Respirators

Head Protection

Eye Protection

Hearing Protection

Portable Instrument

Detector Tube & Pump

Protective Clothing

Fall Protection

Permanent Instrument

MSA Safety Equipment Catalog

Malaysia Volume 2

MSA

The Safety Company

We are MSA

MSA Corporate Headquarters, Pittsburgh, USA

MSA The Safety Company...

The MSA story began almost 91 years ago when a young rescue engineer, John Thomas Ryan, haunted with the memory of dozens of mine disaster, shared his concern with another Bureau of Mines engineer George Herman Deike, who also wanted to fight the tragedies underground. On June 14, 1914, Ryan and Deike watched a small sign go up the doorway in a downtown Pittsburgh office building, it read "Mine Safety Appliances Company". From that one-room office and basement store, the partners began their crusade for safety.

Fast forward to 2007, MSA is now a global leader in the development, manufacture and supply of sophisticated products that protect peoples' health and safety. MSAs' comprehensive line of products is used by workers around the world in the fire services, mining, homeland security, construction, oil and gas, chemical and other industries, as well as the military.

In order to support the rapid growth in Malaysia and to transfer our safety knowledge, MSA Malaysia was officially incorporated in Malaysia on the 2nd of October 2003, by opening an office in Kuala Lumpur.

MSA Malaysias' key role is to provide sales, technical, training and stock holding support for the rapid growing customer base. To reach out to all our customers we embarked on a multi-channel distribution network (Business Partners) so that our products and services can be delivered at the customers' door-step.

We hope to be at your service in the near future!

MSA

The Safety Company

Content Product Range

Respiratory **Protection**

Air Purifying Respirator

High Performance Gear for Today's Industrial Athlete

ADVANTAGE®
Respirator Facepiece **200LS**

MSA Advantage® 200 LS Respirators

The advantage 200 LS Respirator's Lighter and Softer facepiece is made from a clear blue formulation of thermoplastic rubber to give workers more comfort and stability than ever.

Extensive anthropometrics research led to the Advantage Respirator's unique design. MSA's engineers examined facial form data of over 8,000 people and, with CAD technology, developed the AnthroCurve Sealing Surface, which instantly conforms to each wearer's unique facial characteristic.

Ⓐ >>Anthro Curve™ Sealing Surface
Equalizes pressure in the sealing area and eliminates pressure points, resulting in a better fit and superior comfort.

Ⓑ >>MultiFlex® System
This allows the facepiece to maintain it's flex without sacrificing stability.

Ⓒ >>Molded Plastic Yoke
Yoke is formed to the contour of the face piece, tendency to spread the facepiece is eliminated.

Ⓓ >>Teardrop Shape and Small Size Cartridges
Move the center of gravity and to reduce facepiece movement during use.

NIOSH 42CFR. Part 84, JKKP MR 164/05

Ordering Information	
815696	Advantage 200 LS, small
815692	Advantage 200 LS, medium
815700	Advantage 200 LS, large
Leaflet	1012-10MC

A wide selection of cartridges provide the protection you need.

MSA

Advantage® 3000 Respirators

The advantage 3000 Full-Face Respirator incorporates MSA's global engineering expertise and is designed to meet NIOSH and EN standards. The respirator features a wraparound lens combined with a soft, pliable silicone facepiece that provides a total solution to your air-purifying respirator needs.

Its fit technology is based on the proven faceseal of the Ultra Elite Facepiece, which was based on facial measurements from more than 8,000 people. For the utmost in convenience, the Advantage 3000 uses the same cartridges and filters as the Advantage 200 LS Respirator.

A New patented Advantage® head harness make fitting quicker and simpler, without any painful hair pulling.

B Full vision, distortion free and scratch resistant coating polycarbonate lens.

C Soft silicone facepiece provides comfort and ease of clearing.

D Standard nosecup that reduces fogging in low temperature or high humidity condition.

Fast & easy donning with pre-adjustable head harness.

1 Put your chin into the chin stop.

2 Pull the straps over your head.

3 Tighten the straps.

Spectacle Kits

NIOSH 42CFR. Part 84, ANSI 87.1 JKKP MR 194/05

Ordering Information

10028996	Advantage 3211, twin port, small
10028995	Advantage 3221, twin port, medium
10028997	Advantage 3231, twin port, large
10028998	Advantage 3121, single port, medium
10037282	Spectacle kits
Leaflet	1012-10MC

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Respiratory **Protection**

Advantage® Respirator Cartridge

Advantage® Filter

The Advantage filter line is a full line of particulate, chemical and combination cartridges approved according to NIOSH (42 CFR, Part 84). Providing the best in light weight and performance. Cartridges fit both 200l half mask and 3000full face Advantage respirators.

NIOSH 42 CFR. Part 84

Ordering Information	
815364	GMC P100 [OV, AG, P100]
815359	GME [Multigas]
815366	GME P100 [Multigas, P100]
815361	MER Sorb [Mercury Vapor]
815369	Low Profile P100 [Particulate Filter]

Please contact us for the Advantage® Respirator Cartridge chart

EN 143

Ordering Information	
818344	Flexi-Filter P100 w/ Nuisance Level, AG, HF Removal

FLEXI-Filter® P100 w/Nuisance Level AG, HF Removal

These low profiles, 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.

TabTec® Filter

The environmentally-friendly TabTec filter technology allows the production of filters with a minimum housing content while maintaining the high filtering performance. For use with Advantage full face and half masks.

EN 141

Ordering Information	
10038476	A2B2E1K1 TabTec® gas filter [1 pair], EN 141

R95 Prefilter and Cover

NIOSH approved for respiratory protection against particulate under 42 CFR 84. Approved as an R95-particulate filter (95% efficiency level) effective against oil or non-oil containing particulate aerosols.

42 CFR 84

Ordering Information	
815397	R95 Prefilter [box of 20]
815401	Reusable Snap-on cover [2 in a package]

Advantage Filter (Sold Separately)

R95 Prefilter

Reusable Snap-on cover

Combined Filter

For protection against organic, respectively inorganic gases and vapors, according to the protection range, as well as against solid and liquid particles. Single and multiple range filters [ABEK/St]. Also a filter for protection against radioactive iodine and its organic compounds, especially methyl iodide. In addition, special filters for carbon monoxide, low-boiling compounds, nitrous gases, mercury, etc.

EN 141

Ordering Information	
D1070000	Combined Filter 89 AB/ST [A2, B2-P3]
D1070705	Combined Filter 89ABEK-Hg/ St
Leaflet	05-100.2GB

Respiratory **Protection**

Disposable Respirator

Affinity Disposable Respirators
- Superior fit, comfort and performance
- Collapse resistant design
- 2 sizes for increased comfort and protection

Affinity Plus P2
Provides protection against mechanically and thermally generated dusts/ mists, fumes and aerosols as in crushing, blasting, grinding, welding, soldering and refining processes

JKKP DR 138/5, AS/NZS 176

Ordering Information	
762602S	Small [box of 20/ case of 12 boxes]
762612ML	Med/ Large [box of 20/ case of 12 boxes]

Affinity Plus P2V
Valved version for easier breathing.

JKKP DR 139/05, AS/ NZS 1716: 2003

Ordering Information	
762602SV	Small [box of 10/ case of 12 boxes]
762612MLV	Med/ Large with valve [box of 10/ case of 12 boxes]

Affinity Plus P2
For nuisance *odor removal with valve. For nuisance levels of organic vapors including those encountered in welding, agriculture and automotive industries.

JKKP DR 140/ 05, AS/ NZS 1716: 2003

Ordering Information	
763196MLV	Med/ Large [box of 20/ case of 12 boxes]

Affinity Plus P2
For nuisance* acid gas removal with valve. For nuisance levels of acid gases including hydrogen fluoride, sulphur dioxide and chlorine, Industries include smelting, petrochemical and paper mills.

JKKP DR 143/ 05, AS/ NZS 1716: 2003

Ordering Information	
763197MLV	Med/ Large [box of 20/ case of 12 boxes]

Tornado Disposable Respirators
- Extremely comfortable, flat-fold respirator.
- Excellent filtration with minimal breathing resistance.
- One size fits all, packages individually in hygienically sealed pack.

Tornado P2
Provides protection against mechanically and thermally generated dusts/ mists, fumes and aerosols as in crushing, blasting, grinding, welding, soldering and refining process.

JKKP DR 144/05, AS/ NZS 1716

Ordering Information	
227813	[box of 20/ case of 12 boxes]

Tornado P2V
Valved version for easier breathing.

JKKP DR 145/05, AS/ NZS 1716

Ordering Information	
227814	Valved respirator [box of 20/ case of 12 boxes]

* Nuisance levels are below Worksafe exposure standards.

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Escape Respiratory **Protection**

Filtering Escape Respirators
Get Back to Safety

Mini Scape

miniSCAPE

Using the latest filtering media TabTec technology, the miniSCAPE is a onetime use escape device with 5 minutes service time. It is equipped with mouthpiece and nose clip. Small and handy, the miniSCAPE fits into the pocket of a lab overall or any work clothing. It can also be belt carried with the very practical integrated belt clip.

In case of emergency, it can be donned very quickly and is immediately operational. In case of sudden and unexpected outbreaks of toxic gases or vapors at the workplace, personnel can quickly and safely leave the danger area with the miniSCAPE.

The hygienic and convenient plastic casing allows frequent distribution to different persons, for example, mechanics, visitors or shift workers.

ABEK-5 DIN 58647-7   Duration: 5 minutes

Ordering Information	
10038560	miniSCAPE in plastic housing
Leaflet	10-312.2GB

S-Cap

S-CAP

S-CAP is an escape hood especially designed to protect persons endangered by smoke and gases generated by fires. The most dangerous of them is carbon monoxide.

S-CAP provides an effective protection for eyes, head and especially the respiratory tract, and thus rescue can be effected with little risk. Even for those who wear spectacles, the donning of the device is very easy and fast.

EN403 : 2004   Duration : 15 minutes

Ordering Information	
10064644	S-Cap in cardboard box
10064645	S-Cap in luminescent wallbox
Leaflet	10.201.2 GB

Compressed Air Escape Devices

S-Cap-Air

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. It is very easy to operate – simply open the unit, put on the hood and make your escape.

EN 1146   Duration : 15 minutes

Ordering Information	
10017668	S-Cap-Air
Leaflet	10-214.2 GB

Powered Air Purifying Respirators

OPTIMAIR 3000

The OptimAir 3000 is the next generation PAPR to protect against hazardous particles, gases and vapors. Driven by a powerful low profile blower, OptimAir 3000 is the most advanced High-Tec system using an exclusive stackable filter system. Easy to use [one-button operation] and ergonomic.

EN 12941, EN12942, BVS 07 ATEX E 38
II 2G Ex ib IIB T4
II 2D Ex ibD 21 T130c

[Headtops]

OptimAir Mask [with hose]	OptiVizor	OptiHood Demi	OptiTop [with hose]	OptiHood Full
10051810	10049638	10051805	10051807	10051806

[Hoses]

Mask Hose
10049630

OptiTop Hose [spare]
10053377

Hood & Vizor Hose [standard]
10049631

Hood & Vizor hose [XL]
for user taller than 1.85m
10082281

[PAPRs]

OptimAir 3000 [complete unit]
130 l airflow, NiMH battery, standard charger, comfort belt, flow checker
10049557

OptimAir 3000 EX [complete unit]
ATEX, 130 l/min airflow, comfort belt, EX charger, NiMH EX Battery
10049559

OptimAir 3000 A [complete unit]
160 l airflow, OptimAir Mask w/ hose, standard charger, Decon belt and Flow checker, 10 pack particle filter, NiMH Battery
10049558

[Belts]

OptiBelt Comfort
10049623

OptiBelt Decon
D6181976

[NiMH Batteries]

OptiBat
10049560

OptiBat EX
10049622

Optibatt E
10049621

[Battery Chargers]

OptiCharge
10049627

OptiCharge EX
10049629

OptiCharge Delta
10049628

[Filters]

Particle Filter [pack of 10]
10049632

A1B1E1K1 Filter [pack of 10]
10049635

Self-Contained **Breathing Apparatus**

AirMaXX®

The AirMaXX® is the premium breathing apparatus. The carrying plate is adjustable to three different lengths. The hip belt features elastic fixation which provides easily-adjustable straps for ideal weight distribution. A cylinder support for one or two compressed air cylinders features a retaining strap with an easy-to-adjust tightener.

The innovative alpha "Singleline"[SL] pneumatic system is offered optionally for AirMaXX®. Alpha SL features a redesigned pressure reducer and the patented hose-in-hose technology.

AirMaXX® SL

Hose in hose technology

Ultra Elite PS

AutoMaXX® -AS

SL Pressure Reducer

EN 137, EN 136, PED 97/23/EG

Ordering Information

10060803	AirMaxx SL
10043133	AutoMaxx AS Short LDV
10031385	Ultra Elite PS-Maxx
D5103979	6.8L / 300 Bar, composite cylinder
D4075878	Nomax Cylinder Cover 156, Yellow
10045764	Respihood
10076096	alphaClick UPGRADE SET

Composite cylinder

Composite Cylinders

For compressed air breathing apparatus, cylinder valve in accordance with EN 144, with cylindrical thread. You can order MSAs' cylinder empty or charged.

Ordering Information

D5103979	6.8 l/300 bar composite
10055170	6.9 l/ 300 bar composite, with lockable valve
Leaflet	01-110.2GB

Rescue Sets

The rescue sets and the RespiHood are designed for rescuing people from hazardous areas

Respihood

Self-Contained Breathing Apparatus & Accessories

AirGo compact

Rule #1: expect the unexpected. The AirGo compact SCBA preset is specifically designed for emergency response and escape. On ships or industrial facilities where such units are mandatory, the AirGo compact is an obvious choice. The lung governed demand valve AutoMaXX-AS is fixed to the medium pressure line. The no-frills system keeps costs at a minimum without sacrificing safety.

The vital pneumatic and carrier components are the same as those used in the highend MSA presets, making AirGo compact a fully-fledged device for the toughest applications including firefighting.

EN 137: 2006, class 2
ATEX ⟨Ex⟩ II 1 G c IIC T6 [pending]

Ordering Information	
10086572	Preset: AirGo compact
D4080801	Wall box type A with one cylinder
	[ready to use system suspends SCBA]
Leaflet	01-102.2 & 01-167.2

MicroMaXX®

The short-duration breathing apparatus MicroMaxx® is amazingly flexible, light and thus convenient for all sorts of activities associated with work and rescue. With 4.95kg [ready to use] MicroMaXX® is extremely light weight and does not burden the user at all. It is probably the lightest breathing apparatus available. MicroMaXX® has a multi-pass harness which permits three different carrying modes. Basically, two MicroMaxx® versions are available: normal and positives pressure types.
MicroMaXX® consists of a pressure reducer, a 3 litre composite cylinder [charged], the demand valve AutoMaXX®, a multi-pass harness with soft bag and a full face mask of your choice.
EN137

Ordering Information	
10056058	MicroMaxx® with Advantage Mask
Leaflet	01-112.8 GB

FIREFLY II and FIREFLY II S

Warning and signal device, easily affixed to shoulder strap or hip belt. If the person using FIREFLY II is motionless for 20 seconds, an alarm [a constantly repeating signal of 95 dB] sounds. This helps to locate the injured person. The alarm can be activated manually. Water-tight and explosion proof to IP 67 and EX II 1G EEx ia IIC T4.
The FIREFLY II S has a key which, if pulled out, activates the device.

ATEX II 1G EEx ia IIC T4

Ordering Information	
D6002715	FIREFLY II
D6002720	FIREFLY II S
Leaflet	01-315.2 GB

Hip carrying mode

Carrying mode between knees
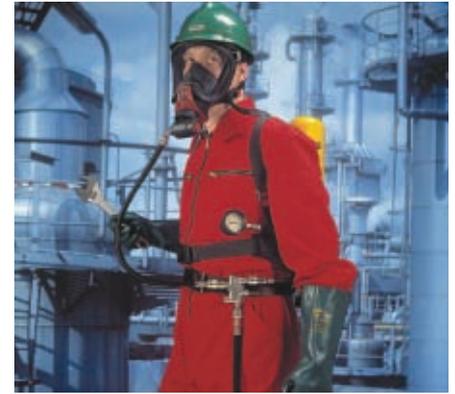
Backpack carrying mode

Airline **Respirator**

Compressed Airline Breathing Apparatus
[The Independence in Breathing]

MSA compressed airline breathing apparatus, according to EN 139, function independently of the ambient atmosphere. They can be used in all places where the ambient air is not breathable because of contaminants or oxygen deficiency and where filtering devices do not provide suficient protection. Compressed air is supplied from an external source [e.g. factory airline], from a compressed air cylinder or from a compressor.

[Sources/ SCBA]

Factory Airline

Diaphragm Compressor

D4066843 V-Meko 400 360 l/min

Cylinder

Breathing Apparatus

Filtering Unit

D4066851 Compressed air filtering unit [without coupling]
10041367 Kit of airline couplings

Contaminated Air

Air Filter

D3043986 Filter Housing
D3043994 Filter Connectors
D3043987 Airline filter cartridge CO
D3043989 Airline filter cartridge AB/St
D3043993 Airline filter cartridge A
D4066804 Y-Piece

Presure Reducer

D4066830 Pressure reducer

Clean Air

Emergency Air System

D4066700 Automatic switch valve

D4066845

[Hoses & Connector]

Supply Hose

D4066847 Air supply hose, 5 m
D4066848 Air supply hose, 10 m
D4066849 Air supply hose, 20 m

Connector

D4066803 Connecting piece
D3043918 Leather waist belt

[Demand Valves]

AutoMaXX-AS
10043133

[Face Pieces]

Ultra Elite PS
10031385

Sandblast Cap Light
D3050720

Head Protection for firefighter

[Real Protection Systems]

F1 SF Helmet MSA Gallet

Based on the original F1 helmet, MSA GALLET has designed with the F1 SF a new helmet especially for Structural Firefighting [SF] for firefighter worldwide. The F1 SF features integrated lamp supports on both sides. Its mask adapter "KITFIX" can be positioned in several points for more adaptability and better ergonomics while wearing the mask. What's more, the F1 SF is designed with a ratchet cradle [quick adjustment on the head] and a new chinstrap for more comfort and more wearing positions.

EN 443

For details, please see	
Leaflet	36-106.2 GB

ACTIVE XTREM

F2 Helmet MSA Gallet

Light, comfortable, multipurpose helmet. The F2 provides good shock absorption, effective ventilation and easily adjustable suspension to ensure a perfect fit. The helmets are available in yellow, blue, grey, green, photo-luminescent, orange, red, black & white. Retro-reflective labels are also available in black, blue, green, grey, red & yellow. Helmet types with goggles are provided with fully ventilated anti-fog goggles with tinted lens.

Accessories: goggles with transparent lens, Lamp XP and a range of communication systems. The helmets are CE marked and IUAA [International Union of Alpine Associations] approved.

EN 12492

For details, please see	
Leaflet	36-104.2GB

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Head **Protection**

Head Protection for Industrial Applications
[The Safety Helmet of Choice]

V-Gard® Protective Caps and Hats

V-Gard Protective Caps and Hats from MSA consist of a polyethylene shell and suspension system working together as a protection system. V-Gard headwear features advanced styling in either cap or hat styles.

V-Gard® Protective Cap

V-Gard® Protective Hat

Fas-Trac Suspension

Staz-On Suspension

ANSI Z89.1-2003, Class E, CSA 294.1-2005

Ordering Information

475358	V-Gard Cap, white, Fas-Trac
463942	V-Gard Cap, white, Staz-On
475369	V-Gard Hat, white, Fas-Trac
454733	V-Gard Hat, white, Staz-On
454730	V-Gard Hat, yellow, Staz-On
463944	V-Gard Cap , yellow, Staz-On
475360	V-Gard Cap, yellow, Fas-Trac
475366	V-Gard Hat, yellow, Fas-Trac
454732	V-Gard Hat, blue, Staz-On
463943	V-Gard Cap, blue, Staz-On
475359	V-Gard Cap, blue, Fas-Trac
475368	V-Gard Hat, blue, Fas-Trac
463945	V-Gard Cap, orange, Staz-On
475361	V-Gard Cap, orange, Fas-Trac
463497	V-Gard Cap, red, Staz-On

Ordering Information

475363	V-Gard Cap, red, Fas-Trac
475371	V-Gard Hat, red w/ Fas-Trac suspension
454160	Staz-On suspension, unpacked
473329	Fas-Trac suspension, unpacked

MSA China V-Gard Cap

Ordering Information

9111110	MSA China V-Gard Cap, white, Fas-Trac
9112110	MSA China V-Gard Cap, yellow, Fas-Trac
9113110	MSA China V-Gard Cap, orange, Fas-Trac
9114110	MSA China V-Gard Cap, red, Fas-Trac
9115110	MSA China V-Gard Cap, blue, Fas-Trac
9111310	MSA China V-Gard Cap, white, Staz-On
9112310	MSA China V-Gard Cap, yellow, Staz-On

Logo Service

MSA provides a high quality, colour logo printing service. Logos can be printed on the front, side or rear of helmets ensuing conspicuous visibility.

Ordering Information

A minimum quantity is required for initial and repeat orders.
Please contact us for more information.

MSA Bump-Gard

Baseball cap with moulded inner shell & foam crown pad. Protects from superficial injuries caused by bumping head against stationery objects.

Ordering Information

763254BU	Bump-Gard Baseball cap

MSA

Accessories for V-Gard Caps & Hats
[Integrated Protection]

10021614

Defender® + Faceshield Frame for Slotted Caps
Features of the Defender + Frame include:
- Front-drip-edge splash protection.
- Unlimited number of lift stop positions.
- Long-lasting O-ring pivot-joint design.
- Snap-in ear muff option.
- Easy in, easy out visor replacement.
- Optional cap lockdown clip
  (V-Gard and Topgard cap models only).

ANSI Z87.1-2003

10016742

Ordering Information	
10021614	Defender + Faceshield Frame for V-Gard Caps with lockdown clips
10016742	Defender, Universal Faceshield
488131	Polycarbonate visor, clear (0.06")
488132	Polycarbonate visor, clear (0.04")

Adapter Kit for Welding Shields
Kits permit the easy attachment of welding shields to MSAs' helmet.

Ordering Information	
695946	Welding shield, non coated black, full curved, lift front.
488525	Standard adapter for welding helmet

Helmet-Mounted Ear Muff
Designed to fit comfortably under safety helmet and faceshields, it features easy to remove ear cushions for quick cleaning and replacement.
EN352-3

Ordering Information	
10087439	left/RIGHT, Low, White, helmet mounted, NRR23
10087429	left/RIGHT, Medium, Blue, helmet mounted, NRR26
10087422	left/RIGHT, High, Yellow, helmet mounted, NRR28

Goggle Retainer
MSAs' Goggles Retainers are designed for applications where goggles must be worn with helmets.

Ordering Information	
459458	Goggle retainer

Helmet Lights and Slot Adapter
MSA offers helmet lights that fit onto our special cap or hat adapters. All of the lights are FM and CSA-Approved for intrinsic safety and are non-incendive.

Ordering Information	
697261	Stealthlite Helmet light [batteries not included]
814322	Light Holder for Stealthlite

Ordering Information	
88128	Chinstrap, elastic [attaches to the shell]
910001	MSA China, chinstraps.

Chinstrap (attaches to helmet)

Eye **Protection**

[Sight and Safety in Perspective]

Arctic
JKKP EW230/05
- Lightweight
- Unobstructed vision

| Clear 229208C | Clear Anti-Fog 229208CF | Smoke 227634S | Blue Mirror 227634B |

Nullarbor
JKKP EW233/05
- Stylish wraparound
- Wide vision
- Side impact protection
- Medium velocity impact protection

| Clear 229207C | Smoke 229207S | Blue Mirror 229207BB | Rainbow Frame Smoke Lens 229207BS |

Arctic Gold
JKKP EW231/05
- Soft feel arms
- Soft carry pouch doubles as cleaning cloth
- Medium velocity impact protection

| Gold Mirror 762267BG | Lite Gold 762267BL | Clear Anti-Fog 762267BCF |

Discovery
JKKP EW234/05
- Wraparound
- Adjustable length side arms
- Medium velocity impact protection

| Smoke 220175BS | Clear Anti-fog 220175BCF | Lite-gold 220175BL |

Cool Blooz
JKKP 236/05
- Super soft comfort frame
- Now with polarized lens version

| Lite Gold 220168L | Blue Mirror 220168B | Clear Anti-Fog 220168CF | Smoke 2201685 |

Platinum
AS/NZS 1337Lic 2144
- High quality nickel silver frame
- Stainless steel sidearms tipped in natural rubber
- Industrial wide-vision with non-removable sideshields
- Ideal for use with prescription lenses

| Clear w/shields 229305 |

Eye **Protection**

[Sight and Safety in Perspective]

SuperVue — JKKP 237/05
- Wraparound style with rolled edge
- Optimum visibility, comfort & protection
- Side vents provide superior ventilation
- Internal space allows prescriptive glasses to be worn underneath

Smoke
225229

Clear
225228

FlexiPlus Protective Goggles — JKKP 225/05
- One piece polycarbonate, scratch resistant lens
- Protects against chemical splash & UV rays
- Foam bound models available for added comfort and seal
- Non-vented models available for chemical splash hazard

Foam bound
Clear Anti-fog
229206CF

FlexiTuff — JKKP 229/05
- Soft flexible PVC frame
- Ideal for chipping & grinding
- Can be worn over prescriptive glasses

Anti-fog/ chemical
224759

FlexiFold Goggles — JKKP 226/05
- Flexible, face hugging goggles with adjustable strap
- Scratch resistant anti-fog polycarbonate
- Dust/ waterproof sponge cupping
- Open/ close side ventilation
- Ideal smoke protective goggle for bushfire fighting

Smoke
228028SM

Clear
228028CL

FlexiWeld Goggles — JKKP 227/05
- Shade 5 for gas welding
- Shade 3 for welder's assistants
- Ideal for wearing over prescriptive glasses
- Side mounted air vents

Shade 5
229406

Clear & Clean Mini Towels
- Pre-moistured mini towels
- Useful for cleaning eyewear, faceshields, earmuff, respirators and computer screens.

Ordering Information

762485	Box of 100

Hearing **Protection**

left/RIGHT™ because we are all different

Now, there's no reason to remove your ear muffs on the job due to discomfort. Obviously hearing protection must be worn to be effective, an idea addressed through our comfortable new design. Now you can fit the RIGHT muff to the RIGHT job. left/RIGHT Ear Muffs come in three noise reduction models: LOW, MEDIUM, and HIGH. Don't risk damaging your hearing, yet don't miss important sounds and communications due to over-protection.

Now you can choose your hearing protection based upon the noise environment, with three choices of protection level for whatever your application, from heavy manufacturing to light construction; from cutting wood to cutting lawns. You can also choose to help pass the time by listening to our AM/FM radio ear muff while you work!

If that's not enough, MSA's new left/RIGHT Ear Muffs are also available in a capmounted style, for comfortable hearing protection when the job calls for a protective helmet.

left/RIGHT™

The new left/RIGHT ear muffs are different from all existing hearing protectors.Individual muffs for the left and right ear compensate the asymmetric position of the ears on the head. The new 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.

The left/RIGHT is suitable for all kinds of work environments - from heavy manufacturing to clean food processing, from construction sites to lawn mowing.

Available in three colors - yellow, blue and white.

Low	Medium	High

left/RIGHT helmet mounted

EN352-1. EN 352-6, ANSI S3.19-1974

Ordering Information left/RIGHT	
10087439	left/RIGHT, Low, White, helmet mounted, NRR23
10087436	left/RIGHT, Low, White, headband, NRR23
10087429	left/RIGHT, Medium, Blue, helmet mounted, NRR24
10087426	left/RIGHT, Medium, Blue, headband, NRR24
10087422	left/RIGHT, High, Yellow, helmet mounted, NRR28
10087426	left/RIGHT, High, Yellow, headband, NRR28

Hearing **Protection**

Hush Muff Earmuff
- Lightweight & very durable
- Unique in-built sound absorption chamber
- Urethane foam seals add to comfort & fit
- Rated SLC80 22dB Class 4

AS/ NZS 1270 Lic 0783, JKKP EP172/05

Ordering Information	
221412	Hush Muff Earmuff

Chief Earmuff
- Economically priced
- Comfortable soft foam ear cushions
- Universal fitting headband
- Rated 32dB

AS/ NZS 1270 Lic 0783, JKKP EP173/05

Ordering Information	
228000A	Chief Earmuff

Hilo Earplugs
Hilo Round Earplug
- Extra length & easy roll down
- Breathable urethane composition
- Non-irritant
- Easy to insert & remove
- Rated 27dB Class 5

AS/ NZS 1270 Lic 0783, JKKP EP105/05

Ordering Information	
762734B	Box of 200 pairs

FormFit™ Disposable Foam Ear Plugs
- Easy to use and affordable
- Offers very aggressive noise reduction
- Comfortable to wear
- Available in corded and uncorded version
- NRR 31dB

ANSI S3.19-1974, EN 352, CSA Class A

Ordering Information	
100051348	Box of 200 individual packaged pairs [non-corded]
100051347	Box of 200 individual packaged pairs [corded]

Tri-Seal™ Reusable Silicone Ear Plugs
- Ruggedly Designed
- Made of soft, comfortable silicone
- Economical and easy to insert into the ear
- Comparable protection to many MSA earmuffs
- NRR-25dB

ANSI S3.19-1974, EN 352, CSA Class A

Ordering Information	
10005606	Box of 100 individual packaged pairs [non-corded]
10005607	Box of 100 individual packaged pairs [corded]
10002831	1 pair [corded] in plastic case with chain

MSA

Portable **Instrument**

[Personal Monitoring in Pocket-Size]

Altair™ Single-Gas Detector

The Altair Single-Gas Detector features sensor options for carbon monoxide, hydrogen sulfide and oxygen and will operate for over two years maintenance free. This long lifespan, coupled with the unit's high performance, results in one of the most cost-effective single-gas detectors on the market. Advanced design offers superior dust and water protection and high resistance to RFI. Rubberized housing and one-button operation provide the durability and ease of users expect from MSA instruments.

Alarm System

The triple-alarm system featuring two bright flashing LEDs, a piercing audible alarm, and a vibrating alarm ensures that no alarm condition goes unnoticed.

*   95dB 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

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

Warranty

Two years or 18 hours of alarm (1080 minutes)

Class 1, Division 1, Groups A, B, C and D
ATEX II 2G EEx ia IIC T4 -20°C to +50°C
Ex ia IIC T4 -20°C to +50°C

Ordering Information

Instrument Type	P/N	1st Alarm	2nd Alarm
Carbon Monoxide (CO)	10070750	25ppm	100ppm
Hydrogen Sulfide (H2S)	10070749	10ppm	15ppm
Oxygen (O2)	10070791	19.5%Vol	23% Vol

Altair™ Pro Single-Gas Detector

The Altair Pro Single-Gas Detector measures and displays concentrations of CO, H2S or O2 (depending on version). This accurate, rugged and reliable detector can be used for gas monitoring or to alert the wearer of hazardous situations. The Altair Pro Single-Gas detector use replaceable sensors and commercially available batteries, and feature a large display with backlight. The standard datalogging records the 50 most recent events.

Class 1, Division 1, Groups A, B, C and D
ATEX II 2G EEx ia IIC T4 -20°C to +50°C
Ex ia IIC IIC T4 -20°C to +50°C

Ordering Information

Instrument Type	P/N	Low Alarm	High Alarm	STEL	TWA
Oxygen (O2)	10074137	19.50%	23.00%	N/A	N/A
Carbon Monoxide (CO)	10074135	25ppm	100ppm	100ppm	25ppm
Carbon Monoxide (CO) Fire	10076723	25ppm	100ppm	100ppm	25ppm
Carbon Monoxide (CO) Steel	10076724	75ppm	200ppm	200ppm	75ppm
Hydrogen Sulfide (H2S)	10074136	10ppm	15ppm	15ppm	10ppm
Hydrogen Cyanide (HCN)	10076729	4.7ppm	10ppm	10ppm	4.7ppm
Chlorine (CL2)	10076716	0.5ppm	1.0ppm	1.0ppm	0.5ppm
Chlorine Dioxide (CLO2)	10076717	0.1ppm	0.3ppm	0.3ppm	0.1ppm
Sulfur Dioxide (SO2)	10076736	2.0ppm	5.0ppm	5.0ppm	2.0ppm
Nitrogen Dioxide (NO2)	10076731	2.0ppm	5.0ppm	5.0ppm	2.0ppm
Ammonia (NH3)	10076730	25ppm	50ppm	35ppm	25ppm
Phosphine (PH3)	10076735	0.3ppm	1.0ppm	1.0ppm	0.3ppm
Oxygen Remote (O2-R)	10076733	19.50%	23.00%	N/A	N/A

Portable **Instrument**

[The toughest kid on the block]

ALTAIR® 4 **NEW!**

Class 1, Division 1, Groups A, B, C and D
ATEX II 2G EEx ia IIC T4 -20°C to +50°C
Ex ia IIC T4 -20°C to +50°C

MSA's new ALTAIR 4 Multigas Detector for LEL, CO, H2S, and O2 raises the standard for personal multigas detectors by offering a combination of features you won't find in competitive models.

The ALTAIR 4 Multigas Detector is the only portable gas detector with an optional MotionAlert™ feature if a user should become disabled due to unforeseen hazards. When enabled, the MotionAlert feature will activate if the instrument does not detect motion for 30 seconds, and is ideal for confined space entry applications. This unique gas detector function can be deactivated by the user. This unit's InstantAlert feature also allows users to manually alert others to a potentially hazardous situation. The ALTAIR 4 Multigas Detector is as tough and functional as it looks, offering distinctly ribbed rubber housing for secure grip and unsurpassed durability. A high-contrast display and three large, rubberized buttons enable easy operation in low-light conditions.

The rubber over-molded housing is easy to grip, provides unsurpassed durability, is rated IP67 against dust and water ingress, and passes a 10+ foot drop test. This unit is equipped with a 95+ dB audible alarm and ultra-bright alarm LEDs on both its top and bottom for maximum visibility. Vibrating alarm and data logging are standard features in this very competitively-priced unit. MSA's ALTAIR 4 Multigas Detector is Galaxy® Systemcompatible for calibration and record keeping; a QuickCheck™ Test Station for fast, easy bump testing is also available. Data logging is a standard feature; the ALTAIR 4 Multigas Detector is MSA Link™ Software-ready.

Features & Benefits
- MotionAlert feature plus audible, visual & vibrating alarms
- InstantAlert feature to sound a manual alarm
- Most rugged instrument available
- Large buttons for easy operation
- 16-hour battery run time when fully charged
- Tested to IP67
- Global approvals
- Economically priced
- MSA Link Software-ready

Approval & Standards
Europe: ATEX II 2 G EEx ia d IIC T4, Tamb= -20 to 50° C
UL, Class I, Div. 1, Groups A B, C, D, Class II, Div.1 Groups F & G. T4, Tamb= -20 to 50° C
CSA, Class I, Div. 1, Groups A B, C, D
Australian & New Zealand: IEC Ex ia d I/IIC T4, ANZEx ia s I/IIC T4 (Zone 0)

Ordering Information

AL11FU0	Altair 4, O2, CO, H2S, Ex, MotionAleart

Please contact us for other configuration.

Portable **Instrument**

[The first portable 5-gas with MotionAlert and InstantAlert features]

ALTAIR® 5

NEW!

The new MSA Altair 5 Multigas Detector raises the bar once again with 5-gas capability, more than 17 preprogrammed languages, high-resolution, crisp color display option, and MSA's exclusive MotionAlert and InstantAlert features. Many great features plus the outstanding durability and performance you expect from MSA.

Ideal for confined space applications, the MotionAlert feature, when enabled, activates a "man down" alarm if no motion is detected for 30 seconds. The InstantAlert feature allows users to manually activate an audible alarm to alert those around them to potentially dangerous situations.

Using a portable gas detector should never be a challenge! MSA has designed the Altair 5 Multigas Detector with the same ease-of-use logic to ensure that minimal user training, interaction, or maintenance, is required. The intuitive menu-driven display and 3 large and tactile buttons make operation easy – even while wearing gloves. Numerous customization options are offered to fit many budgets and experience levels, from personal monitoring and pre-entry checks within confined space to industrial hygienist use.

MSA's new generation of miniature catalytic combustion sensors will reliably detect up to 100% LEL of combustible gases, including many solvents. MSA's high-performing electrochemical duo-tox hydrogen sulfide/carbon monoxide sensor allows for an additional sensor slot. Many other toxic sensor choices are available, including ammonia, chlorine, hydrogen cyanide, phosphine, and sulfur dioxide. A lithium-ion rechargeable battery provides enough runtime to cover double shifts.

Features & Benefits

The Altair 5 Multigas Detector is Galaxy® System-compatible for easy calibration and record keeping. Vibrating alarm and datalogging are standard features, and the unit is MSA Link™ Software ready for easy transfer of stored information to a connected PC. The ergonomically designed rubber overmolded housing provides unsurpassed durability, is IP65-rated for dust and water ingress, and passes a 6-foot drop test. The unit is also equipped with a 95+ dB audible alarm and ultra-bright alarm LEDs for maximum visibility.

Features & Benefits
- Logo display screen customization
- MotionAlert and InstantAlert features standard
- MSA Link Software with multi-language capability
- Galaxy Test System-compatible
- Triple alarms at 95 dB+
- Durable rubber/synthetic over-molding
- Intuitive 3-button operation
- Unit passes 6-foot drop test; IP65-rated for water/dust ingress
- Real-time on-line monitoring capability with MSA Link Software
- 2-year comprehensive warranty for standard models

Options
- High-resolution color or monochrome display screen
- Many e-chem sensor options
- Integral pump or diffusion option
- Rechargeable lithium-ion or alkaline battery options
- 17-language display capability

Approvals & Standards
CE ATEX I I 2G
EEx ia d IIC T4 –20°C to +50°C
UL Class 1, Division 1, ABCDFG
CSA C22.2 No. 157 Class I Div. 1 Groups ABCD

Ordering Information

ALT5-AL1100G011OU0	Pumped, Ex, O2, H2S, Sampling accessories
ALT5-BL1100G011OU0	Pumped,Color display, Ex, O2, H2S, Sampling accessories
Please contact us for other configuration.	

Portable **Instrument**

[Clarity in Explosive Atmospheres]

TITAN® Combustible Gas Detectors

The TITAN Combustible Gas Detector is a hand-held instrument used for the detection of combustible gases and vapors in air. The unit is equipped with an 85 dB audible alarm and one of the biggest displays available. The intuitive one-button operation allows simplicity of use. Simply switch on, and the Titan warns you of the presence of dangerous levels of combustible gases or vapors. It will stand up to the roughest handling in even the toughest environments. And, it is part of the MSA Stellar series of portable gas detection instruments.

ATEX ⓔ II 2G EEx ia d IIC T3/ T4
MED 96/ 98/ EC ✹
EN 50014-20, EN 50104, EN 61779, EN 50271

Ordering Information	
10029052	TITAN, NiMH rechargeable battery with vibrating alarm
Leaflet	08-166.2 GB

[Maximum versatility in one hand]

Orion® and Orion® Multigas Detectors

The Orion and Orion Multigas Detectors are low-cost, reliable, and easy-to-use portable instruments for detecting the presence of O_2, H_2S, CO and combustible gas. The Orion Multigas Detector features MSA's long-life 20L combustible sensor; the Orion Multigas Detector features faster response and release times for toluene, xylene and other hydrocarbons. Both instruments will stand up to the roughest handling in even the toughest environments.

Features:
- One-button calibration
- Long-life battery
- Carbon-filled nylon case
- Tough, durable construction
- Built-in pump
- Galaxy compatibility
- Large, easy-to-read display
- Durable sensors
- Link Software compatibility

Class 1, Division 1, Groups A, B, C and D
ATEX II 2G EEx ia IIC T4 -20°C to +50°C
Ex ia IIC T4 -20°C to +50°C

Ordering Information	
1111A0P410B000	ORION Pump Ex, Ox, CO, H2S, NiMH
1111A0P410B020	ORION Pump Ex, Ox, CO, H2S, NiMH, Data logging kit
1111A0P410B110	ORION Pump Ex, Ox, CO, H2S, NiMH, Calibration kit, Data logging kit
[Please contact us for the Assemble-to-order options]	
Leaflet	0816-27

[Solutions for Your Needs]

ORION® plus

Orion® Plus

The ORION^{Plus} combines all the exceptional features of the ORION with the addition of a class leading choice of toxic and infra-red sensors. The range of toxic sensors available includes ammonia, chlorine, hydrogen cyanide, ozone, phosgene and phosphine among others. Small, handy and reliable, it is probably the most practical and intuitive 5-gas detector on the market today.

ATEX ⟨Ex⟩ II 2G EEx ia d IIC T3/ T4
MED 96/ 98/ EC ⚓
EN 50014-20, EN 50104, EN 61779, EN 50271

Ordering Information	
10046094	ORION^{Plus} P, Ex, Ox, Co, H2S, Co2, NiMH
10046095	ORION^{Plus} P, Ex, Ox, Co, Co2, NiMH
10046096	ORION^{Plus} P, Ex, Ox, H2S, Co2, NiMH
Leaflet	08-170.2 GB

SIRIUS™

SIRIUS™

The SIRIUS PID [Photo Ionization Detector] combines incredible performance, versatility, and ease of use in one instrument. Designed as a versatile PID for measuring volatile organic compounds [VOCs], SIRIUS can be configured with up to four additional sensors: combustible gas, oxygen, carbon monoxide and hydrogen sulphide. Easily operated with one hand, it is an ideal measuring instrument as well as a personal monitor for a wide range of applications.

ATEX ⟨Ex⟩ II 2G EEx ib dIIC T3/ T4
MED 96/ 98/ EC ⚓
EN 50414-20, EN 50104, EN 61779, EN 50271

Ordering Information	
10051146	SIRIUS, Ex/ Ox, H2S, PID, Li-ion
10051144	SIRIUS, Ex/ Ox, H2S, PID, Li-ion, Datalogging, Calibration Kit
10051149	SIRIUS, Ex/ Ox, H2S, PID, Li-ion, [Less jacket]
[Please contact us for the Assemble-to-order options]	
Leaflet	08-180.2 GB

Portable **Instrument**

[Certified and tested for accuracy]

Model RP Calibration Kits

Model RP Check Kits consits of a regulating valve which includes a gauge to measure container pressure, an adapter hose, sensor adapter (where applicable), instructions, and a case fitted with room for two Model RP cylinders of calibration check gas.

Ordering Information	
.25/ 1.5 LPM Flow Control	
467895	Model RP Cylinder .25lpm*
467896	Model RP Cylinder 1.5lpm
Gas Miser Demand Regulator	
710288	Model RP
10034391	Model RP, Chlorine and Ammonia
710289	Model BD-20, with CGA 590 fitting
Model RP Calibration Check Kits	
477150	Check Kit, Model RP, with 1.5lpm regulator - complete
477149	Check Kit, Model RP, with .25lpm regulator - complete

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

Calibration Cylinders

Part No.	Description
10048890	Methane 2.5%, 15% Oxygen, 60ppm CO, 20ppm H2S
804770	Methane 1.45%, 15% oxygen, 300ppm CO, 10ppm H2S
10050744	Methane 1.45%, 15% oxygen, 300ppm CO, 10ppm H2S, 2.5% CO2
10045035	Methane 1.45%, 15% Oxygen, 60ppm CO, 20ppm H2S
815704	Isobutylene 100ppm
711014	Methane 100%
814866	Ammonia 25ppm
806740	Chlorine 10ppm
809351	Hydrogen Cyanide 10ppm
808977	Nitrogen Dioxide 10ppm
808978	Sulfur Dioxide 10ppm
711088	Phosphine 0.5ppm

ALTAIR® QuickCheck™ Station

Economical bump test/ alarm check station for ALTAIR and ALTAIR Pro Single-Gas Detectors. Checks intrument's visual, audible and vibrating alarms. Checkmark is placed on intrument display for 24 hours denoting a passed test. Available in automatic and manual versions.

Ordering Information	
10076705	ALTAIR QuickCheck Station Automatic Version
10076693	ALTAIR QuickCheck Station Manual Version
Leaflet	0803-15-MC

MSA

[Galaxy® Automated Test System]

GALAXY™

GALAXY® Automated Test System

The multifunctional GALAXY provides simple but intelligent testing and calibration of MSA portable gas detectors, e.g. *SOLARIS*, *SIRIUS* and *ORION*.

This easy-to-use Automated Test Stand offers high performance from a stand-alone unit to a multiunit system linked to a PC. Since all wiring and tubing is pre-connected with in each GALAXY Test Stand and optional cylinder holder [patent pending] the required workspace is kept to a minimum. Once the gas detector is placed in the GALAXY it will be tested, calibrated and/or charged without the touch of a single button. Over 1,000 individual test records can be stored on an industry standard flash card. An optional wired or wireless connection is also available.

Battery pack

Cylinder holder

Ordering Information

Solaris Galaxy Kits	Sirius Galaxy Kits	Orion Galaxy Kits	Orion^plus^ Galaxy Kits	
Basic Standalone Kit				
10061051	10061050	10061824	10082571	Basic System
Standard Standalone Kit (Includes Regulator)				
10061783	10061810	10061825	10082577	Standard System
10061784	10061811	10061826	10082582	Standard System + Charging
10061785	10061812	10061827	10082585	Standard System + Cylinder Holder
10061786	10061813	10061828	10082592	Standard System + Charging, Cylinder Holder
Smart Standalone Kit (Includes Regulator, Memory Card)				
10061787	10061814	10061829	10082580	Smart System
10061788	10061815	10061830	10082583	Smart System + Charging
10061789	10061816	10061841	10082586	Smart System + Cylinder Holder
10061790	10061817	10061842	10082595	Smart System + Charging, Cylinder Holder
Portable Kits (Includes Regulator, Battery Pack)				
10061802	10061818	10061843	10082512	Portable System
10061801	10061819	10061844	10082584	Portable System + Memory Card, Cylinder Holder
Network Kits (Includes Regulator, Wired Ethernet Access)				
10061803	10061820	10061845	10082578	Wired Network System
10061804	10061821	10061847	10082593	Wired Network System + Charging, Cylinder Holder

[Please contact us for Assemble-to-order options]

Leafet 0800-27

Detector Tube and **Pump**

Detector, Action, Trainer and Sampling Tubes

For more information, please see	
Leaflet	08-610.2GB

Detector Tubes
[Protection for Man and Environment]

Detector tubes are the simplest solution if the application requires the measurement of many different substances. Due to their long storage time detector tubes are most suitable for occasional measurements. The handling of detector tubes is very simple and easy.

Detector, Action, Trainer and Sampling Tubes

Detector tubes are used to measure hazardous substances in the work-place and in the environment.

Action tubes have a shortened sampling procedure [only 2 strokes] for rapid evaluation of dangerous situations, e.g. for fire services [with warning marks].

Trainer tubes are for demonstration and training. They contain a gaseous test substance which reacts with detector tubes when connected to them by a hose.

Sampling tubes contain various adsorptive materials as sample carriers for active sampling of hazardous materials in the air using two component tubes with sampling and backup layers. The samples are analyzed in a laboratory. MSA recommended laboratory services are available by request.

Pumps
[For Detector Tubes]

Toximeter® II
Toximeter II is a continuously operating, electronically controlled, detector tube pump. It is easily activated by simply pressing a button and inserting the tube.

Toximeter II is made for various measuring tasks. It features highly accurate measurements while having an intuitive, menu-assisted operation. The battery pack is replaceable in hazardous areas.

ATEX II 1G EEx ia IIC T4

Ordering Information	
D5142705	Toximeter II
D6172763	Delta charger [3,5 plug]
D6170724	Omega II charger

Gas-Tester II H and KWIK-Draw

[Mechanically controlled detector tube pumps]

Gas-Tester II H

The GT II H with incorporated locking mechanism, end of stroke indicator and counter is a manually and stroke operated detector tube pump. It features the most comfortable and simple one-hand operation. The detector tube pump can be used for accurate measurements with all MSA detector tubes.

Design and Function

The Gas-Tester II H is a bellowstype pump. It is set for action by compressing the bellows. The actual pump stroke can then be started at any time by pressing the release button. After the defined sample [100 ml] has been drawn through the tube, the end-of-stroke indicator signals this by an obvious colour change. A high accuracy of measurement is guaranteed by the fact that the sample draw procedure it self is controlled only by the specifications of the pump and the flow resistance of the detector tube.

In addition, the Gas-Tester II H can increase the accuracy of measurements with other short-term detector tubes manufactured in Europe.

Features and Benefits

- Accurate measurements
- Elimination of errors by:
  - Defined sample draw volume
    [guaranteed by locking mechanism and end-of-stroke indicator]
  - Unconstrained relaxation of the bellows
  - Existence of an end-of-stroke indicator
    [prevents premature sample cut-off]
  - Additional incorporated stroke counter
- Antistatic, shock-resistant housing
- Requires little maintenance

ATEX II 1G c IIC t6

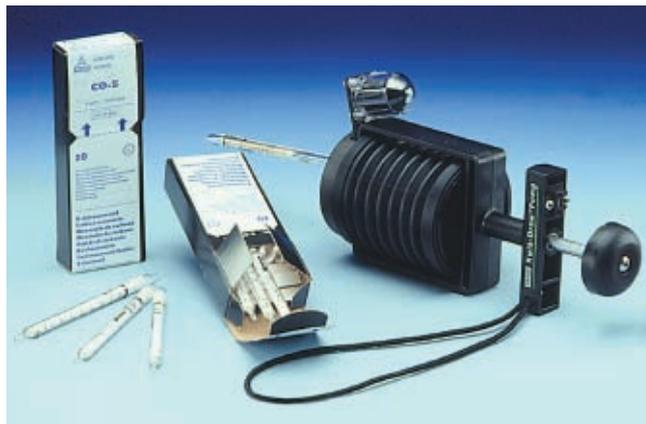| Ordering Information	
D5146760	Gas-Tester II H
Leaflet	08-610.2 GB

Kwik-Draw

This one-hand operation pump with a consistent delivery of a sample volume of 100 milliliters can be used with an assortment of MSA's detector tubes to spot test atmospheres for a wide variety of toxic substances. The pump is particularly suitable for the detection of highly toxic substances, since no adapter needs to be used.

Ordering Information	
D5146762	Detector tube pump Kwik-Draw Deluxe with end-of-stroke indicator.

Protective **Clothing**

Chemical Protective Clothing

[The Clever Choice Against Aggressive Hazards]

VAULTEX Elite ET

- Material combination of elastomer coated fabric and a multilayer film laminate
- High chemical resistance & good mechanical stability
- Increased resistance against flame impingement
- Large integrated lens reduces the weight of the head section
- Push buttons on the cover of the zipper allow for easy and effective decontamination
- Integrated transponder provides state-of-art electronic identification of the equipment

PPE 89/686/EEC, En943 [part 1&2, type 1a ET], EN 533, EN 1073, EN 14126
ATEX II 1G IIC T6, MED 96/98/EC, VFDB 0801: 2006

Ordering Information	
1113110	Vaultex Elite ET, M

CHEMPION Elite

Total encapsulating suit for protection against solid, liquid and gaseous or vaporous hazards. Air supply from compressed air breathing apparatus inside the suit. Suit material: multilayer film laminate on carrier fleece; low weight, good wearing comfort.
- Excellent protection against solid, gaseous and liquid chemicals
- Built-in large visor
- Low weight combined with good wearing comfort

PPE 89/686/EEC, VFDB 0801/0802

Ordering Information	
D3020895	Chempion Elite R [rear zipper]

VAUTEX Elite S Dual Air System

- Automatic change-over valve between compressed air breathing apparatus & compressed airline breathing apparatus is integrated into suit.
- Unlimited air supply from the compressed airline breathing apparatus permits air conditioning inside the suit
- If pressure from airline supply drops below a certain level, valve automatically changes to the compressed air breathing apparatus, switches off the air conditioning and sounds audible alarm
- A suit version with head section for the MSA Gallet Helmet is also available.

prEN 943, part 1, type 1c
PPE directive 89/ 686/ EEC

Ordering Information	
10015300	Vautex Elite S Dual Air System
10025882	Vautex Elite S GALLET Dual Air System
Leaflet	13-159.2GB

PLASTIKLOS

- Protects against liquid chemicals (Type 4)
- Overalls with hood or 2-piece suit (jacket & dungarees) styles available in 5 sizes.
- Material is plastic fabric coated both sides with Neoprene-Plus.
- Mechanical impact, ear & tear resistant.

EN 465, PPE directive 89/686/EEC

Various models, please see	
Leaflet	13-100.1 GB and 13-421.2 GB

MSA

Harnesses

[Fall protection]

Workman Harness

The Workman Harness Provide comfortable protection, due to its lightweight components and durable webbing. The vest style harness, with optional hip D-Rings for work positioning fit a wide range of body type and sizes. Color-contrasting thigh and torso straps simplify donning.

- Optimum quality at an economical price
- Comfortable
- Abrasion resistant
- Yellow polyester webbing for high visibility
- Web retainer collars to keep excess webbing neat
- Easy to don and adjust
- Choice of Qwik-Fit™ or Tongue-Buckle leg straps for easy adjustment

ANSI A10.32, Z359.1, CSA Z259.10-M90

Ordering Information	
10072479	Size [STD], Qwik-Fit [Chest, Leg], D-Rings [Back]
10072483	Size [STD], Qwik-Fit [Chest, Leg], D-Rings [Back, Hip]
10072487	Size [STD], Qwik-Fit [Chest], Tongue [Leg], D-Rings [Back]
10072491	Size [STD], Qwik-Fit [Chest], Tongue [Leg], D-Rings [Back, Hip]
Leaflet	2302-11

10072479

10072483

10072487

10072491

Fall **Protection**

Lanyards
[Shock Absorbing]

Workman Energy-Absorbing Lanyard

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

Features:
- Tear-tape design to keep fall arrest forces below 900lbs.
- Choice of single or twin-leg configurations.
- Choice of adjustable or tie-back configurations.
- Meets ANSI Z359.1, ANSI A10.32, applicable OSHA regulations, and is certified to CSA Z259.11-05 E4.

Ordering Information	
10072499	Workman restraint lanyard
10076124	Single Energy-Absorbing Lanyard
10072472	Single Energy-Absorbing Lanyard
10072475	Twin Energy-Absorbing Lanyard

10072499

10076124

10072472

10072475

Workman Personal Fall Limiter (PFL)

The Workman PFL features:
- A durable, engineered thermoplastic housing to increase service life.
- Rugged, impact-absorbing protective bumpers for added durability.
- A field-replaceable lifeline option eliminates down time and reduces cost of ownership.
- A lightweight design, starting at 3.5 pounds.
- Available in lengths from 6' to 12' in 1' increments.
- A 400-pound working capacity.
- A constant lock-up rate to prevent the erratic, "jerky"lock-up (like a seat belt) found on some types of retractables.
- An integral load indicator lets you know when it is time to remove the product from service.
- SRL connector with integral swivel.
- Meets ANSI A10.32, all applicable OSHA standards, and is CSA certified. Units with 36C style snaphooks meet ANSI Z359.1.

Fall **Protection**

Confined Space Equipment
[Entry and retrieval systems]

LYNX™ Personnel/ Material Hoist
- Designed for lifting, lowering, and positioning of personnel and materials.
- Maximum work load of 310 lbs for personnel and 620 lbs for materials.
- Anti-backlash crank handle with a lifting/lowering speed of 25ft per minute.
- Load-limiting clutch prevents overloading of hoist
- Meets ANSI A10.14, ANSI Z359.1, and all applicable OSHA standards.

Ordering Information	
10016569	Side mount with emergency drive and air drive adapter, galvanized wire rope, 50'
10016568	105' length wire rope
Leaflet	2300-30

LYNX™ Tripod
- Automatic hinge lock legs
- Constructed of three anodized aluminium legs and a zinc-plated carbon steel head
- Legs feature 1-1/4 in. incremental adjustment with positive locking pins
- Skid resistant feet with self-sharpening spikes

Ordering Information	
10022050	8' LYNX Tripod
10022051	10' LYNX Tripod
Leaflet	2300-30

LYNX™ Rescuer
- Self Retracting Lanyard with emergency retrieval capabilities
- User is able to reset device from retrieval mode to fall arrest mode
- The easiest, quickest field-reset mechanism on the market
- Lock feature with key allows more control over who can reset unit to fall arrest mode
- Meets ANSI A10.14, ANSI Z359.1, and all applicable OSHA standards, and is CSA certified

Ordering Information	
10011744	50' [16m] Self Retracting Lanyard with Emergency Rescuer, 3/16" diameter stainless steel line, With proper inspection,system may be reused after fall arrest and/ or retrieval.
10011745	95' [30m] Self Retracting Lanyard with Emergency Rescuer, 3/16" diameter stainless steel line, With proper inspection, system may be reused after fall arrest and/ or retrieval.
Leaflet	2300-30

LYNX™ Confined Space Entry Kits
Confined Space Entry Kits make it easy for you to order the Confined Space System which best suits your needs.
The Confined Space Entry Kits features:
- 3 Tripod Kits and 2 Davit Kits
- Single part number for simplified ordering
- Confined Space Kits with Lynx Rescuer allow for non-entry rescue of a confined space entrant.
- Tripod and Davit Kits allow for great portablility
- Training Video and Tripod Carrying Strap included within each kit.

Ordering Information	
10023966	Lynx Tripod Confined Space Entry Kit #1
10023967	Lynx Tripod Confined Space Entry Kit #2
10023968	Lynx Tripod Confined Space Entry Kit #3
506613	Folding davit arm
506614	Folding davit base
Add in Please contact us for more details	

Davit arm   Lynx Tripod Confined Space Entry Kit #3

MSA 33

Permanent **Instrument**

Permanent Gas Detection Systems

[Complete Safety Solution]

Monitoring of gases and vapors in plants and large areas is necessary in all branches if industry.

Directives and regulations covering the protection of plant and personnel as well as the monitoring of emmisions require suitable gas detection equipment.

When personnel monitoring is not available or suitable, permanently installed detection systems [detectors and controller] are used for continuous monitoring. These permanent detectors are strategically positioned to optimize detection coverage and can initiate a variety of safety related actions in the event of a gas alarm.

Examples of appropriate actions are the activation of audible/ visual alarms or ventilation/ extraction systems and shutting down of plant equipment.

According to the ATEX manufacturer directive 94/ 9/ EC and the user directive 99/ 92/ EC any gas detection system if used as a safety related device to reduce the risk of explosion has to be performance approved. The ATEX EC type certificate for the product must then show compliance to at least EN 50054 or EN 61779.

MSA provides a complete range of products with full ATEX approval that can be used as safety related devices. For complete ATEX compliance choose MSA.

9010/09020 LCD

9010/9020 LCD

The control system 9010/9020 LCD provides maximum flexibility, simple operation, high reliability and superb performance at considerably reduced costs. In combination with the large range of MSA gas sensors, the 9010/9020 LCD warns reliably in variety of industrial application of the occurrence of dangerous gas concentrations. The 9010 LCD control module processes the measuring signals from one gas sensor from while the 9020 LCD processes measuring signals from two independent gas sensors.

ATEX ⟨Ex⟩ II [1] G [2] G
MED 96/ 98/ EC ⊕

For more information, please see	
Leaflet	07-516.2 GB

CHEMGARD

CHEMGARD

For monitoring approx. 50 toxic gases in the TLV range. Measuring point selector for up to 8 points [detects concentrations of 1 ppm].
Excellent long-duration stability.
3 freely adjustable alarm levels and relay outputs for each alarm level. No influence from humidity through special compensation.

Power supply: 120/240VAC

For more information, please see	
Leaflet	07-524.2 GB

Permanent Gas Detection Systems

[Complete Safety Solution]

FlameGard IR³ Series

A triple spectrum optical flame detector that can detect a 0.1 mÇ gasoline fire at 60 m in less than 5 seconds. The sensitivity is user programmable, offering 4 ranges of detection. The detector has high immunity to false alarms and is housed in a stainless steel enclosure with heated optics allowing installation in areas with harsh operating conditions.

ATEX Ⓔ II 2[1] GD EEx de [ia] IIC T5

For more information, please see	
Leaflet	07-462.2 GB

FlameGard IR³ Series

SafEye Xenon 700 Series

Open Path gas monitor consisting of an advanced Xenon flash infrared source and detector to monitor combustible gases and vapors over a line of sight from 4 to 120 m.

Xenon flash technology, immune to solar radiation, can maintain operational integrity up to 90% obscuration. Heated optics allows operation at low temperature.

ATEX Ⓔ II 2[1] GD EEx de ia [ia] IIC T5

For more information, please see	
Leaflet	07-512.2 GB

SafEye Xenon 700 Series

ULTIMA X³

X³ Technology brings multi-sensing and MODBUS output to the ULTIMA X series gas monitors. The technology allows three sensors gas monitors. The technology allows three sensors of any combination of electrochemical, catalytic and infrared- type to be connected to one ULTIMA X³ series gas monitor. Each sensor can be remote from the gas monitor by up to 30m.

ATEX Ⓔ II 2G EEx d IIC T3/ T4/ T6 [pending]

For more information, please see	
Leaflet	07-701.2 GB

MSA
The Safety Company

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