of designing the right service package, maintenance schedules are developed in close collaboration with you. Preventative maintenance and calibration checks help to ensure the smooth functioning of the facility all year round.

System Modification

Complete system overhauls or modifications are carried out using the original engineering design data, material specifications, manufacturing expertise and approved parts. Field modifications made by MSA can provide such benefits as improved productivity, expanded capacity and fewer shutdowns. System modifications will not invalidate warranties or approvals.

Your Key To Individual Service

When planning your safety requirements you may need advice on purchasing the right kind of equipment. MSA will happily help you choose between the available options.

In addition to making recommendations on personal protective equipment and portable gas detectors, MSA offers professional project planning, installation and the commissioning of permanent gas detection systems.

The MSA After-Sales Service includes repair and maintenance services, system modification and spare parts management. Moreover you can access training courses which will enable you to get the best from MSA's range of products and services.

MSA believes in developing and optimising its service solutions together with you. This means that you decide on the range of services you require, as well as on length of time your contract should run. The key to lasting performance lies in the development of individual, customised services that address your needs and meet your desires.

Competent Service Personnel

From the moment you first contact MSA, fully qualified and experienced engineers are at your service. After all, high quality products should be complemented by service of the very highest standard. Many of MSA's staff are also trained to offer instructional courses, thus providing the most efficient transfer of knowledge.

PPE & Portable Gas Detectors

Maintenance

MSA offers maintenance services for personal protective equipment and portable gas detectors according to established regulations and guidelines. Beyond meeting the required norms, MSA's engineers can make recommendations which exceed established standards, thus allowing you to get the best out of your equipment in the long term, both in terms of value for money and operational readiness.

Repair & Service

Depending on the nature of the contract, repair services can be carried out on your premises at short notice. MSA's engineers receive up to the minute training, ensuring the most efficient and cost effective repair and calibration services.

Training

You can avail of individually tailored courses on the proper care, use and maintenance of our products, either at your own premises or at one of MSA's many local branch offices.

To find the nearest engineer to you, simply contact MSA Customer Services at MSA Office.



Galaxy GX2 (see page 31 for more information)



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Note: This Bulletin contains only a general description of the products shown. While uses and performance-capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

ID-DOC-000002

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