



MSA Safety Equipment Catalogue

Volume 16 - Oceania **2016-2017**

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Website

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Australia au.msasafety.com/resources
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MSA-U® Training Center



What is MSA-U?

MSA-U is a feature-rich online training center that offers courses anytime, anywhere to maximise the users' competencies on MSA products, product technologies, and safety industry standards. www.msasafety.com/msau

Benefits

- Complete training, anytime, anywhere
- Easy course navigation
- Link to 'New' Training from the home page
- Select certificates achieved, from the home page
- From the home page, view courses you accessed
- Immediate feedback on test performance
- Detailed training reports available for managers
- Receive feedback on incorrect test answers
- www.msasafety.com/msau







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Our business is safety and we have been one of the world's leading manufacturers of high-quality safety products for 100 years. On the outside they look simple to use and maintain for the user, but are highly sophisticated devices and protective gear that is the result of countless R&D hours, relentless testing, and an unwavering commitment to quality. Our belief is that users should feel safe, secure and protected even in the most hazardous conditions knowing that MSA has exhaustively researched the application, integrating multiple combinations of electronics, mechanical systems, and advanced materials to ensure that users around the world remain protected.

As MSA Australia's policy is one of continuous product improvement, changes to specifications and prices can be made without notification. For up to date product information refer to: www.msasafety.com

Training and Service Solutions



Training

MSA is a Registered Training Organisation offering on-site training throughout Australia with the ability to tailor-fit courses to customer requirements.

Huita of commetenci	on afficient by MCA DTO 01573.
Units of competencie	es offered by MSA – RTO 91573:
CPPFES2005A	Demonstrate first attack firefighting equipment
HLTAID001	Provide cardiopulmonary resuscitation
HLTAID002	Provide basic emergency life support
HLTAID003	Provide first aid
HLTAID004	Provide an emergency first aid response in an education and care setting
MSMPER200	Work in accordance with an issued permit
MSMPER202	Observe permit work
MSMPER205	Enter confined space
MSMPER300	Issue work permits
MSMPER200	Work in accordance with an issued permit
PUAFIR207B	Operate breathing apparatus open circuit
PUAFIR215	Prevent injury
PUASAR025A	Undertake confined space rescue
PUAFIR316	Identify, detect and monitor hazardous materials at an incident
RIIRIS201D	Conduct local risk control
RIIWHS204D	Work safely at heights

Additional training programs also available:

Fall protection: user / train the trainer / inspections

Gas monitors: user / train the trainer / inspections

Product training: competency based

Professional, Reliable and Responsive

Service, support and product training are vital components of MSA's commitment to it's distributors and end users. Most products are serviced at the Sydney Head Office.

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.

MSA also offers a variety of test benches for your workshop with manually or automatically recorded test results. From the mobile test case Multitest to the stationary computer supported test bench SmartCHECK, your equipment will be tested to the highest professional standards.

All MSA test benches meet the industry standards and manufacturer regulations for the testing of compressed air breathing apparatus, full face masks, demand valves and chemical protective suits.

Product Service

MSA has a Service Department at Baulkham Hills Sydney with 3 qualified technicians and a mobile service vehicle. There is also an Australia wide network of MSA approved service agents to support product ranges in SCBA, Gas Detection equipment, height safety equipment, respiratory equipment and oxygen self rescuers.

MSA Australia utilises a software program called TecBOS.solutions to support the management of serviceable safety equipment that includes the inspection, servicing and repair of high cost safety equipment or sophisticated safety product that requires regular maintenance as referenced under the relevant Australian Standards.



MSA Service Van

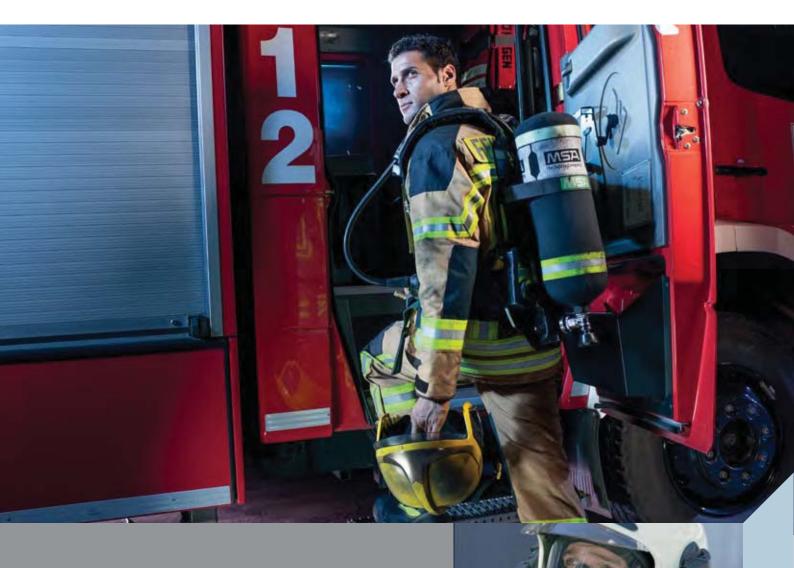


Service Facilities



Service Facilities





Supplied Air Respirators
Air Purifying Respirators

MSA has you covered for all your Respiratory needs. From state of the art SCBA equipment to Air Purifying Respirators, you can rely on MSA to supply you with everything you need.

MSA's Self-Contained Breathing Apparatus (SCBA) systems are designed for long life and low maintenance. To meet every application and budget our SCBA's can be configured according to individual requirements.

Toxic materials can enter the body in many ways, and the respiratory system presents the quickest and most direct avenue of entry.

In Air Purifying Respirators the inhaled air is drawn through a filtering media which removes the nominated contaminants.

MSA's range of respirators provides various styles for wearer comfort, while a broad selection of filters ensures protection for most hazards.

Supplied Air Respirators

G1 SCBA NEW

Introducing the MSA G1 SCBA: The most comfortable, streamlined, balanced, configurable and customisable SCBA MSA's ever produced.



Optional Head-Up-Display

- LEDs, located in demand valve, display pressure, system and alarm status unobtrusively and without work interruption
- Signals delivered through the line to the demand valve and continue to the inside of the mask through light pipes
- Cost intensive electronics are kept out of the mask, which reduces its price and makes cleaning easier

 The entire team has access to top-grade technology, while each firefighter can still maintain his or her own personal mask for added hygiene.



State of the Art Harness

- Comfortable padding
- Extremely robust cover fabric to withstand repeated exposure to flame and heat (EN approved)
- Robust adjustment buckles made from cast steel
- Protection tunnels for lines with reflective features
- Integrated stand-by support for demand valve



Control Module

- Combined digital and analog pressure reading
- Intuitive interface displays essential information by default allowing the user to concentrate on his job
- Other data is available with a touch of a button





Low Profile Face Mask

- Open port technology for free breathing when in stand-by (demand valve not attached)
- Huge field of vision for unobstructed view
- Low profile for less snagging and improved weight distribution
- Independent of electronic options to minimize costs for individual mask ownership and up keep
- All components easily accessable and interchangeable for easy maintenance and cleaning
- Available in 3 sizes
- Choice of classic rubber or modern fabric harness



Optional Voice Projection Speaker

- Integrated microphone picks up voice inside the mask independent of environmental conditions
- High volume and speech intelligibility
- Improves team and training communication





Central Processing Module

 Centrally processes all data on the SCBA: motion detection, data distribution to HUD, control module, voice speaker

• Piezo alarm sounders project in all directions

 Built-in RFID reader to log on with personal tag, team assignment or pairing information

Single Power Supply

- All components powered with a single power supply
- Simplified battery monitoring and exchanging
- Greater system reliability

Long-Range Radio

- Industry-leading telemetry with proven track record
- Low impact monitoring with high accountability
- Operates with alphaBASE and alphaCONTROL 2



Advanced Hip Belt Features

- Swivelling to follow body movement
- Easy to use and robust height adjustment to accomodate different torso lengths





Buddy Breather 2nd Connection

- Allows connection to fellow firefighter in case of emergency
- Y-piece connector enables donation of air without breaking recipient's air supply
- Allows for easy connection to airline system
- 1.2 m medium pressure line in pouch on hip



Optional QuickFill Connection

• Direct high pressure connection for fast cylinder refill while donned

BD Mini and AirGo Compact Series Breathing Apparatus

BD Mini Short Duration Working SCBA



- Suited for short-duration work in confined spaces.
- Its small size and the variable design permit various carrying modes.
- Can be connected to an airline system or a cylinder cascade when fitted with Automatic Switch Valve.
- Hip wear option available.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
762082	BD Mini featuring Ultra Elite facemask and AutoMaXX demand valve
762083	BD Mini featuring 3S facemask and AutoMaXX demand valve
767085	Fully wrapped carbon fibre cylinder and valve 2 litre - 300 bar. 15 minute duration
4066700	Automatic Switch Valve, for airline system or cylinder cascade

AirGo Compact





- The AirGo Compact SCBA 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 AutoMaXX® demand valve is fixed to the medium pressure line, keeping costs at a minimum without sacrificing safety.
- The vital pneumatic and carrier components are the same as those used in the high end MSA SCBA.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- · Wheelmark Certified.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
766610	AirGo Compact featuring 3S facemask and AutoMaXX demand valve
766278	AirGo Compact featuring Ultra Elite facemask and AutoMaXX demand valve

AirGo Compact Plus





- The AirGo Compact Plus SCBA provides an additional level of comfort and flexibility.
- Features shoulder padding for increasing comfort during emergency response in ships and industrial facilities.
- Features an auxiliary line connection.
- The AutoMaXX® demand valve is fixed to the medium pressure line, keeping costs at a minimum without sacrificing safety.
- The vital pneumatic and carrier components are the same as those used in the high end MSA SCBA.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- Wheelmark Certified.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
767847	AirGo Compact Plus featuring 3S facemask, AutoMaXX demand valve and auxiliary line connection
766695	AirGo Compact Plus featuring Ultra Elite facemask, AutoMaXX demand valve and auxiliary line connection



AirGo Pro Series Breathing Apparatus

AirGo Pro SingleLine with Hose in Hose Technology



Hose in Hose Technology

- · Rugged reliability.
- Great value makes it a popular choice for fire brigades, industrial or offshore use.
- Weight is distributed evenly and kept close to your body to reduce stress and fatigue.
- SingleLine (Hose in Hose Technology) system integrates warning signal, second connection and gauge in an easily accessible manifold on the chest.
- Padded harness for improved user comfort.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- · Wheelmark Certified.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
766279	AirGo Pro - SingleLine featuring Ultra Elite Facemask and AutoMaXX demand valve
766694	AirGo Pro - SingleLine featuring swivel waist belt, Ultra Elite Facemask and AutoMaXX demand valve
767473	AirGo Pro - SingleLine featuring Ultra Elite Silicone Facemask and AutoMaXX demand valve
766611	AirGo Pro - SingleLine featuring 3S Facemask and AutoMaXX demand valve

AirGo Pro Series with Separate Demand Valve and Gauge Line



- · Rugged reliability.
- Great value makes it a popular choice for fire brigades, industrial or offshore use.
- Weight is distributed evenly and kept close to your body to reduce stress and fatigue.
- Improved user comfort with padded harness.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- · Wheelmark certified.
- Certified to AS/NZS 1716:2012.

	PART NO:	Description
	763745	AirGo Pro featuring Ultra Elite Facemask, AutoMaXX Demand Valve and auxiliary line
	767849	AirGo Pro featuring swivel waist belt, Ultra Elite Facemask, AutoMaXX Demand Valve and auxiliary line
ĺ	767854	AirGo Pro featuring Ultra Elite Silicone Facemask, AutoMaXX Demand Valve and auxiliary line
ĺ	767851	AirGo Pro featuring 3S Facemask, AutoMaXX Demand Valve and auxiliary line

AirGo ProMaXX Series Breathing Apparatus

AirGo ProMaXX SingleLine with Hose in Hose Technology



Hose in Hose Technology

- Combines premium ergonomic features with rugged reliability.
- Combines the great value and reliability of the Pro backplate with MaXX suspension comfort harness for increased performance and maximum user comfort.
- Weight is distributed evenly and kept close to your body to reduce stress and fatigue.
- Ergonomically designed with premium S-swing shoulder pads and swivelling waist belt for even weight distribution.
- SingleLine (Hose in Hose Technology) system integrates warning signal, second connection and gauge in an easily accessible manifold on the chest.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- · Wheelmark certified.
- Certified to AS/NZS 1716:2012

• Certilled to AS/NZS 1710.2012.
PART NO: Description
766280 AirGo ProMaXX SingleLine featuring suspension comfort harness system with swivel waist belt, Ultra Elite facemask and AutoMaXX demand valve
767848 AirGo ProMaXX SingleLine featuring suspension comfort harness system with swivel waist belt,
767848 Ultra Elite Silicone facemask and AutoMaXX demand valve
AirGo ProMaXX SingleLine featuring suspension comfort harness system with swivel waist belt, Ultra
767175K Elite facemask, AutoMaXX demand valve includes 550mm QuickFill line and 9L 300 bar cylinder.
NSW Coal Mines Registered

AirGo ProMaXX with Separate Demand Valve and Gauge Line



- Combines premium ergonomic features with rugged reliability.
- Combines the great value and reliability of the Pro backplate with MaXX suspension comfort harness for increased performance and maximum user comfort.
- Weight is distributed evenly and kept close to your body to reduce stress and fatigue.
- Ergonomically designed with premium S-swing shoulder pads and swivelling waist belt for even weight distribution.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- · Wheelmark certified.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
767852	AirGo ProMaXX featuring suspension comfort harness, swivel waist belt, Ultra Elite facemask, AutoMaXX demand valve and waist mounted auxiliary line
767853	AirGo ProMaXX featuring suspension comfort harness, swivel waist belt, Ultra Elite Silicone facemask, AutoMaXX demand valve and waist mounted auxiliary line

AirMaXX Series Breathing Apparatus

AirMaXX



- The AirMaXX SCBA combines premium ergonomic features with advanced technology.
- Fully adjustable backplate with 3 height positions, for optimal balance and comfort.
- Premium S-swing suspension comfort shoulder pads and swivelling waist belt to distribute weight evenly.
- The AirMaXX stays with you even when you are turned upside down.
- SingleLine (Hose in Hose Technology) system integrates warning signal, second connection and gauge in an easily accessible manifold on the chest.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
766281	AirMaXX SingleLine featuring suspension comfort harness system with swivel waist belt, Ultra Elite Facemask and AutoMaXX demand valve
766697	AirMaXX featuring separate demand valve, gauge line and waist mounted auxiliary line, featuring comfort harness system with swivel waist belt, Ultra Elite facemask and AutoMaXX demand valve

AirMaXX eXXtreme



- The AirMaXX eXXtreme SCBA combines premium ergonomic features with advanced technology
- Fully adjustable backplate with 3 height positions, for optimal balance and comfort.
- Premium S-swing suspension comfort shoulder pads and swivelling waist belt to distribute weight evenly.
- The AirMaXX stays with you even when you are turned upside down.
- SingleLine (Hose in Hose Technology) system integrates warning signal, second connection and gauge in an easily accessible manifold on the chest.
- Specially designed, heavy duty, extremely comfortable harness for protection from continuous exposure to flames and high heat.
- Hoses protected by insulating shrouds.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
765944	AirMaXX eXXtreme SingleLine featuring heavy duty comfort harness system with swivel waist belt, Ultra Elite facemask and AutoMaXX demand valve



Specialised SCBA

alphaSPACE Confined Space SCBA



- Combining the features of MSA's industry leading Respiratory Protection and Fall Protection equipment, to create the unique alphaSPACE Self Contained Breathing Apparatus.
- The unique 2-in-1 solution developed for challenging applications which require both Respiratory and Fall Protection.
- Suitable for use in confined space or when working at heights.
- Can be used for escape, or as a working set for inspections, rescue, or firefighting applications.
- Supports a wide variety of cylinder options (up to 9 Litres) to ensure the ultimate in comfort, weight and flexibility.
- Flexible, rescue style harness with unique floating shoulder, leg and sub-pelvic straps giving the user a versatile and comfortable fitting harness.
- Fall arrest rated frontal attachment points and fall arrest rated adjustable D-ring.
- Attachment loops on shoulder for confined space entry and retrieval applications with spreader bar use.
- Yellow and black harness webbing for high visibility purposes.
- Harness made of non-flammable Nomex.
- Fitted with Automatic Switch (non return) Valve, for connection to an airline system or cylinder cascade.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- Certified to AS/NZS 1891.1:2007.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
765623S	alphaSPACE featuring Ultra Elite facemask, AutoMaXX demand valve and Automatic Switch Valve - Small
765623M	alphaSPACE featuring Ultra Elite facemask, AutoMaXX demand valve and Automatic Switch Valve - Medium
765623L	alphaSPACE featuring Ultra Elite facemask, AutoMaXX demand valve and Automatic Switch Valve - Large

Kits

SCBA and Cylinder Kits



- Industrial SCBA Kits provide a ready made package for ensuring respiratory compliance.
- Just select appropriate cylinder.
- Industrially engineered for best in class performance.
- Reduced weight with permanently connected demand valve.
- Close fitting hoses are less likely to snag on protruding objects in tight spaces.
- Integrated RFID transponder for easy inventory management.
- Value packed and ready for immediate use.
- · Maximum safety and durability.
- Requires only minimal maintenance.
- Provides higher levels of safety for inexperienced personnel.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
767561-4.3	Kit includes AirGo Compact with AutoMaXX demand valve, 3S facemask and 4.3 litre cylinder
767561-4.3K	Kit includes AirGo Compact with AutoMaXX demand valve, 3S facemask, wall bracket, wall cabinet, cabinet cover and 4.3 litre cylinder
767561-6.8	Kit includes AirGo Compact with AutoMaXX demand valve, 3S facemask and 6.8 litre cylinder
767561-6.8K	Kit includes AirGo Compact with AutoMaXX demand valve, 3S facemask, wall bracket, wall cabinet, cabinet cover and 6.8 litre cylinder
767561-9.0	Kit includes AirGo Compact with AutoMaXX demand valve, 3S facemask and 9 litre cylinder
767561-9.0K	Kit includes AirGo Compact with AutoMaXX demand valve, 3S facemask, wall bracket, wall cabinet, cabinet cover and 9 litre cylinder)

Cylinders and Valves

- MSA steel and composite compressed air cylinders meet a wide range of applications, needs, and budgets.
- Composite cylinders with aluminium liner, over-wrapped with carbon and glass fibres, are 50% lighter than the traditional economic steel construction.
- MSA offers cylinder versions with 200 and 300 bar service pressure and 2 to 9 litre capacity.
- MSA cylinders are available with your choice of Straight (Inline), Right Angle and T-Style valves from MSA and TD-Preece.
- The Straight (Inline) valve features an integrated gauge for added convenience.



Straight Valve with Gauge

ART NO:	Description	Size	Valve Style	Approx Duration	Approx Full Weigh
/ Wrappe	d Carbon Fibre Composite Cylinders: 300 bar				
767085	2 Litre 300 bar Carbon Straight	2 Litre	Straight	15 mins	2.6 kg
767718	2 Litre 300 bar Carbon Right Angle Preece	2 Litre	Right Angle Preece	15 mins	2.6 kg
767717	2 Litre 300 bar Carbon T-Style Preece	2 Litre	T-Style Preece	15 mins	2.6 kg
767721	3 Litre 300 bar Carbon Straight	3 Litre	Straight	22 mins	3.4 kg
767720	3 Litre 300 bar Carbon Right Angle Preece	3 Litre	Right Angle Preece	22 mins	3.4 kg
767719	3 Litre 300 bar Carbon T-Style Preece	3 Litre	T-Style Preece	22 mins	3.4 kg
767724	4.3 Litre 300 bar Carbon Straight	4.3 Litre	Straight	31 mins	6.4 kg
767723	4.3 Litre 300 bar Carbon Right Angle Preece	4.3 Litre	Right Angle Preece	31 mins	6.4 kg
767722	4.3 Litre 300 bar Carbon T-Style Preece	4.3 Litre	T-Style Preece	31 mins	6.4 kg
767729	6 Litre 300 bar Carbon Straight	6 Litre	Straight	45 mins	6.5 kg
767728	6 Litre 300 bar Carbon Right Angle Preece	6 Litre	Right Angle Preece	45 mins	6.5 kg
767731	6.8 Litre 300 bar Carbon Straight	6.8 Litre	Straight	51 mins	6.9 kg
767732	6.8 Litre 300 bar Carbon Straight Preece	6.8 Litre	Straight Preece	51 mins	6.9 kg
228127	6.8 Litre 300 bar Carbon Right Angle Preece	6.8 Litre	Right Angle Preece	51 mins	6.9 kg
767730	6.8 Litre 300 bar Carbon T-Style Preece	6.8 Litre	T-Style Preece	51 mins	6.9 kg
767738	6.8 Litre 300 bar Carbon Straight (30 year life)	6.8 Litre	Straight	51 mins	7.1 kg
767737	6.8 Litre 300 bar Carbon Right Angle Preece (30 year life)	6.8 Litre	Straight	51 mins	7.1 kg
767736	6.8 Litre 300 bar Carbon T-Style Preece (30 year life)	6.8 Litre	Straight	51 mins	7.1 kg
767741	9 Litre 300 bar Carbon Straight	9 Litre	Straight	67 mins	8.1 kg
767740	9 Litre 300 bar Carbon Right Angle Preece	9 Litre	Right Angle Preece	67 mins	8.1 kg
767739	9 Litre 300 bar Carbon T-Style Preece	9 Litre	T-Style Preece	67 mins	8.1 kg
767744	9 Litre 300 bar Carbon Straight (30 year life)	9 Litre	Straight	67 mins	9.2 kg
767743	9 Litre 300 bar Carbon Right Angle Preece (30 year life)	9 Litre	Right Angle Preece	67 mins	9.2 kg
767742	9 Litre 300 bar Carbon T-Style Preece (30 year life)	9 Litre	T-Style Preece	67 mins	9.2 kg
Wrappe	d Carbon Fibre Composite Cylinder: 200 bar				
765008	9 Litre 200 bar Carbon Straight	9 Litre	Straight	45 mins	8.5 kg
l Cylinde	rs				
767727	6 Litre 300 bar Steel Straight	6 Litre	Straight Preece	45 mins	10.4 kg
767726	6 Litre 300 bar Steel Right Angle Preece	6 Litre	Right Angle Preece	45 mins	10.4 kg
767725	6 Litre 300 bar Steel T-Style Preece	6 Litre	T-Style Preece	45 mins	10.4 kg



Facemask and Lung Governed Demand Valve

Ultra Elite® Facemask



- Manufactured from specially developed black rubber or silicone.
- Silicone version is more resistant to ageing and does not irritate the skin.
- Two-way breathing for airline appliances, and compressed air breathing apparatus.
- Pressure-free fit through comfortable single sealing flange and deep chin cup.
- Silicate coated lens with distortion-free field of vision of almost 100%.
- Five-point rolling buckle harness.
- Good speech communication through speech diaphragm.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- Certified to AS/NZS 1716:2012.

PART NO	Description
10069782	Ultra Elite®- PS-MaXX Positive Pressure featuring AutoMaXX connector - Rubber.
10031384	Ultra Elite®- PS-MaXX-Si Positive Pressure featuring AutoMaXX connector - Silicone

Note: Other styles are available. Refer to page 20 for APR Versions

3S Facemask



- Worldwide top seller over the last 40 years, recently enhanced for greater comfort.
- Proven design, the 3S mask offers everything a mask wearer needs.
- Comfortable materials.
- Silicone version is more resistant to ageing and does not irritate the skin.
- Good communication through speech diaphragm.
- · Anti fogging air flow.
- · Low weight.
- No pressure points, low breathing connector.
- Embedded RFID transponders, for inventory and asset tracking purposes.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
10031422	3S Positive Pressure featuring AutoMaXX connector - Rubber
10031388	3S Positive Pressure featuring AutoMaXX connector - Silicone

Note: Refer to page 20 for APR Versions

AutoMaXX®Lung Governed Demand Valve



- · Lightweight.
- Ergonomically designed rounded shape for sure grip.
- Impact resistant due to unique shape.
- Fitted with non-skid elastomer strips.
- Easily operated with gloves by left and right handed users.
- 360° swivel in 2 directions.
- Maintenance friendly for improved cost of ownership.
- Embedded RFID transponders, for inventory and asset tracking purposes
- Certified to AS/NZS 1716:2012

PART NO:	Description
10073154	AutoMaXX-AS-G shorter line (50cm). Rubber hose for industrial applications
10036272	AutoMaXX®-AS-G (65 cm). Rubber hose for industrial applications.
10023688	AutoMaXX®-AS (65 cm)
10043133	AutoMaXX®-AS shorter line (50 cm)

S-Cap Air Escape Device



- The S-Cap-Air is a compressed air, constant flow, escape breathing apparatus designed to aid escape from hazardous areas in which toxic substances or oxygen deficiency may occur.
- Designed for use on ships, chemical industries, oil rigs, refineries, water utilities and confined spaces.
- It is very easy to operate: simply open the unit, put on the hood (can be used by personnel with beards, moustaches and spectacles) and make your escape.
- Duration: 15 minutes.
- Certified EN 1146 and SOLAS/Wheelmark.

PART NO:	Description
10017668T	S-Cap Air with filled cylinder 15 min
767698	S-Cap Air with unfilled NZ cylinder 10 min

Lifegard III Escape Device



- Short duration compressed air, constant flow, escape breathing apparatus designed to aid escape from hazardous areas in which toxic substances or oxygen deficiency may occur.
- Designed for use on ships, chemical industries, oil rigs, refineries, water utilities and confined spaces.
- Consists of an air storage cylinder, pressure reducing constant flow metering valve and flame retardant hood (can be used by personnel with beards, moustaches and spectacles).
- Duration: 8 minutes.
- Complies with AS/NZS 1716:2012.

PART NO:	Description
764975	Lifegard III 8 min

SCBA Accessories

Carrying Case



P/N: 9510002



P/N: 10126797

Cylinder Covers

Carry Cases accommodate up

Wheeled Carrying Case suitable for SCBA and up to 2 cylinders Standard Case, suitable for SCBA and

Duffel Carry Bag for SCBA, Soft Black

1 cylinder

PART NO: Description

to 9 litre cylinders



In order to protect the high-value composite cylinders, MSA offers a protective cover of non-flammable material in forest green with reflective band.

PART NO:	Description
767982	6.8 lt - 15 year life cyl.
768010	6.8 lt - 30 year life cyl.
767983	9 lt CF - 15 year life cyl.
768011	6 lt CF - 15 year life cyl.
768012	4.3 lt CF - 15 year life cyl.

SCBA Cabinet

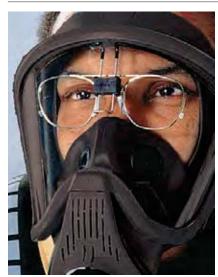


- Protect your investment and ensure SCBA is ready for quick use, with wall bracket and/or SCBA cabinets.
- Suits SCBA and cylinders up to 9L.
- Cabinet includes easily removed clear cover.
- Cabinet (including cover) and wall bracket sold separately.

PART NO:	Description
229390	SCBA Cabinet (wall mounted) 6.8L
767980	6/6.8l cylinder clip
767979	4.3L cylinder clip
767981	9L cylinder clip
767978	Support bracket

Note: Must purchase support bracket and cylinder clip to make a complete bracket.

Spectacle Kits for Full Facepiece Respirators



For use by workers who must wear corrective lenses, the Spectacle Kit can be easily inserted into the facepiece. The kit includes a wire support, rubber guide, and pair of metal-frame spectacles. Desired adjustment is obtained by moving the spectacles in and out of the rubber guide and up and down the wire support. The Advantage® 1000 and the Ultravue/Ultra-Twin kits (S-7 shape, 44-mm lens size) and the Ultra Elite® kit (S-7 shape, 48-mm lens size) fit Universal Bridge Corrective Lenses that can be obtained from local sources. The Spectacle Kit can be used with a nosecup.

PART NO:	Description
804638	Ultra Elite® Spectacle Kit (side wire support)
816137	Advantage® 1000 Spectacle Kit (side wire support)
10037282	Advantage® 3000 Spectacle Kit



alphaCLICK Rapid Cylinder Exchange Coupling



- The patented alphaCLICK rapid cylinder exchange coupling fits on MSA 200 or 300 bar standard threaded cylinder valves and completely eliminates the need for threading.
- For safety and reliability, alphaCLICK requires a two-step disconnection sequence, and can only be disconnected when there is no pressure.
- Features a flow restrictor on the cylinder when not connected to the SCBA, which avoids uncontrolled air flow if the valve is accidentally opened
- Lets you change cylinders ten times faster than threading methods, while also improving on safety.

PART NO:	Description
10075277	alphaCLICK plus cylinder adaptor

Telemetry Monitoring Systems

motionSCOUT Personal Alert Safety System (PASS)



- motionSCOUT PASS detects the cessation of bodily movement and activates an automatic alarm.
- Alarm can be user activated for enhanced safety.
- Electronic motion sensor recognises all normal body movements.
- Locate person in danger with highly visible LED and an alarm volume of at least 95dB.
- Alerts nearby persons to nearby incident.
- Maintenance free for great cost of ownership.
- Durable with IP67 rating.
- Temperature sensor optionally available.
- · Version with key for tally board applications.
- Easily affixed to belt or strap with durable clamp.

PART NO:	Description
10088475	motionSCOUT
10124919	motionSCOUT K (key version)
10088477	motionSCOUTT (with temperature sensor)
10088478	motionSCOUT K-T (key version with temperature sensor)

Tally Board/Tally Tag



Allows the controller to closely monitor the status of the individual operatives and their air supply. The information is manually recorded on the tally board together with time data.

PART NO:	Description
765420	Tally Board
227374	Tally Board Tag

alphaCONTROL Electronic Tally Board Software



- Full substitute to conventional tally boards.
- All details of a classic accountability system.
- Higher level of safety using electronic support.
- Reliable documentation available for auditing and review
- Supports up to 250 users.
- Allow tracking of persons not using SCBA.
- Operating System: Windows Operating System only.

PART NO:	Description
10072272	alphaCONTROL electronic tally board software

Monitoring Systems

alphaSCOUT Personal Monitoring and Alarm Device





- Receives pressure information from the alphaMITTER transmitter on the SCBA back plate.
- Automatically calculates the remaining service time.
- Motion detector and alarm signal integrated.
- Individual user identification.
- Independent of the backplate, reduces cost of ownership.
- Data is sent to alphaBASE, for monitoring by the incident command.
- Evacuation signals can be initiated by alphaBASE and delivered to the alphaSCOUT.
- Durable with IP67 rating.
- Certified to AS/NZS 4268.
- IEC Ex for EX i IEC60079-11.
- · C-Tick approved.

PART NO:	Description
10069775	Complete set incl. long distance radio, batteries and alphaTAG

alphaMITTER



- Short-range transmitter on the SCBA back plate sends air pressure data to the alphaSCOUT every second.
- Certified to AS/NZS CISPR22.
- Certified to AS/NZS 4268.
- SAR Test to ARPANSA RP53.
- · C-Tick approved.

PART NO:	Description
10058211	alphaMITTER retrofittable to existing SCBA

alphaBASE standard Base Station



- · Long range telemetry radio base station.
- \bullet alphaBASE standard works with any PC or laptop via USB.
- An external aerial with magnetic foot available.
- Windows only.
- SAR Test to ARPANSA RP53.
- · C-Tick approved.

PART NO:	Description
10073767	alphaBASE standard Aust. (including power supply), direct and external aerial alphaCONTROL electronic tally board software

alphaBASE portable Base Station



- Long range battery powered telemetry radio base station.
- Allows full freedom of movement for mobile applications.
- Windows only.
- Durable IP67 rating.
- SAR Test to ARPANSA RP53.
- · C-Tick approved.

PART NO:	Description
765684	alphaCONTROL electronic tally board software and Xplore ix104 C5 Tablet PC
10073764	alphaBASE battery-powered (including 2 batteries and charger)
765383	Spare battery for alphaBASE battery-powered



Compressed Airline Breathing Apparatus

MSA compressed airline breathing apparatus function independent from the ambient atmosphere.

They can be used in all places where the ambient air is not breathable due to the presence of contaminants or oxygen deficiency and where filtering (Air Purifying) devices do not provide sufficient protection.

With the lightweight design and the unlimited time of compressed air supply from a compressed air line system (e.g. compressor), or a limited time of compressed air supply from a cascade cylinder, they are used for a multitude of applications in industry:

The following are some examples:

- Long duration work that is restricted to a location, e.g. on construction sites, handicraft work, agriculture and for repair and maintenance work of tanks and containers in industry
- In all situations where a compressed air breathing apparatus would encumber the user because of the tight work space or where small entry ports do not permit carrying an SCBA on the back
- For spray painting in handicraft work and industry
- For sandblast work in shipping, high rise and underground construction industry

Airline Filter Unit



P/N: 767350BAE23BP



Cutaway view of Oil-X filter

In order to prevent an airline system from freezing up, an effective water separator must be installed. To assure a quality of breathable air, it may also be necessary to use multiple stages of a high efficiency filter designed to remove dirt, oil and water aerosols.

An activated charcoal filter also helps to remove oil vapor and odors.

- Air purifiers are suitable for critical applications where only the finest quality compressed air is acceptable.
- These breathing air purifiers utilise two separate stages of air treatment combined together in one compact housing. Where the air supply is particularly dirty, these purifiers can be supplied with additional AO grade filtration, and WS water separators.

PART NO:	Description		
OIL-X Air Purifying Kit wi	OIL-X Air Purifying Kit with Mounting Bracket, includes Regulator and Gauge		
767350BAE21BO	2 Person/2 Stage		
767350BAE22BO	2 Person/3 Stage (additional AO filter)		
767350BAE23BO	2 Person/4 Stage (additional AO and WS filters)		
767350BAE41BO	4 Person/2 Stage		
767350BAE42BO	4 Person/3 Stage (additional AO filter)		
767350BAE43BO	4 Person/4 Stage (additional AO and WS filters)		
OIL-X Air Purifying Kit with Portable Frame, includes Regulator and Gauge			
767350BAE21BP	2 Person/2 Stage		
767350BAE22BP	2 Person/3 Stage (additional AO filter)		
767350BAE23BP	2 Person/4 Stage (additional AO and WS filters)		
767350BAE41BP	4 Person/2 Stage		
767350BAE42BP	4 Person/3 Stage (additional AO filter)		
767350BAE43BP	4 Person/4 Stage (additional AO and WS filters)		

Airline Respirator with Demand Valve



P/N: 764964



P/N: 767907 or 767908

A demand airline system uses the AutoMaXX lung governed demand valve to supply only as much air as is required during inhalation.

The air consumption is more economical than a constant flow system, which makes it especially suitable for cascade cylinders.

The connection between the lung governed demand valve and the air supply hose is usually a waist connector that is fixed to the waist belt.

- Slight positive pressure of air inside facepiece preventing contaminants seeping through.
- Full facepiece.
- Breathing hose support belt with quick-disconnect assembly.
- Ideal for non-immediately dangerous to life and health environments.

PART NO:	Description
764964	Introductory Airline Kit including Ultra Elite Facemask, AutoMaXX Demand Valve, Waist Belt, Airline Connector and Carry Bag
767907	Basic Airline Kit including Ultra Elite Facemask, AutoMaXX Demand Valve, Waist Belt, Airline Connector, 15 metre supply hose, Pressure Reducer, 9 Litre Cylinder and Carry Bag
767908	Basic Airline Kit including Ultra Elite Facemask, AutoMaXX Demand Valve, Waist Belt, Airline Connector, 30 metre supply hose, Pressure Reducer, 9 Litre Cylinder and Carry Bag

Constant Flow Airline Respirator



P/N: 223103

- The constant flow airline breathing apparatus are very comfortable to wear for longer durations.
- Especially suited as lasting protection against harmful vapours, gases, dust, chemicals and small particles .
- APR filter connection version, provides backup to airline connection.
- Ideal for non-immediately dangerous to life and health environments.
- Air is supplied to the user via a control valve fixed to the waist belt.
- The control valve permits individual adjustment of the constant air flow from the air source to the user as required.

PART NO:	Description
223103	Duo-Flo III Constant Flow Airline featuring 3S Facemask, breathing hose, waist belt, constant flow control valve and APR filter connection (Supplied with P3 filter)
227446	Constant Flow Airline Respirator featuring 3S Facemask, breathing hose, waist belt and constant flow control valve
227447	Constant Flow Airline Respirator featuring 3S Silicone Facemask, breathing hose, waist belt and constant flow control valve



Compressed Air Breathing Apparatus Accessories

Emergency Air System



- The emergency air supply is connected to a 200/300 bar cylinder.
- The Y-piece coupling end is connected to the user (typically on their waist belt) and to the primary air supply system.
- If the primary air supply pressure drops drastically, the system automatically provides air from the supply cylinder.
- If the pressure in the air cylinder drops, a warning whistle sounds.

PART NO:	Description
4066845	Emergency air system with Y-Piece

Airtester HP/MP



- Monitoring set for compressed breathable air from factory airlines, compressor and cylinders.
- Airtester HP for high pressure range of 200 bar and 300 bar breathing air compressors and cylinders.
- Airtester MP for medium pressure compressors and supplied air lines up to 10 bar.

PART NO:	Description
3188701	Airtester High Pressure
5185710	Airtester Medium Pressure

Automatic Switch Valve - Y-Piece



The ASV connects a compressed airline to an SCBA cylinder. This ensures a continuous supply of air in case the external air source (e.g. factory airline) fails.

PART NO:	Description
4066700	Automatic Switch Valve (ASV)

Airline Manifold for Twin Cylinders



	Description
767889	Airline Manifold for Twin Cylinders , allows connection of two
	cylinders to Pressure Reducer

Air Supply Hose



- Compressed air supply hose with one hand operation safety couplings (344).
- Flexible, anti-static, tread-fast and excellent kink resistant ensures reliability and safety.
- Features I.D of 10mm.
- For use in the applications of AS 2299 and AS/NZS 1716.

PART NO:	Description
762046-5.0	Air Supply Hose - 5m
762046-10.0	Air Supply Hose - 10m
762046-15.0	Air Supply Hose - 15m
762046-20.0	Air Supply Hose - 20m
762046-30.0	Air Supply Hose - 30m
762046-40.0	Air Supply Hose - 40m

Airline Belt



 For connecting a full face mask and a demand valve with the airline supply hose.

PART NO:	Description
4066803	Belt Connector
3043918	Leather Waist Belt

Pressure Reducer for Cascade Cylinder



- The pressure reducer consists of a high pressure and medium pressure gauge, a warning device and a safety coupling to connect the compressed air supply line.
- The cylinder pressure is reduced to approx. 7 bar.
- The warning signal indicates the approaching end of the air supply.
- The high pressure gauge indicates the current cylinder pressure.
- The medium pressure gauge shows the observer the regular breathing of the working user, for example when working inside a tank and unable to be seen by the observer.

PART NO:	Description
4066830	Pressure Reducer for Airline/Cascade Cylinder

Disposable Respirators

Affinity 1200 Series



Effective, reliable and economical, the cup-shaped Affinity 1200 series is available in P1 and P2 versions certified to AS/NZS 1716:2012.

It protects against most penetrating solid and liquid aerosol particles, depending on which class of filter is used. The specially selected filter media provides excellent efficiency and enhanced durability.

The Special Odour Removal versions, Affinity 1240 and 1241 series, offers relief from low concentration levels of Acid Gases (including HF), only below TLV (nuisance levels).

- Lightweight and comfortable
- Pre-shaped nose area and nose clip
- Sealed tabs (no staples)
- Optional exhalation valve
- Valve colour coding for quick identification
- High filter media quality provides 5 years storage life
- Latex free elastic headband

Affinity 2200 Series



With its high-performance light and thin filtering media Affinity 2200 series is the new generation of flat folded disposable respirators from MSA.

Affinity 2200 series offers effective protection against penetrating solid and liquid aerosol particles present in various work environments. Certified to the requirements of AS/NZS 1716:2012, the mask offers P2 level of protection.

- Light and thin material for comfortable fit
- Pre-shaped nose clip
- Optional exhalation valve
- Inner face seal for a better fit
- Hygienic pocket-size packaging
- Latex free elastic headband

SERIES	DESCRIPTION	PART NO.	QTY PER BOX	ITEM NO.
AFFINITY 1200 SERIES	Affinity 1210 Cup Shaped P1	10128879	15	1
	Affinity 1211 Cup Shaped Exhalation Valve P1	10128880	10	2
	Affinity 1220 Cup Shaped P2	10128881	15	3
	Affinity 1221 Cup Shaped Exhalation Valve P2	10128882	10	4
	Affinity 1240 Odour Removal P2	10128884	10	5
	Affinity 1241 Exhalation Valve Odour Removal P2	10128885	10	6
AFFINITY 2200 SERIES	Affinity 2220 Flat Fold P2	10128888	20	7
	Affinity 2221 Flat Fold Exhalation Valve P2	10128889	20	8



Escape Respirators

Miniscape



- Single use escape device with a 5 minute service time.
- Equipped with mouthpiece and nose clip.
- Small and handy, the Miniscape fits into your pocket and can also be belt mounted.
- The Miniscape can be donned very quickly and is immediately operational.
- Housed in a rugged, translucent carrying case, to protect it against shocks and ageing.
- Protects against numerous toxic gases including organic vapours and inorganic gases eg. solvents, hydrogen cyanide, ammonia, sulphur dioxide.

PART NO:	Description
10038560	Miniscape Escape Respirator - 5 mins

Smoke Hood



- The hood provides protection against radiant heat.
- A self-adjusting, one-size fits all, head harness makes for quick and easy donning.
- Elastic neck seal provides additional protection against rising smoke.
- Simple and quick handling.
- Safe protection of breathing, eyes and head.
- · Large high performance filter.
- Low breathing resistance.
- 15 minutes duration.

PART NO:	Description
1440005	Smoke Hood
1446021	Training Hood w/o filter

S-Cap Smoke Hood



- The S-Cap provides protection for persons endangered by smoke and gases generated by fires.
- Investigations confirm again and again that most victims in fire do not die from heat or flames but from the smoke and gases.
- Very easy to use, the device also provides protection for the eyes and the
- Simple and quick handling.
- Safe protection of breathing, eyes and head.
- Also suitable for persons wearing spectacles.
- Large field of vision and high performance filter.
- Low breathing resistance.
- 15 minutes duration.
- Particularly useful for carbon monoxide environments.

PART NO:	Description
10064644	S-Cap in cardboard box
10064645	S-Cap in luminescent wall box
10081637	S-Cap in pouch with strap

Advantage® 3100 Respirator



- Wraparound lens.
- Soft, pliable silicone facepiece that provides a total solution to your air-purifying respirator needs.
- Single filter ports.
- Advantage® European-style harness.
- Certified to AS/NZS 1716:2012.

Ultra Elite® Respirators - Threaded Fittings



- Manufactured from specially developed black rubber.
- Two way breathing.
- Pressure free fit through comfortable single sealing flange and deep chin cup.
- Rubber 5 point harness for stable fit.
- Filters sold separately, refer to table on page 20.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
2056700	Ultra Elite® Full Face Respirator Rubber
2056718	Ultra Elite® Silicone Full Face Respirator
2056779	Ultra Elite® (Small) Full Face Respirator Rubber

Note: Refer page 11 for Positive Pressure Versions.

PART NO:	Description
10027724	Advantage® 3100 Full Face Respirator - Small
10027723	Advantage® 3100 Full Face Respirator - Medium
10027725	Advantage® 3100 Full Face Respirator - Large

3S Full Face Respirator - Threaded Fittings



- Available in chemical resistant rubber or soft pliable silicone.
- Polycarbonate lens provides impact and chemical resistance.
- Filters sold separately, refer to table on page 20.
- Worldwide top seller over the last 40 years.
- Rubber 5 point harness for stable fit.
- Certified to AS/NZS 1716:2012

s for	
16:2012.	

2055779 3S (Small) Full Face Respirator Rubber

Note: Other styles are available. Refer page 11 for Positive Pressure Versions.

2055000 3S Full Face Respirator Rubber 2055718 3S Silicone Full Face Respirator

Advantage® 410 Half Face Respirator



- Unique harness assembly makes for easier donning and doffing.
- Chin cup with built-in drain hole reduces slippage of face piece in hot humid conditions.
- Only 3 major components makes cleaning and maintenance much easier.
- · High quality silicone.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
10102276	Advantage® 410 Half Face Respirator - Small
10102277	Advantage® 410 Half Face Respirator - Medium
10102278	Advantage® 410 Half Face Respirator - Large

Silicone - Softness and Flexibility - Reduces Skin Irritation - High Tear Strength - Effective Low Pressure Sealing

Single Filter Respirators

PART NO: Description

Filters for Advantage® 410, Advantage® 3100, Ultra Elite® and 3S Single Filter Respirators

PART NO:	Description
1070754	P2 - Pre Filter [Pack of 12]
10094376	P3 - Particulate filter
10115349	E2 - Gas Filter Sulphur Dioxide and Acid Gas
10115320	K2 - Gas Filter Ammonia and Ammonium Compounds
10108408	AX, A2 - Gas Filter Organic Vapours
10097993	A2, B2-P3 R - Gas Filter Organic Vapours and Inorganic Gases
10115190	K2-P3 R - Gas Filter Ammonium and Particulars
10097231	A2, B2, E2, K1, Hg-P3R - Gas Filter Organic Vapours, Inorganic Gases, Acid Gases, Ammonium Compounds, Mercury and Particulars



Twin Filter Respirators

Advantage® 200 LS Respirator



- Facepiece is lighter and softer which gives more comfort and stability than ever.
- AnthroCurve™ Sealing Surface, instantly conforms to each wearer's unique facial characteristics.
- The unmatched fit and comfort start with a soft, pliable combination of rubber and plastic that provide a virtually customised fit.
- Delivers exceptional stability, so the respirator will not collapse during wear.
- Certified to AS/NZS 1716:2012.

Advantage® 420 Respirator



- Unique harness assembly makes for easier donning and doffing.
- Chin cup with built-in drain hole reduces slippage of face piece in hot humid conditions.
- Textured inner seal of face piece.
- Integrates extremely well with other PPE.
- Only 3 major components makes cleaning and maintenance much easier.
- · High quality silicone.
- Uses existing MSA filters which minimises inventory. Ref. P 23.
- Certified to AS/NZS 1716:2012

PART NO:	Description
430357	Advantage® 200 LS Half Face Respirator - Small
430356	Advantage® 200 LS Half Face Respirator - Medium
430358	Advantage® 200 LS Half Face Respirator - Large

Note: Other MSA configurations and MSA Catridge Kits are available.

PART NO:	Description
10102273	Advantage® 420 Half Face Respirator - Small
10102274	Advantage® 420 Half Face Respirator - Medium
10102275	Advantage® 420 Half Face Respirator - Large

Full Face Respirators

Advantage® 1000 Respirator



Note: Other MSA configurations and MSA Catridge Kits are available.

- Constructed of super-soft Hycar™ rubber that provides the feel and comfort of silicone but has better permeation resistance.
- The facepiece has a unique inturned lip seal that provides an exceptional seal against a wide range of facial contours.
- Features a distinctive, flexible urethane lens that is integrally bonded to the facepiece, eliminating the need for rigid lens retainers that can cause unwanted pressure points.

PART NO:	Description
805414	Advantage® 1000 Full Face Respirator - Small
805408	Advantage® 1000 Full Face Respirator - Medium
805420	Advantage® 1000 Full Face Respirator - Large

Advantage® 3200 Respirator



- Wraparound lens.
- Soft, pliable silicone facepiece that provides a total solution to your air-purifying respirator needs.
- Twin filter ports.
- Advantage® European-style harness.
- Certified to AS/NZS 1716:2012.

PART NO:	Description
10027727	Advantage® 3200 Full Face Respirator - Small
10027726	Advantage® 3200 Full Face Respirator - Medium
10027728	Advantage® 3200 Full Face Respirator - Large

Filters for Advantage® 200LS, Advantage® 1000, Advantage® 420, and Advantage® 3200 Twin Filter Respirators

PART NO:	Description	
10011347	P2 - Pre Filter	
430375	P3 - Particulate (P)	
430371	A2 - Organic Vapour (OV)	
430372	A2, P3 - Organic Vapour/Particulate	
10107163	K2 - Ammonia/Methylamine (NH3)	
10107165	K2, P3 - Ammonia/Methylamine/Particulate	
430373	3 A2, B2, E1, K1 - Organic Vapour/Acid Gas/Ammonia	
430374	A2, B2, E1, K1, P3 - Organic Vapour/Acid Gas/Ammonia/Particulate	
10027699	P2 - Flexifilter Particulate	
10027639	P3 - Flexifilter Particulate	
10027697	P3 - Flexifilter Particulate Odour Removal	

Advantage® Respirator Cartridges

The Advantage® line of particulate, chemical and combination cartridges provides lightweight, low-profile performance. Cartridges fit both 200 LS Half-Mask, Advantage 420 and 3000 Full-Facepiece Advantage® Respirators.		Organic Vapour 2	Chloride	Sulfur Diodixe	Chloride Dioxide sasses	Hydrogen Chloride	Hydrogen Sulfide*	Ammonia	Methylamine	Formaldehyde	Hydrogen Fluoride	Mercury Vapor	+ P3 P2		
MSA Cartridge Description	Re-Order Part Number	Colour Coding	ov	CL	SD	CD	НС	HS*	AM	МА	FM	HF	MV	P100	See Notes Below
A2	430371		(2)												2,3
A2 P3	430372		2 0											12 0	2,3,4
K2	10107163								12 0	02 0					2,3
K2 P3	10107165								(2)	(2)				020	2,3,4
A2 B2 E1 K1	430373		2 0	2 0	2 0	2 0	£ 0	2 0	12 0	©	(2)	(2)			2,3
A2 B2 E1 K1 P3	430374		(£)	020	2 0	(2)	©≜ 0	2 0	12 0	2 0	12 0	12 0		0 2 0	2,3,4
Low-Profile P100	430375													(2)	1,4
P2 Snap-On Prefilter and Cover	10011347 Pack of 20 + Covers														

Definitions

N95-Particulate Filter (95% filter efficiency level) effective against particulate aerosols free of oil; time use restrictions may apply. (P1)

P100-Particulate Filter (99.97% filter efficiency level) effective against all particulate aerosols. (P2)

- * Escape only. + Only with Full Facepiece

 ** Effective against, but not NIOSH-approved for lodine Vapor.

- **Notes** 1. Do not use in atmospheres containing less than 19.5 percent oxygen, in atmospheres containing gases or vapors or in atmospheres immediately dangerous to life and health.
 - 2. Do not use in atmospheres containing less than 19.5 percent oxygen, or in atmospheres immediately dangerous to life and health.
 - 3. Do not wear for protection against organic vapors with poor warning properties or those which generate high heats of reaction with the sorbent material in the cartridge.
 - 4. 99.97 percent efficient against 0.3 micron DOP. + P3 with Full Facemask only.

Flexi-Filter® Particulate Pads for Advantage Respirators

These low-profile, flexible pads fit well under a welding hood and with other personal protective equipment. They offer great balance and weight distribution for maintaining a good face seal, while their swept-back design provides improved vision and comfort.

MSA Filter Description	Part No.	Colour Coding				
Flexi-Filter® P2	10027699					
Flexi-Filter® P3	10027639					
Flexi-Filter® P3 w/ Nuisance Level OV, Ozone Removal	10027697					



Cleaners Towlettes and Fit-Test Kits

MSA Confidence Plus® Germicidal Cleaners and Personal Safety Equipment Towelettes



Mix with warm water for a germicidal cleaner that is effective against various micro-organisms including immunodeficiency virus Type 1 (HIV-1, associated with AIDS). EPA-approved for use on safety equipment.

Personal Safety Equipment Towelettes provides an excellent method for wiping and refreshing respirators, hardhats, and other safety equipment between full cleaning periods.

PART NO:	Description		
697382	Cannister with 220 towelettes, 4-1/4" x 6"		
697383	3 Sox of 100 individually wrapped towelettes, 7-1/4" x 5"		
10022871	"The Big Ones", Box of 50 individually wrapped towelettes, 8"x 11"		
10009971	MSA Confidence Plus® Germicidal Cleaner, in 32 oz. bottle		

Facepiece Fit-Test Kits - Banana Oil Qualitative Fit-Test Kit



2



3



Quantitative testing methods rely on objective data to determine a proper fit. Qualitative fit-test methods are subjective in nature and rely on the judgment of the test subject.

PART NO:	Description					
Saccharin Qualitativ	Saccharin Qualitative Fit-Test Kit					
697287	Saccharin QLFT Kit (1)					
697285	Replacement Sensitivity Test Solution, 55ml bottle					
697286	Replacement Fit-Test Solution, 55ml bottle					
697448	eplacement Hood (2)					
697325	"Using the Qualitative Fit Test Kit" videotape					
Banana Oil Qualitati	Banana Oil Qualitative Fit-Test Kit					
801628	Qualitative Fit Test Kit (3)					
801629	Qualitative Fit Test Kit, in rugged Pelican case					

Accessories

Lens Shield for Advantage® 1000 and 3000



Lens Shield for Advantage® 1000 and 3000 for added impact protection. The polycarbonate lens shield snaps into place

PART NO:	Description
806462	Lens Shield for Advantage® 1000 - Clear
10031542	Cover Lens Clear For Advantage 3000 PK-25
10031543	Cover Lens Smoke For Advantage 3000 PK-25

Carrying Pouches



A belt-mounted carrying pouch with Velcro closures is available for half-mask respirators. A black pouch is available for Advantage® 1000 Respirators.

PART NO:	Description
817040	Carrying Pouch for Advantage® 1000 Respirator - Black
10016038	Carry Pouch for Advantage 200
10026179	Advantage Facemask Box Storage

Respirators for Riot Control

Millennium® Riot Control Gas Mask



- MSA's Millennium® CBRN Gas Mask was first to receive NIOSH certification as "compliant against CBRN".
- Flexible, 1-piece polyurethane lens with wide field of vision.
- Dual-canister mount (NATO 40mm thread) allows weapon sighting from either shoulder.
- Drinking tube provides connection for fluid ingestion in contaminated atmospheres.
- US Export Licence Restrictions may apply.

PART NO:	Description
10051286	Small
10051287	Medium
10051288	Large
818264	Millennium® Riot Control Cannisters - Box of 6
10008907	Clear small polycarbonate lens shield*
10008906	Clear medium/large polycarbonate lens shield*
10008909	Tinted small polycarbonate lens shield*
10008908	Tinted medium/large polycarbonate lens shield*

^{*} Images of Lens Shields at top of page

Advantage® 1000 Riot Control Gas Mask



- Clean, simplified respirator with Hycar facepiece.
- Based on a proven facepiece design developed for the U.S. Military.
- Up to 40% lighter than conventional full-face respirators.
- Gives high performance, customized fit, comfort, economy, and user acceptance.
- US Export Licence Restrictions may apply.

PART NO:	Description
813860	Small
813859	Medium
813861	Large
817590	Advantage® Riot Control Cannisters - Box of 6
10034184	Pouch Military Style
817040	Pouch Advantage® 1000 Black Nylon
813341	Cap Assembley Inlet Riot Control
806463	Clear small polycarbonate lens shield*
806462	Clear medium/large polycarbonate lens shield*
806465	Tinted small polycarbonate lens shield*
806464	Tinted medium/large polycarbonate lens shield*



Chemical Oxygen Self Rescuers

SSR30/100



- Small light robust packed in a stainless steel container.
- Used anywhere, where the ambient atmosphere may be oxygen deficient.
- Designed to be carried on a belt, donned in seconds.
- Supply oxygen to the wearer during his escape or while waiting
- MSA Chemical Oxygen has a maximum life of ten years.
- EN 401.
- Duration: 20 minutes [up to 100 minutes at rest].

PART NO:	Description
1123701	SSR30/100 Self Rescuer
1123701R	SSR30/100 Self Rescuer- NSW Coal Mines Registered
1123711	SSR30/100 Self Rescuer - Trainer
767684	SSR30/100 Self Rescuer - Pouch

SavOx



- Small light robust packed in a stainless steel container.
- Used anywhere, where the ambient atmosphere may be oxygen deficient.
- Safety goggles for eye protection.
- Indicator window for confirming device ready to use.
- Automatic starter system for added protection.
- MSA Chemical Oxygen has a maximum life of ten years.
- EN 401.
- Duration: 30 minutes [up to 3 hours at rest].

PART NO:	Description
10023263	SavOx Self Rescuer
10023263R SavOx Self Rescuer - NSW Coal Mines Registered	
10024538	SavOx Self Rescuer - Trainer

SSR90



- Packed in a robust stainless steel container.
- Fitted with quick-start chlorate candle.
- MSA Chemical Oxygen has a maximum life of ten years.
- Weight during use: 3.4 kg.
- EN 401.
- Duration: 60 minutes [up to 5 hours at rest].

PART NO:	Description
1118701	SSR90 Self Rescuer
1118701R	SSR90 Self Rescuer - NSW Coal Mines Registered
1118709	SSR90 Self Rescuer - Trainer
767173	SSR90 Self Rescuer - Pouch
767209	SSR90 Self Rescuer - Stainless Steel Truck Mount

Filter Self Rescuer

W65



- MSA FSR in proven, robust design.
- · Low weight when carrying and in use.
- · Small size.
- Rescuer available with carrying strap, belt loop or bag.
- Stainless steel case.
- Comfortable to carry and breathe.
- High performance reserve.
- Maintenance-free device.

PART NO:	Description
1090703	MSA Filter Self Rescuer - W65. NSW Coal Mines Registered.

W95



- MSA FSR in proven, robust design.
- · Low weight when carrying and in use.
- · Small size.
- Rescuer available with carrying strap, belt loop or bag.
- Stainless steel case.
- Comfortable to carry and breathe.
- High performance reserve.
- Maintenance-free device.

PART NO:	Description
10014932L	MSA Filter Self Rescuer - W95. NSW Coal Mines Registered.

Powered Air Purifying Respirators

Optimair™ 3000 and Responder™ CBRN Powered Air Respirators

OptimAir™ 3000



- Using a traditional non-powered filter system over time adds a significant strain on breathing and increases body temperature. As a result effective working time, concentration and ultimately safety are reduced.
- The OptimAir 3000 Powered Air Purifying Respirator (PAPR) system allows you to breathe normally while you work, combining the latest in high-tech features and ergonomically engineered design to give you the most advanced device of its kind available today.
- The intelligent variable-speed motor guarantees an optimum amount of air in your headtop (mask or hood) even as the breathing rate changes during more strenuous tasks.
- Streamlined and well-balanced design (only 1.3 kg with particle filters) reduces back strain and increases freedom of movement.
- NiMH battery provides over 8 hours of continuous operation
- Automatic headtop detection automatically senses which head protection (mask or hood) is being used and adjusts airflow automatically.
- Typical applications are working with hazardous materials such as asbestos removal, paint and lacquer spraying, welding, chemical plants, agriculture and medicine.
- The specially designed OptimAir™ 3000 EX unit can also be used in areas where there is a potential danger of ignition.

PART NO:	Description	
10061582	OptimAir™ 3000 Full Face - Complete Unit	
10066899	OptimAir™ 3000 Full Face - Optivisor Complete Unit	
10061906	Kit, OptimAir™ 3000, Half Hood, Incl Std Blower, Nimh Battery, Charger, Comfort Belt	
10061907	Kit OptimAir™ 3000, Full Hood and Hose, Incl Std Blower, Nimh Battery, Charger, Comfort Belt	
766535	Kit, OptimAir™ 3000, OptiTop. Incl Std Blower, Nimh Battery, Charger, Comfort Belt	
10049621	OptiBattery Extended (up to 12 hours)	
10049635	A1, B1, E1, K1 Filter	
10049560	OptiBattery (up to 8 hours)	
10049559	OptimAir™ 3000 EX Complete Unit	
10049632	Particle Filter HEPA	
10049637	Organic Vapour (A2) Filter	















MSA's state-of-the-art Thermal Imaging Cameras (TIC) are invaluable tools for fire fighters and police, e.g. for fast and safe navigation in smoke filled rooms or dark environments.

The TIC models feature the same ergonomic design, robust components and extreme durability. The image quality is best-in-class.

The Video Transmission System gives the back-up team a clear view of what is happening on the fire ground in real time. Furthermore, the Image and Video Capture functions are invaluable for documentation purposes.

Thermal Imaging Cameras

Evolution® Series

Evolution® 6000



- The Evolution 6000 series makes TIC use easier, faster, lighter and more intuitive.
- 3 models available depending on users needs.
- Durable tool for fire fighting operations and search/rescue. Plus model available with optional integrated video transmitter.
- All models feature High Resolution 320 x 240 pixel imaging core that provides excellent image quality.
- Flashlight/laser pointer for extra visibility.
- Field replaceable germanium lens lowers repair costs.
- Integrated Compass.
- Plus model features 2X/4X zoom.
- Plus model features 6 user selectable colour palettes.
- Xtreme model includes all the great features of the Plus, as well as integrated video and image capture.
- Class 1, Division 2 Intrinsic Safety.
- NFPA 1801 Compliant.



PART NO:	Description
10145939K	Evolution® 6000, Basic with laser pointer and Station Kit
10145955K	Evolution® 6000, Plus with Station Kit
10145963K	Evolution® 6000, Xtreme with Station Kit
10145965AUK	Evolution® 6000, Xtreme with Video Transmitter and Station Kit

Evolution® 6000 Series accessories



Station	Kit	Vehicle Kit

PART NO:	Description	PART NO:	Description
10120606-SP	Battery, Evolution® 6000 Series, lithium-ion	10145771	Kit, vehicle Evolution® 6000 Series
10145860-SP	Cable, USB, Evolution® 6000 Series, configuration cable	10040226	Lanyard Retractable Evolution® 5000 and 6000 Series
10147388	Charger, Evolution® 6000 Series, includes wall and vehicle chargers	10039515	Strap, Shoulder, Evolution® 5000 and 6000 Series
10148136	Charger, vehicle, Evolution® 6000 Series	10039516	Strap, Wrist, Evolution® 5000 and 6000 Series
10040005	Karabiner Attachment Evolution® 5000 and 6000 Series	10147892	Sun Shade, Evolution® 6000 Series
10147389	Kit, station, Evolution® 6000 Series	Note: US Export Re	estrictions may apply.

Evolution Series Video Receiver



- Includes receiving antenna and 300mm LCD screen in waterproof carry case.
- · Can receive two independent transmitter feeds.

PART NO:	Description
10049271	Receiver station with monitor and case suits both 6000 and 5000 Series

Evolution® 5800



- 320 x 280 pixel screen for multi-user viewing.
- Standard 2x digital zoom.

• 6 user selectable colour palettes.

PART NO:	Description
767059	Evolution® 5800 TIC with Station Kit and Accessories

Evolution® 5000 Series accessories

PART NO:	Description	PART NO:	Description
765656	Charger 220V with cigarette lighter adaptor	10040005	Karabiner
10038412	Lithium ion battery	10039603	Sun Shroud
10067565	Vehicle Mounted Charger	10062184	Reflective Label ID Kit
10039516	Wrist strap	10038970	Disposable Display Covers - Clear
10039515	Shoulder strap	10090902	Tripod Adaptor
10040226	Retractable Lanyard	Note: US Export F	Restrictions may apply.





MSA offers a variety of test benches for your workshop with manual or automatically recorded test results. From the mobile test case Multitest to the stationary computer supported test bench smartCHECK, your equipment will be tested to the highest professional standards.

All MSA test benches meet the industry standards and manufacturer regulations for the testing of compressed air breathing apparatus, full face masks, demand valves and chemical protective suits.

MSA TecBOS Workshop and Asset Management Software is an integrated system solution with maximum efficiency and transparency over daily tasks.

TecBOS supports numerous types of equipment, e.g. for respiratory protection, portable instruments, fire extinguishers, vehicles, radio communications and hoses. This equipment can be anything with a barcode or transponder, and not only personal protective equipment.

It can record equipment testing dates, upcoming services, as well as the storing of documentation relating to work carried out, spare parts used and test results.

Service Solutions

SmartCHECK and Multitest

SmartCHECK



- · Network capable.
- Next generation compact desktop style.
- Includes software.
- Fully automatic.
- Touchscreen operation with wizard.
- Automated static testing for full face masks and demand valves.
- All standard static tests for low and medium pressure.
- Artificial lung allows full range of dynamic testing at high pressure.
- 30 kg

PART NO:	Description
10107176LT	SmartCHECK Test Bench

SmartCHECK.basic



- Network capable.
- Next generation compact desktop style.
- Includes software.
- Fully automatic.
- Touchscreen operation with wizard.
- Automated static testing for full face masks and demand valves.
- All standard static tests for low and medium pressure.
- 23 kg.

PART NO:	Description
10107176T	SmartCHECK.basic Test Bench

Multitest Plus Test Console



- Tests for masks and lung governed demand valves at low and medium pressure
- Activation of positive or negative pressure by battery operated pump
- Protective suit testing possible with accessories
- Low pressure gauge +/- 30 mbar
- Medium pressure manometer 0-16 bar

PART NO:	Description	
5175744	Multitest Plus Test Console	
5175743	Multitest Plus Test in Carry Case	

Software Solutions

TecBOS.Tech Workshop and Asset Management Software



- Provides testing interface when connected to MSA SmartCHECK or ProfiCHECK
- Workshop Management System
- Inventory Management
- Records equipment test dates, upcoming service, documentation storage and parts used
- Asset Management using TecBos.Tech
- Comprehensive asset and inventory management
- Barcode and RFID tracking (scanner optional)
- Deadline monitoring for devices including preview of future requirements

PART NO:	Description		
10126010	TecBOS.Tech - Professional		
10053036	TecBOS.Tech - Professional subsequent licence		





Battery-powered, direct-reading portable instruments are classified into two groups - single-gas instruments or multiple-gas instruments. Depending on the capabilities of the instrument, monitoring can be conducted simultaneously for oxygen and combustible gas, or for oxygen, combustible gas and toxic gases. These devices are commonly referred to as 2-in-1, 3-in-1, 4-in-1 or 5-in-1 alarms.

No matter which type of portable instrument is used to check environmental gas concentrations, regular monitoring should be performed because a contaminant's level of combustibility or toxicity might increase even if it initially appears to be low or non-existent.

MSA offers a wide variety of portable and permanent gas monitoring solutions to detect combustible gases, toxic gases, oxygen deficiency/enrichment.

Our instruments reflect the latest developments in sensor and instrumentation design, using electrochemical, catalytic bead, photoacoustic infrared (PIR) and both point and open path infrared sensing technologies, and offer wireless communication capabilities.

We offer a wide range of systems to meet your facility's monitoring needs: from a single sensor in a stand-alone application to a large-scale, completely integrated installation consisting of thousands of sensing points. MSA also designs custom systems that are tailored to fit unique monitoring requirements.

Contact your MSA representative for more information and ordering information.

Understanding Environmental Surveillance

Battery-powered, direct-reading instruments are classified as two groups - single-gas instruments or multiple-gas instruments - typically monitoring one or a combination of the following atmospheric conditions:

- 1. oxygen deficiency or enrichment;
- 2. the presence of combustible gas; and
- **3.** the presence of certain toxic gases.

Depending on the capabilities of the instrument, monitoring can be conducted simultaneously for oxygen and combustible gas, or for oxygen, combustible gas and toxic gases. These devices are commonly referred to as 2-in-1, 3-in-1, 4-in-1 or 5-in-1 alarms.

No matter which type of instrument is used to check environmental gas concentrations, regular monitoring should be performed because a contaminant's level of combustibility or toxicity might increase even if it initially appears to be low or non-existent. In addition, oxygen deficiency can occur unexpectedly.

Atmospheric Composition

To determine the composition of an atmosphere, reliable instruments should be used to draw air samples. If possible, do not open the entry portal to the confined space before this step has been completed. Sudden changes in atmospheric composition within the confined space could cause violent reactions, or dilute the contaminants in the confined space, giving a false low initial gas concentration.

When testing permit-required spaces for acceptable entry conditions, always test in the following order:

- 1. oxygen content
- 2. flammable gases and vapors
- 3. potential toxic air contaminants



Figure 1

Comprehensive testing should be conducted in various locations within the work area. Some gases are heavier than air, and tend to collect at the bottom of a confined space. Others are lighter, and are usually in higher concentrations near the top of the confined space. Still others are the same molecular weight as air, so they can be found in varying concentrations throughout the space. This is why test samples should be drawn at the top, middle and bottom of the space to pinpoint varying concentrations of gases or vapors (see Figure 1). The results of the atmospheric testing will have a direct impact on the

selection of protective equipment necessary for the tasks in the area. It may also dictate the duration of worker exposure to the environment of the space, or whether an entry will be made at all. Substance-specific detectors should be used whenever actual contaminants have been identified.



Figure 2



Figure 3

Combustible Gases

In order for combustion to occur, there must be three elements:

- **1.** fue
- 2. oxygen to support combustion
- **3.** heat or a source of ignition

This is known as the fire triangle, but if you remove any one of the legs, combustion will not occur (see Figure 2).

The percentage of combustible gas in the air is important, too. For example, a manhole filled with fresh air is gradually filled by a leak of combustible gas such as methane or natural gas, mixing with the fresh air. As the ratio of gas to air changes, the sample passes through three ranges: lean, explosive and rich (see Figure 3). In the lean range, there isn't enough gas in the air to burn. On the other hand, the rich range has too much gas and not enough air. However, the explosive range has just the right combination of gas and air to form an explosive mixture. Care must be taken, however, when a mixture is too rich, because dilution with fresh air could bring the mixture into the flammable or explosive range. An analogy is the automobile that won't start on a cold morning (a lean atmosphere because the liquid gasoline has not vaporized sufficiently), but can be flooded with too much gasoline (a rich atmosphere with too much vaporization). Eventually, when the right mixture of gas and air finally exists (explosive), the car starts.

How Combustible Gas Monitors Work

To understand how portable combustible gas detection instruments work, it is first important

to understand what is meant by the Lower Explosive Limit (LEL) and Upper Explosive Limit (UEL). When certain proportions of combustible vapors are mixed with air and a source of ignition is present, an explosion can occur. The range of concentrations over which this reaction can occur is called the explosive range. This range includes all concentrations in which a flash will occur or a flame will travel if the mixture is ignited (see Figure 3). The lowest percentage at which this can happen is the LEL; the highest percentage is the UEL.

Most combustible instruments display gas concentrations as a percentage of the LEL. Some models have gas readouts as a percentage by volume and others display both percent of LEL and percent combustible gas by volume. What's the difference? For example, the LEL of methane (the major component in natural gas) is 5 percent by volume, and the UEL is 15 percent by volume.

If we slowly fill a room with methane, when the concentration reaches 2.5 percent by volume, it is 50 percent of the LEL; at 5 percent by volume it is 100 percent of the LEL. Between 5 and 15 percent by volume, a spark could set off an explosion.

Different gases need different percent by volume concentrations to reach 100 percent of the LEL (see Figure 4). Pentane, for example, has an LEL of 1.5 percent. Instruments that measure in percent of the LEL are easy to use because, regardless of the gas, you are most concerned with how close the concentration is to the LEL.

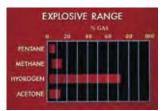


Figure 4

Single-Gas Monitors for Oxygen Deficiency

Oxygen indicators measure atmospheric concentrations of oxygen. Concentrations are generally measured over a range of 0 to 25 percent oxygen in air, with readings being displayed on either digital readout or an analog meter. Oxygen indicators are calibrated with uncontaminated fresh air containing a minimum of 20.8 percent oxygen. With some models, an alarm is activated when oxygen levels drop below 19.5 percent.



How Combustible Gas Monitors Work



Figure 5

Single-gas instruments for monitoring combustible gases and vapors are generally calibrated on pentane and are designed for general-purpose monitoring of hydrocarbon vapors. Such instruments operate by the catalytic action of a heated platinum filament in contact with combustible gases (see Figure 5). The filament is heated to operating temperature by an electric current. When the gas sample contacts the heated filament, combustion on its surface raises the temperature in proportion to the quantity of combustibles in the sample.

A Wheatstone bridge circuit, incorporating the filament as one arm, measures the change in electrical resistance due to the temperature increases. This change indicates the percentage of combustible gas present in the sample.

Single-Gas Monitors for Toxic Gases

Compact, battery-powered devices can be used to measure levels of such gases as carbon monoxide (CO) or hydrogen sulfide (H2S), depending on the model selected. Toxic gas monitors use electrochemical cells (see Figure 6). If the gas of interest enters the cell, the reaction produces a current output proportional to the amount of gas in the sample. With these instruments, audible and visible alarms sound if the gas concentration exceeds a preset level. These devices are well suited for use in confined spaces containing motors or engines, which can generate large quantities of CO, as well as in sewers, waste treatment plants and "sour crude" processing stations which tend to have hazardous volumes of H2S.

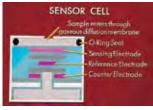


Figure 6

Multiple-Gas Monitors for Oxygen and Combustible Gas

In applications where it is necessary to determine oxygen and combustible gas levels simultaneously, 2-in-1 diffusion-type devices can be used. Sensors measure 0 to 100 percent of the LEL and oxygen from 0 to 25 percent. Remote sampling requires either a pump module or an aspirator bulb adapter.

Multiple-Gas Monitors for Oxygen, Combustible and Toxic Gases

Toxic gases and vapors, which can be inhaled or absorbed through the skin, are frequently found in confined spaces. Sometimes, these atmospheric hazards can also displace oxygen and may incapacitate the body's ability to maintain respiration. Some toxic gases and vapors can also cause long-term physical damage to the body in cases of repeated exposure.

A number of instruments are available to assist in detecting toxic gas. Pocket-size monitors operate by diffusion or an aspirator bulb. Larger instruments with built-in pumps draw samples from the immediate area or from outside the confined space work area when used with sampling lines.

Diffusion-type instruments are available for simultaneously measuring the LEL of combustible gases, oxygen levels and toxic levels (in parts per million) of H2S, CO and other toxic gases. Alarms also alert the user to low and high oxygen levels. Remote sampling pump adapters are available to convert these diffusion-type instruments into pump-style instruments.



Figure 7

Photo`ionization Devices for Toxic Gases and Vapors

A photoionization detector, featuring microprocessor technology, uses ultraviolet light to ionize molecules of chemical substances in a gaseous or vaporous state (see Figure 7). A real-time digital readout allows the user to make an immediate determination of gas and vapor concentrations. Depending upon calibration input, gas and vapors are measured over a 0.1 to 10,000 ppm scale. Some instruments automatically compensate for signal loss due to humidity, which is inherent in all PID detectors.

Detector Tube Sampling Systems

Detector tube-type devices are recommended for conducting quick evaluations of potential hazards that cannot otherwise be measured. With detector tubes, a known volume of air is drawn through the tube, using a manually operated or battery-powered sampling pump. If gas or vapor is present in the air, chemically

treated granules in the tube are stained a different color. By measuring the length of the color stain within the tube, users can determine concentration levels.

Most tubes available today are made of glass, have break-off tips, and are filled with treated chemical granules. They generally have a shelf life of 24 to 30 months.

One type of pump frequently used with a detector tube is a compact, bellows-type device. Accurate and repeatable sample flows can be assured by a shaft that guides the bellows during compression. Some models feature an end-of-stroke indicator that lets the user know when a full air sample has been drawn. Models with an integral stroke counter eliminate the tedious recording of multiple pump strokes.

Personal Sampling

Personal sampling is used to determine the concentration of airborne contaminants. Personal sampling pumps are designed to measure individual workers' exposures, so they typically are lightweight, belt-mounted, battery-powered devices.

The process of sampling entails drawing a predetermined volume of air through a filter designed to trap contaminants. The filter is contained in a plastic cassette, which is attached by plastic tubing to a sampling pump calibrated to draw a specific, known volume of air into the filter. After air samples are drawn, the filters are sent to a laboratory where they are examined to determine the level of exposure.

Personal sampling determines the concentration found in the "breathing zone" or the area near the worker's face, which is usually measured at or near the collar or lapel.

Calibration

To ensure the accuracy of all monitoring and detection equipment, calibration should be performed regularly. If the instrument reading differs significantly from the values of the known standard, the instrument should not be used until it has been adjusted or, if necessary, repaired.

Portable Instrumentation

Gas Detectors

ALTAIR® 2X

ALTAIR 2X Gas Detector from MSA; the first one - or two-gas detector that incorporates industry-leading XCell Sensor technology to deliver unparalleled performance while dramatically minimising total cost of ownership, increasing durability and delivering enhanced worker safety, compliance and traceability.

ALTAIR 2XP Gas Detector – with XCell Pulse Technology

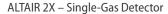
Compliance, Traceability and Simplicity without Compromising Safety



- The industry best practice of conducting a bump test prior to each day's use is easily achieved with the ALTAIR 2XP. Bump anywhere, any time, without bottled gas or accessories.
- Visual indicators on the detector make verification of bump test easy
- Highly visible green light verifies successful bump test (green light, check mark)
- Flashes red when not bumped
- The ALTAIR 2X family of detectors have full instrument traceability of bump and calibration records, peak readings, event logs and data logs.

ALTAIR 2XT - Two-Tox Gas Detector

The ALTAIR 2XT Detector eliminates the need for a second detector by utilising proven XCell Two-Tox Sensors. XCell Two-Tox Sensors detect two gases on distinct sensor channels with digital output that minimises cross-channel interference.



MSA revolutionised gas detection with XCell Sensor technology. By miniaturising the sensors' controlling electronics and placing them inside the sensor itself using MSA's proprietary application-specific integrated circuit (ASIC) design, MSA XCell Sensors offer superior stability, accuracy, and sensor life.





FEATURES	BENEFITS	
• ALTAIR 2X Single-Gas Detectors with XCell Sensors • ALTAIR 2XP Single-Gas Detector with XCell Pulse Technology • ALTAIR 2XT Two-Tox Gas Detectors with XCell Two-Tox Sensors		
LOW COST OF OWNERSHIP	 Fastest sensor response times, lowest calibration gas flow rate on the market 4-year expected instrument & sensor life 3-year warranty on instrument & most sensors (2 years on Cl₂, NH₃) Stand-alone bump tests reduce maintenance, increase productivity (ALTAIR 2XP Detector only) 1 device can monitor 2 gases (ALTAIR 2XT Detector only) 	
INCREASED SAFETY AWARENESS & REAL-TIME COMPLIANCE	 Stand-alone bump test anytime, anywhere without bottled calibration gas (ALTAIR 2XP Detector only) BUMP PASS: green LED flash every 15s, large on-screen checkmark for real-time compliance BUMP FAIL: red LED flash every 15s, no checkmark End-of-sensor-life warning and alarm 	
FULL-TIME TRACEABILITY	 Records 75 alarm events and over 100 hours of periodic data, including bump and calibration records Compatible with MSA GALAXY® GX2 Automated Test System and MSA Link Pro Software 	
RUGGED DURABILITY	 Tough over-molded rubber armor Survives multiple 7.5m drops onto concrete Agency-certified dust- and water-tight IP67 and intrinsically-safe construction 	
EASY TO USE	 1-button, gloved hand operation Large LCD, characters, and status icons onscreen step-by-step user instructions for stand-alone bump test (ALTAIR 2XP Detector only) 10s backlight with adjustable timeout 	

DETECTOR TYPE (LOW, HIGH ALARM IN PPM)	CHARCOAL	GLOW-IN- THE-DARK	REPLACEMENT SENSOR	
ALTAIR® 2X SINGLE GAS DETECTOR				
CO (25, 100)	10153986	10154185	10152603	
CO-H ₂ * (25, 100)	10154074	10154186	10152604	
CO-HC* (25, 100)	10154075	10154187	10152602	
H ₂ S-LC* (5, 10)	10154076	10154189	10152605	
SO ₂ (2, 5)	10154077	10154191	10152607	
NO ₂ * (2.5, 5)	10154078	10154192	10152606	
NH ₃ * (25, 50)	10154079	-	10152601	
Cl ₂ * (0.5, 1)	10154080	-	10152600	

DETECTOR TYPE (LOW, HIGH ALARM IN PPM)	CHARCOAL	GLOW-IN- THE-DARK	REPLACEMENT SENSOR	
ALTAIR® 2 XP - WITH XCELL PULSE TECHNOLOGY				
H ₂ S-PULSE (10, 15)	10153984	10154188	10121227	
ALTAIR® 2XT TWO-TOX GAS DETECTOR				
CO/H ₂ S (CO:25, 100; H ₂ S: 10, 15)	10154040	10154181	10152603	
CO-H ₂ /H ₂ S (CO: 25, 100; H ₂ S: 10, 15)	10154071	10154182	10152604	
CO/H ₂ S-LC (CO: 25, 100; H ₂ S: 5, 10)	10154072	10154183	10152605	
CO/NO ₂ (CO: 25, 100; NO ₂ : 2.5, 5)	10154073	10154184	10152606	
SO ₂ /H ₂ S-LC (SO ₂ : 2, 5; H ₂ S: 10, 15)	10153985	10154190	10152607	



ALTAIR® Maintenance-Free Single-Gas Detector



INSTRUMENT TYPE	PART NO.	LOW ALARM	HIGH ALARM
CARBON MONOXIDE (CO)	10092522	25 PPM	100 PPM
HYDROGEN SULFIDE (H₂S)	10092521	10 PPM	15 PPM
OXYGEN (O ₂)	10092523	19.5% VOL	23% VOL
ALTERNATE SET POINT MODELS	PART NO.	LOW ALARM	HIGH ALARM
CARBON MONOXIDE (CO)	10071334	30 PPM	60 PPM
CARBON MONOXIDE (CO)	10071335	35 PPM	100 PPM
CARBON MONOXIDE (CO)	10071337	50 PPM	200 PPM
CARBON MONOXIDE (CO)	10071338	100 PPM	300 PPM
HYDROGEN SULPHIDE (H₂S)	10071340	10 PPM	200 PPM
HYDROGEN SULPHIDE (H₂S)	10071361	5 PPM	10 PPM
HYDROGEN SULPHIDE (H₂S)	10071362	8 PPM	12 PPM
HYDROGEN SULPHIDE (H₂S)	10071363	7 PPM	14 PPM
OXYGEN (O ₂)	10071364	19.5% VOL	18% VOL

Alarm System

- 95 dB audible alarm (distinct sounds for High and Low alarms).
- Dual LEDs positioned to be seen from all angles.
- Standard vibrating alarm and standard event logging.

Warranty

• Two years or 18 hours of alarm (1080 minutes).

Durability Features

- Hard polycarbonate case, encapsulated in a thick rubberized shell.
- Extremely resistant to drops and impacts.
- Rated to IP67 protection levels for dust/water ingress.

ALTAIR® Pro Single-Gas Detector









- Tough rubberized housing.
- One-button operation.
- Accurately measures the gas concentration or percent oxygen.
- Displays information on a large, clear, backlit LCD.
- Superior dust and water protection (rated IP67).
- Event-logging and data-logging .
- Excellent impact resistance .

- Versions available for O₂, ClO₂, HCN and PH₃.
- Great RFI performance.
- Adjustable alarm set points are offered for LOW, HIGH, TWA and STEL.
- Alarms are indicated by flashing LEDs, an audible alarm, and an internal vibrating alarm.
- Replaceable battery and sensor.

INSTRUMENT TYPE	PART NO.	LOW ALARM	HIGH ALARM	STEL	TWA
OXYGEN (O ₂)	10074137	19.50%	23.00%	N/A	N/A
HYDROGEN CYANIDE (HCN)	10076729	4.7 PPM	15 PPM	10 PPM	4.7 PPM
CHLORINE DIOXIDE (CLO ₂)	10076717	0.1 PPM	1.0 PPM	0.3 PPM	0.1 PPM
PHOSPHINE (PH ₃)	10076735	0.3 PPM	1.0 PPM	1.0 PPM	0.3 PPM

ALTAIR® 4X eXtreme Multigas Detector

ALTAIR® 4X Multigas Detector (IECEx), with data logging feature, charger, calibration cap & tubing, CD manual

Features

- MotionAlert™ feature plus audible, visual, and vibrating alarms.
- Most rugged instrument available.
- ALTAIR® 4X Oxygen expected life 5+ years under normal operating conditions.
- Large buttons for easy operation.
- 20-hour battery run time when fully charged.
- NSW Underground Mines Registered.
- Tested to IP67.
- Phosphorescent "Glow" case option.
- Galaxy® GX2 Automated System compatible.
- Global approvals.
- Economically priced.
- MSA Link™ Software-ready.



MSA XCell sensors

ALTAIR® 4X eXtreme 10	0110447	ALTAIR® 4X (LEL, O2, CO, H2S) Charcoal, 3 Yr Warranty
Multigas Detector 10	0110450	ALTAIR® 4X eXtreme Glow (LEL, O2, CO, H2S) 5 Yr Warranty
10	0110448	ALTAIR® 4X (LEL, O2, CO) Charcoal, 3 Yr Warranty
10	0110447K	ALTAIR® 4X Kit - Standard Charcoal Unit
10	0110450K	ALTAIR® 4X Kit - Extreme Glow
10	0110447KP	ALTAIR® 4X Kit - Standard Charcoal Unit with Pump Probe
10	0110450KP	ALTAIR® 4X Kit - Extreme Glow with Pump Probe
10	0110451	ALTAIR® 4X eXtreme Glow (LEL, O2, CO) 5 Yr Warranty
10	0110449	ALTAIR® 4X (LEL, O2) Charcoal, 3 Yr Warranty
10	0110452	ALTAIR® 4X eXtreme Glow (LEL, O2) 5 Yr Warranty
10	0125757	ALTAIR® 4X (CH4, O2, CO, NO2) Charcoal Registered 3Yr Wty
10	0125758	ALTAIR® 4X (CH4, O2, CO, NO2) Glow Mines Registered 5Yr Wty
76	67546	ALTAIR® 4X (LEL, O2, CO/NO2) Charcoal
76	67547	ALTAIR® 4X (LEL, O2, CO/NO2) Glow
10	0110447KVC	ALTAIR® 4X Kit Standard Charcoal (LEL, O2, CO, H2S) c/w Vehicle Charger
10	0110450KVC	ALTAIR® 4X Kit Glow (LEL, O2, CO, H2S) c/w Vehicle Charger
10	0110447VC	ALTAIR® 4X Charcoal, (LEL, O2, CO, H2S) c/w Vehicle Charger
10	0110450VC	ALTAIR® 4X Glow, (LEL, O2, CO, H2S) c/w Vehicle Charger





ALTAIR® Pump Probe

The ALTAIR Pump Probe is durable and simple to use, its powerful pump can draw through 15 metres of tubing for remote sampling applications. The Altair Pump Probe is also equipped with status indicators, audible and visual alarms for low flow and low battery warnings. The ALTAIR Pump Probe is approved for use in most hazardous locations and is an intrinsically safe instrument.

- Rechargeable Li-ion battery
- Can be charged with the standard ALTAIR 4X charger
- Sample draw speed 10 ft per 1 second
- Alarms for low battery and flow restriction
- Charge time less than 4 hours
- Run time 24 hours at 25 degrees C with maximum 15 metres sample line attached
- Over-moulded static dissipative rubber housing
- Conductive wand and coiled tubing
- Rated to IP65

ALTAIR® Pump	10152668	ALTAIR® PUMP PROBE WITH CHARGER
Probe	10153040	ALTAIR® PUMP PROBE NO CHARGER







ALTAIR 4X Multigas Detector Accessories

CALIBRATION	467895	Regulator 0.25 lpm Model RP	SENSORS /	10106722	Kit, XCell Ex combustible sensor
ACCESSORIES	10089321	Calibration assembly (cap, tube, connector)	SPARE PARTS	10106729	Kit, XCell O2 sensor
		,		10106725	Kit, XCell CO/H2S two-tox sensor
	10048280	34L Quad gas mix (1.45% CH4, 15% O2, 60 ppm CO, 20 ppm H2S)		10121213	Kit, XCell CO/H2S-LC two-tox sensor
	10045035	58L Quad gas mix (1.45% CH4, 15% O2, 60 ppm CO,		10121217	Kit, XCell CO/NO2 two-tox sensor
		20 ppm H2S)		10110030	Front housing with integrated dust filters (Charcoal)
POWER SUPPLY	10127425	Galaxy GX2 Multi Unit Charger 4/4X		10110029	Front housing with integrated dust filters (Phosphorescent)
	10089487	Charger Cradle + Power Supply Altair 4X		10106621	Main board with battery pack
	10095774	Vehicle charger		10110061	LCD frame assembly (frame, LCD, zebra strips, screws)
	10127143	Spare Part, GX2/Charger/Altair, Power Cord		10110062	Sensors gasket, Phillips screws (4x), self-tapping (2x)
		Australia	SAMPLING	10153103	10 foot polyurethane
ACCESSORIES	10069894	Stainless steel suspender clip	LINES	10153104	25 foot polyurethane
	10088099	MSA Link™ Software CD-ROM		10153105	50 foot polyurethane
	10082834	lateur ID Adapter with LICE connector		10151096	10 foot conductive
	10002034	JetEye IR Adapter with USB connector		10151104	25 foot conductive
	10050333	Hand aspirator assembly		10151097	50 foot conductive

*Contact MSA for other available combinations.

ALTAIR® 5X Multigas Detector and PID



MSA's new ALTAIR 5X Multigas Detector and PID is driven by the most advanced technology available in any portable gas detector on the market. The ALTAIR 5X outlasts the competition and delivers the most functionality with integrated XCell Sensors, PID and Bluetooth technology to meet current and future needs.

Features

- Rugged detector tests levels of LEL, O2, CO, H2S and SO2, and other toxic gases
- Integrated PID sensor option for detection of VOCs.
- Rapid bump test gives results in under 15 seconds
- MotionAlert™ feature "man-down" alarm
- InstantAlert™ feature manual alarm
- Large Buttons for Easy Operation
- Durable XCell® sensors last longer than 3 years
- Rugged housing protects detector from drops of up to 10 feet
- Xcell Sensor End Of Life Indicator
- Bluetooth Wireless Connectivity
- Economically priced.
- MSA Link™ Software-ready.

PART NO:	Description
768415	ALTAIR 5X PID, Colour, LEL, O2, CO, H2S, 10.6eV, reactive sampling line and probe
768416	ALTAIR 5X PID, Colour, LEL, O2, CO/H2S, 10.6eV
10166729	ALTAIR® 5X PID, Colour, 2K
CUSTOMISED UNITS	Configuration
A-ALT5X-DLKB110A000	ALTAIR 5X PID, Colour, LEL, O2, H2S, CO & CL2
A-ALT5X-DLKD110A000	ALTAIR 5X PID, Colour, LEL, O2, H2S, CO & NH3
A-ALT5X-DLKA110A020	ALTAIR 5X PID, Colour, LEL, O2, SO2, CO, H2S, 10.6eV
A-ALT5X-DLKA110A000	ALTAIR 5X PID, Colour, LEL, O2, SO2, CO, H2S, 10.6eV
A-ALT5X-DLKC110A010	ALTAIR 5X PID, Colour, LEL, O2, NO2, CO, H2S, 10.6eV, sample line and probe
A-ALT5X-DLKD110A020	ALTAIR 5X PID, Colour, LEL, O2, NH3, CO, H2S, 10.6eV, reactive sample line and probe
A-ALT5X-DLKF110A020	ALTAIR 5X PID, Colour, LEL, O2, HCN, CO, H2S, 10.6eV, reactive sample line and probe



ALTAIR® 5X Multigas Detector

- Can measure up to six gases simultaneously when IR unit is used.
- Extended range covering SO₂, Cl₂, and NH₃.
- Superior stability, accuracy, repeatability, fast response and longevity.
- Long-lasting designed for an average life of more than four years (more than three years for SO₂, Cl₂, and NH₃).
- Faster response/clear times.
- Greater signal stability and repeatability under changing or extreme environmental conditions and are plug-and-play-capable.
- Option of a glow in the dark housing for all IR sensor equipped instruments.
- Rugged detector tests levels of LEL, O2, CO, H2S and SO2, and other toxic gases
- Rapid bump test gives results in under 15 seconds
- Versatile MSA Link™ Software allows user to transmit data to a computer
- Exclusive MotionAlert™ option tells others that user has become immobile
- InstantAlert™ Panic Button provides manual alarm to alert others of a dangerous situation
- Large buttons and bright display provide easy operation, even when user is wearing gloves
- Available glow-in-the-dark housing makes it easy to see in a con!ned space
- Durable XCell® sensors last longer than 3 years
- Rugged housing protects detector from drops of up to 10 feet
- Exclusive end-of-sensor warning cautions user when unit's sensor must be changed
- Polycarbonate housing is both dust-tight and water-tight

Warranties: Standard - 3 Years | Infrared - 5 Years



Galaxy GX2 and MSA Link Pro Software allows for automated calibration, bump testing and "eet magaement.





MSA XCell sensors



ALTAIR® 5X Colour Screen Units

PART NO:	DESCRIPTION
767518	ALTAIR® 5X, SO ₂ , COLOUR
767298	ALTAIR® 5X CO NO ₂ COLOUR
10119665	ALTAIR® 5X LEL O ₂ CO H ₂ S NO ₂ COLOUR
10119668	ALTAIR® 5X LEL O ₂ CO H ₂ S COLOUR
10119670	ALTAIR® 5X LEL O ₂ CO H ₂ S SO ₂ COLOUR
10119671	ALTAIR® 5X LEL O ₂ CO H ₂ S HCN COLOUR
10119672	ALTAIR® 5X LEL O ₂ CO H ₂ S CL ₂ COLOUR
10119673	ALTAIR® 5X LEL O ₂ CO H ₂ S PH ₃ COLOUR
10122118	ALTAIR® 5X LEL O ₂ CO H ₂ S NH ₃ COLOUR
767363	ALTAIR® 5X O ₂ CO H ₂ S NO ₂ COLOUR
767367	ALTAIR® 5X LEL O ₂ HCN NH ₃ COLOUR
767529	ALTAIR® 5X, LEL, CO, H ₂ S, SO ₂ , NH ₃ COLOUR
767923	ALTAIR® 5X, LEL, O ₂ , NO, NO ₂ COLOUR
767803	ALTAIR® 5X LEL, O ₂ , NO ₂ , CL ₂ COLOUR
767804	ALTAIR® 5X LEL, O ₂ , PH ₃ , SO ₂ , COLOUR
767828	ALTAIR® 5X LEL, O ₂ , CO/NO ₂ , SO ₂ , COLOUR

ALTAIR® 5X Methane Optimised LEL Sensors for Mining & Gas Applications

PART NO:	DESCRIPTION
10119665M	ALTAIR® 5X CH4 OPTIMISED, O ₂ CO H ₂ S NO ₂ MINING COLOUR
767474M	ALTAIR® 5X LEL, O ₂ , CO, H ₂ S, NH ₃ MINING COLOUR
767474MCE	ALTAIR® 5X LEL, O ₂ , CO, NO ₂ , NH ₃ MINING COLOUR
767896	ALTAIR® 5X, CH4 OPTIMISED, O ₂ , CO, H ₂ S MINING COLOUR
767894	ALTAIR® 5X CH4 OPTIMISED, O ₂ , SO ₂ , CO/H ₂ S CHARCOAL MINING COLOUR

ALTAIR® 5X Monochrome Screen Units

PART NO:	DESCRIPTION
10119666	ALTAIR 5X LEL O ₂ CO H ₂ S NO ₂ MONO
10119669	ALTAIR 5X LEL O2 CO H2S SO2 MONO
10119667	ALTAIR 5X LEL O ₂ CO H ₂ S MONO
767376	ALTAIR 5X LEL O ₂ MONO
767245	ALTAIR 5X LEL O ₂ CO H ₂ S HCN MONO
767248	ALTAIR 5X LEL O ₂ CO H ₂ S NH ₃ MONO
767654	ALTAIR 5X NO ₂ 0-20, SO ₂ , MONO
767248K	ALTAIR 5X LEL O ₂ CO H ₂ S NH ₃ MONO

ALTAIR® 5X Infrared Methane Detector Combinations

PART NO:	DESCRIPTION
767388	ALTAIR® 5X IR CHARCOAL LEL O ₂ CO H ₂ S CL ₂ CH4 100% VOL COLOUR
767713	ALTAIR® 5X CH4 OPTIMISED, O ₂ , CO, H ₂ S, CH4 100% VOL COLOUR
10119677	ALTAIR® 5X IR LEL O ₂ CO H ₂ S NH ₃ CH4 100% VOL Mono
767321	ALTAIR® 5X IR LEL O ₂ CO H ₂ S CH4 100% VOL COLOUR
767359	ALTAIR® 5X IR CH4 100% VOL COLOUR
767321K	ALTAIR® 5X IR LEL O ₂ CO H ₂ S CH4 100% VOL COLOUR

ALTAIR® 5X Infrared Butane Detector Combinations

PART NO:	DESCRIPTION
767449	ALTAIR® 5X IR LEL, O ₂ , CO, H ₂ S, BUTANE 25% VOL

ALTAIR® 5X Infrared Propane Detector Combinations

PART NO:	DESCRIPTION
767584	ALTAIR® 5X IR LEL, O ₂ , CO, H ₂ S, PROPANE 0-100% LEL

Mono and Colour refer to display screen type *Selection may change without notification

ALTAIR® 5X Infrared CO₂ Detector Combinations

PART NO:	DESCRIPTION
767352M	ALTAIR® 5X IR GLOW CH4 OPTIMISED $\mathrm{O_2}$ CO $\mathrm{H_2S}$ $\mathrm{NO_2}$ CO $_2$ COLOUR - MINING
767871	ALTAIR® 5X IR CH4 OPTIMISED LEL, O_2 , NO_2 , SO_2 , CO_2 (10%), COLOUR
767343	ALTAIR® 5X IR CHARCOAL O_2 S O_2 C O_2 (IR) COLOUR
767519	ALTAIR® 5X IR GLOW CH4 OPTIMISED SENSOR O $_{\rm 2}$ CO $\rm H_2S$ CO $_{\rm 2}$ (10%) COLOUR
10119678	ALTAIR® 5X IR GLOW LEL O ₂ CO H ₂ S CO ₂ (10%) COLOUR
767351	ALTAIR® 5X IR GLOW LEL O ₂ CO H ₂ S NH ₃ CO ₂ COLOUR
767352	ALTAIR® 5X IR GLOW LEL O ₂ CO H ₂ S NO ₂ CO ₂ COLOUR
767306	ALTAIR® 5X IR GLOW LEL O ₂ CO H ₂ S SO ₂ CO ₂ (IR) COLOUR
10119674	ALTAIR® 5X IR LEL O ₂ CO H ₂ S CO ₂ MONOCHROME
767351K	ALTAIR® 5X IR LEL O ₂ CO H ₂ S NH ₃ CO ₂ COLOUR
767306K	ALTAIR® 5X IR LEL O ₂ CO H ₂ S SO ₂ CO ₂ COLOUR
767238	ALTAIR® 5X IR LEL O ₂ CO ₂
767714	ALTAIR® 5X IR, CO ₂ , COLOUR DISPLAY.
767951	ALTAIR® 5X IR LEL,O ₂ ,CO,NO ₂ ,SO ₂ ,CO ₂ COLOUR
767922	ALTAIR® 5X IR CH4 OPTIMISED, CO/H ₂ S, NO ₂ , SO ₂ , CO ₂ MONO SCREEN
767686	${\sf ALTAIR}^{\bullet}{\sf 5XIR,CO}_{{\sf 2'}}{\sf ATEX}({\sf EuropeanCertificationforNewCaledonianSalesOnly})$

 $\begin{tabular}{lll} ALTAIR \begin{tabular}{lll} \bf ALTAIR \begin{tabular}{lll} \bf SX & Kits & (Contains: Instrument, Regulator, Calibration Tubing, Calibration Gas Cylinder, Operating Manual all in a foam lined carry case) \end{tabular}$

PART NO:	DESCRIPTION
10119665MK	ALTAIR $^{\circ}$ 5X CH4 OPTIMISED O $_{2}$ CO H $_{2}$ S NO $_{2}$ COLOUR - MINING KIT
767713K	ALTAIR® 5X CH4 OPTIMISED, O $_{2^{\prime}}$ CO, H $_{2}$ S, CH4 (IR) 0-100% VOL COLOUR KIT
10119672K	ALTAIR® 5X LEL O ₂ CO H ₂ S CL ₂ COLOUR KIT
10119668K	ALTAIR® 5X LEL O ₂ CO H ₂ S COLOUR KIT
10119671K	ALTAIR® 5X LEL O ₂ CO H ₂ S HCN COLOUR KIT
767245K	ALTAIR® 5X LEL O ₂ CO H ₂ S HCN MONO, KIT
10119667K	ALTAIR® 5X LEL O ₂ CO H ₂ S MONO KIT
10122118K	ALTAIR® 5X LEL O ₂ CO H ₂ S NH ₃ COLOUR KIT
10119665K	ALTAIR® 5X LEL O ₂ CO H ₂ S NO ₂ COLOUR KIT
10119666K	ALTAIR® 5X LEL O ₂ CO H ₂ S NO ₂ MONO KIT
10119673K	ALTAIR® 5X LEL O ₂ CO H ₂ S PH ₃ COLOUR KIT
10119670K	ALTAIR® 5X LEL O ₂ CO H ₂ S SO ₂ COLOUR KIT
767896K	ALTAIR® 5X, CH4 OPTIMISED, O ₂ , CO, H ₂ S MINING KIT
10119669K	ALTAIR® 5X LEL O ₂ CO H ₂ S SO ₂ MONO KIT
767448K	ALTAIR® 5X IR LEL, O ₂ , CO, H ₂ S, BUTANE 25% VOL, KIT
767584K	ALTAIR® 5X IR LEL, O ₂ , CO, H ₂ S, PROPANE 0-100% LEL KIT
767828K	ALTAIR® 5X LEL, O ₂ , CO/NO ₂ , SO ₂ , COLOUR KIT
767951K	ALTAIR® 5X IR LEL,O ₂ ,CO,NO ₂ ,SO ₂ ,CO ₂ COLOUR KIT
767735K	ALTAIR® 5X IR PROPANE 0-100% VOL KIT (NO OTHER SENSORS)
767923K	ALTAIR® 5X, LEL, O ₂ , NO, NO ₂ COLOUR SCREEN KIT
767343k	ALTAIR® 5X IR CHARCOAL O ₂ SO ₂ CO ₂ COLOUR KIT
10119678K	ALTAIR® 5X IR GLOW LEL O ₂ CO H ₂ S CO ₂ COLOUR KIT
767352K	ALTAIR® 5X IR GLOW LEL O ₂ CO H ₂ S NO ₂ CO ₂ COLOUR KIT
10119675K	ALTAIR® 5X IR LEL O ₂ CO H ₂ S CH4 MONO KIT
10119674K	ALTAIR® 5X IR LEL O ₂ CO H ₂ S CO ₂ MONO KIT
10119677K	ALTAIR® 5X IR LEL O ₂ CO H ₂ S NH ₃ CH4 MONO KIT
10119676K	ALTAIR® 5X IR LEL O, CO H,S NO, CH4 MONO KIT

*Contact MSA for other combinations available.

ALTAIR 5X Multigas Detector Accessories

	10114026	Datter Dark annahla Li Daliman Akrii CV CAA
SPARE PARTS / REPLACEMENTS	10114836	Battery Rechargeable Li-Polymer Altair 5X 5AA
	10114838	Battery Pack Alkaline Altair 5X SAA Charcoal
	10114851	Battery Altair 5X IR Charcoal
	10114852	Battery Altair 5X IR Glow
	10094830	Kit, belt clip replacement
	10083591	Filter cover assembly
	10114949	Maintenance kit
	10114950	Maintenance kit, Cl2, ClO2, NH3
	474555	Shoulder strap
	10050976	Retractable line with belt clip
	10099648	Holster, leather
	10099397	Vehicle charger
	10114853	Front housing with integrated filters
	10127427	Multi-unit charger, Altair 5X Detector 4-unit
CALIBRATION ACCESSORIES	10034391	Regulator Demand Flow Universal
	10045035	58L RP 60 ppm CO, 20 ppm H2S, 15% O2, 1.45% CH4
	10103262	58L RP 60 ppm CO, 20 ppm H2S, 15% O2, 1.45% CH4, 2.5% CO2
	10117738	58L RP 60 ppm CO, 20 ppm H2S, 15% O2, 1.45% CH4, 10 ppm SO2
	10048280	34L Econo-Cal® Cylinder, 60 ppm CO, 20 ppm H2S, 15% O2, 1.45% CH4
	10048789	34L Econo-Cal Cylinder, 60 ppm CO, 15% O2, 1.45% CH4
	10098855	34L Econo-Cal Cylinder, 60 ppm CO, 20 ppm H2S, 15% O2, 1.45% CH4, 10 ppm SO2
	711068	34L Econo-Cal Cylinder, 10 ppm NO, air balance
SAMPLING ACCESSORIES	10040665	Sampling line with quick-disconnect, 10-ft polyurethane
	10040664	Sampling line with quick-disconnect, 25-ft polyurethane
	10049058	Sampling line with quick-disconnect, 10-ft teflon
	10049057	Sampling line with quick-disconnect, 25-ft teflon
	10040667	Sampling line with quick-disconnect, 3-ft polyurethane coiled
	10105210	Sampling line with quick-disconnect for reactive gases, 5-ft polyurethane coiled
	10105251	Sampling line with quick-disconnect for reactive gases, 5-ft polyurethane straight
	10105839	Sampling line with quick-disconnect for reactive gases, 10-ft teflon straight
	10042621	Probe, 1-ft
	10042622	Probe, 3-ft
	801582	Filter, water stop, pack of 10
REPLACEMENT SENSORS	10106722	Kit, XCell Ex Sensor, combustible
	10106729	9 Kit, XCell O2 Sensor
	10106725	Kit, XCell CO/H2S two-tox sensor
	10106375	Kit, replacement, HCN
	10106728	Kit, XCell Cl2 Sensor replacement
	10080222	Kit, replacement, ClO2
	10106727	Kit, XCell SO2 Sensor replacement
	10080224	Kit, replacement, NO2
	10106726	Kit, XCell NH3 Sensor replacement
	10116638	Kit, replacement, PH3
	10114750	Kit, replacement, NO
	10105650	XCell Sensor plug
	10088192	Sensor plug, oxygen and toxics (20 mm)
		F5///ger and comes (20 mm/)



Portable Instruments - Calibration Accessories

GALAXY® GX2 Automated Test System



- Color touchscreen for ease of setup and viewing; no touch operation is needed for calibration or bump test
- Visual indicators on GALAXY GX2 System and software
- RFID automated calibration gas setup, status alerts and traceability

The GALAXY GX2 Automated Test System provides simple and intelligent testing and calibration of MSA ALTAIR and ALTAIR PRO Single-Gas Detectors, as well as ALTAIR 4X and ALTAIR 5X Multigas Detectors, driven by the most advanced technology available in any portable gas detector: MSA XCell Sensors.

This easy-to-use automated test stand offers high performance as either a stand-alone unit or an integrated portable detector management system, enabling total data access and control of your MSA ALTAIR Gas Detector fleet.

Once any ALTAIR Family Gas Detector is placed within the GALAXY GX2 System, it can be tested, calibrated and charged automatically. Flexibility allows for up to 10 test stations, four cylinder holders and multi-unit charger within one GALAXY GX2 System detector bank.

- MSA Link Pro and MSA Link Software
- Global platform many language options
- Significant cost of ownership reduction when used with MSA XCell Sensors
- Simultaneous testing of up to 10 gas detectors
- Securely con!gure gas detectors at the touch of a button
- MSA XCell Sensor Technology
- Your MSA ALTAIR Multigas Detectors are always ready for use

Suitable for the entire ALTAIR family of portable gas detectors

PART NO:	Description
10128670K	Galaxy GX2 Altair® 4/4X Kit (test stand, cylinder holder and multi charger)
10128666K	Galaxy GX2 Altair® 5/5X Kit (test stand, cylinder holder and multi charger)
10128672K	Galaxy GX2 Altair®, Altair® Pro and Altair® 2X Kit (test stand, electronic cylinder holder)
10127425	Charger, Multi-unit, GX2, Altair® 4 and Altair® 4X
10127430	Charger, Multi-unit, GX2, Altair® 5 and Altair® 5X
10105756	Cylinder Holder Assy: GX2 (electronic), suits Altair® 4/4X and Altair® 5/5X
10128672	Test Stand Galaxy GX2, Altair®/Altair® Pro/Altair® 2X
10128670	Test Stand Galaxy GX2, Altair® 4/4X
10128666	Test Stand Galaxy GX2, Altair® 5/5X
10127111	4 GB SD memory card
10127808	Sticker or receipt / sticker printer
10126437	Detector sticker label roll
10126138	Receipt & sticker label roll
10145138	Printer ribbon
10123938	MSA Link Pro Software key
10123937	Digital secure USB key

Regulators

Model RP Regulators



- Fixed flow rate standard regulators with or without taps.
- Used with Model RP and R type cylinders.

0.25/1.5 LPM Flow Control Model RP



Gas Miser® Demand Regulator: The Intelligent Regulator

- Nickel-plated brass and polished aluminium.
- Gas flow from 0.1 lpm to 3.0 lpm.

PART NO: Description

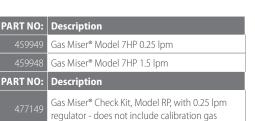
PART NO: Description

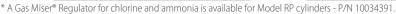
 Designed for use with any MSA Model RP Calibration Cylinder except chlorine and ammonia*

467895 Gas Miser® Model RP .25 lpm[¥]

478358 Gas Miser® Model RP Cylinder 1.5 Imp

- Automatic ON/OFF valve that releases gas only on demand.
- Shuts off automatically.
- Can stay connected to the cylinder where it remains in a ready state.
- Cost-efficient.
- Supplied with calibration tubing and special fitting.





⁴ Can be used with chlorine and ammonia; replaces P/N 809945.

10034391 Gas Miser® Model RP, Chlorine and Ammonia



Gas Miser® Model RP



Gas Miser® Model BD-20

Portable Instruments

Gas Miser® Model BD-20, with CGA 590 fitting

Calibration Gas

MSA offers a complete line of calibration gas cylinders to calibrate all instruments. The gas mixture in calibration gas cylinders is certified and prepared gravimetrically, using NIST traceable weights. The lot number and nominal value of the gas constituents in volume, percent by mass, PPM, or volume is specified on the cylinder.



# Gases	Gas Mix	Part No. Econocal (34L)	Part No. Econocal (58L)	Part No. Econocal (116L)	Recommended Cal Gas for:
1	100 PPM Isobutylene	10048279	-	494450	PID
1	8% Butane in N_2 (6L)	*10075802	-	-	25% vol Butane IR
1	50% vol Methane in N ₂	-	10075804	-	100% vol Methane IR
1	0.6% vol Propane (100L)	-	*10028034	-	LEL Propane IR sensor
1	50% vol Propane N ₂	*10029475	-	-	100% vol Propane IR
1	10 ppm NO_2 in Air	711068	808977	10150599	NO ₂ sensor
1	10 ppm SO ₂ in Air	711070	808978	10150600	SO ₂ sensor
1	$25 \mathrm{ppm} \mathrm{NH_3} \mathrm{in} \mathrm{N_2}$	711078	814866	10150611	NH ₃ sensor
1	$10 \text{ ppm Cl}_2 \text{ in N}_2$	711066	806740	10150612	Cl ₂ sensor
1	$2 \text{ ppm Cl}_2 \text{ in N}_2$	*711082	-	-	CIO ₂
1	10 ppm HCN in $\mathrm{N_2}$	711072	809351	10150614	HCN sensor
1	$0.5 \text{ ppm PH}_3 \text{ in N}_2$	711088	710533	10150615	PH ₃ sensor
3	1.45% CH ₄ , 15.0% O ₂ , 20 ppm H ₂ S	*10048790	*10048788	-	-
3	2.50% CH ₄ , 15.0% O ₂ , 20 ppm H ₂ S	10048888	10048889	-	-
3	1.45% CH ₄ , 15.0% O ₂ , 60 ppm CO	10048789	478191	-	-
3	2.50% CH ₄ , 15.0% O ₂ , 60 ppm CO	*10049056	-	-	-
4	1.45% CH ₄ , 15.0% O ₂ , 60 ppm CO, 10 ppm NO ₂	10058036	10058034	10150597	-
4	1.45% CH ₄ , 15.0% O ₂ , 60 ppm CO, 20 ppm H ₂ S	10048280	10045035	10150595	Standard Quad Gas
4	2.50% CH ₄ , 15.0% O ₂ , 60 ppm CO, 20 ppm H ₂ S	10048981	10048890	10150596	-
4	2.50% CH ₄ , 15.0% O ₂ , 60 ppm CO, 10 ppm NO ₂	10058172	10058171	10150598	-
5	1.45% CH ₄ , 15.0% O ₂ , 60 ppm CO, 20 ppm H ₂ S, 2.5% CO ₂	-	10103262	10150606	Standard Quad Gas + 5% or 10% CO ₂ IR
5	1.45% CH ₄ , 15.0% O ₂ , 60 ppm CO, 20 ppm H ₂ S, 10 ppm SO ₂	10098855	10117738	-	SO ₂ sensor

Calibration Gases are now RFID enabled to suit Galaxy GX2.

^{*}Not RFID enabled.



Fixed Gas and Flame Detection (FGFD)

Prima Series

Prima X-P Gas Monitor



Explosion-proof detection of combustibles, toxic gases, or oxygen

The PrimaX Gas Monitor offers proven quality and reliability and offers innovative enclosure design, ease of use, fast installation, and suitability for both indoor and outdoor installations make the PrimaX Gas Monitor your choice for versatile gas detection.

Features

- Standard 4-20mA output with optional relays or HART
- 4–20mA output signal and SIL 2 certification
- Easy menu navigation using integrated 4-way keypad
- Large, easy-to-read LCD display
- 3 LED status indicators





Intrinsically-safe detection of toxic gases or oxygen

The transmitter detects toxic gases and oxygen and is housed in an antistatic, reinforced nylon enclosure. It also has a large, easy-to-read LCD screen and attaches to an integral mounting plate for easy installation, while the built-in keypad makes for quick, simple calibration. To transmit data, the unit uses a 4-20 mA output signal and can also be configured to use HART digital communication.

Features

- Supply voltage 10 to 28 VDC (24 VDC nominal)
- Optional HART digital communication provides configuration, calibration, and diagnostics
- Large LCD display and status LED,s provide all information for quick and easy sensor status identification
- Quick site installation using a mounting plate accessory.
- A wide range of accessories is offered to suit various industrial applications, including flow cap, duct-mount kit, and pipe-mount kit
- Sensor disconnect-under-power without declassifying hazardous area

Prima XIR Gas Monitor



Designed for Reliable Performance in Extreme Conditions

Every feature of the SIL 2-certified 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 patented 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 obstructions 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

- Patented dual source design provides redundancy and reliable, uninterrupted performance
- Environmental guard sensor housing for fast, efficient response time
- Heated optics prevent condensation build up
- 4-20 mA analogue output
- User-friendly setup, calibration diagnostics, and maintenance via HART digital communication
- One-person calibration is easily performed using calibration cap
- Easy connection using aluminium or stainless steel junction box
- SIL 2 certification provides safety system integration capability
- 316 stainless steel, IP 67-rated, rugged housing protects unit from environmental extremes
- Factory-calibrated for fast commissioning
- Heater option enables operation to −50 °C

Ultima® X Series Gas Monitors

Continuous monitoring of many hazardous gases, the Ultima X Series Gas Monitors offer excellent performance and MSA quality craftsmanship. DuraSource™ Technology offers extended sensor life, while HART provides convenient setup, calibration and diagnostics. HART also allows for existing component install and wiring to be used. A single circuit board increases reliability, while our patented sensor disconnect-under power feature allows all sensors to be replaced in hazardous areas without area declassification. The units are crafted from stainless steel, and the interchangeable smart sensors eliminate the need for reconfiguration. Our scrolling LCD screen display sensor reading and gas type, while the calibration process includes date stamping and the ability to calibrate locally or remotely.

Ultima® XE



For continuous monitoring of oxygen, toxics, and combustible gases

HART Field Communications Protocol provides increased sensor data, part of cost-effective asset management. HART also provides convenient setup, calibration and diagnostics. Calibrate, set up or perform diagnostics with HART from any point along the 4-20mA line. HART also allows for existing component install and wiring to be used, reducing installation costs.

The Ultima XE Gas Monitor offers:

- Explosion-proof 316 stainless steel.
- Multiple-entry mounting enclosure.
- Type 4X, IP66

Ultima® XIR Monitor



Infrared technology for combustible or carbon dioxide gas detection.

The Ultima XIR Gas Monitor is a microprocessor-based, infrared point gas detector for continuous monitoring of

combustible gases and vapors. Designed around a rugged, 316 stainless steel enclosure, the Ultima XIR Monitor has multiple entries for maximum flexibility. Ultima XIR Monitor operation is based upon dual wavelength, heated-optics technology, providing definitive compensation for temperature, humidity, and aging effects. IR technology offers excellent long-term stability, eliminates the need for frequent calibrations, and reduces overall cost of ownership.

The Ultima XIR Gas Monitor offers:

- DuraSource Technology for improved IR sensor life.
- 316 stainless steel.
- Multiple-entry mounting enclosure.
- Fast response time.
- Operation based on dual-wavelength, heated-optics technology, providing definitive compensation for temperature, humidity, and aging effects.
- IR technology for excellent long-term stability, eliminating the need for frequent calibrations.
- Sintered disk-free design for optimum performance in harsh environments.
- No-gas calibration; only zero adjustment is required for full calibration.
- Type 4X, IP66 rating.



Gas Monitors

TRIGARD

TRIGARD® Monitoring System for Oxygen, Toxics and Combustible Gases

The MSA TRIGARD Monitoring System is designed for monitoring toxic gases; combustible gases; and oxygen deficiency or enrichment. It is an affordable monitoring solution for a variety of applications, including water and wastewater plants, lab space, boiler rooms, commercial and general industry. Stand-alone gas monitor for up to three MSA sensors

Features

- · Adjustable range
- Multiple sensor mounting options
- AC- or DC-powered
- On-board relays
- NEMA 4X design; indoor use only
- Piezo horn with horn silence button
- Long-life, MSA-designed sensors
- Simple push-button calibration
- Available as single-point or 3-point unit
- Optional battery backup
- LCD display with highly visible LED indicators



Chemgard® Series Infrared Gas Monitors



Top-performance, cost-effective, photo acoustic infrared gas monitors

The Chemgard Photo acoustic Infrared Gas Monitor series using photo acoustic infrared (IR) sensing technology provides precise, low-cost, high-performance

monitoring for a variety of gases such as hydrocarbons, solvents, alcohols, CO2, CO, and toxics. The Chemgard Gas Monitor is extremely stable and highly selective

to the gas of interest. The Chemgard Monitor can operate for months with virtually no zero drift. The instrument has detectability as low as 0.01 ppm for certain applications.

Features

- Photo acoustic infrared technology
- Easy to install, operate, and maintain
- Operates over a wide temperature range
- Can be installed in numerous environments and configurations
- Easy-to-read display showing gas concentration(s) and alarms
- 3 alarm levels with relay output

Toxgard II

For monitoring toxic gases, combustible gases, or oxygen deficiency.

Toxgard II Monitors can be used in any application where threat of combustible gas build up, presence of toxic gases, or oxygen deficiency may exist. Toxgard II Monitors are suitable for indoor and outdoor applications in virtually any industry including refineries, chemical and petrochemical facilities, steel mills, water and waste water, mining, and general industry.

Features

- Large, 4-digit LED display
- 3 alarm levels
- Large LED alarm indicators
- Internal relay contacts for FAULT,
- CAUTION, WARNING, and ALARM
- Fail-safe fault relay output
- · Diagnostics display
- Audible alarm
- 4 to 20 mA output



The MultiGard Multipoint Gas Sampling System



Simple, reliable gas sampling system uses a common set of analysers for up to 32 locations. Efficient, cost-effective, and easy to maintain.

Gas samples are drawn from remote locations and delivered to customer selectable internal analysers. The economical, efficient MultiGard Gas Sampling System uses auto-standardization and flexible sample point order to analyze gas from up to 32 locations. Maintenance and calibration are made easy because all the work is performed at a single location, while also ensuring personnel don't have to enter the monitored area. The unit directly connects to Allen-Bradley's (AB) Ethernet or Data Highway Plus™ networks, which allows communication to other equipment or controllers. The system also has an "internet-connect" option, which allows secure viewing at one's personal computer. The screen provides easy-access scroll-down menus and visual indicators of sensor condition.

Chillgard® Refrigerant Monitors (HVAC+R)

Chillgard® RT Refrigerant Monitor



Capable of detecting refrigerant gas down to 1ppm, the Chillgard RT Refrigerant Monitor is purpose-built to monitor up to eight remote areas, and is completely configurable to detect either a specific refrigerant or group of refrigerant gases. The Chillgard RT Monitor is easy to install and operate. Four (4) front-panel keys configure the entire system. The front panel displays all alarm and trouble messages. If a trouble condition occurs, the message is clearly shown on the display and it indicates the type of trouble. The display also indicates the monitored location and the corresponding gas concentration.

Features

- Very stable and highly selective photo acoustic infrared (PIR) technology
- Precise detection of dozens of refrigerants, including any 400- or 500-series refrigerant
- Easy-view vacuum florescent display
- Standard features include audio alarm, three alarm levels, four relays and 4-20mA & 0-10V outputs
- Reliable operation over a wide temperature range

Chillgard® M-100



Photo acoustic Infrared Refrigerant Sensor

MSA's CHILLGARD M-100 Refrigerant Sensor is designed to detect the presence of the most common halogenated refrigerants in cold storage facilities, mechanical equipment rooms and other refrigerant applications. This compact sensor can be mounted almost anywhere to detect potential leaks of halogenated refrigerants. Easy installation ensures fast and practical integration into existing automated systems.

Features

- Low-level detection down to as low as 20 ppm
- Versatility capable of operating within a wide temperature and humidity range
- Low maintenance no moving parts
- Easy installation simply secure back plate to wall
- Proven photo acoustic infrared refrigerant sensor

Chillgard® NH, (Ammonia)



World-class design for ammonia detection

MSA's Chillgard NH3 Gas Monitor uses reliable electrochemical sensing technology to detect partsper-million (ppm) levels of ammonia. World-class design and engineering offer single-board design for ultimate reliability and serviceability in an economical package.

Features

- Internal heater option for operation down to -40°C
- Fast response electrochemical sensor located directly under calibration cap provides fast ammonia leak response
- Water- and corrosion-resistant NEMA 4X enclosure
- Interchangeable Smart Sensors pre-calibrated sensor modules are ready for out-of-box installation. Sensors can be field-replaced without tools.
- On board LEDs and relays



Flame Detection

Multi Spectral Infra-Red Flame Detector



Four IR sensors plus Neural Network Technology equal superior false alarm rejection

MSA's Multi-Spectral Infrared (MSIR) Flame Detector with four IR sensors and neural network technology sets a new industry standard for performance, reliability and value. This is the industry's first MSIR/NNT flame detector designed to operate at a longer range with a wider field of view and at a higher level of accuracy for superior false alarm immunity.

Combining a precision multi-spectral IR sensing array with highly intelligent neural network processors, the MSIR Detector reliably discriminates between actual flames and nuisance false alarm sources (such as arc welding or hot objects).

Ultraviolet/Infra-Red Flame Detector



Ultraviolet and infrared flame detection provides high immunity to false alarms

The UV/IR Flame Detector is designed to detect fires and provide alarm outputs directly from the detector while maintaining false alarm immunity. The UV/IR Flame Detector detects fires by monitoring in both the ultraviolet and infrared (UV & IR) spectral ranges, making it highly immune to false alarms caused by lightning, arc welding, hot objects and other sources of radiation. Other features of the UV/IR Detector include three alarm/fault relays, and an RS-485 serial output with Modbus RTU protocol for linking up to 128 detectors in series or 247 with repeaters. The RS-485 and HART outputs provide status, alarm, fault and other information for operation, troubleshooting or programming of the units.

Ultraviolet / Infra-Red Flame Detector for Hydrogen



Ultraviolet and infrared hydrogen flame detection

provides high immunity to false alarms

The MSA UV/IR-H2 Flame Detector is an ultraviolet/ infrared flame detector designed to detect unwanted hydrogen fires. The UV/IR-H2 Detector detects fires by monitoring in both the ultraviolet and infrared (UV & IR) spectral ranges, making it highly immune to false alarms caused by lightning, arc welding, hot objects and other sources of radiation.

GASSONIC OBSERVER-I Ultrasonic Gas Leak Detector



The GASSONIC OBSERVER-i is the world's first ultrasonic gas leak detector equipped with Artificial Neural Network (ANN) real-time broadband acoustic sound processing technology.

This technology is based on extensive studies and real recording of gas leak sounds and industrial background noise from a wide array of industry sources over the years. The ANN algorithm has been "trained" with these recordings to automatically distinguish between unwanted acoustic background noise and dangerous gas leaks. With ANN technology, the GASSONIC OBSERVER-i makes it possible to fully analyse the sound spectrum as low as 12 kHz since common high pass filters are not used. This provides a broader leak detection range which also increases sensitivity to smaller gas leaks, without interference from unwanted background noise.

Open Path Gas Detector



Open Path Detector for Hydrocarbon Gas Detection

The detector is an open path IR gas detector that provides continuous monitoring of combustible hydrocarbon gas concentrations. The system consists of an IR source and receiver which continuously monitor for methane in both the 0 to 5000 ppm•meter and 0 to 5 LEL•meter range. A 0 to 2000 ppm•meter and 0 to 1 LEL•meter range is also available for monitoring propane. The detector provides two 4 to 20 mA analog signals proportional to each of the above ranges, in addition to a digital display and relay contacts.

MOS H2S Gas Sensor



Intelligent Sensor for H2S Gas Detection

The MOS Intelligent Sensor is a microprocessor-based transmitter designed for use with MSA's Metal Oxide Semiconductor (MOS) sensor. This unit features one person calibration and can virtually self-calibrate through activation of a magnetic switch and the application of gas. It is designed to detect hydrogen sulphide in parts per million (ppm) levels and provide status indication and alarm outputs. The MOS Intelligent Sensor includes a three (3) digit LED display. This local digital display continuously indicates gas concentrations during normal operation and in the calibration check mode, calibration prompts during calibration mode, display codes during the setup mode and eight fault codes.



Car Park Monitors

Reliable Microprocessor-Based Controllers for Commercial Applications

MSA Z-Gard Controllers are a line of microprocessor-based monitoring systems designed to solve a variety of alarm and control applications. Z-Gard Controllers interface with MSA Z-Gard Sensors, providing real-time target gas readings. All Z-Gard Controllers provide easy installation and configuration, audible and visual feedback, and seamless integration with commercial and building automation systems.

ZGard® S Sensor



The Z Gard S Sensor is designed to detect the presence of carbon monoxide and nitrogen dioxide gases in air. These sensors employ solid state or electrochemical sensors which generate a representative output signal proportional to the calibrated operating range. All Z Gard S Sensors are available with 2 output versions, a 4-20mA analog output, or an addressable RS-485 digital signal. The Z Gard S Sensor with RS-485 digital output is specifically designed to operate with any Z Gard C 485 Controller, operating as a system. The Z Gard S Sensor with 4-20mA can be installed as a stand-alone sensor typically integrated with the Z Gard C Controller, or common commercial equipment including PLC, DCS, or building automation systems.

ZGard® Combo Gas Monitor



Reliable Standalone Carbon Monoxide Gas Monitor for Commercial Applications

The MSA Z-Gard COmbo Gas Monitor features an integrated carbon monoxide sensor, and is ideal for use in small garage monitoring and ventilation control applications. Generally wall-mounted in the area where the target gas is to be measured, the Z-Gard Combo Gas Monitor can also act as a controller, managing up to seven additional remote Z-Gard Gas Sensors via RS-485 serial data bus connections.

ZGard® DS Sensor



Reliable Gas Sensors for Commercial Applications

The Z-Gard S Sensor is designed to detect the presence of carbon monoxide, nitrogen dioxide and combustible gases in air. The Z-Gard DS Sensor is designed to detect the presence of carbon monoxide and nitrogen dioxide gases in parking garages, vehicle storage areas or wherever else these two toxic gases could be found. The DS offers the benefit of two points of detection in one enclosure. Z-Gard sensors employ solid state, electrochemical or catalytic sensors which generate an output signal proportional to the calibrated operating range. All Z Gard S and DS Sensors are available with a 4-20 mA analogue output, an addressable RS-485 digital signal. Z-Gard Sensors with RS-485 digital output are specifically designed to operate as a system with any Z-Gard C 485 or Z-Gard CXII Controller. Z-Gard Sensors with 4-20 mA can be installed as stand-alone sensors typically integrated with the Z-Gard C Controller, or common commercial equipment including PLC, DCS, or building automation systems.

Gas **Detection Controllers**

Model 9010/9020



Flexible Options for Reliable System Control

9010/9020 Controllers offer maximum flexibility to work in conjunction with remote sensors to provide reliable gas detection for many industries and applications. Advanced design using SMD components throughout plus innovative features put the 9010/9020 LCD Control Units steps ahead of any conventional gas warning system. The 9010 LCD Controller operates with 1 independent sensor (single-channel) while the 9020 LCD Controller operates with 2 independent sensors (dual-channel) per control module, offering considerable cost savings while maintaining high reliability and performance. Modular design combined with dual-channel capability allows for many configurations to meet most applications. Each control module comes with an independent AC/DC power supply transformer for increased system reliability.

Note: This is a custom product. Please consult your local sales manager or contact Customer Service for configuration details.

Gasgard XL (1-8 Point Controller)



Multi-channel, wall-mounted economical controller for all of your gas monitoring needs.

The GasGard XL Controller from MSA is a versatile and easy to use controller for monitoring toxic and combustible gases, and oxygen deficiency. This controller provides protection from potentially hazardous conditions in a variety of industrial, chemical, municipal, and waste water applications. The GasGard XL Controller offers reliability in a compact, durable, wall-mounted housing constructed of fire-retardant ABS plastic. The large and clear multi-language LCD display provides real-time target gas readings and events, offers full system diagnosis, and is supported by individual LEDs per channel with common relays and internal buzzer.



FGFD Calibration Gas

PART NUMBER	Chemical Name	Concentration	Description
10044014*	NH ₃	300 ppm	Ammonia in Nitrogen
10028076*	NH ₃	25 ppm	Ammonia in Nitrogen
479265	CO ₂	2.50%	Carbon Dioxide in Air
479266	CO ₂	2000 ppm	Carbon Dioxide in Air
806735	CO ₂	100 ppm	Carbon Dioxide in Nitrogen
807386	CO ₂	1.50%	Carbon Dioxide in Nitrogen
807387	CO ₂	15%	Carbon Dioxide in Nitrogen
801041	CO ₂ , CH ₄	1300 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801042	CO ₂ , CH ₄	2000 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801043	CO ₂ , CH ₄	3300 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801044	CO ₂ , CH ₄	6600 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801045	CO ₂ , CH ₄	1.3%, 2.5%	Carbon Dioxide, Methane in Nitrogen
801046	CO ₂ , CH ₄	3.3%, 2.5%	Carbon Dioxide, Methane in Nitrogen
801047	CO ₂ , CH ₄	6.6%, 2.5%	Carbon Dioxide, Methane in Nitrogen
801048	CO ₂ , CH ₄	33.3%, 2.5%	Carbon Dioxide, Methane in Nitrogen
10028050	CO	50 ppm	Carbon Monoxide in Air
710882	CO	60 ppm	Carbon Monoxide in Air
10028052	CO	100 ppm	Carbon Monoxide in Air
10028054	CO	200 ppm	Carbon Monoxide in Air
10027938	CO	300 ppm	Carbon Monoxide in Air
10028048	CO	400 ppm	Carbon Monoxide in Air
10028056	CO, CH ₄	60 ppm CO, 2.5% CH ₄	Carbon Monoxide, Methane, 15%, O ₂ in Nitrogen
10010162	$CO, CH_{4'}O_2$	300 ppm CO, 1.45% CH ₄ , 15% O ₂	Carbon Monoxide, Methane, Oxygen in Nitrogen
804770*	CO, CH ₄ , O ₂ , H ₂ S	300 ppm, 1.45%, 15%, 10 ppm	Carbon Monoxide, Methane, Oxygen, H ₂ S in N ₂
710331*	CL ₂	2 ppm	Chlorine in Nitrogen (used for CIO ₂ Cal too)
10028066*+	CL ₂	10 ppm	Chlorine in Nitrogen
10028046	H_2	0.80%	Hydrogen in Air
10022386	H_2	500 ppm	Hydrogen in Nitrogen
10028078*	HCL	40 ppm	Hydrogen Chloride in Nitrogen
10053747*	HCL	10 ppm	Hydrogen Chloride in Nitrogen
10028072*	HCN	10 ppm	Hydrogen in Cyanide in Nitrogen
710414*	H ₂ S	5 ppm	Hydrogen Sulfide in Nitrogen
10028060*+	H ₂ S	10 ppm	Hydrogen Sulfide in Nitrogen
10028064*	H ₂ S	15 ppm	Hydrogen Sulfide in Nitrogen
10028062~	H ₂ S	40 ppm	Hydrogen Sulfide in Nitrogen
10089547	H ₂ S	250 ppm	Hydrogen Sulfide in Nitrogen
10028038*+	Isobutylene	100 ppm	Isobutylene in Air
10028032~	CH ₄	2.50%	Methane in Air
491041^	CH ₄	2.50%	Methane in Air
801049	CH ₄	6.60%	Methane in Nitrogen
10028022	CH ₄ , O ₂	1.45%, 15%	Methane, Oxygen in Nitrogen
10028020	$CH_{4'}O_{2'}CO$	1.45%, 15%, 60 ppm	Methane, Oxygen, Carbon Monoxide in Nitrogen
10028074*	NO	50 ppm	Nittic Oxide in Nitrogen

PART NUMBER	Chemical Name	Concentration	Description
481317#	N_2	99.90%	Nitrogen (O ₂ Zero)
710332*	NO ₂	5 ppm	Nitrogen Dioxide in Air
10028068*	NO ₂	10 ppm	Nitrogen Dioxide in Air
493580	O_2	5%	Oxygen in Nitrogen
10028028	O_2	20.80% in Nitrogen	Oxygen in Nitrogen, Zero Air except for 3600
804532@	Pentane	0.75%	Pentane in Air, Substitute for Ammonia
10014894	Pentane	1000 ppm	Pentane in Air
710533*	Phosphine	0.5 ppm	Phosphine in Nitrogen
711054	C ₃ H ₈	0.10%	Propane in Air
10028034	C ₃ H ₈	0.60%	Propane in Air (Ultima Span)
10028044	$C_3H_{8'}O_{2'}CO$	0.6%, 15%, 60 ppm	Propane Oxygen, Carbon Monoxide in Nitrogen
806905	R-11	10 ppm	R-11 in Air
803499	R-11	100 ppm	R-11 in Nitrogen
812785	R-11	30 ppm	R-11 in Nitrogen
710880>	R-11	990 ppm	R-11 in Air
804866	R-12	100 ppm	R-12 in N ₂
812823	R-12	30 ppm	R-12 in Nitrogen
710878>	R-12	990 ppm	R-12 in Air
813368	R-113	30 ppm	R-113 in Nitrogen
804870	R-113	100 ppm	R-113 in N ₂
813369	R-114	30 ppm	R-114 in Nitrogen
806904	R-123	10 ppm	R-123 in Nitrogen
812784	R-123	30 ppm	R-123 in Nitrogen
711474	R-123	50 ppm	R-123 in Nitrogen
803498	R-123	100 ppm	R-123 in N ₂
806907	R-134A	10 ppm	R-134A in N ₂
803500	R-134A	100 pppm	R-134A in N ₂
812787	R-134A	30 ppm	R-134A in Nitrogen
710874>	R-134A	990 ppm	R-134A in Air5
813370	R-500	30 ppm	R-500 in Nitrogen
813371	R-502	30 ppm	R-502 in Nitrogen
10014897*	Silane	5 ppm	Silane in Nitrogen
10028070*	SO ₂	10 ppm	Sulfur Dioxide in Air
10028042	Zero Air	20.8% Oxygen in Nitrogen	Zero Air

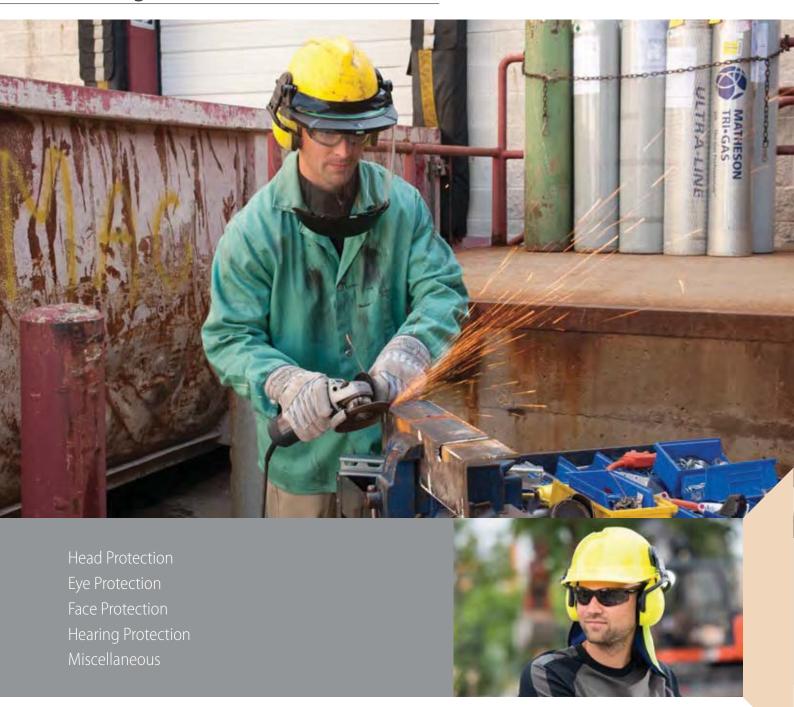
- NOTE: All cylinders contain 98 litres at 1000 psi except those indicated by *. They have 58 litres. 98 litres gives approximately 20 calibrations per cylinder.
- 34 litre cylinder
- Not to be used for Ultima Sensors
- @ Used only for Chillgard RT, substitute for ammonia.
- Used as zero air for $\rm O_2$ Ultima sensors and all infrared instruments. Used for Z-Gard only.

Accessories

PART NUMBER	Description
467896	1.5L/Min Calibration Regulator
10034391	Demand flow regulator
711112	Calibration tubing
767897	Dual cylinder carry case

HEFH - Head, Eye, Face, Hearing & Miscellaneous Protection





MSA remains at the forefront of Head, Eye, Face and Hearing protection products through research and development in our design and manufacturing sites in Australia, U.S.A, France, Sweden and China. Our local expertise ensures you get quality, tested, certified and supported products every time. As a manufacturer we are experts in our products and are constantly innovating to ensure we deliver safety solutions your business can rely on. This means you spend more time getting on with your business.

To ensure you are covered with a complete safety system, MSA products are designed to work in conjunction with each other. Match our Hard Hats with a wide array of accessories such as face shields, passive and electronic hearing protection, sun brims, winter warming liners or flame resistant liners to ensure you are protected by a complete system.

In addition to protecting you, MSA understands the importance of your business brand which is why we offer hard hat customisation from our Sydney factory. We can expertly brand your hard hats not only with your company brand, but with other safety information and reflective decaling and striping to ensure your team stands out, safely.

Turn the page to view our range of Head, Eye, Face and Hearing protection. We've got you covered.

Head Protection



Did you know that the working life of a hard hat is 3 years from the issue date? Make sure you write the issue date on the label provided in the back of the cap.

Also it is recommended that suspensions be replaced after 2 years as they degrade quicker from contact with your skin. Inspect your cap before every use and replace caps immediately that show signs of damage or have been impacted.

V-Gard™ Protective Caps

Awarded the Australian Design mark for standards in comfort and weight, the V-Gard™ delivers outstanding safety in this iconic hard hat

Classification: Type 1 **Applications:** General Purpose

Material:

Features:

- Extended peak for greater visibility and extra

protection from sun and rain.

- Glaregard® textured underside of peak. - Earmuff and visor attachment slots.

- Replaceable sweatband available.

Customisation: Custom printing and decaling available. Standards: Certified to AS/NZS 1801 - Type 1.

Min Order Qty:

V-Gard™ Caps















V-Gard™ Miners Caps







Description	Staz-on Suspension – 4 point	Fas-Trac® III Suspension – 4 point			
Complete V-Gard Assemblies					
White	226000WH	226019WH			
Yellow	226000YE	226019YE			
Blue	226000LB	226019LB			
Green	226000GN	226019GN			
Orange	226000OR	226019OR			
Fluro Lime (Yellow)	226000FL	226019FL			
Red	226000RE	226019RE			
Complete V-Gard™ Assembl	ies with Miners Lamp Brackets Fitted - Metal (MLB)				
White - MLB	226002WH	-			
Yellow – MLB	226002YE	-			
Blue – MLB	226002LB	-			
Green – MLB	226002GN	-			
Orange – MLB	226002OR	-			
Red – MLB	226002RE	-			

V-Gard[™] 500 Protective Caps

The V-Gard™ 500 is a premium industrial helmet offering class leading protection in a light weight, comfortable and stylish design that works as hard as you do.

With our patented 6 point Staz-On® or ultra-premium Fas-Trac® suspension, all day comfort and safety is assured.

Classification: Type 1

Applications: General Purpose

Material: ABS

Features:

- 6 point woven polyester textile suspensions provide height and length adjustment.

- Glaregard® textured underside of peak greatly reduces glare and associated eye strain.

- Extra large cooling vents provide heat extraction for added comfort.

- Rain gutter for wet conditions.

- Earmuff and visor attachment slots allow compatibility with accessory range.

- Replaceable sweatband available

- Vented or Non-Vented styles available

- Miners caps fitted with cap lamp bracket and cable clip. Standard available stocks are fitted with metal lamp brackets. High quality plastic brackets are available as a make to order.

Customisation: Custom printing and decaling available.

Standards: Certified to AS/NZS 1801 - Type 1.

Min Order Qty: 2

V-Gard™ 500 Caps















V-Gard[™] 500 Miners Caps















Description	V-Gai	rd 500	V-Gard 500	Unvented
	Staz-on - 6 point	Fas-Trac® III - 6 point	Staz-on - 6 point	Fas-Trac® III - 6 point
Complete V-Gard™ Assemb	lies			
White	229710WH6V	229719WH6V	229710WH6	229719WH6
Yellow	229710YE6V	229719YE6V	229710YE6	229719YE6
Blue	229710LB6V	229719BU6V	229710LB6	-
Green	229710GN6V	229719GN6V	-	-
Orange	229710OR6V	229719OR6V	-	-
Fluro Lime (Yellow)	229710FL6V	229719FL6V	-	-
Red	229710RE6V	229719RE6V	-	-
Complete V-Gard Assembli	es with Miners Lamp Brac	kets Fitted - Metal (MLB) o	r Plastic (PLB) Lamp Brack	cet
White - MLB	229351WH6V	229351WHF3V	229351WH6	-
Yellow - MLB	229351YE6V	-	-	-
Blue - MLB	229351BU6V	-	-	-
Green - MLB	229351GN6V	-	-	-
Orange - MLB	-	-	-	-
Red - MLB	-	-	-	-
White - PLB	764442WH6V	-	764442WH6	-

V-Gard™ Full Brim Protective Hats

Classification: Type 1 **Applications:** General Purpose

Material: ABS

Features: - Hats feature a full circumference brim for

greater protection.

Earmuff and visor attachment slots.Replaceable sweatband available.

Customisation:Custom printing and decaling available.Standards:Certified to AS/NZS 1801 - Type 1.Min Order Qty:15 Staz-on Suspension

15 Staz-on Suspension 10 Fas-Trac Suspension

V-Gard™ Caps















Description	Staz-on Suspension – 4 point	Fas-Trac® III Suspension – 4 point			
Complete V-Gard™ Full Brim Hat Assemblies					
White	220944WH	220949WH			
Yellow	220944YE	220949YE			
Blue	220944BU	220949BU			
Green	220944GN	220949GN			
Orange	220944OR	220949OR			
Fluro Lime (Yellow)	-	-			
Red	220944RE	220949RE			
Orange Hi-Viz	220944HVO	-			
Complete V-Gard Assemblies w	vith Miners Lamp Brackets Fitted - Metal (MLB)	or Plastic (PLB) Lamp Bracket			
White - MLB	224158WH	224158WHF			
Yellow – MLB	224158YE	-			
Blue – MLB	224158BU	-			
Green – MLB	224158GN	-			
Orange – MLB	224158OR	-			

Bumpgard

Red – MLB

White - PLB



• Baseball cap with moulded inner shell and foam crown pad.

224158RE 764444WH4

- Protects from superficial injuries caused by bumping head against stationery objects.
- Velcro adjustment strap provides individual fit.

PART NO:	Description
763254BU	Bumpgard Baseball Cap
763254BUF	Bumpgard Baseball Cap with attached neck flap

Note - Not AS/NZS 1801 certified.

Bumpcap



- · Lightweight head protector.
- Widely used in food preparation industry.
- Side vents keep wearer cool.

PART NO:	Description
220819W	White - Bumpcap
220819BU	Blue - Bumpcap

Note - Not AS/NZS 1801 certified.



Replacement Suspensions for MSA Safety Helmets



MSA Fas-Trac® III Ratchet Suspension

Ensuring your workforce wears their safety helmets can be a real headache. MSA, the leading provider of protective helmets, has the perfect remedy: the Fas-Trac III Suspension. No more pressure headaches. No more pulled hair. No more falling off.

No more sacrificing worker comfort for safety.

- 1 Sweatband fully covers the headband and worker's forehead.
- 2 Two levels of nape strap adjustment for customised fit.
- 3 Lower nape strap cradles the head. Retention is greatly improved, even when bending over!
- 4 Smooth ratchet rotation and secure hold.



PART NO:	PART NO: Description	
10171993	FAS-TRAC III, 4 Point Suspension for V-Gard™, V-Gard™ Hat	
10172045	FAS-TRAC III, 6 Point Suspension for V-Gard™ 500, 520	
229621 Replacement 4 point Suspension for V-Gard (Hole Replaceable Sweatband)		
229516	Replacement 6 point Suspension for V-Gard 500 (Hole Replaceable Sweatband)	
229620	Replacement 4 Point Suspension for V-Gard™ Cap (Sewn in Sweatband)	
229515	Replacement 6 Point Suspension for V-Gard™ 500 Cap (Sewn in Sweatband)	
229054	FAS-TRAC, 6 Point Suspension. While Stocks Last.	
229053	FAS-TRAC, 4 Point Suspension. While Stocks Last.	

Fas-Trac III 4 Point Suspension











Fas-Trac III 6 Point Suspension

Staz-on Suspension – 6 point





Staz-on Suspension – 4 point













Accessories

Sun Brim







Cool Cotton Brim with attached neck flap for maximum sun protection.

PART NO:	Description
762546WH	V-Gard™ 500 - White
762546BU	V-Gard™ 500 - Blue
762546OR	V-Gard™ 500 - Orange
762546FO	V-Gard™ 500 - Fluro Orange
225689WH	V-Gard™ - White
225689BU	V-Gard™ - Blue
225689OR	V-Gard™ - Orange
225689FO	V-Gard™ - Fluro Orange

Accessories







For all MSA Hard Hats and Caps.

PART NO:	Description
220553	Chin Strap Elastic
224047	Sweatband Brushed Nylon - Universal - Velcro Fit
765550	Sweatband, Terry Towelling, Lug Style
229068	Neck Flap Proban Yellow
10147559	Chinstrap 3 point EN version
10124238	Chinstrap 4 point ANSI (pack 10)
10162334	Sweatband, Terry/Foam, OEM replacement
	for Fas-Trac [®] III

Custom Branded Caps and Reflective Sticker Branding











Custom Branded Caps

- Apply your company logo and message to safety caps and hats for increased brand exposure.
- Upsize (120 mm diameter) or Regular (90 mm diameter) available.
- Size varies depending on logo shape and style.
- Brand can be applied to front, rear and sides of caps and hats.

Reflective Sticker Branding

- Available in standard formats using plain or cross hatch tape.
- Style A: V-Gard[™] 500.
- Styles C H: V-Gard[™] and V-Gard[™] 500.

Customised Stickers

• Customised decals and name stickers (both weeded and non weeded available)

CONTACT YOUR MSA REPRESENTATIVE OR CUSTOMER SERVICE FOR MORE INFORMATION

Generic Branded Caps



- Certified to AS/NZS 1801
- Generic branded caps available in 4 styles.

PART NO:	Description
227501YE00651000	"Visitor" - Yellow
227501YE00381000	"Fire Warden" - Yellow
227501GN01291000	"First Aid" - Green
227501RE02651000	"Warden" - Red

Protective Caps and Winter Liners

V-Gard™ Supreme FR 2-Piece



- Multi-layered flame-resistant top cap.
- Fabric tested to withstand arc exposure to an ATPV of 8 cal/cm².
- Water repellant.
- Inside neck pocket holds warming packet.
- 2 piece extended, zipper on/off, high-bulk, flame-resistant knit bottom.
- · No metal parts.
- Supplied in pack of 3.

PART NO:	Description	
10118427	Flame Resistant V-Gard™ Supreme2-Piece Liner	

V-Gard™ Liner Knit Cap



- Stylish skullie cap.
- Design prevents liner from obstructing vision.
- 100% high-bulk acrylic.
- Supplied in pack of 12.

V-Gard™ Select Flame Retardant

PART NO: Description

10118417 V-Gard™ Liner Knit Cap

V-Gard™ Liner Knit-Cap Cover



- 100% acrylic.
- Bright yellow-green for greater visibility.
- Full face tube mounts under or over brim of MSA caps or hats, covering ears, mouth, cheeks and neck.
- Extended nape and wraparound collar for tucking into coat/shirt.
- Supplied in pack of 12.

4	
	1

- Two layers of fabric, flame retardant to 50 washes
- Water repellant
- Extended nape and wraparound collar for tucking into coat/shirt
- For applications where earmuffs are not worn
- Sold in sets of 12

PART NO:	Description	PART NO:	Description
10118418	V-Gard™ Liner Knit-Cap Cover	10129654	Flame-Retardant V-Gard Select Liner, Extended, No Earflaps



Structural Fire Helmets and Accessories

F1 XF Helmet



Outdoor Fighting

Open-space fires involving vehicles, gas or chemicals expose firemen to extreme temperatures, radiant heat, and explosive or caustic materials for long periods of time.



Road and Traffic Accidents

Emergency Responders to accident scenes are exposed to various hazards (explosion, collapse, projectiles and high noise situations) when rescuing victims needing immediate assistance.



Structural firefighting

High temperatures, low visibility, falling debris, confined spaces and flashover situations make structural firefighting one of the most dangerous and challenging occupations.



Technical Rescue Operations

Unstable ground, environmental or structural hazards, fire, fatigue and other factors are all potential risks that may be encountered during long-lasting technical rescue operations.

Key Features



Optimal fit for all user profiles (female, large heads, etc) in all operating conditions

- 1 helmet, 2 sizes
- Medium for 52–62 cm
- Large for and 57–65 cm



Unmatched comfort with no pressure points on the head, and padding designed for ease of care and use

- Padded headband, 2 versions (leather and nomex)
- Removable / Washable paddings
- Wearing height adjustment



Short range, **integrated lighting** for optimal visibility in dark or smoky environments

- Lightweight, integrated lighting module (LED)
- Battery level indicator
- Over 10 hours of continuous operation



Robust sizing mechanism allowing for user friendly adjustment while on the head

- Ergonomic Wheel ratchet adjustment
- Large knob with easy access
- Multiple size increments



Adjustment of the wearing position for an optimal **comfort and balance** for all users profiles

- Angular rear and front adjustments for optimal wearing position
- Rear strap setting for enhanced stability
- Bright Yellow colour for intuitive adjustments



Adjustable, **high performance** ocular visor

- optimal fit for all faces to prevent injuries
- Ease of manipulation with no interference in the viewing area
- Compatible with corrective spectacles
- Angular adjustment of the ocular visor with adjustable Mechanical stop
- Optical class 1

HEFH - Head, Eye, Face, Hearing & Miscellaneous Protection





High performance and comfortable face protection with clear or gold coating

- Unique sliding mechanism to eliminate interferences
- Extended coverage
- Unique field of vision through the face shield

Unmatched thermal and mechanical

• Extended side protection for lateral

Suspension system for lower

protection even in extremely hot conditions



Optimised care and maintenance procedures, **reduced cost of ownership** and safer use

- Modular design with 2 separate modules
- Shortest full inspection time
- Easy care and component replacement



Optimal **retention and stability** on the head, with and without breathing apparatus

- Ergonomic 3 points chinstrap, with padded side straps
- Free pivot point accommodate various chin shape and size
- Quick strap adjustment to accommodate face piece



• Extended impact liner with

Aramide insert

impact protection

force transmission







State-of-the-art integration **helmet mounted communication**

- Bone conductive headset with self adjustment
- Adjustable neckswan microphone with parking position
- One or two loudspeaker for comfort of hearing



Unique **customisation capabilities** with interchangeable front plate and personnalised badges

- Various front plates colors and designs
- Metal badge with multiple colours
- Logo printing area for tampography identification















Available Colours:

White, Yellow, Red, Black, Hi-Viz Yellow, Hi-Viz Orange, Photoluminescent, Grey, Blue, Green

PART NO:	Description	PART NO:	Description
767958RE	Gallet F1 XF Red, Medium, Clear	767959RE	Gallet F1 XF Red, Large, Clear
767958WH	Gallet F1 XF White, Medium, Clear	767959WH	Gallet F1 XF White, Large, Clear
767958YE	Gallet F1 XF Yellow, Medium, Clear	767959YE	Gallet F1 XF Yellow, Large, Clear

Contact MSA for alternate colour part numbers



F1 XF Communication

Communication headset for integration in Gallet F1 XF fire helmet

MSA manufacture custom communications systems to suit your Gallet F1 XF Helmet.

Step 1. Choose one of the following communications types:



Flexible Microphone Headset

- One or two loudspeakers, in plastic housing with mounting clips.
- Flexible microphone, adjustable in length (80 mm) to optimize position in front of the mouth or in front of the speech diaphragm (BA face piece).
- Downlead Cable with anti-tearing, LEMO connecting plug (green cover).

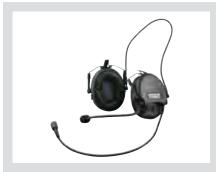
Part Numbers

GA010002H3 (1 Speaker) LEMO Plug GA010002H3A (2 Speaker) Nexus Plug



Bone Conductive Microphone Headset

- One or two loudspeakers, in housing with mounting clips.
- Bone conductive microphone, inserted in the front headband padding.
- Downlead Cable with anti-tearing, LEMO connecting plug (blue cover).



Hearing Protection with Flexible Microphone

- •Two ear muffs with padding and noise attenuation foam.
- Ear cup height adjustment system for optimal wearing position.
- Flexible microphone attached to the left muff.
- Downlead Cable with anti-tearing, LEMO connecting plug (green).





Step 3. Contact MSA Customer Service for your nearest distributor

Contact MSA with your radio make and model for compatibility, part numbers and price.

HEFH - Head, Eye, Face, Hearing & Miscellaneous Protection

F2 Xtreme



- 3 position sizing headband for better comfort and balance.
- Additional adjustable suspension netting provides better comfort, breathability and balance.
- 6 chinstrap adjustments, for greater balance and comfort.
- Quick Click head size adjustment that is glove friendly.
- EN Certified.

Cairns 660 C



- High temperature foam liner with patented breakaway system.
- Nomex ear/neckflap Nomex quick release chinstrap.
- Standard 4" visor.
- Available in white, red, yellow, orange.
- Minimal parts for lower service cost and easier maintenance.
- NFPA Certified.

PART NO:	Description
767524RE	Gallet F2Xtreme Helmet C/W lamp attachment and Responder goggles, RED
767524WH	Gallet F2Xtrem Helmet C/W lamp attachment and Responder goggles, WHITE
767524YE	Gallet F2Xtrem Helmet C/W lamp attachment and Responder goggles, YELLOW
766078	Aluminised Neck Flap (GA 3234)
766079	Wool Neck Curtain (GA 3240)

PART NO:	Description
660CFSW	White W/FS (Cairns) NFPA
660CFSB	Black W/FS (Cairns) NFPA
660CFSY	Yellow W/FS (Cairns) NFPA
660CFSO	Orange W/FS (Cairns) NFPA
660CFSR	Red W/FS (Cairns) NFPA

Accessories for Firefighters Helmets

Lamp XS Zone 0



- ATEX Certified T6, safe in all hazardous environments
- Low power helmet mounted lighting solution. Perfect for close up work such as map reading or seeing your immediate surroundings.
- Torch supplied with helmet mounting adapter and accessory lanyard for carrying around your neck. Rear push button on/off easy to manipulate.
- Single 0.18 W white LED
- 8.9 Lumens
- 4 x LR44 Coin Batteries
- 130hrs burn time
- <35g with batteries</p>

PART NO:	Description
767875	Lamp XS Zone 0

LAMP XP LED



- ATEX Certified, Zone 0 and T4 approved
- Advanced LED technology with long beam
- \bullet Designed for attachment to helmets
- Fluorescent yellow body in polycarbonate with red switch and exhaust valve
- Photoluminescent shroud for optimal visibility when dropped
- Single 1W LED with reflector
- 63/65 Lumens output
- 4 x AA Batteries
- Peak beam intensity 4,543cd; 135m beam distance
- 14hrs burn time (LED will remain lit for 30+hrs)
- >10,000 hours lamp module life
- 215g including batteries
- Waterproof (IP67)

PART NO:	Description
766077	Lamp XP LED



Face Protection

V-Gard Headgear, Faceshields & Accessories











Frames, visors and chin protectors have been designed and certified as a system with MSA helmets to ensure product compatibility, a crucial component of compliance and safety. With its truly global platform, MSA offers the most durable protection you can trust.

Choosing the proper V-Gard visor

Material	Polycarbonate (PC)	Suitable for most applications where impact and splash hazards exist. Available in a variety of sizes and thicknesses, sheet or injection moulded versions. Moulded visors are optically corrected and therefore offer very good view and reduce fatigue during work. Their chemical and heat resistance is better as they are thicker and not as stressed as flat visors. Flat visors are the perfect solution for general and basic applications offering a good price/performance ratio.
	Mesh	Provides maximum ventilation in humid working conditions. Lightweight and durable great for outdoor applications such as brush clearing and trimming. Does not provide splash protection.
	Propionate	Provides superior chemical splash resistance mainly against organic chemicals such as solvants. Available in injection moulded version for a great optical quality and reliable resistance not as stressed as flat visors.
Colour/Tint	Clear	Provides maximum light transmission. Good for indoor use applications, or outdoor use in low-light conditions.
	Shade 3 IR / Shade 5 IR	Helps protect against infrared (IR) up to Shade 3 and Shade 5, as applicable, as well as ultraviolet (UV) radiation. Perfect for autogenous welding, metal pouring, gas soldering, light cutting and brazing applications.
Coatings	Anti-fog	Controls condensation build-up on inside of visor surface. Great for humid conditions.
	Anti-Scratch	Provides excellent scratch resistance, extending visor life. A "must have" in abrasive work environments.
	Reflective	Reflects radiant heat, keeping the wearer comfortable in elevated temperature environments, such as manufacturing plants with blast furnaces.
Options	Chin Protectors	V-Gard chin protectors provide additional protection to the face and neck from impacts, chemical splash and arc flash making them suitable for applications in forestry, chemical industry, utilities, etc.
	Debris Control	Provides additional protection against debris and chemical splash and reduces the possibility of debris or chemical entry between the visor frames and the front of the helmet.

V-Gard Headgear



PART NO:	Description
10127061	V-Gard Headgear Standard, without visor
10127062	V-Gard Headgear Elevated Temperature, without visor

- Protection from flying debris, particles, liquids and vapours when fitted with high impact visor.
- V-Gard Headgear is designed to work with existing V-Gard visors, which are part of the V-Gard accessories range.
- Offers a lightweight, comprehensive face protection system.
- Unique 3-point visor load system, visors fitted or removed easily and quickly.
- Adjustable to all head sizes with two comfort sweatbands for all day comfort.
- Certified to AS/NZS 1337.1

HEFH - Head, Eye, Face, Hearing & Miscellaneous Protection

V-Gard Visors: General Purpose

Classification: General purpose

★General purpose with Anti-fog/Anti-scratch Coatings

Markets: General industry, manufacturing, repair and maintenance, construction, oil and gas, forestry, shipbuilding,

metalworking, automotive, mining

Applications: Hot/humid conditions (Anti-fog), Chipping, splash, chiseling, drilling, grinding, machining, power fastening,

sanding, sawing

Material: Polycarbonate

Colour: Clear

Standards: Certified to AS/NZS 1337.1:2010 – High Impact Protection.

Min Order Qty: 10

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD VISORS FOR GENERAL PURPOSE APPLICATIONS	10115836	Clear, Flat	Timm sheet polycarbonate, high impact rated. Flared design provides better neck coverage. Earmuff profile for better fit with hearing protection. General use for flying debris, and splash hazards.
	10115837	Clear, Nitrometer*	1.02mm Polycarbonate. Earmuff profile for better fit with hearing protection. Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors. Contoured visor; closer fit and improved resistance to impact and splash hazards.
	*10115839	Clear, Flat, AF/AS	1.5mm polycarbonate, high impact rated. Anti-fog/Anti-scratch coatings. Earmuff profile for better fit with hearing protection. Contoured visor; closer !t and improved resistance to impact and splash hazards.

^{*} Nitrometer, for use with MSA Chin Protectors (Part Number: 10115827 and 10115828) ONLY.

V-Gard Visors: Heavy Duty Chemical and Splash

Classification: Chemical and splash: heavy duty

Markets: General industry, heavy manufacturing, laboratories, chem/petrochemical, agriculture, pharmaceutical,

oil and gas, mining

Applications: Chipping, splash, chemical mixing, grinding, machining, power fastening, sanding, sawing

Material: Propionate
Colour: Clear

Standards: Certified to AS/NZS 1337.1:2010 - Medium Impact Protection.

Min Order Qty: 5

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD VISORS FOR CHEMICAL AND SPLASH APPLICATIONS	10115855	Clear, Propionate, Moulded	2.49mm injected propionate. Superior optical quality. Best visor for chemical applications.
	10115856	Clear, Propionate, Moulded, Nitrometer*	• 2.49mm injected propionate. • Superior optical quality. • Best visor for chemical applications. • Use with V-Gard™ Retractable or standard chin protectors.

^{*} Nitrometer, for use with MSA Chin Protectors (Part Number: 10115827 and 10115828) ONLY.



V-Gard Visors: Welding (Shade 3 and Shade 5)

Classification: Welding

Markets: Fabrication, steel mills, shipbuilding, construction, open-pit mining, agriculture, oil/gas/petrochemical refineries,

rubber manufacturing

Applications: Welding, metal pouring, gas soldering, light cutting/brazing, manufacturing, impact and debris

Material: Polycarbonate
Colour: Shade 3 IR, green
Shade 5 IR, green

Standards: Certified to AS/NZS 1337.1:2010 – High Impact Protection.

Min Order Qty: 5

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD VISORS FOR WELDING APPLICATIONS	10115859	Shade 3 IR, Moulded	2.49mm injected polycarbonate. Shade 3 Infra Red protection for gas welding applications. Scratch resistant. Thickness helps prevent pitting and warping from heat or weld spatter.
	10115860	Shade 3 IR, moulded Nitrometer*	2.49mm injected polycarbonate. Shade 3 Infra Red protection for gas welding applications. Scratch resistant. Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors. Thickness helps prevent pitting and warping from heat or weld spatter.
	10115861	Shade 5 IR, Moulded	2.49mm injected polycarbonate. Shade 5 Infra Red protection for gas welding applications. Scratch resistant. Thickness helps prevent pitting and warping from heat or weld spatter.
	10115862	Shade 5 IR, Moulded, Nitrometer*	2.49mm injected polycarbonate. Shade 3 Infra Red protection for gas welding applications. Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors. Scratch resistant. Thickness helps prevent pitting and warping from heat or weld spatter.

^{*} Nitrometer, for use with MSA Chin Protectors (Part Number: 10115827 and 10115828) ONLY.

⁺ DO NOT use with V-Gard Headgear. These visors are designated for use with specified V-Gard Frames and MSA helmets ONLY as face protection for workers exposed to high voltage electric arcs. V-Gard Headgear has not been tested or certified to the Test Method, and should not be used for this type of Arc Flash protection.

V-Gard Visors: Elevated Temperature, High-Performance Anti-fog/Anti-scratch Coatings

Classification: Elevated temperature

> Markets: General industry, manufacturing, repair

and maintenance, construction, oil and gas, forestry, shipbuilding, metalworking,

automotive, mining

Applications: Food processing, machine operation,

> maintenance, millwright, cutting, punching, extrusion, drilling, blasting, casting/ conveying, chemical mixing, sanding

Material: Polycarbonate with anti-fog and

anti-scratch coatings

Colour: Clear

Standards: Certified to AS/NZS 1337.1:2010 - High

Epoxy-coated steel mesh

Impact Protection.

Certified to AS/NZS 1337.1:2010 - Medium

Impact Protection.

Min Order Qty:

Material:

Standards:

Colour:

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD VISORS FOR ELEVATED TEMPERATURE APPLICATIONS	10115844	Clear, Moulded AF/AS	2.49mm injected polycarbonate. Extended length for greater face and neck coverage. Anti-Fog/Anti-Scratch coating. Superior protection against impact, chemicals and heat. Extra-thick visor helps prevent warping, cracking or crazing under tough conditions

V-Gard Visors: General Purpose Mesh Visor

Classification: General purpose: Mesh

> Markets: General industry, manufacturing, repair and

maintenance, construction, oil and gas, forestry, shipbuilding, automotive, mining

Applications: Flying chips and other light debris Min Order Qty:

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD VISORS FOR GENERAL PURPOSE APPLICATIONS	10116558	Mesh with plastic edge, Nitrometer*	Epoxy coated stainless steel mesh with heavy duty plastic surround. Ideal for use with large particles such as wood chips or in areas of high humidity. Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors

V-Gard Visors: Arc Flash Application

Markets:

Classification: Material: Polycarbonate

> Maintenance, impact and debris, Colour: Special tint, light green

testing/repair Standards: ANSI/ISEA 287.1:2010 Compliant

Applications: Flying chips and other light debris Min Order Qty:

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD NITROMETER WITH CHIN PROTECTOR FOR ARC FLASH APPLICATIONS	10118480	Arc+, Moulded, Nitrometer*	 1.7mm injected polycarbonate. Extended length for greater face and neck coverage. For electric arc flash applications. Use with V-Gard™ Retractable or standard chin protector. Rated 11.3 cal/cm2.

^{*} Nitrometer, for use with MSA Chin Protectors (Part Number: 10115827 and 10115828) ONLY.

⁺ DO NOT use with V-Gard Headgear. These visors are designated for use with specified V-Gard Frames and MSA helmets ONLY as face protection for workers exposed to high voltage electric arcs. V-Gard Headgear has not been tested or certified to the Test Method, and should not be used for this type of Arc Flash protection.



V-Gard Accessory System: V-Gard Frames for Caps and Hats

Classification: General purpose

Markets: General industry, manufacturing, repair and maintenance, construction, oil and gas, forestry, shipbuilding,

metalworking, automotive, mining

Applications: Chipping, splash, chiseling, drilling, grinding, machining, power fastening, sanding, sawing

Material: High density polyethylene (HDPE)

Min Order Qty: 10

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD FRAME FOR GENERAL PURPOSES		10115730	V-Gard™ Frame For Slotted Caps	Attaches directly into MSA V-Gard™ caps. Complete with unique replaceable debris control. Includes integral slot adapters. Sliding adjustment allows visors to fit over large half-face respirator filters. Non metal construction enables use in electrical applications.
		10115822	V-Gard™ Frame, Universal For Slotted Caps With Debris Control	 Universal. Fits most caps (MSA and other brands). Also fits all MSA Caps (Slotted or Non-Slotted). Sold with replaceable debris control which creates tight seal between frame and cap. Heavy duty flat rubber strap allows easy and secure placement on all MSA caps, including non-slotted models. Design allows use with other PPE, including MSA earmuffs and respirators.
FOR FULL-BRIM HATS FOR GENERAL PURPOSE	U	10116627	V-GARD™, Frame For Hats, Standard	Heavy duty flat rubber strap allows easy and secure placement on all MSA caps, including non-slotted models. Design allows use with other PPE, including MSA earmuffs and respirators. Certified to AS/NZS 1337.1:2010 High Impact Protection, when used with High Impact Visors.

Classification: Elevated temperature

Markets: Food manufacturing/canneries, steel mills, construction, open-pit mining, agriculture, oil/gas/petrochemical

refineries, rubber manufacturing, and steam tunnels

Applications: Food processing, machine operation, maintenance, millwright, cutting, punching, extrusion, drilling, blasting,

casting/conveying, chemical mixing, sanding

Material: Polycarbonate

Min Order Qty: 10

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
V-GARD FRAME FOR ELEVATED TEMPERATURE APPLICATIONS		10115730	V-Gard™ Frame For Slotted Caps	 Attaches directly into MSA V-Gard™ caps. Complete with unique replaceable debris control. Includes integral slot adapters. Sliding adjustment allows visors to fit over large half-face respirator filters. Non metal construction enables use in electrical applications.
V-GARD FRAME FOR FULL-BRIM HATS FOR ELEVATED TEMPERATURE APPLICATIONS	¥	10116628	V-Gard™, Frame For Hats, Elevated Temperature	Heavy duty flat rubber strap allows easy and secure placement on all MSA full brim hats, slotted and non-slotted models. Design allows use with other PPE, including MSA earmuffs and respirators. Certified to AS/NZS 1337.1:2010 High Impact Protection, when used with High Impact Visors.

Gard Chin Protectors

V-Gard Chin Protectors work with select V-Gard Nitrometers to help provide extra protection from impact and splash hazards to face and neck.

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
CHIN PROTECTORS	10115827	Chin Protector	Standard chin protector. Opaque material can be used with clear and tinted visors. Compact design provides additional protection between the neck and chin.
	10115828	Chin Protector, Retractable	Deluxe retractable chin protector. Opaque material can be used with clear and tinted visors. Compact design provides additional protection between the neck and chin.

V-Gard Accessory System Kits

PART NO.	PRODUCT SPECIFICATIONS
767911CL	Face Shield Kit with clear visor and standard chin guard. Contains: Brow guard (10127061) Clear visor (10115837) Standard chin guard (10115827) Certified to AS/NZS 1337.1:2010 – High Impact Protection
767911CL-RC	Deluxe Face Shield Kit with retractable chin guard and clear visor. Contains: Brow guard (10127061), Clear visor (10115837), Retractable Chin guard (10115828) Certified to AS/NZS 1337.1:2010 – High Impact Protection
767911GN3	Face Shield Kit with Shade 3 visor and standard chin guard. Contains: Brow guard (10127061) Shade 3 visor (10115860) Standard chin guard (10115827) Certified to AS/NZS 1337.1:2010 – High Impact Protection
767911GN5	Face Shield Kit with Shade 5 visor and standard chin guard. Contains: Brow guard (10127061) Shade 5 visor (10115862) Standard chin guard (10115827) Certified to AS/NZS 1337.1:2010 – High Impact Protection
767911ME	Face Shield Kit with epoxy coated steel mesh visor and standard chin guard. Contains: Brow guard (10127061) Mesh visor (10116558) Standard chin guard (10115827) Certified to AS/NZS 1337.1:2010 - Medium Impact Protection
10127065	Replacement front sweat band for brow guard.

V-Gard Accessory System Replacement Parts

V-Gard Accessory System Kits are designed to offer easy customer solutions for a variety of needs.

	PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
	10116539	Debris Control Assy, V-Gard™, Replacement, bagged	• Replacement debris control for MSA V-Gard™ frames 10115730 & 10115821.
	10117496	SLOT Adapters, V-Gard™, Frame, 2 Pairs, Replacement	Replacement slot adapters (pair) for MSA V-Gard™ frame 10115730 & 10115821. Used for accessory attachment of V-Gard™ Frames



Faceshields

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS	
FLASHMASTER WELDING HELMET	220035	Cover lens Clear Polycarbonate	 Ideal for electrical welding. Made from polypropylene to combine strength, lightweight, and chemical resistance. Fitted with Shade 10 welding lens. 		
	220035CR	Cover lens Clear CR39			
	1	220324	Welding Lens Shade 8	Replaceable CR39 cover lens protecting filter. Impact resistant clear polycarbonate backing lens. Adjustable head diameter, height and faceshield angle. Padded cloth headband for added comfort.	
		220325	Welding Lens Shade 9		
		220326	Welding Lens Shade 10		
		220327	Welding Lens Shade 11		
		221681	Complete Helmet		
BLACK EAGLE		227500C	Clear faceshield	Available in 3 different shaded visor options or mesh versions (aluminium & fibreglass)	
		227500GN3	Green Shade 3 faceshield	Fully adjustable head suspension Ideal for protection against flying debris and particles,	
		227500GN5	Green Shade 5 faceshield	liquids and vapours • Shaded versions suitable for oxy welding	
		227500MA	Mesh Aluminium faceshield	Chinguard on all models except mesh visor version Medium velocity impact protection certified to AS/NZS 1337	
		227500MF	Mesh Fibreglass faceshield	AS/NZS 1337	
BLACK EAGLE REPLACEMENT		227498C	Clear visor		
PARTS		227498GN3	Green Shade 3 visor		
	1 !	227498GN5	Green Shade 5 visor		
		762115	Mesh Aluminium visor		
		762116	Mesh Fibreglass visor		
		225474	Sweatband Terry Towelling (velcro fit)		
		225690	Sweatband Sheepskin (velcro fit)		
	220221S	Replacement suspension w/o sweatband			
		227499A	Replacement Browgard		
		227497	Replacement Chingard		
BULLET	4	226792	Faceshield	Lightweight browgard. Fully adjustable head suspension. Moulded clear polycarbonate visor. Certified to AS/NZS1337.1 high impact protection.	
	The second	227025	Replacement Visor		
	100	225474	Replacement Sweatband		
		226794A	Replacement Browgard		
		220221\$	Replacement suspension w/o sweatband		

Eye Protection

Safety Glasses: Indoor - General Application

Classification: Indoor: general and Indoor Humid Environments

Markets: Facility maintenance, repair and operations, construction, food and beverage, general manufacturing and industry,

mining, oil and gas, pharmaceuticals, transportation, shipbuilding, automotive

Applications: Assembly and mechanical, drilling, grinding, machining, painting, sanding, sawing

Material: PolycarbonateFeatures: Coatings:

• OptiRock: Durable high performance anti-fog coating with outstanding anti-scratch properties.

■ TuffStuff: Excellent service time superior anti-scratch coating.▼ Sightgard: Anti-fog coating with effective anti-scratch properties.

100% UV Protection, UV 400 rated

Standards: Certified to AS/NZS 1337.1. Medium Impact Protection

Min Order Qty: 12 (unless otherwise stated)

INDOOR APPLICATIONS		MODEL	PART NO.	PRODUCT SPECIFICATIONS
	P	Aeon	▼ 767941C - Clear, Anti-fog	Full wraparound design for maximum field of vision and peripheral protection. Dual-material browguard provides extra comfort. Lightweight, resilient & durable for all day wear. Soft nose pad provides superior comfort.
		Arctic Gold	▼ 762267BCF - Clear, Anti-fog ■ 762267BL - Lite Gold	 High base curve wraparound style for maximum coverage. Soft flexible low slip arms. Soft carry pouch doubles as cleaning cloth.
	1	Arctic M	▼ 229208CF - Clear , Anti-fog ■ 229208C - Clear ■ 229208A - Amber	Wrap Around Style - Wide Vision Lens. Comfortable, Ultra light weight design.
	(B)	Base	■ 767942C - Clear	Lightweight, resilient & durable for all day wear. Close-fitting, unitary front with dual. 9.5 base curvature offers wide and unobstructed vision.
	1	BlockZ	▼ 766759CAF - Clear, Anti-fog ▼ 766759AAF - Amber, Anti-fog ▼ 766759LGAF - Light Gold, Anti-fog	Provides excellent eye and socket coverage. Robust impact resistant frame. Large visibly safe paddle styled rubber tips for better grip. Soft nose grips.
	9	Cool Blooz	▼ 220168CF - Clear, Anti-fog ■ 220168L - Light Gold	Super soft reinforced comfort frame. Stylish design. Excellent Optics.
	9	Discovery	▼ 220175BCF - Clear, Anti-fog ■ 220175BC - Clear ▼ 220175BAF - Amber, Anti-fog ▼ 220175BL - Light Gold	Frame mounted wraparound lenses. Adjustable length side arms. Wrap around lens for greater protection.
	7	Discovery II	▼ 766764CAF - Clear, Anti-fog	Fresh and sleek design. Low weight durable frame construction. Increased comfort with flexible temple tips.
	~	Move	▼ 767944C - Clear, Anti-fog	Dual lens design with wraparound protection. Soft nose pad releases the pressure from the nose. Adjustable arm inclination.
	7	Nullarbor	▼ 229207C - Clear, Anti-fog ▼ 229207LF - Light Gold, Anti-fog	Stylish wraparound design. Clear now comes standard with Anti-fog, Hard coat. Robust nylon frame.
	-	Nullarbor Nex Gen	 → 767943CAF - Clear, Anti-fog → 767943A - Amber, Anti-fog ■ 767943BZM - Bronze Mirror 	9.75 base with multi-fit design for all faces. Optical class 1 lens offers users the clearest and the most panoramic view without obstruction. Modern co-material temple design with soft temple tips.
	4 0	Premier	■ 763109C - Clear	Wrap Style. Lightweight and comfortable.
	3	Ulta X-Over	▼ 766766CAF - Clear, Anti-fog	 Robust frame construction with open cell foam. Provides protection against dust and other foreign matter. 4 point length adjustment arms.



Safety Glasses: Outdoor – General Application

Classification: Outdoor: general use

Markets: Aviation, general manufacturing, mining, oil and gas, pharmaceuticals, primary metals, transportation

Applications: Assembly and mechanical, chipping, chiseling, drilling, grinding, machining, sanding, sawing

Material: PolycarbonateFeatures: Coatings:

• OptiRock: Durable high performance anti-fog coating with outstanding anti-scratch properties.

TuffStuff: Excellent service time superior anti-scratch coating.Sightgard: Anti-fog coating with effective anti-scratch properties.

Smoke tint lenses offer glare reduction 100% UV Protection, UV 400 rated

Standards: Certified to AS/NZS 1337.1. Medium Impact Protection

Min Order Qty: 12 (unless otherwise stated)

01.00.	12 (unics) otherwise statedy							
GENERAL		MODEL	PART NO.	PRODUCT SPECIFICATIONS				
OUTDOOR USE APPLICATIONS	3	Aeon	■ 767941S	Full wraparound design for maximum field of vision and peripheral protection. Dual-material browguard provides extra comfort. Lightweight, resilient & durable for all day wear. Soft nose pad provides superior comfort.				
		Arctic Gold	■ 762267BS	High base curve wraparound style for maximum coverage. Soft flexible low slip arms. Soft carry pouch doubles as cleaning cloth.				
		Arctic M	229208\$	Wrap Around Style - Wide Vision Lens. Ultra light weight design.				
	3	Base	■ 767942S	Lightweight, resilient & durable protective eyewear for all day wear. Close-fitting, unitary front with dual 9.5 base curvature offers wide and unobstructed vision.				
	9	BlockZ	▼ 766759SAF	Provides excellent eye and socket coverage. Robust impact resistant frame. Large visibly safe paddle styled rubber tips for better grip. Soft nose grips.				
	9	Cool Blooz	220168S	Super soft reinforced comfort frame. Stylish design. Excellent Optics.				
	9	Discovery	■ 220175BS	Frame mounted wraparound lenses. Adjustable length side arms.				
		Discovery II	▼ 766764SAF	Fresh and sleek design.Low weight durable frame construction.Increased comfort with flexible temple tips.				
	-	Move	■ 767944S	 Dual lens design with wraparound protection. Soft nose pad releases the pressure from the nose. Stylish temple design with soft tips offers snug fitting. Adjustable arm inclination. 				
	3	Nullarbor	229207S 229207BS	Stylish wraparound design. Robust nylon frame.				
	9	Nullarbor Nex Gen	■ 767943S	9.75 base with multi-fit design for all faces. Optical class 1 lens offers users the clearest and the most panoramic view without obstruction. Modern co-material temple design with soft temple tips.				
	0	Premier	7 63109S	Wrap Style. Lightweight and comfortable.				
	9	Ulta X-Over	▼ 766766SAF	Robust frame construction with open cell foam. Provides protection against dust and other foreign matter. 4 point length adjustment arms.				
	7	Z4	▼ 767002GBS	 Dual lens permanently captured within a safety frame. Secured hinges for robust temple arms. Smooth soft comfort styled nose piece. 				
	9	Z5	■ 767691S	Darkest allowable safety shade for maximum glare and light reduction. Tough styling for all day wear. Soft feel and flexible frame for comfort. Rubberised polymer grip coat.				

Safety Glasses: Over-the-Glasses

Classification: Over-the-glasses

Markets: Facility safety, maintenance, repair and operations, overhaul, general industry, manufacturing, construction,

oil and gas, metalworking, automotive

Applications: Assembly and mechanical, drilling, grinding, machining, masonry, power fastening, riveting, sanding, sawing

Material: PolycarbonateFeatures: Coatings:

• OptiRock: Durable high performance anti-fog coating with outstanding anti-scratch properties.

■ TuffStuff: Excellent service time superior anti-scratch coating.▼ Sightqard: Anti-fog coating with effective anti-scratch properties.

100% UV Protection, UV 400 rated

Standards: Certified to AS/NZS 1337.1. Medium Impact Protection

Min Order Qty: 12 (unless otherwise stated)

OVER GLASSES		MODEL	PART NO.	PRODUCT SPECIFICATIONS
	1	OvrG II Safety	▼ 767690CAF - Clear	Lightweight over spectacle design. Fits over prescription eyewear. Comfortable and stylish.
	The state of the s	Supervue	■ 225228 - Clear ■ 225229 - Smoke	Wraparound style overspec. Optimum visibility, comfort & protection. Side vents provide superior ventilation.
	7			Internal space allows prescriptive glasses to be worn underneath.

Safety Glasses: Outdoor, High Glare and Ultraviolet (UV) Exposure

Classification: Outdoor: high-glare with UV exposure

Markets: Utility work, general industry, manufacturing, construction, oil and gas, forestry, shipbuilding, aviation,

mining, transportation

Applications: Assembly and production work, Emergency response, Driving, Outdoor sports, Solar UV exposure, Rigging,

High glare, outdoor work places

Material: PolycarbonateFeatures: Coatings:

• OptiRock: Durable high performance anti-fog coating with outstanding anti-scratch properties.

■ TuffStuff: Excellent service time superior anti-scratch coating.▼ Sightqard: Anti-fog coating with effective anti-scratch properties.

Rich mirrored or dark tinted lenses reduce glare

100% UV Protection, UV 400 rated

Standards: Certified to AS/NZS 1337.1. Medium Impact Protection

Min Order Qty: 12 (unless otherwise stated)

OUTDOOR		MODEL	PART NO.	PRODUCT SPECIFICATIONS
HIGH-GLARE/ UV EXPOSURE APPLICATIONS	7	Instinct Z4 Smoke Polarised	■ 767002GBSP	 Dual lens permanently captured within a safety frame. Secured hinges for robust temple arms. Smooth soft comfort styled nose piece. Polarised for reduced glare.
	3	Z5 Sunset Mirror	■ 767691SM ■ 767691SMP	 Polarised lens option for maximum glare protection. Darkest allowable safety shade for maximum glare and light reduction.
	9	Z5 Smoke Polarised	■ 767691SP	Tough styling for all day wear. Soft feel and flexible frame for comfort. Rubberised polymer grip coat.



Safety Glasses: Goggles

Classification: Industrial: Impact and Splash

Chemical and Splash

Markets: Construction, food and beverage, general manufacturing and industry, mining, oil and gas, pharmaceuticals,

primary metals, transportation, shipbuilding, automotive

Applications: Cleaning, chemical mixing and use, chipping, chiseling, drilling, grinding, machining, painting, power washing,

sanding, sawing, splash

Material: PolycarbonateFeatures: Coatings:

• OptiRock: Durable high performance anti-fog coating with outstanding anti-scratch properties.

■ TuffStuff: Excellent service time superior anti-scratch coating.▼ Sightgard: Anti-fog coating with effective anti-scratch properties.

100% UV Protection, UV 400 rated

* Foam bound (as noted)

Standards: Certified to AS/NZS 1337.1. Medium Impact Protection

Min Order Qty: 12 (unless otherwise stated)

INDUSTRIAL		MODEL	PART NO.	PRODUCT SPECIFICATIONS
	9	Altimeter	▼ 766765CAF - Clear, Anti-fog	Exclusive design, hybrid eyewear with benefits of a spectacle with goggle like performance. High base curve wraparound for maximum coverage. Durable indirect vented frame constructed with co-injected polycarbonate and rubber. Removable adjustable elastic strap provides firmer comfort and fit. Arms boast flex temple tips and 3 point length adjustment to improve fit.
	6	Flexifold	◆ 228028AM - Amber ◆ 228028CL - Clear ◆ 228028SM - Smoke	Plexible, face hugging goggle with adjustable strap. Innovative design to cover eye socket for maximum protection whilst minimising fog sources. Dust/waterproof sponge cupping. Open/close side ventilation. Ideal smoke protective goggle for bushfire fighting.
	8	FlexiPlus	▼ 229205CF - Clear, Anti-fog ▼ 229206CF - Clear, Anti-fog* ■ 229205C - Clear ▼ 229206CFV - Clear, Anti-fog, Unvented* ▼ 229206SF - Smoke, Anti-fog*	Soft-frame, designed to comfortably fit most facial contours. Polycarbonate, scratch resistant lens, protects against chemical splash and ultraviolet rays, while permitting unobstructed viewing.
	*	FlexiTuff	▼ 224759 - Clear, Anti-fog/ Chemical, Vents ■ 224761 - Clear, Standard, Vents	Soft and flexible PVC frames. Ideal eye protection for chipping and grinding. Can also be worn over prescription eyewear.
	8	Responder	▼ 766762CAF - Clear, Anti-fog	 Designed by MSA specifically for emergency services work. Unobtrusive low profile design compatible with most helmets. Durable fire retardant HTPR frame. Unique engineered indirect vortex venting resists smoke penetration. Weight: 132g.
CHEMICAL		Chemical/Dust	▼ 764265 - Clear, Anti-fog*	Close Fitting Face seal. Soft Comfortable Frame. Wide Headband for Comfort. Indirect Frame Venting.
		ChemPro	▼ 766761CAF - Clear, Anti-fog ▼ 766761SAF - Smoke, Anti-fog	Sleek and lightweight low profile design, co-injected Polycarb/ Rubber Frame for ultimate seal. Wide vision lens provides room for most prescription spectacles and improved vision. Angular adjustable elastic strap for improved fit. Highly compatible with most industrial head protection. Weight: 78g.
	6	FlexiChem	▼ 766763CAF - Clear, Anti-fog	Soft Flex low profile frosted frame for increased comfort and fit. Upper and lower indirect ventilation for improved airflow and reduced fogging. Highly compatible with most Industrial Head Protection. Weight: 115g.

Safety Glasses: Specialty Lenses - Indoor/Outdoor

Classification: Amber: Low Light Working Conditions

Blue Mirror: Outdoor applications where a task specific lens is not required. Ideal in bright conditions.

Light Brown: Outdoor use where sunlight and glare cause eye strain

Markets: Transportation, Agriculture, Road Works, Roofing, Concreting, Builders, Above Ground Mining, General Industry

Applications: Assembly, Chipping, chiseling, drilling, grinding, machining, cleaning, sanding, sawing

Material: Polycarbonate Features: Coatings:

• OptiRock: Durable high performance anti-fog coating with outstanding anti-scratch properties.

TuffStuff: Excellent service time superior anti-scratch coating.Sightgard: Anti-fog coating with effective anti-scratch properties.

Mirror coatings reflect light to reduce glare and stress. Reduces the amount of light passing through lens.

100% UV Protection, UV 400 rated

Standards: Certified to AS/NZS 1337.1. Medium Impact Protection

Min Order Qtv: 12 (unless otherwise stated)

will order Qty.	12 (uniess otherwise stated)					
LOW LIGHT		MODEL	PART NO.	PRODUCT SPECIFICATIONS		
INDOOR / OUTDOOR APPLICATIONS	9	Arctic Gold	■ 762267BG - Gold Mirror ■ 762267BL - Lite Gold	 High base curve wraparound style for maximum coverage. Soft flexible low slip arms. Soft carry pouch doubles as cleaning cloth. 		
	-	Arctic M	229208A - Amber 229208B - Blue Mirror	Wrap Around Style - Wide Vision Lens, Comfortable, Ultra light weight design.		
	9	BlockZ	▼ 766759AAF - Amber ▼ 766759LGAF - Light Gold	Provides excellent eye and socket coverage. Robust impact resistant frame. Large visibly safe paddle styled rubber tips for better grip. Soft nose grips.		
	9	Cool Blooz	220168B - Blue Mirror220168L - Light Gold	Super soft reinforced comfort frame. Stylish design. Excellent Optics.		
	9	Discovery	▼ 220175BAF - Amber ▼ 220175BL - Light Gold	Frame mounted wraparound lenses. Adjustable length side arms. Hard coat anti scratch lens. Wrap around lens for greater protection.		
	2	Discovery II	▼ 766764LBAF - Light Brown	Fresh and sleek design. Low weight durable frame construction. Increased comfort with flexible temple tips.		
	-	Move	■ 767944SM - Silver Mirror	Dual lens design with wraparound protection. Soft nose pad releases the pressure from the nose. Adjustable arm inclination.		
	9	Nullarbor	■ 229207BB - Blue Mirror ▼ 229207LF - Light Gold	Stylish wraparound design. Clear standard with Anti-fog, Hard coat. Robust nylon frame.		
	9	Nullarbor Nex Gen	◆ 767943A - Amber ■ 767943BLM - Blue Mirror ■ 767943BZM - Bronze Mirror	9.75 base with multi-fit design for all faces. Optical class 1 lens offers users the clearest and the most panoramic view without obstruction. Modern co-material temple design with soft temple tips.		

Accessories

Lens Cleaning Station





Supplied with 2 cans of lens cleaning spray and one pack of cleaning tissue.

PART N	10:	Description			
7628	851	Cleaning tissues - Box 200			
220	112	Lens cleaning aerosol can			
220	111	Lens Cleaning Station with tissue and aerosol			

Clear and Clean Mini Towel

Handy self dispensing hang pack containing 100 pre-moistened mini towels in sealed foil packs. Anti-static, the exclusive formula can be used to clean not just safety and prescription eyewear, but other types of protective equipment.

- Pre-moistened mini towels.
- Ideal for cleaning eyewear, faceshields, earmuffs, respirators, and computer screens.
- Designed for wall mounting.
- Box of 100.





Hearing Protection

left/RIGHT Passive Hearing Protection

Classification: Headband, Passive

Slotted Helmet-Mounted, Passive

Features: The most comfortable muffs available.

Individual muff design for the left and right ear.

Headband design and the thinner and more flexible sealing rings ensure a better fit.

Large muffs provide more room for the ear to guarantee the right protection for all shapes and sizes of ears.

Available in both headband and cap mounted versions.

Applications: Heavy mechanical industries, compression rooms, airports (HIGH)

Utilities, construction, general industry (MEDIUM) Food manufacturing, automotive, light industry (LOW)

Markets: General industry, manufacturing, repair and maintenance, construction, OGP, forestry, shipbuilding, mining

Standards: Certified to AS/NZS 1270-2002.

left/RIGHT Earmuffs, Passive

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
	left/RIGHT (LOW)	766241	4	25dB	For use in low-noise environments, such pharmaceuticals and outside maintenance.
6	left/RIGHT (MEDIUM)	766238	5	30dB	For use in medium-noise environments, such as oil, gas and petrochemical, forestry and agriculture.
	left/RIGHT (HIGH)	766243	5	32dB	For use in high-noise environments, such as paper mills, foundries, mines and airports.

left/RIGHT Helmet Mounted, Passive

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
-8	left/RIGHT (LOW)	766242	4	24dB	For use in low-noise environments, such pharmaceuticals and outside maintenance.
*	left/RIGHT (MEDIUM)	766239	5	29dB	For use in medium-noise environments, such as oil, gas and petrochemical, forestry and agriculture.
*	left/RIGHT (HIGH)	766244	5	31dB	For use in high-noise environments, such as paper mills, foundries, mines and airports.

left/RIGHT Hygiene Kits

PRODUCT NAME	PART NO.	PRODUCT SPECIFICATIONS
 left/RIGHT™ - Hygiene Kit - Low	10092878	Cushions and inserts
left/RIGHT™ - Hygiene Kit - Med	10092879	Works with left/RIGHT passive helmet-mounted or headband products
left/RIGHT™ - Hygiene Kit - High	10092880	Replace regularly to retain comfort, performance and hygiene
left/RIGHT™ - Hygiene Kit - AM/FM	10094605	

Passive Hearing Protection

Classification: Headband, Passive

Slotted Helmet-Mounted, Passive

Applications: High-noise environments, industrial plants, construction sites

Markets: General industry, manufacturing, repair and maintenance, construction, OGP, forestry, shipbuilding, mining

Standards: Hearing Protector Class 5 tested to AS/NZS1270. When tested, used and maintained as specified in AS/NZS1269,

this hearing protector may be used in noise up to 110dB (A) assuming an 85dB (A) criterion.

Blocka Earmuffs

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
2	Blocka B10H Earmuff	767536	5	32dB	Stainless Steel Headband. Soft ear cushions. Headband comfort pad. Multiple headband adjustments.
@	Blocka B10F Earmuff	767537	5	31dB	Foldable Headband. Headband Comfort Pad. Multiple headband adjustments.
	Blocka B10N Earmuff	767538	5	32dB	Stainless steel headband. Soft comfortable foam ear cushions.
	Blocka Foldable Earmuffs	767019 - Orange 767020 - Yellow 767021 - Hearing Protection Belt Clip	5	27dB	Folding headband earmuff. Economically priced. Soft comfortable foam ear cushions. Adjustable headband comes with belt clip fitted.

EXC Earmuffs

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
	EXC Headband	763930	5	29dB	Unique injection moulded inserts provide both excellent
	EXC Helmet Mounted 30mm	763932	5	28dB	noise attenuation and maximum comfort. • EXC is suitable for most environments where hearing protection is required.
6	EXC Helmet Mounted 25mm	763935	5	28dB	protection is required.
U	EXC Muff Hygiene Kit	764392			

HPE Earmuffs

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
	HPE Headband	763931	5	29dB	• The HPE ear muffs have been designed to offer protection
	HPE Helmet Mounted 30mm	763934	5	29dB	against very high levels of noise, particularly at low frequency. • Thick, soft, foam-filled cushions combine maximum
60	HPE Muff Hygiene Kit	764393			comfort with a perfect seal.

Sound Control® SH Earmuffs WEW

PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS			
Sound Control SH - For MSA Full Brim Slotted V-Gard Hats	10129327	ANSI S3.19-1974 CSA Class A EN352-3:2002	25dB	Spring design offers low pressure and a high level of comfort. Three distinct wearing positions for ease of use. Excellent grip makes it easy to adjust the cups, even when wearing gloves. Provides maximum space for the ears inside the cup. Soft ear cup material for extended wear. Retains the Class E dielectric rating on the V-Gard Full Brim Hard Hat.			



left/RIGHT Electronic Hearing Protection

Classification: Headband, Electronic, FM Radio & Cut Off Combination

Helmet-Mounted, Electronic, FM Radio & Cut Off Combination

Features: T3.5mm RCA Aux Input

AA battery operation Battery save function Low battery warning.

Attaches to MSA V-Gard[™] and V-Gard[™] 500 (Helmet Mounted)

Applications: Manufacturing/assembly, high-impulse noise environments (such as steel work)

Markets: General industry, manufacturing, repair and maintenance, construction, OGP, forestry, mining, agriculture

Standards: Certified to AS/NZS 1270-2002.

left/RIGHT Headband, Electronic

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
	left/RIGHT™ FM Pro Headband Blue Earmuff	767390	5	28dB	Cut off function enables face to face communication, whilst retaining hearing protection. Push buttons for automatic tuning and volume control. Frequency 88-108MHz.
6	left/RIGHT™ CutOff Pro Headband Blue	767392	5	28dB	Cut off function enables face to face communication, whilst retaining hearing protection. Allows the wearer to hear important sound and warning signals. Amplification of weak sounds for situational awareness.
6	left/RIGHT™ Dual Pro Headband Blue	767394	5	28dB	Combines function of both FM and Cut off versions. Push to listen function for easy face to face communication.

left/RIGHT Helmet Mounted, Electronic

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
	left/RIGHT™ FM Pro Helmet Mounted Blue	767391	5	28dB	• Cut off function enables face to face communication, whilst retaining hearing protection. • Push buttons for automatic tuning and volume control. • Frequency 88-108MHz.
6	left/RIGHT™ CutOff Pro Helmet Mounted Blue	767393	5	28dB	• Cut off function enables face to face communication, whilst retaining hearing protection. • Allows the wearer to hear important sound and warning signals. • Amplification of weak sounds for situational awareness.
8	left/RIGHT™ Dual Pro Helmet Mounted	767395	5	28dB	Combines function of both FM and Cut off versions. Push to listen function for easy face to face communication.

Supreme

	PRODUCT NAME	PART NO.	PRODUCT SPECIFICATIONS
	Basic Headband - Green Cup, Black Leather Hb	SOR75300	A range of hearing protectors for military, law enforcement,
	Pro Headband - Green Cup, Black Leather Hb	SOR75302	hunting and shooting applications.
	Pro Headband - Black Cup, Black Leather Hb	765498	• The Supreme Pro has been developed to meet MIL specifications
A	Pro Neckband - Black Cup, Cloth Nb	SOR76302-02	and to function in extreme conditions. • It is a hearing protector with an innovative feature: built-in level-
	Pro X - Green Cup, Camo Hb	SOR75302-X	dependent amplifiers. EN 352-4.
	Pro X Neckband - Green Cup, Cloth Nb	SOR76302-X	Cut off function enables face to face communication, whilst
4	Pro X Black - Black Cup, Cloth Hb	SOR75302-X-02	retaining hearing protection.
	Pro X Neckband Black - Black Cup, Cloth Nb	SOR76302-X-02	Supreme Pro X headband: SNR 25 dB, H = 28, M = 21, L = 16
	Hygiene Kit Foam	764458	Supreme Pro X neadband: SNK 25 dB, $H = 28$, $M = 21$, $L = 16$
	Hygiene Kit Gel	SOR60092	

HEFH - Head, Eye, Face, Hearing & Miscellaneous Protection

Earplugs

Classification: Earplugs, Foam Corded & Uncorded

Earplugs, Silicone Corded & Uncorded

Applications: High-noise environments, industrial plants, construction sites

Markets: General industry, manufacturing, repair and maintenance, construction, OGP, forestry, shipbuilding, mining

Standards: Hearing Protector Class 5 tested to AS/NZS1270. When tested, used and maintained as specified in

AS/NZS1269, this hearing protector may be used in noise up to 110dB (A) assuming an 85dB (A) criterion.

Blocka Earplugs

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
B	Blocka PU Earplugs (Uncorded)	767541	5	29dB	Soft PU Foam Disposable Box 200 pairs
Cal	Blocka PU Earplugs (Corded)	767542	5	29dB	Soft PU foam with Cord Disposable Box 100 pairs
=33	Blocka Silicone Earplugs - Uncorded	767543	4	24dB	Soft Silicone Reusable Box 200 pairs
8	Blocka Silicone Earplugs - Corded	767544	4	24dB	Soft Silicone with Cord Reusable Box 100 pairs

RIGHT™ Protection Earplugs

	PRODUCT NAME	PART NO.	CLASS	SLC80	PRODUCT SPECIFICATIONS
	Foamplugs Uncorded, Small/Medium Box 200	766228	4	22dB	• RIGHT™ is a complete range of ear plugs
	Foamplugs Refill, Small/Medium Bag 200	766226	4	22dB	with high noise attenuation and excellent comfort.
	Foamplugs Corded, Small/Medium Box 100	766230	4	22dB	•The RIGHT™ range includes disposable,
	Foamplugs Uncorded, Medium/Large Box 200	766229	5	26dB	reusable, non-corded, corded, banded and detectable plugs.
	Foamplugs Refill, Medium/Large Bag 200	766227	5	26dB	The foam disposable plugs come in two
	Foamplugs Corded, Medium/Large Box 200	766231	5	26dB	sizes to guarantee a perfect fit.
	Foamplugs Corded Detectable, Medium/Large Box 100	766232	5	26dB	The banded version has a separate left and right plug to ensure a high level of
	Reusable Earplugs, Corded Box 50	766225	3	21dB	protection and comfort.
	Reusable Earplugs, Corded, Detectable Box 50	766224	3	21dB	Certified to AS/NZS 1270.
	Banded Earplugs Box 10	766233	2	17dB	
	Dispenser for foamplugs	766236			
	Replacement pods for Banded - Box 100	766234			



There's a proper way to insert a formable earplug. Follow these three easy steps:



 Roll the plug between your thumb and your forefinger until it's thin and long.



Pull the top of your pinna back with your opposite hand to straighten your ear canal. Slide the plug into the canal.



 Hold the plug for a count of 20-30 seconds while it expands. Once the seal is acceptable, sounds will be reduced.





Harnesses, Lanyards & Self Retracting Devices
Anchorage Connectors
Horizontal and Vertical Lifelines
Descent and Rescue
Fall Protection Kits
Confined Space Equipment

MSA has been in the business of safety at heights since 1930. Today we are at the forefront of innovation in fall protection products.

MSA is proud of it's Fall Protection range and with the new Workman® and Gravity® range of height safety products we can assist you with all of your fall protection needs.

As part of a global business, MSA Australia has access to a complete range of product from facilities in North America, Mexico, China,

and Europe. This access enables MSA Australia to carry stocks of the complete MSA fall protection product range.

We stock a full range of anchorages, full body harnesses, connections and decent & rescue products to ensure workers at height have the protection they need at all times.

Fall **Protection**



OUR COMMITMENT TO YOU ...

The MSA Fall Protection Promise

MSA promises to replace any MSA harness and/or textile lanyard FREE of charge if a user falls while properly using our product.

If the fall occurs while using an MSA mechanical device, we will re-certify the device FREE of charge.

MSA believes that it is important to provide high quality products and recognize safe work practices.

Products should be returned with a signed copy of the accident report to:

MSA

Attn: Fall Protection Product Line Manager

11 Columbia Way

Baulkham Hills NSW 2153

MSA makes Fall Protection as easy as ABCD ensuring you have everything you need to work at height safely.

Anchorage:

Anchor points are an important part of any system. They should be suitably positioned for the intended operation and are required to be structurally sound.

Body support:

A full body harness with a front and rear fall arrest connection. You must select the harness applicable to your work application.

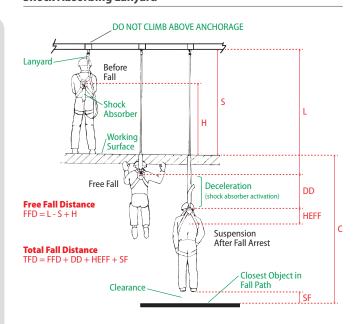
Connection means:

What is needed between the anchorage and harness? As a minimum, a shock absorbing lanyard assembly in either a single or twin leg assembly. Another alternative is to select a personal fall limiter or self retracting lanyard, which has the added benefit of reducing your free fall distance and increasing your mobility.

Descent & Rescue:

Typically the forgotten term in a PPE selection plan. Suspension trauma can occur in as little as 5 minutes after a person has fallen in a harness. Do not rely on local rescue authorities to be on site within 5 minutes. MSA has a range of simple to use rescue products to assist you in performing a quick, safe and successful rescue. We also offer a range of confined space equipment to assist you with your descent.

Fall Protection Distance Calculation for a Shock Absorbing Lanyard



Harness Sizing Chart





Fall Definitions

As per the Australian & New Zealand Standard, AS/NZS 1891.4, there are four types of fall situations:

- Restraint Technique When the person is not physically able to reach a position where a fall can occur due to a restraint lanyard between the anchor point and the harness
- Restrained Fall When the person is using a pole strap whilst working on a pole
- Limited Free Fall –When the person is limited to a free fall distance of less than 600 mm
- Free Fall When the person is exposed to a free fall distance of greater than 600 mm

In all cases, MSA recommends that the user wear a full body harness.

Calculating Total Fall Distance

Knowing how to calculate Total Fall Distance is just as important as selecting the proper harness, lanyard, anchorage connector and anchorage point for the specific task to be performed. Total Fall Distance is the sum of the Free Fall Distance (FFD), Deceleration Distance (DD), Harness Effects (HEFF), and Vertical Elongation (VEL). It is also wise to include a Safety Factor (SF) of at least one metre into the formula. Total Fall Distance can be calculated using the following formula:

TFD = FFD + DD + HEFF + VEL + SF

Free Fall Distance (FFD) - The vertical distance a worker travels between the onset of a fall until just prior to the point where the fall arrest system begins to arrest the fall. For a shock absorbing lanyard, this can be calculated as the length of the lanyard "L", minus the straight line distance between the anchor and the working surface "S", plus the distance between the person's lanyard attachment point and the working surface "H". As per the AS/NZS 1891.4 standard, Free Fall Distance must not exceed 2 m.

FFD = L - S + H

Did you know this is where the true benefit of using a self retracting device, such as a self retracting lanyard (SRL) or personal fall limiter (PFL) comes into consideration, as your lifeline distance "L" will always be the minimum length required without restricting your mobility. Also to decrease your free fall distance always keep your anchor point as far above your attachment point on the harness as possible.

Deceleration Distance (DD) – The vertical distance a worker travels between the activation of the fall arrest system and the final fall arrest. For a shock absorbing lanyard the maximum distance permitted is 1.75 m, and for a self-retracting device, the maximum distance permitted is 0.7 m.

Harness Effects (HEFF) – The stretch in the harness during fall at rest. This can be estimated at approximately 0.3 m.

Vertical Elongation (VEL) – The stretch in the lifeline of the personal fall arrest system. Vertical elongation is measured on the part of the lifeline that is under tension during deceleration and final fall arrest. This variable will change drastically depending upon the type of fall arrest system you are using. For a shock absorbing lanyard or self retracting device, this is factored into DD, but for a rope grab system or horizontal lifeline, vertical elongation must be calculated based on the stretch on the vertical or horizontal lifelines in those systems.

Safety Factor (SF) – An additional factor of safety to ensure that you have required clearance below your working surface. We recommend a safety factor of 1 m.

Once you have calculated your Total Fall Distance your must ensure that your clearance between your working surface and the next closest object in the fall path is less than your calculated distance.

Selecting a Harness

Harness selection will be dependent on your particular working environment. To ease the selection processes, look out for the appropriate icons for your attachment and application needs to find your ideal harness.

Attachment



Rear Fall Arrest



Front Fall Arrest



Positioning



Application

Construction



Confined Space



Roof Work



Elevated Work **Platform**



Ladder Work





Scaffolding



Retrieval Suspension



Welding/



Electrical



Rescue



Mining



Oil, Gas &



Wind Energy Rope Access





Two Great Companies – One Great Connection

In October 2015, MSA acquired Latchways plc, a leading developer and manufacturer of highly engineered fall protection systems and solutions. Together, we bring unprecedented global leadership to protecting workers and satisfying customers around the world.

About

Latchways was founded in 1974 and is acknowledged as the first company to successfully develop and market engineered cable-based fall arrest systems and has become a worldwide leader synonymous with engineering strength in fall protection.

In the 40 years since its formation, Latchways has grown to a position of eminence in fall protection solutions. Today Latchways engineered systems set the standards for quality, efficiency and value the world over.



The Latchways range of fall protection is comprehensive in its care and concern for those working at height. Our versatile fall protection systems – from roof to tower – offer solutions for nearly every work environment. Our experience working with so many different industries, from aerospace to tourism, means we have thorough knowledge of the particular fall protection needs specific to a variety of applications.

- Commercial and Public Buildings
- Transmission Towers, Distribution and Telecommunications
- Bridges and Infrastructure
- Industrial Manufacturing
- Oil and Gas
- Wind Energy
- Road and Rail
- Stadiums and Tourism
- Aerospace

Putting our products to the test each and every day

Every MSA Latchways product is rigorously tested for strength, durability, functionality and integrity. Our mission is, and always will be, to bring you superior-quality merchandise that is both verified and trustworthy.

MSA ensures that all products are tested beyond the requirements of relevant legislative standards. We apply a minimum safety factor of 2, resulting in our products outperforming industry legislation. Independent testing is carried out to externally verify the inherent quality and durability of Latchways systems. This also ensures complete compatibility between Latchways products and applications such as wind turbine tower internals.

By performing stricter-than-the-rest tests, MSA never misses an opportunity to earn your trust.









Body Harness

Workman® Harness

Quality, comfort, and value come together in our Workman® line of products. Our Workman® Harness range is a dependable source for all your basic height safety needs.

Workman® Premier Harness 🕺 🌂 🏌























Bayonet Leg Strap Connectors









All purpose vest-style harness

- Rear D-Ring and frontal loops that come together provide users with their choice of fall arrest attachments
- Includes a load-indicator to alert you when the harness has been involved in a fall event or is due for replacement
- Newly designed, wear resistant, card package protects harness information and inspection detail
- Yellow polyester webbing for increased visibility
- Choice of Qwik-Fit or Bayonet leg straps for easy adjustment
- Web retainer collars to keep excess webbing neat
- Colour contrasting thigh and torso straps simplify donning
- Adjustable leg pads for ergonomic comfort
- Certified to AS/NZS 1891.1:2007

PART NO:	Description
10112901	Qwik-Fit, Small
10112902	Qwik-Fit, Medium
10112903	Qwik-Fit, Large
10112904	Bayonet, Small
10112905	Bayonet, Medium
10112906	Bayonet, Large

Workman® Premier Harness with Adjustable Webbing Lanyard















All the features and benefits of the Premier Harness PLUS:

- Fully integrated adjustable webbing lanyard with a choice of steel snaphook or triple action karabiner anchor attachment
- Economical choice for harness and lanyard users
- Peace of mind knowing users never get caught out without their lanyard
- Ideal option for the rental/hire market or high harness and lanyard turnover companies
- Certified to AS/NZS 1891.1:2007

PART NO:	Description
10149237	Snaphook, Small
10149238	Snaphook, Medium
10149239	Snaphook, Large
10149251	Triple Action Karabiner, Small
10149252	Triple Action Karabiner, Medium
10149253	Triple Action Karabiner, Large

Workman® Crossover Harness





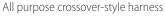












- The Workman®Crossover Harness is the lightest harness in our range, making it an excellent choice for all day wear
- Frontal attachment D-ring allows for effective connection during rescue, descent or ladder climbing
- Comfort and adjustability achieved with the unique rear webbing spacer allowing the user to find the perfect fit
- Yellow polyester webbing for increased visibility
- Web retainer collars to keep excess webbing neat
- Colour contrasting thigh and torso straps simplify donning
- Featuring Qwik-Fit connection chest and leg straps for easy adjustment
- Now available in superlight, corrosion resistant aluminium (less than 1kg!) and corrosion resistant stainless steel
- Certified to AS/NZS 1891.1:2007

PART NO:	Description
10153871	Steel, Small
10153872	Steel, Medium
10153873	Steel, Large
10157826	Aluminium, Small
10157828	Aluminium, Medium
10157829	Aluminium, Large
10155462	Stainless Steel, Small
10155461	Stainless Steel, Medium
10155460	Stainless Steel, Large

Workman® Utility Harness



















• Convenient tool loops to store equipment safely while at height

• Certified to AS/NZS 1891.1:2007

PART NO:	Description
10112907	Small
10112908	Medium
10112909	Large

All the features and benefits of the Premier Harness PLUS:





Thermatek Harness

Thermatek Harness 🕺 🏲 🏌













- Lightweight harness constructed of Kevlar/Nomex blend webbing which is resistant to chemicals, weld spatter and other heat applications
- Green webbing & contrasting Kevlar yellow stitching for easy inspection
- Qwik-Fit leg straps for easy connection
- Certified to AS/NZS 1891.1:2007

PART NO:	Description
766209	One Size Fits All

Thermatek Lanyard now available. See Lanyard table on page page 88

Gravity® Miners Harness and Belts

Gravity® Miners Harness and Belts

















The Gravity® Miners Harness and Belt range has been designed specifically for the mining industry. Harsh environmental conditions and unique hazards demand working at heights fall protection and utility belts that are durable, long lasting and multi-functional.

This premium designed range is constructed using stainless steel buckles and adjusters ensuring longer product life in corrosive environments. The equipment belt provides an ergonomic solution for storage of Self Rescuer, such as MSA's SSR 30/100 or SavOx and even your I.D. Tags!

Available in three configurations in small, medium and large sizes

- Gravity® Miners Harness
- Gravity® Miners Belt with Shoulder Braces
- Gravity® Miners Belt

Gravity® Miners Harness is certified to AS/NZS 1891.1:2007

Dossuintion	PART NO.	SIZE			
Description	PART NO.	S	М	L	
GRAVITY® MINERS HARNESS	766603	X			
	766602		Χ		
	766604			X	
GRAVITY® MINERS BELT	766803	X			
	766802		X		
	766804			X	
GRAVITY® MINERS BELT	766903	X			
WITH SHOULDER HARNESS	766902		X		
	766904			Х	

Gravity® Harness

MSA's Gravity® range of harnesses provide a superior mix of style, quality and versatility. Premium features and advanced comfort are at the essence of our newly introduced Gravity® line of products.

Gravity® Suspension Harness



















The Gravity® Suspension Harness is designed to offer superior comfort, safety and quality to users who work at heights suspended.

- Strategically positioned ventral attachment distributes the load between the waist belt and leg loops during suspension
- The breathable waist pad is constructed from a multi-layered padding which dissipates pressure from the webbing to reduce fatigue when working for long periods of time
- Bayonet buckles with locking engagement window confirms a secure connection
- Shoulder padding protects the neck from chafing while providing the necessary back support
- Premium hardware fittings with wide opening aluminium D-rings (conformance with IRATA standard), triple action karabiner and single hand adjusting buckles
- A total of five rigid tool loops on the waist belt and leg connections
- Side D-rings can be conveniently stowed away when not in use
- Dual load indicators identifies if the harness has been subjected to a fall or is ready for replacement
- RFID enabled for easy tracking
- Certified to AS/NZS 1891.1:2007

PART NO:	Description
10150459	Small
10150460	Medium
10150461	Large

Gravity® Utility Harness











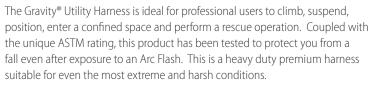












- Waist and leg padding manufactured with flame resistant fabrics (Kevlar® aramid fibre)
- Flame retardant reflective tape
- PVC coated buckles and D-Rings provide voltage resistance up to 9kV
- The harness is constructed from a nylon webbing that has a minimum static strength of 31kN
- Built in load indicator identifies if the harness has been subject to a fall or is ready for replacement
- RFID enabled for easy tracking
- ASTM F887 rated harness (Arc Flash)
- Certified to AS/NZS 1891.1:2007

PART NO:	Description
10150939	Small
10150940	Medium
10150951	Large

Arcsafe Lanyard now available. See Lanyard table on page page 88





Work Positioning

Restraint Lanyards & Lifelines

• To be used as part of a restraint technique, preventing the user from reaching a position where a fall is possible.



Pole Straps

- Ideal for workers on a pole or structure needing restrained fall arrest positioning.
- Heavy duty 44mm polyester webbing and protective outer sheath.
- Easy webbing length adjuster.
- Certified to AS/NZS 1891.1:2007.

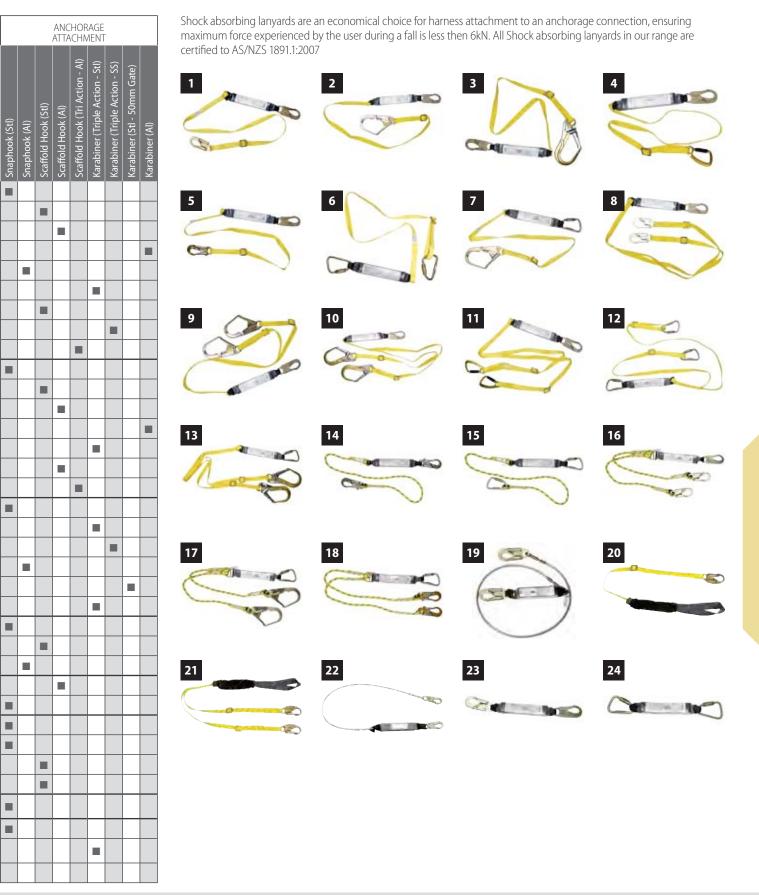


PART NO:	Description	Material	Fixed or Adjustable	Length (m)	Connections
10112985	Restraint Lanyard	Web	Adjustable	2	Triple Action Karabiner
10112986	Restraint Lanyard	Kernmantle	Fixed	2	Aluminium Karabiner
229703-10.0-1-4-13	Restraint Lifeline with built-in manual rope grab	Kernmantle	Adjustable	10	Snaphook
229703-15.0-1-4-13	Restraint Lifeline with built-in manual rope grab	Kernmantle	Adjustable	15	Snaphook
229703-20.0-1-4-13	Restraint Lifeline with built-in manual rope grab	Kernmantle	Adjustable	20	Snaphook
229703-25.0-1-4-13	Restraint Lifeline with built-in manual rope grab	Kernmantle	Adjustable	25	Snaphook
229601-2.0-31-31	Pole Strap	Web	Adjustable	2	Steel Snaphook
229601-2.0-5-5	Pole Strap	Web	Adjustable	2	Aluminium Snaphook
229601-2.5-31-31	Pole Strap	Web	Adjustable	2.5	Steel Snaphook
229601-2.5-5-5	Pole Strap	Web	Adjustable	2.5	Aluminium Snaphook
229601-3.0-31-31	Pole Strap	Web	Adjustable	3	Steel Snaphook
229601-3.0-5-5	Pole Strap	Web	Adjustable	3	Aluminium Snaphook

Connection Means

Shock Ab	sorbing l	Lanyaı	rds													ATT/		4FNIT	
														HAKI	1F22	Al I <i>F</i>	ACHN	1EN I	
Lanyard Type	Part No	Item No.	Description	Webbing	Kernmantle	Cable (SS)	Length (M)	Thickness (mm)	Single Leg	Twin Leg	Fixed	Adjustable	Snaphook (Stl)	Snaphook (AI)	Karabiner (Tri Action - Stl)	Karabiner (Tri Action - SS)	Karabiner (Tri Action - Al)	Karabiner (Al)	Cow Hitch Loop
	10112943	1	2.0m Adjustable Snaphook (Stl) - Snaphook (Stl)				2												
	10112944	2	2.0m Adjustable Snaphook (Stl) - Scaffold Hook (Stl)				2												
	10112945	3	2.0m Adjustable Snaphook (Stl) - Scaffold Hook (Al)				2												\neg
Single Leg	10112946	4	2.0m Adjustable Snaphook (Stl) - Karabiner (Al)				2								Г				\neg
Webbing	10112947	5	2.0m Adjustable Snaphook (Stl) - Snaphook (Al)				2												\neg
Lanyard	10112953	6	2.0m Adjustable Karabiner (Tri Action - Stl) - Karabiner (Tri Action - Stl)				2												\neg
	10112954	7	2.0m Adjustable Karabiner (Tri Action - Stl) - Scaffold Hook (Stl)				2												\neg
	10170771	NEW -	2.0m Adjustable Karabiner (Tri Action - SS) - Karabiner (Tri Action - SS)				2												\neg
	10165495	NEW -	2.0m Adjustable Karabiner (Tri Action - SS) - Scaffold Hook (Tri Action - Al)				2												
	10112948	8	2.0m Adjustable Snaphook (Stl)- Snaphook (Stl)				2								П		П		\neg
	10112949	9	2.0m Adjustable Snaphook (Stl) - Scaffold Hook (Stl)				2												\neg
Twin Leg	10112950	10	2.0m Adjustable Snaphook (Stl) - Scaffold Hook (Al)				2												\neg
Webbing	10112951	11	2.0m Adjustable Snaphook (Stl) - Karabiner (Al)				2												\neg
Lanyard	10112958	12	2.0m Adjustable Karabiner (Tri Action - Stl) - Karabiner (Tri Action - Stl)				2												
	10112960	13	2.0m Adjustable Karabiner (Tri Action - Stl) - Scaffold Hook (Al)				2												
	10165497	NEW -	2.0m Adjustable Karabiner (Tri Action - Al) - Scaffold Hook (Tri Action - Al)				2												
	10149109	14	2.0m x 12mm Fixed Snaphook (Stl) - Snaphook (Stl)				2	12											
	10112968	15	2.0m x 12mm Fixed Karabiner (Tri Action - Stl) - Karabiner (Tri Action - Stl)				2	12											
Single Leg Kernmantle	10164801	NEW -	2.0m x 12mm Fixed Karabiner (Tri Action - SS) - Karabiner (Tri Action - SS)				2	12											
Lanyard	10164802	NEW -	2.0m x 12mm Fixed Snaphook (Al) - Snaphook (Al)				2	12											
	765600-1.5-35-1	2 -	1.5m x 12mm Fixed Karabiner (Tri Action - Stl) - Karabiner (Stl - 50mm Gate)				1.5	12											
	765600-1.5-35-3	5 -	1.5m x 12mm Fixed Karabiner (Tri Action - Stl) - Karabiner (Tri Action - Stl)				1.5	12											
Twin Leg	10149108	16	2.0m x 12mm Fixed Snaphook (Stl) - Snaphook (Stl)				2	12									Ш		_
Kernmantle	10112974	17	1.5m x 12mm Fixed Karabiner (Tri Action - Stl) - Scaffold Hook (Stl)				1.5	12											_
Lanyard	10112976	18	1.5m x 12mm Fixed Karabiner (Tri Action - Stl) - Snaphook (Al)				1.5	12									Ш		_
Single Leg	765604-2.0-31-7	-	2.0m x 5mm Fixed Snaphook (Stl) - Scaffold Hook (Al)				2	5											_
Cable Lanyard	765604-2.0-31-3	1 19	2.0m x 5mm Fixed Snaphook (Stl) - Snaphook (Stl)				2	5							L				_
	10165183	NEW : 20	1.8m Single Leg Fixed Cow Hitch Loop - Snaphook (Stl)				1.8												
ArcSafe		NEW : 21	1.8m Twin Leg Fixed Cow Hitch Loop - Snaphook (Stl)				1.8												
Lanyard		NEW: -	1.8m Single Leg Fixed Cow Hitch Loop - Scaffold Hook (Stl)				1.8												
	10165257	NEW -	1.8m Twin Leg Fixed Cow Hitch Loop - Scaffold Hook (Stl)				1.8										Щ		
Thermatek Lanyard	10165696	NEW: 22	1.8m Single Leg Adjustable Snaphook (Stl) - Snaphook (Stl)				1.8												
	10124597	23	Workman® Short Shock Absorber - Snaphook (Stl) - Snaphook (Stl)																
Short Shock Absorber	10124599	24	Workman® Short Shock Absorber - Karabiner (Tri Action - Stl) - Karabiner (Tri Action - Stl)																\neg
Vnzoinei	10164756	NEW -	Workman® Short Shock Absorber - Snaphook (Stl) - N/A				Н								Н		\dashv		\dashv
			1 . 7				\Box												





Workman® Personal Fall Limiters

Workman® Mini PFL WF





Standard MSA Workman Mini PFL Anchorage Location

	59 - 1	41 k	g													10
	1.8m	1.5m	1.2m	0.9m	0.6m	0.3m	m	0.3m	0.6m	0.9m	1.2m	1.5m	1.8m			
1.8m							1.8							1.8m		10
1.5m				1.8	1.8	1.8	1.8	1.8	1.8	1.8				1.5m		10
1.2m			2.1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	Ð			1.2m		10
0.9m		2.7	2.1	2.1	1.8	1.8	1.8	1.8	1.8	21	2.1	2.7		0.9m		
0.6m		2.7	2.4	2.1	2.1	1.8	Ø.80	1.8	zfl	2.1	2.4	2.7		0.6m		
0.3m		(3)	2.7	2.4	2.4	1.8	1.8) /8	2.4	2.4	2.7	3		0.3m		
m	3.6	3.3	3	2.7	2.4	7.1	W	2.4	2.4	2.7	3	3.3	3.6	m		
0.3m		3.9	3.3	3	2.7/	2.7		2.7	2.7	3	3.3	3.9		0.3m		
0.6m		4.2	3.9	3.9	3.3	3	3	3	3.3	3.9	3.9	4.2		0.6m		
0.9m							77	1						0.9m		
1.2m							$/ \setminus$							1.2m		
1.5m												*		1.5m		
	CLEARANCE BETWEEN WORKING SURFACE AND NEAREST OBSTRUCTION											'IOI				

The Workman Mini Personal Fall Limiter (PFL) is the premier option in MSA's line of self-retracting devices (SRDs) for users working at heights. The internal fast-acting pawl lock mechanism offers the most versatile, compact, self-retracting device on the market, allowing for increased user safety at lower heights.

Fall limiter design stops a fall quickly, providing workers with the ability to tie off at lower levels below the D-ring. Housing design is compact and lightweight; users can replace their standard 1.8 m energy-absorbing lanyards. The Workman Mini PFL is available in both single and twin-leg configurations.

PART NO:	Description	Single	Twin	Length (m)	Anchorage Connector	Harness Connector
10160394	Workman Mini PFL			1.8	36C Snaphook	TA Karabiner
10160393	Workman Mini PFL			1.8	36CL Scaffold Hook	TA Karabiner
10157850	Workman Mini PFL			1.8	Triple Action Karabiner	TA Karabiner
10160396	Workman Mini PFL, Twin Leg			1.8	36C Snaphook	TA Karabiner
10160395	Workman Mini PFL, Twin Leg			1.8	36CL Scaffold Hook	TA Karabiner
10157867	Workman Mini PFL, Twin Leg			1.8	Triple Action Karabiner	TA Karabiner
10159667	Workman Mini PFL, Twin Leg			1.8	AL36C Snaphook	DA Karabiner
10157866	Workman Mini PFL, Twin Leg			1.8	AL36CL Scaffold Hook	DA Karabiner

Workman® PFL



With its solid design and fast-acting brake mechanism, you can be confident that the Workman Personal Fall Limiter (PFL) will be there for you when you need it most.

	PART NO:	Description	Single	Twin	Length (m)	Anchorage Connector	Harness Connector
	10093348	Workman PFL			3.7	LC Snaphook (Alloy)	-
ĺ	10093349	Workman PFL			3.7	LI Snaphook (Steel)	-
Ì	10099598	Workman PFL			3.7	Triple Action Karabiner	-

Workman® Twin Leg PFL



The Workman Twin Leg Personal Fall Limiter increases worker productivity by providing greater mobility and continuous connection (100% tie-off) while moving from one location to another, offering a great alternative to twin leg shock-absorbing lanyards. The Workman Personal Fall Limiter features the patent-pending ARCA™ Harness Connection. The innovative, integral ARCA Harness Connection makes the Workman Personal Fall Limiter easier to use than any product on the market – simply insert D-ring into the slot and you're ready to work! This intuitive design offers several important safety features.

PART NO:	Description	Single	Twin	Length (m)	Anchorage Connector	Harness Connector
10126099	Workman Twin Leg PFL			2	Swivel Snaphook	ARCA
10126098	Workman Twin Leg PFL			2	Swivel Scaffold Hook	ARCA



MSA Latchways® Self Retracting Lifeline

Latchways® SRL NEW



The Latchways® Standard SRL has undergone extensive, independently verified testing to ensure consistent, reliable performance. Developed with unique features to provide a smarter, safer and stronger alternative to traditional SRLs, the Latchways® Standard SRL is as versatile as it is flexible. Suitable for a wide range of applications, it's available with cable and webbing lanyards in four different lengths.

The Latchways® SRL is easily recertified with just a few simple tools. Recertification can be performed locally by authorized representatives, or on site ensuring the Latchways® SRL has minimal time out of action.

PART NO:	Description	Lifeline	Lifeline Length (m)	Anchorage Connector	Harness Connector
62007-00UK	Latchways® SRL	Web	7	36C Snaphook	DA Karabiner
62407-00UK	Latchways® SRL	Galv Cable	7	Swivel DA Snaphook	DA Karabiner
62207-00UKTL	Latchways® SRL	SS Cable	7	SS TA Swivel Karabiner	DA Karabiner
62410-00UK	Latchways® SRL	Galv Cable	10	Swivel DA Snaphook	DA Karabiner
62210-00UKTL	Latchways® SRL	SS Cable	10	SS TA Swivel Karabiner	DA Karabiner
62415-00UK	Latchways® SRL	Galv Cable	15	Swivel DA Snaphook	DA Karabiner
62215-00UKTL	Latchways® SRL	SS Cable	15	SS TA Swivel Karabiner	DA Karabiner

MSA Latchways® Specialised Self Retracting Lifeline

Latchways® Sealed SRL





The Latchways® Sealed SRL was designed for hands-free use in harsh environments such as oil rigs, wind turbines and other offshore applications, helping keep workers safe and focused on the task at hand.

Our Sealed SRL has undergone extensive, independently verified testing to ensure consistent, reliable performance.

With cutting-edge technology and engineering, the Latchways® Sealed SRL is one of the most advanced and cost effective SRLs on the market. Like our other SRLs, the Latchways® Sealed SRL may be recertified on site by a Latchways®-trained service technician, helping to lower the cost of ownership and provide a strong return on investment.

PART NO:	Description	Lifeline	Lifeline Length (m)	Anchorage Connector	Harness Connector
62809-00UK	Latchways® Sealed SRL	Galv Cable	9	SS Swivel Snaphook	DA Karabiner
62810-00UKTL	Latchways® Sealed SRL	SS Cable	9	SS TA Swivel Karabiner	DA Karabiner
62815-00UK	Latchways® Sealed SRL	Galv Cable	15	SS Swivel Snaphook	DA Karabiner
62816-00UKTL	Latchways® Sealed SRL	SS Cable	15	SS TA Swivel Karabiner	DA Karabiner
62825-00UK	Latchways® Sealed SRL	Galv Cable	25	SS Swivel Snaphook	DA Karabiner
62826-00UKTL	Latchways® Sealed SRL	SS Cable	25	SS TA Swivel Karabiner	DA Karabiner
62840-00UK	Latchways® Sealed SRL	Galv Cable	40	SS Swivel Snaphook	DA Karabiner
62841-00UKTL	Latchways® Sealed SRL	SS Cable	40	SS TA Swivel Karabiner	DA Karabiner
62820-00UK	Latchways® Sealed SRL	SS Cable	15	SS Swivel Snaphook	DA Karabiner

Latchways® Leading Edge SRL





The Latchways® Leading Edge SRL is intended to be used as a connecting element within a personal fall arrest system when either the user is working vertically or horizontally. The device is also designed for use in applications where falls may occur over a Type A* leading edge, including edges, such as roofing, wooden beams, leading edge construction, etc.

PART NO:	Description	Lifeline	Lifeline Length (m)	Anchorage Connector	Harness Connector
62705-00EU	Latchways® Leading Edge SRL	Galv Cable	5	SS Swivel Snaphook	DA Karabiner
62707-00EU	Latchways® Leading Edge SRL	Galv Cable	7	SS Swivel Snaphook	DA Karabiner
62710-00EU	Latchways® Leading Edge SRL	Galv Cable	10	SS Swivel Snaphook	DA Karabiner

Workman® Self Retracting Lanyards

Workman® SRL



MSA's Workman SRL provides the best value for your money! 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.

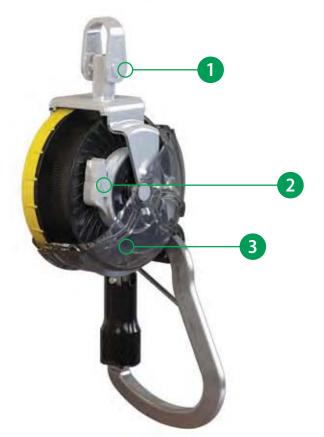
	PART NO:	Description	Lifeline	Lifeline Length (m)	Anchorage Connector	Harness Connector
NEW	10127536	Workman SRL	SS Cable	6	36CS Swivel Snaphook	-
	10120723	Workman SRL	SS Cable	9	36CS Swivel Snaphook	-
NEW	10163875	Workman SRL	SS Cable	9	SS TA Swivel Karabiner	-
	10121777	Workman SRL	SS Cable	15	36CS Swivel Snaphook	-
NEW	10163876	Workman SRL	SS Cable	15	SS TA Swivel Karabiner	-

MSA Latchways® Personal Fall Limiters

Latchways® Mini PFL



The Latchways® Mini Retractable Lanyard is the most compact & lightweight self-retracting lanyard ever developed using multiple spring radial energy-absorbing technology. This new design eliminates the need for an external energy-absorber outside of the housing making it the smallest retractable lanyard on the market.



Available Connectors



- A AL36CL Scaffold Hook
- B 36C Snaphook
- C AL Swivel TA Karabiner
- D AL TA Karabiner
- **E** 36CS Swivel Snaphook
- F 36CL Scaffold Hook

1 Free range of motion

A fully rotating attachment point for complete flexibility - both 360° and 180°.

2 Precision engineering

A structurally reinforced pawl mechanism.

3 Highly durable

The Mini PFL has a tough polycarbonate casing which is transparent to allow for easy visual inspection of critical internal components.

Superior materials

Components manufactured from high-grade stainless steel and engineered plastics.



PART NO:	Description	Single	Twin	Lifeline Length (m)	Anchorage Connector	Harness Connector
63011-00AEU	Latchways® Mini PFL, 1.8m			1.8	AL36CL Scaffold Hook	DA Karabiner
63011-00BEU	Latchways® Mini PFL, 1.8m			1.8	36C Snaphook	DA Karabiner
63011-00CEU	Latchways® Mini PFL, 1.8m			1.8	AL Swivel TA Karabiner	DA Karabiner
63011-00DEU	Latchways® Mini PFL, 1.8m			1.8	ALTA Karabiner	DA Karabiner
63011-00EEU	Latchways® Mini PFL, 1.8m			1.8	36CS Swivel Snaphook	DA Karabiner
63011-00FEU	Latchways® Mini PFL, 1.8m			1.8	36CL Scaffold Hook	DA Karabiner
63011-00GEU	Latchways® Mini PFL, 1.8m			1.8	AL36CL Scaffold Hook	-
63011-00HEU	Latchways® Mini PFL, 1.8m			1.8	36C Snaphook	-
63011-00IEU	Latchways® Mini PFL, 1.8m			1.8	AL Swivel TA Karabiner	-
63011-00JEU	Latchways® Mini PFL, 1.8m			1.8	AL TA Karabiner	-
63011-00KEU	Latchways® Mini PFL, 1.8m			1.8	36CS Swivel Snaphook	-
63011-00LEU	Latchways® Mini PFL, 1.8m			1.8	36CL Scaffold Hook	-
63011-00MEU	Latchways® Mini PFL, 1.8m			1.8	AL36CL Scaffold Hook	ALTA Karabiner
63011-00NEU	Latchways® Mini PFL, 1.8m			1.8	ALTA Karabiner	AL TA Karabiner
63011-00OEU	Latchways® Mini PFL, 1.8m			1.8	36C Snaphook	36CL Scaffold Hook
63011-00PEU	Latchways® Mini PFL, 1.8m			1.8	AL TA Karabiner	AL36CL Scaffold Hook
63111-00AEU	Latchways® Mini PFL, Twin Leg, 1.8m			1.8	AL36CL Scaffold Hook	Twin Link
63111-00BEU	Latchways® Mini PFL, Twin Leg, 1.8m			1.8	36C Snaphook	Twin Link
63111-00CEU	Latchways® Mini PFL, Twin Leg, 1.8m			1.8	AL Swivel TA Karabiner	Twin Link
63111-00DEU	Latchways® Mini PFL, Twin Leg, 1.8m			1.8	ALTA Karabiner	Twin Link
63111-00EEU	Latchways® Mini PFL, Twin Leg, 1.8m			1.8	36CS Swivel Snaphook	Twin Link
63111-00FEU	Latchways® Mini PFL, Twin Leg, 1.8m			1.8	36CL Scaffold Hook	Twin Link
63013-00AEU	Latchways® Mini PFL, 3m			3	AL36CL Scaffold Hook	DA Karabiner
63013-00BEU	Latchways® Mini PFL, 3m			3	36C Snaphook	DA Karabiner
63013-00CEU	Latchways® Mini PFL, 3m			3	AL Swivel TA Karabiner	DA Karabiner
63013-00DEU	Latchways® Mini PFL, 3m			3	ALTA Karabiner	DA Karabiner
63013-00EEU	Latchways® Mini PFL, 3m			3	36CS Swivel Snaphook	DA Karabiner
63013-00FEU	Latchways® Mini PFL, 3m			3	36CL Scaffold Hook	DA Karabiner
63013-00GEU	Latchways® Mini PFL, 3m			3	AL36CL Scaffold Hook	-
63013-00HEU	Latchways® Mini PFL, 3m			3	36C Snaphook	-
63013-00IEU	Latchways® Mini PFL, 3m			3	AL Swivel TA Karabiner	-
63013-00JEU	Latchways® Mini PFL, 3m			3	ALTA Karabiner	-
63013-00KEU	Latchways® Mini PFL, 3m			3	36CS Swivel Snaphook	-
63013-00LEU	Latchways® Mini PFL, 3m			3	36CL Scaffold Hook	-
53013-00MEU	Latchways® Mini PFL, 3m			3	AL36CL Scaffold Hook	AL TA Karabiner
63013-00NEU	Latchways® Mini PFL, 3m			3	ALTA Karabiner	ALTA Karabiner
63013-00OEU	Latchways® Mini PFL, 3m			3	36C Snaphook	36CL Scaffold Hook
63013-00PEU	Latchways® Mini PFL, 3m			3	AL TA Karabiner	AL36CL Scaffold Hook
63113-00AEU	Latchways® Mini PFL, Twin Leg, 3m			3	AL36CL Scaffold Hook	Twin Link
63113-00BEU	Latchways® Mini PFL, Twin Leg, 3m			3	36C Snaphook	Twin Link
63113-00CEU	Latchways® Mini PFL, Twin Leg, 3m			3	AL Swivel TA Karabiner	Twin Link
63113-00DEU	Latchways® Mini PFL, Twin Leg, 3m			3	AL TA Karabiner	Twin Link
63113-00EEU	Latchways® Mini PFL, Twin Leg, 3m			3	36CS Swivel Snaphook	Twin Link
63113-00FEU	Latchways® Mini PFL, Twin Leg, 3m			3	36CL Scaffold Hook	Twin Link
63900-04						-

Anchorages

Webbing Anchor Straps and Slings



- Webbing anchor slings and straps provide an economical and portable anchorage system
- Slings provide a closed loop webbing configuration, where the straps provide a protective sleeve with loop through or coupled D-ring configuration
- Complies with AS/NZS 1891.4:2009

PART NO:	Description
10112987	1.5M, Anchor Sling
10112988	2.0M, Anchor Sling
229829-1.0MT	1.0M, Anchor Strap
229829-1.5MT	1.5M, Anchor Strap
229829-2.0MT	2.0M, Anchor Strap

D-Plate Anchorage Connector



- Provides a permanent anchorage point
- Rated to 22.2kN
- Bolts to beams or columns
- Also available with 8" x 8" back plate made of black anodised aluminium for attachment to concrete walls
- Complies with AS/NZS 1891.4:2009

PART NO:	Description
506632	D-Plate

Workman® FP Stryder



- The Workman® FP Stryder is a portable beam grip that is an approved anchorage connection when installed on a beam flange
- Low friction Teflon wear plates allow the Stryder to glide effortlessly along the beam
- Vernier push button adjustability ensures secure fit and can be adjusted with one hand no extra tools required
- Integral load indicator shows if the Stryder has been subject to a fall
- Lightweight design PN: 10144431 (2.3kg) and PN: 10144432 (5.4kg)
- Mounting can be overhead or at workers foot level
- Two versions offered to suit different beam flange sizes
- 182kg working capacity and rated to 22.2kN
- Complies with AS/NZS 1891.4:2009

PART NO:	Description
10144431	4"-13.5"Beam
10144432	14"-23.5" Beam

Bolt D Ring Anchorage Connector



- Provides permanent anchorage point
- Designed for horizontal installation
- Rated to 22.2kN
- Bolts to beams or girders
- Uses single 5/8" Grade 8 bolt (not supplied)
- Complies with AS/NZS 1891.4:2009

PART NO:	Description
10003213	Bolt D Ring



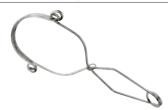
Removable Concrete Anchors



- Removable concrete anchors can be quickly installed and easily removed into various locations on an elevated level concrete surface
- Compact and lightweight
- Durable stainless steel and aluminium construction
- 5K is for use as a single person anchorage
- 10K is for use as a two person or temporary horizontal lifeline anchorage

PART NO:	Description
10081594	22kN (5k), One person anchor
10081570	44kN (10k), Two person anchor

Quicklink Anchorage Connector



Loops onto anchorage rated structure to provide a suitable anchorage attachment point

PART NO:	Description
229910QL	Quicklink

BeamGlide® Trolley



- Provides horizontal mobility and keeps anchorage connector directly over head
- Customised to beam

PART NO:	Description
506266	BeamGlide® Trolley

RailSlider®



Anchorage rated connector for use on a railroad

PART NO:	Description
228251	Rail Slider®

Ballantyne T-Bar Anchor and Tether Plates



PART NO:	Description
767345	T-Bar Roof Anchor
767346	T-Bar Tether Plate, 280mm
767347	T-Bar Tether Plate, 500mm

- The T-Bar anchor is to be used on roofs constructed with metal sheeting with a minimum base metal thickness of 0.42 mm
- To be installed on the opposite side of the roof from where the user is working
- Direct connection of personal fall arrest rated equipment for a single person
- The anchor is designed and tested to 15kN and is therefore rated as a single person fall arrest anchor under AS/NZS 1891.4:2009
- The Tether Plates (Claw) are available in two sizes 280mm and 500mm.
- The Tether Plates act as a diversion point when using a restraint lanyard and also eliminates the pendulum effect (swing during fall), when installed and used correctly
- Can be used as a standalone anchor point on metal roof sheeting

Latchways® Free Standing Constant Force® Post System



The Latchways® Freestanding Constant Force® post provides assured worker safety at height where there is an occasional or temporary requirement to access flat roofs or structures.

At the heart of the system is Latchways' unique **Constant Force technology**. The Constant Force post is contained within an anchor device consisting of a galvanised steel frame and galvanised steel weights bolted in a circular formation onto rubber coated base weights. In the event of a fall, the Constant Force post deploys to limit the load on the system while the weights simultaneously create a friction anchor between the unit and the roof surface.

- Applicable where there is an occasional safety at height requirement.
- Suitable for flat roofs (maximum 5° pitch).
- Can be used on a wide range of roof surfaces including concrete, single-ply membrane, bituminous membrane, sanded and stone chipping asphalt, and steel profile.
- No need to puncture the roof membrane to fix the system.
- Special rotating anchor turns through 90° for maximum user flexibility.
- Each anchor device protects a single user.
- Conforms to BS EN 795 class E.

PART NO:	Description
65643-00	Free Standing Constant Force Free Post 200kg
65640-00	Free Standing Constant Force Free Post 300kg
65644-00	Free Standing Constant Force Free Post 400kg

Vertical and Horizontal Lifelines

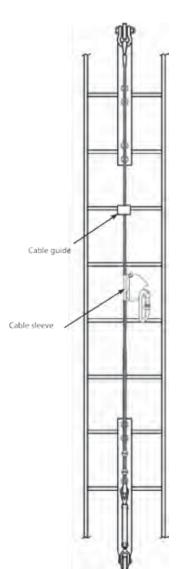
Vertical Lifelines

Sure-Climb® Temporary Ladder Cable System



- A temporary ladder climbing system featuring an 8mm galvanised cable, in line shock absorber, and profiled lead weight to stabilise cable
- Cable Slider follows user up and down the ladder during climbing and locks if the worker falls/ slips. It can be attached or removed anywhere along the cable
- Compatible with existing ladder structure
- Sure-Climb® Extension available to extend anchorage above ladder (PN: 10036032)
- Stainless steel fall arrest also available (Order Separately PN: 229608CG)
- Complies with AS/NZS 1891.3:1997

Sure-Climb® Permanent Ladder Cable System



- A permanent ladder climbing system featuring an 8mm galvanised cable, energy absorbing top and bottom mounting brackets and cable guide attachment
- Cable slider follows user up and down the ladder during climbing and locks if the worker falls/ slips. It can be attached or removed anywhere along the cable
- Compatible with existing ladder structure
- Sure-Climb® Extension available to extend anchorage above ladder (PN: 10036032)
- Stainless steel fall arrest also available (Order Separately PN: 229608CG)
- Complies with AS/NZS 1891.3:1997

PART NO:	Description	
SFPLS353030	10.0M, Galvanised Cable	
SFPLS353050	15.0M, Galvanised Cable	
SFPLS353100	30.0M, Galvanised Cable	
229608CG	Cable Grab	

Note: Other lengths available on request.

PART NO:	Description
SFPLS350030	10.0M, Galvanised Cable
SFPLS350070	20.0M, Galvanised Cable
SFPLS350100	30.0M, Galvanised Cable
SFPLS350130	40.0M, Galvanised Cable
SFPLS350160	50.0M, Galvanised Cable
SFPLS350200	60.0M, Galvanised Cable
229608CG	Cable Grab







MSA Latchways® Horizontal and Vertical Lifelines

Horizontal Lifelines (HLL)

MSA Latchways horizontal lifelines are known worldwide for their versatility and ease of use, making them the ideal choice for protecting workers as they go about day-to-day activities like maintenance, cleaning, inspection and more.

Easily customised for virtually any structure or unique requirement, MSA precisely engineered horizontal systems are built to work in all areas of industry, construction and maintenance. Installations include retail outlets, stadiums, transmission towers and industrial complexes.



Constant Force® Post

MSA has taken the science of Latchways Constant Force and applied it to the fall protection industry - providing an easy-to-install, reliable and cost-effective solution to rooftop safety.

Latchways Constant Force® post (CFP) does not need to be fixed to the building structure but instead top-fixes to the roof, therefore simplifying installation, saving time and protecting structures from compromise. With Constant Force technology as its governing principle, the load generated in the event of a fall is absorbed through the Latchways system, minimizing loads placed on the roof structure.





Overhead Systems

With MSA Latchways overhead systems, all you have to do is look up and you'll find a greater sense of security and confidence.

Combining MSA's unique knowledge of fall protection with innovative Constant Force technology, our overhead systems deliver maximum accessibility and hands free mobility - not to mention ease of use and simple installation.

The Latchways range of overhead systems house Constant Force technology in an in-line energy absorber, so if a worker connected to the system should fall, the Constant Force energy absorber controls the load back to the structure. Ideal for industrial environments and in applications such as warehouses, loading bays and airplane hangars.



Vertical Lifelines (VLL)

Featuring our brilliantly engineered TowerLatch™ and LadderLatch™ systems the Latchways system options offer outstanding personal safety for those working at height, particularly in the telecom and wind energy industries. Both TowerLatch™ and LadderLatch™ emphasize inherent flexibility, meaning they can be configured for a wide variety of applications, including ladders, towers, masts, monopoles and other structures specific to these industries.

Dedicated to Safety

- **Reliable security:** Our VLLs incorporate a fluorescent red indicator that appears in the event of a fall.
- **Flexible freedom:** Each systems' universal attachment device rotates freely through intermediate cable guides for continuous hands-free protection.
- Load control: In the event of a fall, the load applied to the worker is limited to a maximum of 6 kN by either a Constant Force® absorber at the top of the system or a webbing energy absorber on the device
- **Inspection:** TowerLatch™ and LadderLatch™ systems are regarded as part of the tower structure, and inspected accordingly.
- **Trusted quality:** Both systems meet or exceed all relevant international standards.
- Extra security: A webbing strop can be incorporated into the systems' attachment device to facilitate rescue as needed.



MSA Latchways® Inclined Systems

While working at height is tough, working at height on an incline can present uniquely different challenges. MSA has developed a comprehensive range of Latchways system components that can be configured to provide a tailored cable lifeline suited to structures that slope.

Our two main components, the BridgeLatch™ and ClimbLatch™ devices, are built to bring optimal security, flexibility and mobility to the at-height, on-incline workplace.

BridgeLatch™

For inclined lifelines running between 0° and 70°, the Latchways BridgeLatch™ device secures the user to the cable via a fixed-length lanyard connecting to the D-ring attachment point of a full-body harness.

Featuring a starwheel mechanism that rotates freely over intermediate cable supports and brackets, this smartly engineered device eliminates the disconnection requirement that can lead to potential accidents. The BridgeLatch™ device is designed to clamp fast onto the cable, preventing the user from falling or sliding down the incline on which they're working.

ClimbLatch™

Like the BridgeLatch™ device, ClimbLatch™ permits hands-free travel up sloped surfaces freeing the worker to use both hands for work or climbing. Safety features include a required entry point on which to attach to the system. In the event of a fall, the ClimbLatch™ device locks onto the cable, not only arresting the fall but keeping the worker from sliding back down the system.





Attachment Devices

All MSA Latchways attachment devices are designed to connect the user, wearing a full-body harness, to a Latchways cable system.

Common to all devices is the patented starwheel mechanism, which rotates freely over intermediate cable supports and around corner brackets without needing to disconnect the unit. This allows hands-free operation for the system users.

Transfastener[™] and Removable Transfastener

Universal device for use on all Latchways horizontal systems, suitable for both fall restraint and arrest systems.

Incorporates unique starwheel, allowing the unit to pass over cable supports and corners without the need to detach.

Connects to user at fall arrest attachment point via an energy-absorbing lanyard. While the Transfastener requires a specific entry point, the Removable Transfastener can attach or detach at any safe point.









BridgeLatch™

ClimbLatch™

LadderLatch™ and TowerLatch™

- Universal device for use on all Latchways vertical systems
- Incorporates unique starwheel, allowing the unit to pass over cable supports without need to detach
- Anti-inversion mechanism prevents device from connecting to the cable upside-down
- Connects to user at chest point
- Able to attach or detach at any safe point of the system
- In the event of a fall, the unit locks onto the cable and arrests the fall



LadderLatch



TowerLatch with integral webbing strop to provide fast post-fall rescue



TowerLatch SP with an integral energy absorber ("shock pack") for use where a coil absorber is not present in the vertical lifeline system

Certified Installer Network

MSAs' Fall Protection offerings are supported by an expert network of trained installers. The installer network can assist with on-site hazard analysis, design, installation, certification, user training and on-going maintenance of engineered systems. Latchways systems can only be installed by trained and certified professionals.

Horizontal Lifelines

Gravity® Dyna-Line® Temporary Synthetic Horizontal Lifeline



PART NO:	Description
10150413	9.0M, Synthetic Rope
10150414	18.0M, Synthetic Rope
10150415	30.0M, Synthetic Rope

- Designed for easy installation and removal, the Gravity® Dyna-Line® Horizontal Lifeline is a temporary synthetic rope horizontal lifeline system created for a wide range of applications
- Rated for two people (272 kg)
- The Gravity Dyna-Line® now features the brand new ByPass shuttle system that ensures that two workers maintain 100% tie off during use, eliminating any risk of a fatal fall during worker passing. The safest horizontal lifeline on the market today!
- Can be mounted to any suitable 22kN rated anchorage point and can be rigged using many standard components, eliminating the need for special or "engineered" equipment
- Has an integral line tensioner that allows proper tensioning of the lifeline before use
- Supplied in a handy bucket and available in a variety of lengths
- Skylink Stanchion can be ordered separately for temporary anchorage connection (PN: 10055659 (standard), 10055660 (short))
- Complies with AS/NZS 1891.2:2001

Gravity® Sure-Line® Temporary Cable Horizontal Lifeline



PART NO:	Description
10150420	6.0M, Cable
10150416	12.0M, Cable
10150418	18.0M, Cable

- Designed for easy installation and removal, the Gravity® Sure-Line® Horizontal Lifeline is a temporary cable horizontal lifeline system created for a wide range of applications
- Rated for two people (272 kg)
- The Gravity Sure-Line® now features the brand new ByPass shuttle system that ensures that two workers maintain 100% tie off during use, eliminating any risk of a fatal fall during worker passing. The safest horizontal lifeline on the market today!
- Can be mounted to any suitable 22kN rated anchorage point and can be rigged using many standard components, eliminating the need for special or "engineered" equipment
- Has an integral line tensioner that allows proper tensioning of the lifeline before use
- Available in a variety of lengths
- Skylink Stanchion can be ordered separately for temporary anchorage connection (PN: 10055659 (standard), 10055660 (short))
- Complies with AS/NZS 1891.2:2001

Skylotec Temporary Webbing Horizontal Lifeline



- This temporary horizontal lifeline is an easily deployable, lightweight 20m horizontal lifeline
- The 35mm heavy duty webbing is tensioned by a ratchet device and allows shorter distances to be spanned as required
- Rated for two people
- Complies with AS/NZS 1891.2:2001

PART NO:	Description
765242	20M, Web



Fall Protection Kits

Workman® Roof Workers Kit



- Workman® Harness (Medium) Choice of Premier or Crossover
- Kernmantle Rope c/w rope adjuster
- Anchor Sling (1.5 m in Premier Kit) or Anchor Strap (1.0 m in Crossover Kit)
- Screw Gate Karabiner (x2)
- Backpack Carry Bag

PART NO:	Description
767300-15.0	Premier Harness with 15.0M Kernmantle Rope
762208-15.0	Crossover Harness with 15.0M Kernmantle Rope

Note: Other Kernmantle Rope lengths are available. Rope length indicated in part number configuration eg. $767300-15.0\sim15m$ length rope.

Workman® Construction Workers Kit



- Workman® Premier Harness (Medium)
- Workman® PFL with Alloy Double Action Hook (3.7 m)
- Shock Absorbing Lanyard with Forged Steel Double Action Snaphooks (2 m)
- Anchor Sling (1.5 m)
- Screw Gate Karabiner (x2)
- Backpack Carry Bag

PART NO:	Description
229001KIT1	Construction Workers Kit

Workman® Premier Deluxe Roof Workers Kit



All contents supplied with the Workman® Premier Roof Worker's Kit PLUS:

- Workman® Short Shock Absorber with Steel Snaphooks
- Suspension Trauma Safety Step

PART NO: Description
767808-20.0 Premier Harness with 20.0M Kernmantle Rope

Note: Rope length indicated in part number configuration eg. $767808-20.0 \sim 20$ m length rope.

Workman® Basic Fall Protection Kit



- Workman® Premier Harness (Medium)
- Shock Absorbing Lanyard with Adjustable Webbing and with Forged Steel Double Action Snaphooks (2 m)
- Anchor Sling (1.5 m)
- Backpack Carry Bag

PART NO:	Description
229842-1.0	Basic FP Kit

Descent and Rescue Equipment

Descent and Rescue Anchorages

Workman® Tripod



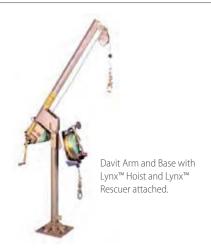
MSA Tripods make confined space entry with vertical descent easy.

The Workman® Tripod features internal leg-locking mechanism, maximum height indicator on the tripod legs, cut-resistant leg pin, retention chains, recessed product labels, reduced weight and integral carrying strap. The Workman® Tripod can be set up and dismantled without the use of tools.

- Automatic hinge lock legs with incremental adjustment
- Skid resistant feet
- Tripod head features four separate attachment points
- Accessories can attach to any leg for faster setup
- Telescoping legs up to 2.44m (8 ft) high do not tangle when unit is collapsed for easier transportation and storage

PART NO:	Description
10102002	Workman® Tripod
10169369	Duffel Bag

Folding Davit and Base

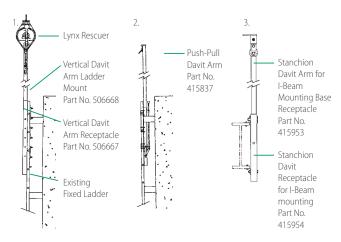


- The Folding Davit and Base is a portable and economical anchorage connector used where a tripod will not work
- Available with a zinc-plated alloy-steel Davit Arm and Base
- This lightweight device provides a 60cm (24-inch) reach and 2 m (77 inches) of head clearance
- It pivots 360-degrees and can readily manoeuvre personnel and materials between spaces below the deck where it is mounted
- The Folding Davit may be carried from base to base and installed in minutes
- Designed to accept both the Lynx® and Dynevac® range of devices with the appropriate mounting bracket

PART NO:	Description
506613	Davit Arm Folding
506614	Davit Arm Base

Alternative Davit Systems

- 1. Vertical davit arm ladder mount & receptacle
- 2. Push-pull davit arm ladder mount
- 3. Stanchion davit arm & receptacle for i-beam mounting



PART NO:	Description	
506668	Vertical Davit Arm Ladder Mount	
506667	Vertical Davit Arm Receptacle	
415837	Push-Pull Davit Arm	
415953	Stanchion Davit Arm for I-Beam Mounting Receptacle	
415954	Stanchion Davit Arm for Receptacle for I-Beam Mounting	



Rope Rescue Systems

Rescue Safe Retrieval System



PART NO:	Description
229090-45.0	3:1 Ratio, 15.0M Travel
229090-60.0	3:1 Ratio, 20.0M Travel
229090-90.0	3:1 Ratio, 30.0M Travel
229485-60.0	4:1 Ratio, 15.0M Travel
229485-80.0	4:1 Ratio, 20.0M Travel
229485-120.0	4:1 Ratio, 30.0M Travel

- The Rescue Safe Retrieval System is primarily used for raising and lowering people or equipment in rescue and industrial work access and confined space applications
- It also doubles as a work positioning system featuring an overspeed locking brake to position the user into place
- Hand ascender included for aiding the operation and acts as a fail-safe brake
- Includes an anchor strap and two karabiners
- Offered as a 3:1 or 4:1 mechanical advantage system

Rescue Utility System



$ \bigcirc$		
PART NO:	Description	
SRS15.0	15m	
SRS20.0	20m	
SRS25.0	25m	

- The Rescue Utility System is primarily used for raising and lowering people or equipment in rescue and industrial work access and confined space applications
- Pulleys are equipped with a built-in anti-reversing lock
- Offers rapid deployment, is virtually maintenance free, and is rated for two-person load
- Compact and lightweight with a standard system weight of 7.7 kg
- Rated capacity of 272 kg for personnel and materials
- Offered as a 4:1 mechanical advantage system with hand ascender included

Confined Space Equipment

Workman® Winch



- The Workman® Winch is a rugged, versatile and economical choice for lifting, lowering and positioning of personnel and materials within confined space applications
- Integral bracket design allows assembly onto the Workman® Tripod in less than 50 seconds using the existing tripod leg pins no extra tools required for assembly
- Designed for a maximum 140kg workload for personnel and 225kg for materials
- The tough thermoplastic housing ensures high performance in the harshest environments
- Offers an integral and ergonomic carry grip with a unique, foldable crank handle for simple storage inside the included carry bag
- Level wind mechanism for a tangle-free cable drum
- Built in shock absorber and double braking system
- Compatible with Workman® Tripod (Split mount pulley to be ordered separately PN: 506222)
- RFID-enabled product for simplified product tracking and inspection
- Certified to EN1496 Class B

PART NO:	Description
10147296	20.0M, Stainless Steel Cable
10154688	30.0M, Stainless Steel Cable

Workman® Rescuer





MSA's Workman® Rescuer provides fast, easy and intuitive fall protection with integral bi-directional retrieval capability. Not only does the Workman® Rescuer arrest the fall, its retrieval capability allows the fallen worker to ascend or descend to a safe location. This durable, economical addition to the Workman Series of products offers fast installation and setup, ideal for applications where time and ease of use are a priority. The Workman Rescuer is also a stand-alone retractable device, as the carrying handle

- may be used as an anchorage attachment.User capacity up to 140 kg for personnel
- Stainless steel 3/16" wire rope
- Integral mounting bracket
- Colour-coded switch for retrieval mechanism activation
- Ergonomic, stainless steel carry handle can also be used as anchorage connection point
- · Built in shock absorber
- Robust aluminium housing with thermoplastic bumpers
- Self-locking swivel snaphook with load indicator
- Stow-able, foldable crank handle
- RFID-enabled
- Certified to EN 360, complies with AS/NZS 1891.3

PART NO:	Description
10158192	Workman® Rescuer, Stainless Steel Cable, 15m

Emergency Retrieval Self Retracting Lanyards

Dynavac®II



- Dynavac® II is a fall arrest rated self retracting lanyard with emergency retrieval capabilities
- User is able to reset device from retrieval mode to fall arrest mode
- Dynevac® II utilises a safety pin feature for field re-set from fall arrest mode to retrieval mode back to fall arrest mode
- Compatible with Workman® and Lynx®
 Tripods, davit systems and qualified anchorage connector (Split mount pulley and brackets to be ordered separately)
- Certified to EN 360 and complies with AS/NZS 1891.3:1997

PART NO: Description				
10007782	Dynavac®II, 16.0M, Stainless Steel Cable			
10007783	Dynavac®II, 30.0M, Stainless Steel Cable			

Note: Separate Mounting Bracket (506232 - 16m; 506216 30m), Pulley (506222) and Karabiner (765807) are required for use with Tripod

Brackets and Pulleys



These brackets and pulleys are compatible with the Lynx® Tripod and Workman® Tripod.

PART NO:	Description				
506232	Dynevac®/Lynx® - Mounting Bracket to Tripod - 16m unit				
506216	Dynevac*/Lynx* - Mounting Bracket to Tripod - 30m unit				
506222	Split Mount Pulley for to Tripod/Davit Arm				
506622	Dynevac/Lynx® - Mounting Bracket to Davit Arm - 16m unit				
506362	Dynevac*/Lynx* - Mounting Bracket to Davit Arm - 30m unit				

Latchways® Retrieval SRL



An innovative and fail-safe self-retracting lifeline, sealed to IP58, complete with retrieval winch.

The Latchways® Retrieval SRL has been designed specifically for use within offshore oil and gas applications and to complement the broad range of sealed self-retracting lifelines already offered by Latchways. Whether it be moon pool access or tank cleaning operations, the Latchways® Retrieval SRL can provide rescue cover to all essential areas of the rig where winch retrieval is a necessity. In the event of a fall over the rig floor, the user may also be raised or lowered using the winch mechanism.

When connected to the device, a worker has reassuring continuous hands-free fall protection with unhindered mobility. The audible clicking of the Latchways® Retrieval SRL is a constant reminder that the SRL functions correctly - even in the harshest of environments. The Latchways® Retrieval SRL may be recertified by Latchways or a Latchways trained and approved service technician, offering exceptionally-low cost of ownership.

PART NO:	Description
62820-00UK	50ft (15m) Latchways® Sealed SRL W/Emergency Retrieval, Stainless Steel Cable, Stainless Steel Snaphook

Descent Accessories

Spreader Bars





- Workman® Spreader Bars are the ideal harness accessory for personnel descent and retrieval via the harnesses shoulder loops
- Available with steel or aluminium snaphooks

PART NO:	Description	
10112910 Snaphook, Steel		
10112911	Snaphook, Aluminium	



Rescue Equipment

Sked Rescue Stretcher System



- Suitable for confined space, high angle or technical rescue, and traditional land based applications
- Equipped for horizontal hoisting by helicopter or vertical hoisting in caves or industrial confined spaces
- Durable plastic provides rigid protection for the patient
- Weight 8.6kg
- Includes Sked Stretcher and removable webbing handles, cordura backpack/towing harness, and horizontal and vertical lift swings

PART NO:	Description
SRSSK200	Complete System
SRS36382	Replacement 4PT Bridle

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 with this system
- 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 more efficient rescue
- Packaged together in a kit which includes the extension pole, remote hook, pole adaptor and storage bag

PART NO:	Description				
228228-3.6	Kit, 1.8 - 3.6M Extension Pole				
228228-7.3	(it, 2.4 - 7.3M Extension Pole				
SFP675009	.8M - 3.6M, Adjustable Extension Pole				
SFP675012	2.4M - 7.3M, Adjustable Extension Pole				
SRCA401	Remote Hook, Aluminium with Web Sling				
SCE109001	Pole Adaptor, Aluminium & Rubber				
SCE109003	Pole Adaptor, 1.8M Extension, Aluminium & Rubber				
SRB675009	Storage Bag for SFP675009				

Pole Top Rescue Kit



- The Anthron Descender is a manually operated, controlled descent device most commonly used for suspended, work positioning, self-evacuation, or rescue operations
- A cam assembly provides friction on the rope to hold a load or allow the load to descend at a controlled rate
- The system consists of 11mm kernmantle rope, the Anthron Descender an anchor strap and carry bag
- Proper roping and rigging diagrams are on the side of the Anthron device, which can be installed or removed at any point on the rope and has a working load of 136 kg
- Can also be inverted so that the device can be attached to an approved anchor, and the rope end attached to an injured worker. In this orientation, the injured worker can be lowered while being controlled by a rescuer

PART NO:	Description			
229680-15.0	580-15.0 15.0M Kernmantle Rope Length			
229680-25.0	.0 25.0M Kernmantle Rope Length			
229680-30.0 30.0M Kernmantle Rope Length				
229680-50.0	50.0M Kernmantle Rope Length			

Latchways® R20 Rescue Pole



- The Latchways® R20 Rescue Pole is an ideal compact solution to facilitate a remote access rescue.
- Telescoping pole is constructed from Fibre Reinforced Plastic (FRP) and allows remote reach extension from 800mm to 3400mm.
- Suitable for use with Rope Rescue Systems to execute a simple rescue plan quickly.
- Comes standard with a durable storage bag.

PART NO:	Description
68099-00	Latchways® R20 Rescue Pole

Confined Space Entry Kits

Confined Space Kits come complete with all the essentials required for a safe entry, exit and retrieval from a confined space. Intuitively designed, the Workman® range of products minimises extensive user training and setup time by being simple, easy to use and fast to assemble. Kits come standard with a Workman® Premier Harness (medium), Workman® Tripod, duffel bag and spreader bar.

Kits include all components required for assembly.

Confined Space Entry Kit with Workman® Winch and Workman® Rescuer

PART NO.	8'Tripod	15m Workman® Rescuer	20m Workman® Winch	Pulleys	Karabiners	Workman® Premier Full Body Harness	Workman® Tripod Duffel Bag
768392				2	2		

Confined Space Entry Kits with Rescue Safe Retrieval System

PART NO.	8'Tripod	Rescue Safe Retrieval Rope Kit 3:1, 15M Travel	Rescue Safe Retrieval Rope Kit 4:1, 15M Travel	Workman® Premier Full Body Harness	Workman® Spreader Bar	Workman® Tripod Duffel Bag
767790						-
767791					-	

Confined Space Entry Kit with Workman® Winch

PART NO.	8'Tripod	20m Workman® Winch	30m Workman® Winch	Pulleys	Karabiners	Workman® Premier Full Body Harness	Workman® Spreader Bar	Workman® Tripod Duffel Bag
767939				1	2			•
768017				1	2			

Confined Space Entry Kit with Workman® Rescuer

PART NO.	8'Tripod	15m Workman® Rescuer	Pulleys	Karabiners	Workman® Premier Full Body Harness	Workman [®] Spreader Bar	Workman® Tripod Duffel Bag	
768384			1	2				







Confined Space Entry Kit Components



Fall Protection Accessories

Suspension Trauma Safety Step



- Lightweight web ladder design to reduce the onset of suspension trauma during post-fall suspension
- Loops allow user to flex leg muscles and relieve leg strap pressure while suspended prior to rescue
- When connected to the fall arrest connection that the fall has occurred on, force and pressure is transferred back onto the anchor point, rather than onto the body

PART NO:	Description	
10063431	With Karabiner	
10063441	Without Karabiner	

Bosun Chair



- Best method to sit suspended for long durations
- Padded seat ensures comfort during use
- Adjustable web assembly for added security

PART NO:	Description
SSH3505017	Bosun Chair

Yoke Extension



- Harness accessory that can be used as a dorsal extension to the rear D-Ring or Type 1 device when connected to the front D-ring during ladder climbing
- Extension is 300mm in length and features a double action snaphook at one end and a D-ring connection at the other

PART NO:	Description
229810SGL	Yoke Extension

Wrist Tool Loop



This economical tool strap attaches to a users wrist and the cord at the opposite end secures the tool

PART NO:	T NO: Description	
763160BK	Tool Wrist Loop	

Hands Off Chisel Grip Tool Holder



- · Keeps hands away from the point of contact
- Ergonomically designed to match the specific shape of the human hand for a comfortable and firm grip
- Easy adjustment to hold a variety of chisels and stakes up to 1" in diameter
- Vibration absorbing handle
- · Spark resistant

Ergonomic Tool Holders



- Holds wrenches, chisels etc
- Vibration absorbing design
- Eases awkward hand positioning

PART NO:	Description
507005	Length 460mm

Ladder Tie Down Strap



Can be used on most ladders for added stability

PART NO:	Description	
229816	Ladder Tie Down Strap	



Hooks and Karabiners

PART NO:	Description	Item No.	1	-	2
229200SSTL	Karabiner, Triple Action, Steel, 18mm Gate	1	P.		
229202TL	Karabiner, Autolock, Steel, 18mm Gate	2			
229407TL	Karabiner, Autolock, Steel 56mm Gate	3	21		
229200TL	Karabiner, Autolock, Steel 23mm Gate	4	N		
765804	Snaphook, Double Action, Alloy, 20mm Gate	5	V		
229704M	Snaphook, Double Action, Steel, 55mm Gate	6			
765805	Snaphook, Double Action, Alloy, 60mm Gate	7			
763159	Snaphook, Double Action, Steel, 20mm Gate	8	4	-	5
764315	Karabiner, Capitive Bar, Triple Action, Steel, 25mm Gate	9			
764802	Karabiner, Capitive Eye, Autolock, Steel, 18mm Gate	10			
229704SG	Karabiner, Screwgate, Alloy, 25mm Gate	11		M	1/4
765807	Karabiner, Screwgate, Alloy, 15mm Gate	12			1
765802	Delta Rapid, Steel, 15mm Gate	13		r	



Fall Protection Training and Service

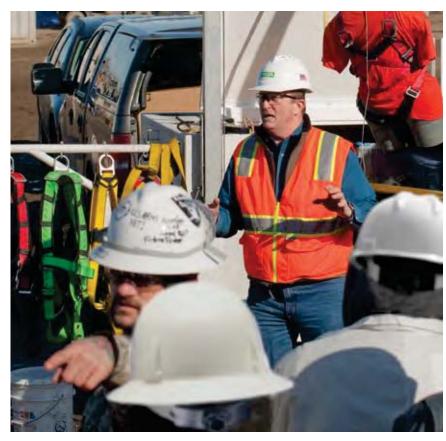
In addition to our product offering, MSA can also assist you with your **Fall Protection Training and Service** requirements.

Offering Registered Training Organisation (RTO) accredited height safety training including:

- Working Safely at Heights
- Perform Inspection/Height Safety **Equipment Inspector**
- Enter and Work in a Confined Space

Our tailored programs can be conducted onsite or at our facility to meet your working needs.

Our Service Department is also available to assist you with inspection, recertification and repair needs for our products.



Safety Clothing/Hand and Arm Protection



MSA provides a select range of high quality safety apparel and gloves.

Our fabrics and finished garments are independently tested to ensure MSA's compliance to the highest applicable standards. Our manufacturing facilities produce to controlled, high standards ensuring ongoing consistent quality and product performance.

MSA's quality raw materials are combined to provide a consistent ongoing high performance. Our hand protection products are compliant to the European CE, AS/NZS 2161 standards wherever possible.



Safety Clothing

Disposable Coveralls

MicroTech™ Chemical Disposable Coveralls

Manufactured from premium breathable, soft fabric, high structural strength with excellent tensile and tear resistance, ultra low linting, anti-static treated and breathable (helping prevent heat stress). Offers protection against fibers and hazardous particles, water-based liquid chemicals, aerosols, biological hazards, virus and blood borne pathogens. The MicroTech™ Coveralls are lightweight, durable with superior soft comfort.

Complete with elastic hood, wrists, waist and ankles. Double reinforced zipper cover flap for additional protection, with peel off self adhesive tape providing increased protection. It also has reinforced crotch pleats, double bound surge seam, providing superior tear resistance.

Independently tested the MicroTech[™] Coveralls are Certified Compliant to **Type 6** (Limited Liquid Chemical Splash - Light Sprays) and **Type 5** (Solid Dry Particulate Chemical Protection), Category 3 (PPE of complex design) in addition to EN 1149-1 (Anti-Static), EN14126 Protection Against Infective Agents and EN1073-2 (Radioactive Contamination).

MicroTech™ White			MicroTech™ Orang	je	
	PART NO:	Description (Individually packed in cartons of 25)		PART NO:	Description (Individually packed in cartons of 25)
	765353\$	MicroTech MCT56W - White Sml		765500S	MicroTech MCT56O - Orange Sml
13/70	765353M	MicroTech MCT56W - White Med	201	765500M	MicroTech MCT56O - Orange Med
	765353L	MicroTech MCT56W - White Lge		765500L	MicroTech MCT56O - Orange Lge
	765353X	MicroTech MCT56W - White XL		765500X	MicroTech MCT56O - Orange XL
2 2	765353XX	MicroTech MCT56W - White 2XL	18	765500XX	MicroTech MCT56O - Orange 2XL
	765353XXX	MicroTech MCT56W - White 3XL		765500XXX	MicroTech MCT56O - Orange 3XL
	765353XXXX	MicroTech MCT56W - White 4XL		765500XXXX	MicroTech MCT56O - Orange 4XL

Litefit Navy/White Disposable Coveralls

Litefit White and Navy disposable coveralls manufactured with premium breathable SMS fabric. Litefit are antistatic (AS/NZS 1149.1) treated lightweight and breathable providing excellent wearer comfort and protection against hazardous dust, particulate matter and providing a good level of repellency against water based liquid light sprays. Complete with elasticised hood, wrists, ankle and back of waist. Double layer zip flap preventing entanglement and reinforced crotch pleats provide greater tear resistance.

Litefit White			Litefit Navy		
Bo	PART NO:	Description (Individually packed in cartons of 25)	7	PART NO:	Description (Individually packed in cartons of 25)
- T Chan	229298S	Litefit - White - Small		2276015	Litefit - Navy - Small
	229298M	Litefit - White - Medium		227601M	Litefit - Navy - Medium
	229298L	Litefit - White - Large		227601L	Litefit - Navy - Large
	229298X	Litefit - White - XL		227601X	Litefit - Navy - XL
	229298XX	Litefit - White - 2XL		227601XX	Litefit - Navy - 2XL
	229298XXX	Litefit - White - 3XL		227601XXX	Litefit - Navy - 3XL
- CON 10	229298XXXX	Litefit - White - 4XL		227601XXXX	Litefit - Navy - 4XI

Chemical Type C Disposable Coveralls

Made from Tyvek with additional properties for protection against inorganic acids and bases, blood, blood borne pathogens and body fluids.

Type C Disposable Coveralls

Type C Disposable Coverans				
	PART NO:	Description (Individually packed in cartons of 25)		
	229516M	Chemical Type C Disposable Coveralls - Med		
	229516L	Chemical Type C Disposable Coveralls - Lge		
	229516X	Chemical Type C Disposable Coveralls - XL		
	229516XX	Chemical Type C Disposable Coveralls - 2XL		
	229516XXX	Chemical Type C Disposable Coveralls - 3XL		

Hand and Arm Protection

Australian/New Zealand Occupational Protective Glove Standards

Overview

The Australian/New Zealand Glove Standards AS/NZS 2161 have been reproduced from the equivalent European Standards.

AS/NZS 2161 consists of the following:

AS/NZS 2161.2 Occupational Protective Gloves - General Requirements (EN 420)

This standard covers the general requirements for Glove Construction, Ergonomy, Design & Sizing, Innocuousness of Protective Gloves, High Visibility, Comfort & Efficiency, Marking & Information applicable to all Occupational Protective Gloves

Defined as follows:

General Requirements:

- Protective Gloves are designed, manufactured and are suitable for its intended use
- When the glove construction includes seams, the material & strength of the seams shall be such that the overall performance of the glove is not significantly decreased.
- Protective Gloves provide protection when used to the manufactures instructions, without harm to the end use when so used
- Glove sizing conforms to specifications in relation to hand circumference & minimum length requirement.
- Marking information covering the name, trademark or other means of identification, code/part number, size.
- Packaging information requirements & instructions for use.

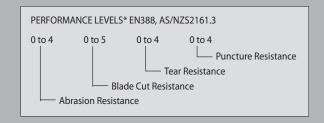
AS/NZS 2161.3 Occupational Protective Gloves - Protection Against Mechanical Risks (EN 388).

This standard specifies requirements, test methods, marking & information for protective gloves against the mechanical risk of Abrasion, Blade Cut, Tear & Puncture.

Defined as follows:

- Abrasion Resistance Is a measure of the number of cycles required for breakthrough to occur. Breakthrough is understood to mean when a hole is worn through the test specimen.
- Blade Cut Resistance Is a measure of the materials cut resistance index. Specimens are cut by a counter-rotating circular blade, which moves with an alternating motion under a specified load.
- Tear Resistance Is a measure of the force necessary to propagate a tear in a specimen slit halfway along its length.
- Puncture Resistance Is a measure of the force exerted by a steel stylus of defined dimensions to puncture a test specimen held on a retaining device.

Test results are reported as performance ratings, the higher the rating the greater resistance/protection.





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MICRO-ORGANISMS EN 374



EN 388

RADIOACTIVE CONTAMINATION EN 421



COLD HAZARDS EN 511



HEAT AND FIRE EN 407



Letter Code	Chemical product (EN 374: 2003)
A	Methanol
В	Acetone
C	Acetonitrile
D	Dichloromethane
E	Carbon disulphide
F	Toluene
G	Diethylamine
Н	Tetrhydrofurane
1	Ethyl acetate
J	n-Heptane
K	Sodium hydroxide 40%
L	Sulphuric acid 96%



Protection Index		Breakthrough Time
	1	>10 minutes
	2	>30 minutes
	3	>60 minutes
	4	>120 minutes
	5	>240 minutes
	6	>480 minutes

Chemical Tested
Sodium Hydroxide 25%
Sodium Hypochlorite 25%
Sulphuric Acid 25%
White Spirit



Cut Resistant Gloves, Cotton and Leather Gloves

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
MECHANICS NEXT		768156M	Mechanic Next	Double coated for chemical, oil and abrasion resistance.
GENERATION GLOVE		768156L	Generation Med Mechanic Next	Non-slip sandy nitrile finish.
32012		/00130L	Generation Lge	High visibility fabric provides both safety and breathability.
		768156X	Mechanic Next	Vibration-resistant padded palm.
		750455\0/	Generation XL	Reinforced back of hand / fingers for impact resistance.
	6500	768156XX	Mechanic Next Generation XXL	Thumb crotch reinforced by DuPont's Kevlar for
			Generation	extra durability.
	MECHANICAL			Knitted wrist with Velcro closure. CF Chandral good light FN 200 ratios (4241 (Protection Against)).
	EN 388 4241			• CE Standard compliant EN 388 rating 4241 (Protection Against Mechanical Hazards).
MECHANICS	484	765447S	Gel Inserts Velcro - S	• EVA Foam inserts absorbs impact and reduce wearer fatigue.
GLOVE	W	765447M	Gel Inserts Velcro - M	Knuckle bar protection with high-density webbing.
		765447L 765447X	Gel Inserts Velcro - L Gel Inserts Velcro - XL	• Pulse guard with Velcro closing tab protects the inside wrist area.
		765447XX	Gel Inserts Velcro - XXL	Reinforced double stitching and synthetic leather palm increase durability and abrasion resistance.
				CE standard compliant EN388 - 2112 Protection against
	MECHANICAL			Mechanical Hazards.
	HAZARDS EN 388 2112			Carton Quantity - 72
SPLIT LEATHER	- 0.6	220815	Select Split Leather,	• Quality Leather split palm.
PREMIUM CANDY STRIPE GLOVES	Elin C		Rubberised Cuff - Premium	Generous men's hand size.
311111 2 020723	260	762075	Leather Cotton - Budget	Candy striped cotton back for airflow.
				Knuckle bar and fingertip protection.
				Suitable for the following applications: Building and
				maintenance, material handling, warehousing, light
				engineering.
SPLIT LEATHER		220812	Split Leather and Cotton	Carton Quantity - 120 Quality select split leather, double reinforced leather palm and
AND COTTON	989	220012	Polishers	thumb, forefinger and knuckle bar protection. Canvas back and
POLISHERS	The co			cuff, generous large size.
	(All)			• Construction.
				General Purpose.
	The same of the sa			Maintenance.
				• Lumber Industry.
				• Mining.
				Carton Quantity - 120
MUSTANG GLOVES	-00	226545	Leather Double Palm	Quality select split leather, canvas back and cuff, knuckle bar
				protection, generous large size.
	600			Construction.
				General Purpose.
				Maintenance.
				• Lumber Industry.
				• Mining.
PIGSKIN SPLIT	(a) (b)	221434	Pigskin Driver - L	Carton Quantity - 120
LEATHER DRIVER	1811	221434	rigskiii Diivel - L	Selected split. Large hand size.
	100			Large nand size. Unlined.
	Lan			Shirred Wrist, Wing Thumb.
				Carton Quantity - 120
	4			Carton Quality 120
			<u> </u>	

Leather Gloves

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
GRAND PRIX		225030S	Grand Prix Drivers Gloves - S	• "A" Grade Cow Grain Leather Glove.
DRIVERS GLOVES	16	225030M	Grand Prix Drivers Gloves - M	• Functional elastic shirred wrist.
	No. also	225030	Grand Prix Drivers Gloves - L	Reinforced stitching for greater seam strength.
	A	225030X	Grand Prix Drivers Gloves - XL	• CE Standard compliant.
	trea			• EN388/03 (Protective Gloves against Mechanical
	and a			Hazards EN388/3213) and EN 420/03 (Gloves General
				Requirements).
	All O			Manufactured to CE standards sizing requirement.
4				Excellent durability and abrasive resistance.
MECH HAZA EN 38 3123	ANICAL RDS			Wing thumb, offering comfort and good flexibility.
	5			Carton Quantity - 120
COW GRAIN EXTENDED CUFF	190	765443M	Cow Grain Extended Cuff - M	Select quality B/C leather cow grain.
EXTENDED COFF	131	765443L	Cow Grain Extended Cuff - L Cow Grain Extended Cuff - XL	• 30cm overall length.
	1000	765443X	Cow Grain Extended Cuff - XL	Elastic Shirred Wrist.
3	1			Wing Thumb.
	1 145			Carton Quantity - 120
FREEZER FUR	0.0	225499	Freezer Fur Lined - L	• Select B/C Cow Grade Leather.
LINED GLOVE	111			Synthetic Fur Lined.
7	700			• Elastic Shirred Cuff.
	1.6			• Wing Thumb.
	14			Carton Quantity - 60
RODEO GLOVE	0.0	227507	Rodeo Glove - Leather - L	• Rodeo Drivers Glove.
				Cow Grain B/C Leather Palm.
7	12			• Split Leather Back.
	All a			Keystone Thumb.
				• Shirred Wrist.
	4			Carton Quantity - 120
GRAIN PALM		229835M	Leather Natural - M	Select Quality Cow Grain and Split Leather.
SPLIT LEATHER	TEN	229835W	Leather Natural - L	
BACK DRIVER	3.5	229835X	Leather Natural - XL	Natural Colour. Grain Leather Palm and Forefinger.
Y	11/10			Split Leather Back.
	113			Spirit Leather back. Sizes Med, Large and X Large.
				Sizes Med, Large and X Large. Wing Thumb, Shirred Wrist.
				Carton Quantity - 120
				Carton Quantity - 120



Nitrile, Latex and PVC Gloves

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
FLEXIFIT FOAM NITRILE BLACK/ GREY GLOVE	PECHANICAI HAZAPOS EN IBB 4121	765134 765135 765136 765137 765265 765266 765267 765268	Grey - Sml Grey - Med Grey - Lge Grey - XL Black - Sml Black - Med Black - Lge Black - XL	Flexifit Gloves offer excellent abrasion resistance, ultra lightweight with superior secure grip in dry, wet and oily conditions. CE compliant EN 388-03 (Protection Against Mechanical Hazards). Oil Resistant Foam Nitrile palm coating on a stretch seamless low lint nylon liner. Black or grey foam nitrile coating. Close comfortable fit. Low lint nylon liner. Elasticised knit wrist. Machine washable. Carton Quantity - 120
LATEX PALM DIPPED "GLASS GRIPPER"	HEIGHANICAL HEIGHANICA HEIGHANICA BANSE 4241	220216	Knit Wrist - Premium	CE Standards Compliant EN 388 (Protection Against Mechanical Risks). Excellent durability and grip. Soft jersey lining. Flexible, high abrasion resistance. Knitted cuff. Natural latex coated. Carton Quantity - 120
HEAVY NITRILE PALM COATED OPEN/KNIT CUFF	PECHANICAL HAZANDS IN 1980	227003M 227003L 227003X 227004S 227004M 227004L 227004X	Open Cuff - Med Open Cuff - Lge Open Cuff - XL Knit Cuff - Sml Knit Cuff - Med Knit Cuff - Lge Knit Cuff - XL	CE compliant EN 388-03 (Protection Against Mechanical Hazards). Nitrile palm coated. Knit Wrist or Open Cuff. Soft jersey liner. Excellent grip and dexterity. Comfortable ergonomic fit and good flexibility. Carton Quantity - 120
LIGHT NITRILE PALM COATED GLOVE	MICHANICAL HAZARDS FI 888 31111	227002S 227002M 227002L 227002X	Knit Wrist - Sml Knit Wrist - Med Knit Wrist - Lge Knit Wrist - XL	CE compliant EN 388-03 (Protection Against Mechanical Hazards). Good grip and abrasion resistance. Comfort jersey lining. 27cm overall length. Multi-purpose, hard wearing. Knit wrist. Carton Quantity - 120
NITROSOLVE FLOCKLINED CHEMICAL GLOVE	PECHANICAL PROTECTION	226836S 226836M 226836L 226836X 226836XX	Flocklined Chemical Glove - S Flocklined Chemical Glove - M Flocklined Chemical Glove - L Flocklined Chemical Glove - XL Flocklined Chemical Glove - 2XL	 Unsupported highly flexible. Latex free flock lined. Enhanced dexterity, stretch and durability. 33cm overall length x 0.40mm thickness. Carton Quantity - 120

PVC Gloves

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
FULLY COATED PVC SINGLE DIPPED GLOVES	MECHANICAL MAZARDS BN 398 41221	221741 220615	Open Cuff - 27 cm - Red Open Cuff - 45 cm - Red	 CE compliant EN 388-03 (Protection Against Mechanical Hazards). EN 374-03 (General Chemical Protection). Abrasion resistance. Wet and Dry grip. 27cm or 45cm overall length. Cotton lining. Flexible, Durable. Size - Large. Carton Quantity (27 cm) - 120 Carton Quantity (45cm) - 60
GREEN DOUBLE DIPPED PVC GLOVE	PECHANICAL HAZARDS EN 388 POTECTION EN 374 : 6662	762515 762514	Green Double Dipped PVC Glove - 27 cm Green Double Dipped PVC Glove - 45 cm	CE compliant EN 388-03 (Protection Against Mechanical Hazards). CE compliant EN 374-03 (General Chemical Protection). Interlock Lining. Fully Coated. Carton Quantity (27 cm) - 120 Carton Quantity (45cm) - 60
METALGARD GLOVE	MIGHANICAL CENERAL CHENICAL HAZARDS PROTECTION EN 388 B1 374: 6662 4121 Class 312	220875 220876 767461 220879 220880 767460 220881 220882 767459	Hand Size - 8.5 (Lge) - 27cm Hand Size - 9.5 (XL) - 27cm Hand Size - 10.5 (2XL) - 27cm Hand Size - 8.5 (Lge) - 35 cm Hand Size - 9.5 (XL) - 35cm Hand Size - 10.5 (2XL) - 35cm Hand Size - 10.5 (2XL) - 45cm Hand Size - 9.5 (XL) - 45cm Hand Size - 10.5 (2XL) - 45cm	Ideal for the heavy manufacturing industry to handle metal plates and castings. Manufactured using MSA's exclusive high density resin/plasticiser ration formulation for extra durability and abrasion resistance. Green in colour, fully coated. Available in a choice of sizes and lengths. EN 388 (4221) - Protection against Mechanical Hazards. CE Compliant - EN 374 (Class 312) General chemical protection. Carton Quantity - 60
SOLVGARD GLOVE	MIGNANICAL HAZARDS PROTECTION EN 388 EN 374: 5662 4121 Class 212	224248 224249 767452 224252 224253 767453 224336 224337 767458	Hand Size - 8.5 (Lge) - 27cm Hand Size - 9.5 (XL) - 27cm Hand Size - 10.5 (2XL) - 27cm Hand Size - 8.5 (Lge) - 35 cm Hand Size - 9.5 (XL) - 35cm Hand Size - 10.5 (2XL) - 35cm Hand Size - 8.5 (Lge) - 45 cm Hand Size - 9.5 (XL) - 45cm Hand Size - 10.5 (2XL) - 45cm	Provides protection against most chemicals, petroleum and paint solvents. The unique formulation maximises resistance against degradation or glove hardening to improve comfort and dexterity. Ideal for use in the automotive industry, oil refining and paint manufacturing. Durable and can be laundered. Blue in colour, fully coated, cotton liner. Available in a variety of lengths and sizes. Carton Quantity - 60



Welding Gloves

		PART NO.	DESCRIPTION	PRODUCT SPECIFICATIONS
FLASHMASTER	0.9	227765L	Flashmaster TIGmate - Lge	Premium Grade Goat Select Grain.
TIGMATE	All 6 00-			• Full Dexterity.
				• Kevlar Sewn.
				• 32cm Overall Length.
				• EN 388 (2111) Protection against Mechanical
				Hazards.
	MECHANICAL HAZARES EN 388 2111			Carton Quantity - 60
BLUE WELDING	an e.	228370	Reinforced Palm	Kevlar Stitching.
GAUNTLET	3			Reinforced Double Palm and Thumb.
				• Full Lining.
				Generous Hand Size.
				Quality Split Cow Leather.
				Comfort with Heavy Duty Palm Protection.
				• 40cm Overall Length.
				Carton Quantity - 40
PREMIUM QUALITY WELDING	180a AA.	224518	Welding Gauntlet - Lge	Select Quality Split Leather.
GAUNTLET				Reinforced Palm and Thumb.
				• Full Lining.
				Generous Hand Size.
	Marie W.			• 40cm overall length.
	12			Carton Quantity - 60

MSA Wasp Killer

Wasp Killer



- Easy to use trigger release.
- Operates with a powerful 4 meter jet which ensures the operator is positioned at a safe distance from disturbed insects.
- Ideal for Electrical workers, builders, gardeners and arborists.

MSA Wasp Killer is registered by the Australian Pesticides and Veterinary Medicines Authority. Registered No. - 53310. Approval No. of label - 53310/1200

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