



MSA Safety Equipment Catalog

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WE KNOW WHAT'S AT STAKE.

MSA Online

Find product & tradeshow information and view trending MSA & Safety Industry news.

■ Website

Visit [MSAsafety.com](https://www.msasafety.com) for product info, part numbers, literature, approvals, and more. Leverage the power of our website by using our product simulators, configurators, product demo videos, etc.



■ YouTube

View our extensive 200+ video library and link to our product demo, product maintenance, “How it’s Made”, and customer testimonial videos.

youtube.com/@msanorthamerica424

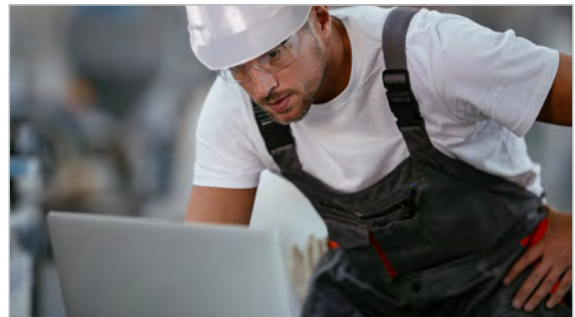
■ Blogs

Read MSA Safety’s blogs for information about the latest safety innovations and best practices in the industry. Find valuable insights and tips to help enhance workplace safety and compliance.

msasafety.com/blogs

■ Social Media

LinkedIn	linkedin.com/company/msa-the-safety-company
X (formerly Twitter)	x.com/MSAsafety
Instagram	instagram.com/msasafety
Instagram—Fire Service	instagram.com/msasafetyfire_na
Facebook	facebook.com/msasafety
Facebook—Fire Service	facebook.com/msasafetyfire



PPE Training & Safety Education

MSA has helped protect our customers for over 100 years in all facets of personal protective equipment and services. With this in mind, we recognize that education and training play an integral part as well. We offer:

- **Virtual Led Training (VLT)** — a customized, real-time learning experience conducted by an MSA Instructor via video conferencing.
- **MSA-U® Online Training** — get access to over 150 courses day or night—for free.
- **In-Person Training at One of our State-of-the-Art MSA Training Centers** — allows us to teach students how to safely select, inspect and use PPE in true-to-life simulations.
- **On-Site Safety Training** — we can help you reduce lost time and liability through on-site documented competent equipment inspections.
- **On-Site Survey, Hazard Assessment, & Audit** — an MSA trained professional will conduct a walkthrough of your facility and provide a comprehensive written report documenting risks and recommendations.

See pp. 204–208 for more information about MSA’s training options.

For more information,
visit <https://us.msasafety.com/training>



**SERVICES &
SOLUTIONS**

Questions?

Email us at training@msasafety.com

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Customer Service

Our multiple-award-winning Customer Service Center proves that MSA strives for continuous improvement in customer satisfaction. Every year brings positive changes: better-trained associates with more advanced processes, resulting in improved service and faster solutions. Each Customer Service Associate's computer workstation can simultaneously handle a variety of applications, and an automated call distributor monitors and routes call flow to ensure peak performance. Customer Service continues to look for ways to improve its relationship with customers via surveys. Our goal is to provide exceptional customer service, which in turn creates customer loyalty.

The MSA Customer Service Center provides:

■ Pre-Sales Support

- Prepare quotations/bids
- Product support and recommendations

■ Sales Order Support

- Process purchase orders
- Provide price and availability information
- Order status/delivery information

■ Post-Sales Support

- Product support—use and troubleshooting
- Shipment tracking
- Order/shipment issue resolution
- Repair service notifications—return authorizations
- Credit and corrected invoice requests

Customer Service Center Phone Numbers:

Toll-free	1-800-MSA-2222
Toll-free Fire Service	1-877-672-3473 (FIRE)
Toll-free FGFD	1-800-672-4678
After-hours Emergencies	1-800-MSA-5555

Customer Service Center Emails:

U. S. Customer Service	us.cs@msasafety.com
Canada	canada.cs@msasafety.com
Fire Service	fire.cs@msasafety.com
FGFD	customer.service@msasafety.com
General	info.us@msasafety.com

Order Submission:

U. S. Customer Service	placeorder@msasafety.com
Canada	caorders@msasafety.com
Fire Service	fireorder@msasafety.com
FGFD	perminstorder@msasafety.com

Mailing Address:

Customer Service Center
MSA Corporate Center
1000 Cranberry Woods Drive
Cranberry Twp, PA 16066

N. A. Export Customer Service

Our extensive network of distributors, representatives and MSA-affiliate companies covers most major cities worldwide. Highly-trained international customer service associates guide your export orders from placement to delivery. MSA uses all major air and ocean freight forwarders and courier services due to their ability to consolidate multiple orders and minimize freight expenses. Associates understand international inspections, certifications, licensing and other customs issues necessary for successful importation.

To contact N. A. Export Customer Service:

Toll-free in the U.S.	1-800-MSA-7777
Email	Lamzonecs@MSAsafety.com



Respiratory Protection

Air-Purifying Respirators
Powered Air-Purifying Respirators
Air-Line Respirators
Self-Contained Breathing Apparatus



Advantage® 420 Half-Mask Respirator

- UniBond over-mold facepiece, AnthroCurve™ face seal, and low-profile design ensures excellent comfort and fit
- Easily switches between lock-down and drop-down mode
- Built-in moisture release chin cup hole, and extra-wide head and neck straps
- Designed for easy integration with other personal protective equipment such as safety glasses and welding shields
- Latex-free
- **Applications include:** asbestos abatement, painting, welding, sanding & grinding



	Small	Medium	Large	
Advantage 420 Respirator	10102182	10102183	10102184	Advantage 420 Assembly (includes facepiece, head cradle, elastic straps, buckle set, yoke with lever, two (2) inhalation valves, one (1) exhalation valve)

Easy 3-Step Donning Process



Advantage® 200 LS Half-Mask Respirator

- Lightweight, cost-efficient
- Thermoplastic rubber increases softness and decreases weight
- Patented MultiFlex® System equalizes pressure on the face-seal area, ensuring the respirator doesn't collapse during wear
- AnthroCurve face seal conforms to each user's face
- **Applications include:** asbestos abatement, painting, welding, sanding & grinding

For more information, please see MSA bulletin 1012-42-MC.



	Small	Medium	Large	
Advantage 200 LS Respirator	815696	815692	815700	Advantage 200 LS Respirator, with 2-piece neckstrap
	815448	815444	815452	Advantage 200 LS Respirator, with single neckstrap

Respiratory Protection: Air-Purifying

Comfo® Classic Half-Mask Respirator

- SoftFeel® rubber and silicone facepieces enhance softness, increasing wearer comfort
- Face seal design provides secure, comfortable fit
- Color-coded sizing system makes sorting and identification easy

For more information, please see MSA bulletin 1021-02-MC.



	Small	Medium	Large	
Comfo Classic Facepieces	808075	808074	808076	Comfo Classic Facepiece, SoftFeel hycar
	808072	808071	808073	Comfo Classic Facepiece, SoftFeel silicone

Advantage® 900 Half-Mask Respirator

- Innovative and secure respiratory solution for essential workers, first responders, and healthcare workers.
- The Advantage 900 Respirator achieves source control by filtering exhaled breath.
- Cost-effective and eco-friendly alternative to disposable filtering facepiece respirators.
- Enables user protection up to P100 level.
- Mechanical speaking diaphragm helps to improve communication.



	Small	Medium	Large	
Advantage 900 Respirator	10218527	10218528	10218529	Advantage 900 Respirator



G1™ Single Facepiece Platform



- ✓ Reduced facepiece inventory
- ✓ Reduced time and expense of fit testing
- ✓ Lower respirator program expenses
- ✓ Simplified employee training, cleaning procedures and maintenance
- ✓ Reduced parts inventory

Look for this graphic
in the upper
right-hand corner
to identify the
G1 Single Facepiece
Platform.



APPROVED RESPIRATORY PLATFORMS USING THE G1 FACEPIECE

Industrial Respiratory Platforms *(All head harnesses may be used)*

SCBA/PD Air Line	APR	PAPR & Continuous Flow
G1 Industrial SCBA	Twin Cartridge Full Face Respirator – Advantage Cartridges ‡	Optimair TL PAPR †
G1 Premaire Cadet Escape	Twin Cartridge Full Face Respirator – Threaded Comfo Cartridges ‡ *	Optimair Mask Mounted PAPR†
G1 Cadet	Single Canister Industrial Gas Mask & P100 †	G1 Constant Flow Air Line †
G1 Premaire System		

First Responder Respiratory Platforms *(Kevlar or rubber G1 head harness only)*

SCBA/PD Air Line	APR	PAPR
G1 SCBA – NFPA	G1 CBRN Gas Mask †	G1 PAPR – CBRN †

* Comfo Cartridge Adapter Required

‡ Twin Port APR Adapter Required

† Single Port APR Adapter Required



G1™ Single Facepiece Platform



Small	Medium	Large	G1 Facepiece Options
10188954	10188955	10188956	G1 Facepiece with 4-pt. polyester head harness
10156461	10156462	10156463	G1 Facepiece with rubber head harness
10156458	10156459	10156460	G1 Facepiece with 4-pt. Kevlar head harness
10161812	10161813	10161814	G1 Facepiece with 5-pt. Kevlar head harness

(See G1 Facepiece Assemble to Order (ATO) matrix below for additional options)

Part No.	G1 Facepiece Accessories
10144231-SP	Single Port APR Adapter
10199720	Twin Port APR Adapter
10246693	G1 Lens Cover, clear
10246694	G1 Cover Lens, smoke
10144230	Spectacle Kit
805078	Quik-Check III Fit Test Adapter*
10056424	Advantage Fit Test Adapter**
809999	Advantage Adapter Kit for Comfo Style Cartridges

*Single port APR Adapter Required

**Twin port APR Adapter Required



G1—poly cloth harness



G1—rubber head harness



G1—kevlar head harness



10144231-SP
Single Port
APR Adapter



10199720
Twin Cartridge
APR Adapter

MSA G1 Facepiece Industrial

Ordering Selection Matrix



A Application

- F Fire
(Cannot order Polyester Head Harness with this option)
- L Industrial with Carton
- M Industrial without Carton

B Size

- S Small
- M Medium
- L Large

C Material

- 1 Hycar

D Nosecup

- 0 None
- S Small
- M Medium
- L Large

E Head Harness

- 0 None
- 4 4 pt Adjustable
- 5 5 pt Adjustable
- P 4 pt Polyester
(May not be used on G1 NFPA)
- R Rubber

F Neckstrap

- 0 None
- C Cloth
- R Rubber

G Regulator Connection

- 1 Fixed Push-to- Connect

Note:

Part numbered facepieces are also available
An additional surcharge will be added to configurations that are classified as hazardous materials

A-GIFP			1				1	
	A	B	C	D	E	F	G	Qty
PART NUMBER								

Advantage® 3000 Series Full-Facepiece Respirators

- Full-face respirator features innovative design to lower breathing resistance
- Integrated nosecup reduces lens fogging
- Silicone facepiece increases wearer comfort
- Scratch-resistant, optically correct wraparound lens provides wide field-of-vision
- Optional European-style Advantage head harness dons like a catcher's mask
- Applications include: asbestos abatement, welding, sanding & grinding

For more information, please see MSA bulletin 1012-42-MC.



Advantage 3200 Respirator with rubber harness and chemical cartridges



Advantage 3200 Facepiece with European-style harness



Advantage 3100 Facepiece with rubber harness

	Small	Medium	Large	
Advantage 3200 Facepieces Twin-Port	10028996	10028995	10028997	Advantage 3200 Facepiece, with rubber head harness
	10031340	10031309	10031341	Advantage 3200 Facepiece, with European-style harness
Advantage 3100 Facepieces Single-Port	10028999	10028998	10029000	Advantage 3100 Facepiece, with rubber head harness
	10031343	10031342	10031344	Advantage 3100 Facepiece, with European-style harness

Ultra-Twin® Full-Facepiece Respirator

- Ideal for defense against toxic chemicals
- Wide lens is scratch resistant
- Speaking diaphragm provides clear communications
- Nosecup reduces lens fogging

	Small	Medium	Large	
Ultra-Twin Facepieces	471298	471286	471310	Ultra-Twin Facepiece, hycar
	480263	480259	480267	Ultra-Twin Facepiece, silicone

Ultra-Twin Respirator (small) with GMC threaded metal Comfo Cartridges



Ultra Elite® Twin-Cartridge Full-Facepiece Respirator

- Widely used mask provides excellent comfort and protection
- Distortion-free lens allows wide field-of-view
- Models include Hycar rubber and silicone versions
- Unique airflow prevents lens fogging
- Speaking diaphragm provides excellent close-range communication

	Small	Medium	Large	
Ultra Elites Facepieces	10016755	10016756	10016757	Ultra Elite Facepiece, SoftFeel silicone, with twin-cartridge adapter
	493064	493020	493108	Ultra Elite Facepiece, SoftFeel hycar, less twin-cartridge adapter
	493072	493028	493116	Ultra Elite Facepiece, SoftFeel silicone, less twin-cartridge adapter



Advantage® 4000 Series Full-Facepiece Respirators

- Both twin-port and single-port facepieces are compatible with several MSA respirator models, including air-purifying respirators, supplied-air respirators, and powered air-purifying respirators
- Standard noseclip reduces lens fogging
- Components lock into place in seconds for quick, convenient performance

For more information, please see MSA bulletin 1012-42-MC.



Advantage 4100 Facepiece,
single port,
w/net head harness



Advantage 4200 Facepiece
w/polyester net head harness
& GMA/OV cartridges



Welder's Adapter
for Advantage 4200
Respirator

	Small	Medium	Large	
Advantage 4200 Facepieces Twin-Port Hycar	10083785	10083781	10083789	Advantage 4200 Facepiece, with polyester net head harness, hycar
	10083787	10083783	10083791	Advantage 4200 Facepiece, with rubber head harness, hycar
	10108570	10108568	10108572	Advantage 4200 Facepiece, with Kevlar net head harness, hycar
Advantage 4200 Facepieces Twin-Port Silicone	10083784	10083760	10083788	Advantage 4200 Facepiece, with polyester net head harness, silicone
	10083786	10083782	10083790	Advantage 4200 Facepiece, with rubber head harness, silicone
	10108569	10108567	10108571	Advantage 4200 Facepiece, with Kevlar net head harness, silicone
Advantage 4200 Facepieces* Single-Port Hycar	10083797	10083793	10083801	Advantage 4100 Facepiece, with polyester net head harness, hycar
	10083799	10083795	10083803	Advantage 4100 Facepiece, with rubber head harness, hycar
	10108576	10108574	10108578	Advantage 4100 Facepiece, with Kevlar net head harness, hycar
Advantage 4200 Facepieces* Single-Port Silicone	10083796	10083792	10083800	Advantage 4100 Facepiece, with polyester net head harness, silicone
	10083798	10083794	10083802	Advantage 4100 Facepiece, with rubber head harness, silicone
	10108575	10108573	10108577	Advantage 4100 Facepiece, with Kevlar net head harness, silicone

*Adapter not included. See below chart for adapter part number.



rubber head harness



polyester net
head harness



Kevlar net head
harness

	Part No.	Description
Facepiece Adapter Assemblies for Advantage 4000 Facepieces	10065328	Adapter assembly, twin-cartridges
	10065329	Adapter assembly, push-to-connect
	10065330	Adapter assembly, Rd 40

	Part No.	Description
Welder's Accessories for Advantage 4200 Twin-Port Facepieces	10077063	Clip-On Welder's Adapter, with cover lens, less filter plate

Ultra Filter Respirators

- Ultra Filter Respirators, comprised of Ultravue Facepiece and Ultra Filter Cartridge, offer protection against particulate hazards
- Cartridge provides large, effective filter area



	Part No.	Description
Threaded Respirator Ultra-Filter Cartridges	10010420	Round Ultra Filter Cartridge, box of 6
	10010421	Round Ultra Filter Cartridge, box of 50

Advantage® Respirator Cartridges				Acid Gases															
The Advantage line of particulate, chemical and combination cartridges is NIOSH-certified to 42 CFR, Part 84 and provides lightweight, low-profile performance. Cartridges fit 200 LS and 420 Half-Mask, G1, 1000, 3000 and 4000 Series Full-Facepiece Advantage Respirators.				Organic Vapor	Chlorine	Sulfur Dioxide	Chlorine Dioxide	Hydrogen Chloride	Hydrogen Sulfide	Ammonia	Methylamine	Formaldehyde	Hydrogen Fluoride	Mercury Vapor	Filter Type & Efficiency See Definitions below			See Notes below	
MSA Cartridge Description	Re-Order Part Number	Color Coding	OV	CL	SD	CD	HC	HS	AM	MA	FM	HF	MV	P100	R95	N95			
Organic Vapor (GMA)	815355																2,3		
Organic Vapor w/N95 Prefilter (GMA)	815355 w/815394 or 816357																2,3,5		
Organic Vapor w/R95 Prefilter (GMA)	815355 w/815397																2,3,5		
Organic Vapor/P100 (GMA)	815362																2,3,4		
Acid Gas (GMB)	815356																2		
Acid Gas w/N95 Prefilter (GMB)	815356 w/815394 or 816357																2,5		
Acid Gas w/R95 Prefilter (GMB)	815356 w/815397																2,5		
Acid Gas/P100 (GMB)	815363																2,4		
Organic Vapor/Acid Gas (GMC)	815357																2,3		
Organic Vapor/Acid Gas w/N95 Prefilter (GMC)	815357 w/815394 or 816357																2,3,5		
Organic Vapor/Acid Gas w/R95 Prefilter (GMC)	815357 w/815397																2,3,5		
Organic Vapor/Acid Gas/P100 (GMC)	815364																2,3,4		
Ammonia/Methylamine (GMD)	815358																2,3		
Ammonia/Methylamine w/N95 Prefilter (GMD)	815358 w/815394 or 816357																2,3,5		
Ammonia/Methylamine w/R95 Prefilter (GMD)	815358 w/815397																2,3,5		
Ammonia/Methylamine/P100 (GMD)	815365																2,3,4		
Multigas (GME)	815359																2,3		
Multigas w/N95 Prefilter (GME)	815359 w/815394 or 816357																2,3,5		
Multigas w/R95 Prefilter (GME)	815359 w/815397																2,3,5		
Multigas/P100 (GME)	815366																2,3,4		
Iodine Vapor/P100 (GMI)*	815641																2,4		
Chlorine/Mecury Vapor (Mersorb)	815361																2		
Chlorine/Mecury Vapor w/N95 Prefilter (Mersorb)	815361 w/815394 or 816357																2,5		
Chlorine/Mercury Vapor/P100 (Mersorb)	815368																2,4		
Low-Profile P100	815369 Pack of 2 10123079 Pack of 100																1,4		
P100 with Splash Guard	10146939 Pack of 2																1,4		
N95 Snap-On Prefilter and Cover	815394 Pack of 10 816357 Box of 50 815392 Reusable Snap-On Cover, 2 in a pkg	WARNING ⚠ An appropriate cartridge change-out schedule must be developed by a qualified professional, unless the cartridge/canister utilizes an end-of-service-life indicator. The change-out schedule must take into account all factors that may influence respiratory protection including specific work practices and other conditions unique to the worker's environment. If using against substances having poor warning properties, there is no secondary means of knowing when to replace the cartridges/canister. In such cases, take appropriate additional precautions to prevent overexposure, which may include a more conservative change-out schedule or using an air-supplied respirator or SCBA. Failure to follow this warning can result in serious personal injury or death. As a reference, below is a partial list of substances having poor warning properties:																	
Definitions			Acrolein Aniline Arsine Bromine Carbon monoxide Diisocyanates Dimethyl sulfate				Hydrogen cyanide Hydrogen selenide Methanol Methyl bromide Methyl chloride Methylene chloride Nickel carbonyl				Nitric acid Nitro compounds Nitrogen oxides Nitroglycerin Nitromethane Phosgene Phosphine				Phosphorus trichloride Stibine Sulfur chloride Urethane or other diisocyanate-containing paints Vinyl chloride				
* Effective against, but not NIOSH-approved, for Iodine 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.																			
5. Both a prefilter and cover must be used with the cartridge in order to obtain R95 or N95 particulate protection.																			

Comfo® Respirator Cartridges			Acid Gases																	
			Organic Vapor	Chlorine	Sulfur Dioxide	Chlorine Dioxide	Hydrogen Chloride	Hydrogen Sulfide	Ammonia	Methylamine	Formaldehyde	Hydrogen Fluoride	Mercury Vapor	Filter Type & Efficiency See Definitions on previous page			See Notes on p. 8			
MSA Cartridge Description	Re-Order Part Number	Color Coding	OV	CL	SD	CD	HC	HS	AM	MA	FM	HF	MV	P100	R95	N95				
Organic Vapor (GMA)	464031 (10 in box)																2,3,5			
Organic Vapor/P100 (GMA)	815178 (6 in box)																2,3,4			
Acid Gas (GMB)	464032 (10 in box)																	2,5		
Acid Gas/P100 (GMB)	815179 (6 in box)																2,4			
Organic Vapor/Acid Gas (GMC)	464046 (10 in box)																2,3,5			
Organic Vapor/Acid Gas/P100 (GMC)	815180 (6 in box)																	2,3,4		
Ammonia/Methylamine (GMD)	464033 (10 in box)																2,3,5			
Ammonia/Methylamine/P100 (GMD)	815181 (6 in box)																2,3,4			
Multigas (GME)	492790 (10 in box)																2,3,5			
Multigas/P100 (GME)	815182 (6 in box)																2,3,4			
Iodine Vapor/P100 (GMI)*	815184 (6 in box)																2,4			
Chlorine/Mercury Vapor/P100 (Mersorb)	815185 (6 in box)																2,4			
Low-Profile P100	815177 (10 in box)																1,4			
Sparkfoe® P100	815176 (10 in box)																1,4			
Sparkfoe Low-Profile P100	10153412 (16 in box)																1,4			
Prefilter and Cover N95	816662 N95 (10 in pkg.) 816661 N95 (50 in pkg.) 489353 Reusable snap-on cover (1 in pkg.; 2 req.)																1			
Prefilter and Cover R95	816287 R95 (20 in box) 489219 R95 Reusable snap-on cover (1 in pkg.; 2 req.)																1			

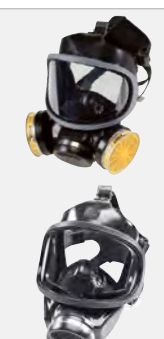
* Effective against, but not NIOSH-approved for Iodine Vapor.

Note: See WARNING on previous page.

* Effective against, but not NIOSH-approved for Iodine Vapor. Note: See WARNING on previous page.

Flexi-Filter® 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.			Filter Type & Efficiency See Definitions on previous page			See Notes on p. 8
MSA Filter Description	Part No.	Color Coding	P100	P95	N95	Notes
Flexi-Filter/P100	818342					1,4
Flexi-Filter/P100 w/Nuisance Level OV, Ozone Removal	818343					1,4
Flexi-Filter/P100 w/Nuisance Level AG, HF Removal	818344					1,4
Flexi-Filter/N95	818346					1
Flexi-Filter/N95 w/Nuisance Level OV Removal	818347					1
Flexi-Filter/P95	818354					1
Flexi-Filter/P95 w/Nuisance Level OV Removal	818355					1

Facepiece Accessories

	Part No.	Description	
Advantage 420 Accessories	10097887	Storage poly bag	
	468730	Carrying pouch with belt loops for half-mask respirators	
	809999	Advantage Adapter for threaded cartridges, package of 2	
	10056424	Advantage Quantitative Fit Test Adapter	
Advantage 200 LS Accessories	809999	Advantage Adapter for threaded cartridges, package of 2	
	10056424	Advantage Quantitative Fit Test Adapter	
	468730	Carrying pouch for half-mask respirators	
Comfo Classic Accessories	812022	QuikChek II Fit-Test Adapter for Comfo Respirators	
	803196	QuikChek II Replacement Kit with 25 ft of sampling tubing and 25 connectors, clips, and suction cups	
	468730	Carrying pouch with belt loops for half-mask respirators	
Advantage 3000 Accessories	10029298	Spectacle Kit for Advantage Respirators	
	10056424	Advantage Quantitative Fit Test Adapter	
	10031542	Cover Lens, clear, box of 25	
	10031543	Cover Lens, smoke-tinted, box of 25	
	D2056734	Black plastic carrying/storage case	
Advantage 4000 Accessories	10029298	Spectacle Kit for Advantage Respirators	
	10056424	Advantage Quantitative Fit Test Adapter, for Advantage 4200 Facepieces	
	805078	QuikChek III Fit Test Adapter for Advantage 4100 Facepieces*	
	10031542	Cover Lens, clear, box of 25	
	10031543	Cover Lens, smoke-tinted, box of 25	
	10077063	Clip-On Welders Adapter for Advantage 4200 Twin-Port Facepiece, with cover lens, less filter plate	
	10065326	Clip-On Welders Adapter for Advantage 4100 Single-Port Facepiece, with cover lens, less filter plate	
	D2056734	Black plastic carrying/storage case	
Ultra-Twin/ Ultravue® Accessories	454819	Spectacle Kit for Ultra-Twin/Ultravue	
	812022	QuikChek II Fit-Test Adapter for Ultra-Twin Respirator	
	803196	QuikChek II Replacement Kit with 25 ft of sampling tubing and 25 connectors, clips, and suction cups	
	803622	Twin-Cartridge Adapter for Ultravue Facepieces	
	456975	Cover Lens, clear, box of 25	
	480326	Cover Lens, smoke-tinted, box of 25	
	813138	Nosecup, black, small	
	813139	Nosecup, black, medium	
	813140	Nosecup, black, large	
	D2056734	Black plastic carrying/storage case	
Ultra Elite Accessories	804638	Spectacle Kit for Ultra Elite Respirator, side wire support	
	493581	Spectacle Kit for Ultra Elite Respirator, center support	
	805078	QuikChek III Fit-Test Adapter for Ultra Elite Respirators	
	817446	QuikChek IV Adapter for Ultravue/Ultra Elite facepieces w/¼-turn quick-disconnect, w/Type H cartridge	
	803622	Twin-Cartridge Adapter for Ultra Elite Facepieces	
	491500	Cover Lens, clear, box of 25	
	805456	Cover Lens, smoke-tinted, box of 25	
	D2056734	Black plastic carrying/storage case	

*Also requires RD40 Adapter P/N 10065330

Cleaning Supplies

MSA Confidence® Plus 2 Germicidal Cleaner

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
MSA Confidence® Plus 2 Germicidal Cleaner	10009971	US
	10032737	Canada
Personal Safety Equipment Towelettes	697383	Box of 100 individually wrapped towelettes (7¼" x 5")
	697382	Canister with 220 towelettes (7¼" x 6")
	10022871	"The Big Ones", box of 50 individually wrapped towelettes (8" x 11")

MSA Respirator Fit Test Compliance

29 CFR Part 1910.134



Advantage 200LS Respirator



Advantage 420 Respirator



Comfo Classic Respirator



GI Facepiece



Advantage 3100 Respirator



Advantage 3200 Respirator



Advantage 4100 Respirator



Advantage 4200 Respirator



Advantage 1000/
Millennium Respirator



Ultra-Twin Respirator



Ultravue Respirator



Ultra Elite Respirator

	Part No.	Description
MSA Respirator Fit Test Kits	697444	Bitrex qualitative fit test kit
	801628	Banana oil qualitative fit test kit
	697285	Sensitivity solution (saccharin)
	697445	Sensitivity solution (bitrex)
	697286	Replacement fit-test (saccharin) solution, ampoules
	697446	Replacement fit-test (bitrex) solution, ampoules
	697447	#1 Sensitivity nebulizer
	697459	#2 Fit-test nebulizer
	697448	Test hood (same for both)

Online Response® Respirator Selector

Available at MSAsafety.com/responseguide

- Helps identify the proper respirator you need
- Has broadest range of respiratory protective devices available
- Recommends respirators for more than 700 chemical hazards



Cartridge Life Expectancy Calculator

Available at MSAsafety.com/responseguide

MSA's interactive web pages help users determine the life expectancy of specific respirator cartridges in various hazardous situations. This information provides guidance for how long a cartridge should be used before it must be replaced.



Fit Test Compliance Reference Guide

Respirator Description	Class	APF	OSHA Acceptable Fit Test Methods	Required Fit Factor Quantitative	MSA Fit Test Adapter Required	Cartridge Type	Probed Facepiece P/N (if applicable)	Controlled Negative Pressure (OHD) Quan Fit Test Adapter
Advantage 200 LS	Half-Mask Negative Pressure	10	Qualitative or Quantitative	100	Advantage Adapter #10056424	Bayonet or threaded with adapter #809999	S (816515), M (816513), L (816517)	OHD P/N 9513-0210
Advantage 420	Half-Mask Negative Pressure	10	Qualitative or Quantitative	100	Advantage Adapter #10056424	Bayonet or threaded w/adapter #809999	S (10107710), M (10107731), L (10107732)	OHD P/N 9513-0210
Advantage 420	Half-Mask Negative Pressure	10	Qualitative or Quantitative	100	Advantage Adapter #10056424	Bayonet only	N/A	OHD P/N 9513-0210
Comfo Classic	Half-Mask Negative Pressure	10	Qualitative or Quantitative	100	Quik Chek® II Adapter #812022	Threaded	S (808255), M (808249), L (808261)	OHD P/N 9513-0109
Advantage 3100	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Quik Chek III Adapter #805078	N/A	N/A	OHD P/N 9513-0210
Advantage 3200	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Advantage Adapter #10056424	Bayonet or threaded w/adapter #809999	N/A	OHD P/N 9513-0210
Advantage 4100	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Quik Chek III Adapter #805078 Use with RD 40 Adapter #10065330	N/A	N/A	OHD P/N 9513-0130
Advantage 4200	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Advantage Adapter #10056424	Bayonet or threaded w/adapter #809999	N/A	OHD P/N 9513-0210
Advantage 1000	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Advantage Adapter #10056424	Bayonet	N/A	OHD P/N 9513-0210
Ultra-Twin	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Quik Chek II Adapter #812022	Threaded	S (482025), M (482024), L (482026)	OHD P/N 9513-0109
Ultravue	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Quik Chek I Adapter #802710	N/A	S (482009), M (482008), L (482010)	OHD P/N 9513-0130
Ultra-Elite	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500	Quik Chek III Adapter #805078	N/A	S (813211), M (813209), L (813213)	OHD P/N 9513-0130
G1 Pressure Demand	Full-Face Positive Pressure	10,000 SCBA 1000 Air-Line	Qualitative or Quantitative	500	Quik Chek III Adapter #805078 Use with Single Port APR adapter #10144231-SP Advantage Adapter 10056424 Use with Twin Port APR Adapter 10199720	N/A	N/A	OHD P/N 9513-0130 OHD P/N 9513-0210
Millennium Facepiece	Full-Face Negative Pressure	50	Qualitative or Quantitative*	500 2000±	Quik Chek III Adapter #805078	Threaded	Probe Assembly (10006227)	OHD P/N 9513-0130
Ultra Elite Pressure-Demand	Full-Face Positive Pressure	10,000 SCBA 1000 Air-Line	Qualitative or Quantitative	500†	APR Fit Test Adapter Kit, #10044576 APR Fit Test Adapter Kit, Slide Version #10107229 (10032511 APR adapter only) APR Fit Test Adapter Kit, Push-to-Connect #10107256 (10040052 APR adapter only) Quik Chek Adapter Kit, Firehawk #10044576‡	Bayonet	Negative Pressure S (813211), M (813209), L (813213)	OHD P/N 9513-0380
Ultra Elite Respirator	Full-Face Positive/ Negative Pressure	10,000 SCBA 50 APR	Qualitative or Quantitative	500* SCBA 2000± APR	Responder Fit Test Kit #10082555	Threaded	N/A	N/A

* If only qualitative fit test is performed on a full-face negative pressure respirator, then an APF of only 10 can be assigned. If a quantitative fit test is performed, the APF is 50.

± MSA recommends a fit factor of 2000 if the application is a CBRN environment.

† For quantitative fit testing of pressure-demand facepiece, the facepiece must be tested in a negative pressure mode which requires a minimum fit factor of 500.

‡ The Quik-Chek Adapter allows quantitative fit tests to be performed on a pressure demand Ultra Elite Firehawk facepiece by only trained and qualified personnel. Special probed facepiece is not required.

OptimAir® Mask-Mounted Air Purifying Respirator (PAPR) with Type HE OptiFilter® XL

OptimAir Mask-Mounted PAPR Kits consist of motor/blower, NiMH battery, dual-rate charger, one Type HE OptiFilter XL Cartridge, PVC decon belt, and choice of facepiece. Housing of polycarbonate/polyester construction and stainless steel connectors result in extreme durability. NIOSH-approved as mask-mounted PAPR. **OptimAir Mask-Mounted PAPR offers a full two-year warranty.**

Features

Motor/blower assembly

- Assembly threads onto facepiece inlet; does not impede vision or facepiece fit.
- Connects to battery pack with heavy-duty lockable stainless steel power cable connector.
- Lightweight, compact design.
- Low maintenance, easy decontamination.

Compact, lightweight, NiMH battery pack

- Sealed 12.5-oz. NiMH battery pack is small enough to fit in most pockets.
- NiMH batteries do not have NiCad battery memory effect.
- Battery pack is water-resistant for easy shower decontamination.
- Operates for more than eight hours under most conditions.

Approvals and Standards

OptimAir Mask-Mounted PAPR carries NIOSH approval No.TC-21C-0823. Filters must be replaced when air flow drops below 4 cfm (115 lpm).

NOTE: OptimAir Mask-Mounted PAPR is not NIOSH-approved for use with gas, chemical, or combination cartridges. Use only Type HE OptiFilter XL Filter.

OptimAir Mask-Mounted PAPR Kits

- Single hip-hugging design for motor blower, cartridges
- Battery provides lightweight comfort and fit
- Low-profile motor blower offers optimal airflow through a crush-proof breathing tube
- Ergonomic battery pack allows for free movement within confined spaces
- Approved with Advantage 3000, Advantage 4000, Ultra Elite, or G1 Facepiece.



	Small	Medium	Large	Description
Advantage 3100 PAPR	10095181	10095182	10095183	With rubber head harness
Advantage 4100 PAPR*	10095193	10095189	10095197	Black silicone with rubber harness
	10095194	10095190	10095198	Black Hycar with rubber harness

*Requires RD40 Adapter P/N 10065330

Use to create Kits with any other facepieces, for G1 facepiece use, requires G1 Single Port APR adapter P\N 10144231-SP

	Description	Part No.
Upgrade Kit	OptimAir Mask-Mounted PAPR Upgrade Kit, less facepiece	10095166

OptimAir Mask-Mounted PAPR Upgrade Kits

Upgrade Kits include: motor/blower, NiMH battery, dual-rate battery charger and cable, one Type HE OptiFilter XL Cartridge, and waist belt. Use your present facepiece or order facepiece separately from ordering chart.

	Description			Part No.
Upgrade Kit	OptimAir Mask-Mounted PAPR Upgrade Kit, less facepiece			10095166
Replacement Facepieces G1 <i>Also requires single-port APR adapter P/N 10144231-SP</i>	Facepiece	Small	Medium	Large
	G1 Facepiece with 4-pt. polyester head harness	10188954	10188955	10188956
	G1 Facepiece with rubber head harness	10156461	10156462	10156463
	G1 Facepiece with 4-pt. Kevlar head harness	10156458	10156459	10156460
Replacement Facepieces Advantage 3100	Facepiece	Small	Medium	Large
	Advantage 3100 Facepiece, with rubber head harness	10028999	10028998	10029000
	Advantage 3100 Facepiece, with European-style head harness	10031343	10031342	10031344
Replacement Facepieces Advantage 4100 <i>Also requires RD40 Adapter P/N 1006533</i>	Material	Small	Medium	Large
	Advantage 4100 Facepiece, black silicone w/net head harness	10083796	10083792	10083800
	Advantage 4100 Facepiece, black Hycar rubber w/net head harness	10083797	10083793	10083801
Replacement Facepieces Ultra Elite	Material	Small	Medium	Large
	Ultra Elite, silicone rubber head harness	493072	493028	493116
	Ultra Elite, Hycar rubber head harness	493064	493020	493108

	Part No.	Description
Parts and Accessories	10095162	Battery pack assembly, packaged
	10095163	Motor/blower assembly, w/o cable, packaged
	10095164	Cable assembly, packaged
	10095165	Charger, packaged
	487995	Flow check device
	491046	Adapter for flow check device
	473902	Replacement belt, PVC
	D2056734	Carrying/storage case, black plastic
	10009971	MSA Confidence Plus Germicidal Cleaner, 32 oz. bottle
	492827	Waist belt for OptimAir Mask-Mounted PAPRs, optional, polyurethane-coated nylon belt, 67" long
	9961	Waist belt for OptimAir Mask-Mounted PAPRs, no-decon applications, uncoated nylon web waist belt

	Part No.	Color Code	Purifying Protection Code	Description
OptiFilter Cartridges	10042346		HE	OptiFilter XL, Type HE, 20/box
	496081		HE	OptiFilter XL, Type HE, 6/box

Respiratory Protection: Air-Purifying

Optrel PAPR for Welding and Grinding

Helix Pure Air PAPR

The Helix Pure Air Welding Helmet features an innovative slide-up design to seamlessly switch from welding to grinding that ensures balance, minimizes weight and allows for overhead welding.

Clearmaxx Air PAPR

The Clearmaxx PAPR Grinding Hood combines an unparalleled clear view of your workspace and respiratory protection for optimal safety.

e3000X PAPR System

Powering this product lineup is the e3000X PAPR system. NIOSH-approved, it offers 3 blower speeds and alerts for low flow and battery levels.



	Part No.	Description
PAPR Kits	10246307	Helix Pure Air PAPR Kit - Helix CLT w/Carry Bag
	10246306	Clearmaxx Air PAPR Kit - Clearmaxx w/Carry Bag
	10246324	Optrel e3000X PAPR Kit - No Headgear
PAPR Headgear	10246347	Helix Pure Air - Helix CLT
	10246346	Helix Pure Air - Helix Quattro
	10246345	Helix Pure Air - Helix CLT with Hard Cap
	10246344	Helix Pure Air - Helix Quattro with Hard Cap
	10246343	Clearmaxx Air
	10246314	Type HE Filter for e3000X PAPR
PAPR Filters and Cartridges	10246311	e3000X Pre Filter (set of 50)
	10246312	Mountain Breeze (MB) Nuisance Level Starter Kit
	10246313	MB Nuisance Level Filter Replacement - Set of 50
	10246315	Spark Protector
	10250047	Combination Gas / HE Filter for e3000X PAPR*



OptimAir® TL Powered Air-Purifying Respirator

- Single hip-hugging design for motor blower, cartridges
- Low-profile motor blower offers optimal airflow through a crush-proof breathing tube
- Ergonomic battery pack allows for free movement within confined spaces
- Unit automatically adjusts flow rates for altitude changes via an internal pressure sensor
- Audible and visual alarms indicate low flow condition and low battery voltage
- Available with standard or extended-life battery
- Approved with hoods as listed or for facepiece use with Advantage 3000, Advantage 4000, Ultra Elite, or G1 Facepiece. Facepiece style breathing tube required. Single port adapters required for G1 and Advantage 4000 Facepieces



Standard OptimAir TL Kits

Kits include: PAPR, motor/blower, battery, Smart Charger, breathing tube, and decon belt.

	Part No.	Description
OptimAir TL Kit for facepieces	10081115	OptimAir TL Kit with long-life battery
OptimAir TL Kit for hoods	10081117	OptimAir TL Kit with long-life battery

OptimAir TL Response Kits

Kits include: PAPR, extended life battery, charger, breathing tube, hood and 2 Type HE cartridges.

	Part No.	Description
OptimAir TL Response Kits	10214805	OptimAir TL Kit with low-profile white hood and Type HE cartridges
	10214891	OptimAir TL Kit with full single-bib hood and Type HE cartridges

Tychem® QC (polyethylene-coated Tyvek) Hoods

	Single Bib	Double Bib	Suspension	Packaging
Hoods threaded connector	10083329	10083330	Yes	4-pack
	10095739 (white) 10095748 (yellow)	10095743 (white) 10095749 (yellow)	No	20-pack
Hoods standard	10083383	10083384	Yes	4-pack
	10095740	10095744	No	20-pack



Tychem hood

Tychem SL (Saranex-coated Tyvek) Hoods

	Single Bib	Double Bib	Suspension	Packaging
Hoods threaded connector	10083381	10083382	Yes	4-pack
	10095741	10095745	No	20-pack
Hoods standard	10083385	10083386	Yes	4-pack
	10095742	10095746	No	20-pack



Low-profile hood

Low-Profile Hoods

	Part No.	Color	Packaging
Hoods Low-profile	10083329	White	4-pack
	10083383	White	20-pack

OptimAir® TL Powered Air-Purifying Respirator

Facepiece Accessories

	Part No.	Description
Facepiece Accessories	10065330	RD-40 Inlet assembly, required for all Advantage 4100 facepieces
	10144231-SP	Single Port 40mm adapter for G1 Facepiece
	10049630	Hose for facepiece

Other Accessories

	Part No.	Description
Hood Suspensions	10103864	20-pack
	10078469	1 each
Hood Accessories	10083843	Hose clamp for standard hood, 6-pack
	10049631	Hood hose
	10082281	Hood hose, extended length
	10083618	Sweatband for hood suspension, 10-pack
	10082441	Cover lens for hood, 10-pack
	10089665	Fastener kit, hood to V-Gard helmet
	10080455	HE cartridge (6-pack)
Cartridges	10154877	HE cartridge (54-pack)
	10080454	HE/OV/CL/CD/HC/HS/SD/HF cartridge (6-pack)
	10080456	HE/AM/CL/CD/FM/HC/HS/MA/SD/HF cartridge (6-pack)
	10224473	HE/OV/MV cartridge (6 pack)
	10068152	Spark Guard cartridge cover (single unit) (2 req.)

	Part No.	Description
Batteries and Chargers for OptimAir TL PAPR	10076110	Standard battery charger
	10076109	Long-life battery
	10076107	Long-life battery charger
Decon Accessories for OptimAir TL PAPR	10075799	Decon cover, 5-pack, natural
	10087152	Decon cover, 5-pack, yellow
	10078201	Decon belt (backpack buckle)
	10074725	Decon belt (cam lock buckle)
	10085084	O-ring replacement, hose hood, 10-pack
Other Accessories for OptimAir TL PAPR	10049623	Comfort belt
	10081414	Cartridge receptacle cover
	10059112	Shoulder strap
	10088150	Blower unit only
	10217723	Coupling nut for hood hose, 10 pack

Welder's Adapter for Full-Facepiece Respirators

- Molded of polycarbonate plastic, which has high resistance to impact, heat, and welding splatter
- Clip-on adapter attaches to facepiece by molded-in clips
- Large vision area—4½" x 5¼"—provides unobstructed view of work
- Supplied with impact-resistant cover lens; desired filter plate is ordered separately



	Part No.	Description
Welder's Adapters	472859	Clip-On Welder's Adapter for Ultravue and Ultra Twin Facepieces ; with cover lens, less filter plate
	806482	Clip-On Welder's Adapter for Ultra Elite Facepiece ; with cover lens, less filter plate
	10077063	Clip-On Welder's Adapter for Advantage 4200 Twin-Port Facepiece ; with cover lens, less filter plate
	10065326	Clip-On Welder's Adapter for Advantage 4100 Single-Port Facepiece ; with cover lens, less filter plate
	10250497	Clip-On Welders Adapter for G1 Facepiece ; with cover lens, less filter plate
Accessories	10250048	Auto Darkening Filter (ADF) for MSA Welding Adapters
	696095	Cover Lens

Chin-Type Gas Masks



The **MSA Chin-Type Gas Mask** is a full-facepiece air-purifying respirator with a single canister, designed for respiratory protection or escape against specific gases or a group of gases as indicated by canister identification. Chin-Type Gas Masks can be used for many applications including paper mills, chemical plants, agri-business, fumigation and HazMat situations. Chin canisters are provided for one of four hazard groups:

1. Phosphine/ammonia/chlorine/P100
2. Hydrogen fluoride/chlorine/P100
3. Organic vapor/P100
4. Formaldehyde/acid gas/chlorine dioxide/hydrogen sulfide/P100



Gas mask use is restricted to entry into, or work within, atmospheres that are within canister limitations. They are not intended for oxygen-deficient atmospheres (less than 19.5% O₂). Gas masks may be used for escape only from atmospheres in which the contaminant concentration does not exceed the gas mask maximum use concentration. Chin-Type Gas Masks have the following maximum use limitations:

Routine use: 50 times the Permissible Exposure Level (PEL) — Do not exceed the Immediately Dangerous to Life or Health (IDLH) concentration.

Escape use: contaminant concentrations up to gas mask maximum use concentrations, providing there is sufficient oxygen to support life.

Gas masks are generally suitable for ventilated areas with relatively stable concentration levels. They should never be used within confined spaces, or where oxygen deficiency and/or high gas concentrations may exist.

MSA Facepieces	Material Options		Head Harness		
	Silicone	Hycar Rubber	Net	Rubber	Kevlar
G1		■	■	■	■
Advantage® 4100	■	■	■	■	■
Advantage 3100	■			■	
Ultravue®	■	■		■	
Ultra Elite®	■	■		■	

All facepieces offer:

- Three sizes to accommodate many users.
- Scratch-resistant polycarbonate lens with wide field of vision.
- Nosecup to reduce lens fogging in low temperatures or high humidity.
- Optional lens cover for additional scratch resistance.

For G1 and Advantage 4100 Facepieces, a single port APR adapter is required for converting it into a single port gas mask configuration.

Gas mask facepieces, canisters and storage cases are sold separately.

	Small	Medium	Large	Description
G1 Facepieces G1 Single Port APR Adapter Required — P\N 10144231-SP	10188954	10188955	10188956	G1 Facepiece, with 4-pt. polyester head harness
	10156461	10156462	10156463	G1 Facepiece, with rubber head harness
	10156458	10156459	10156460	G1 Facepiece, with 4-pt. Kevlar head harness
Advantage 3100 Single-Port Facepieces	10028999	10028998	10029000	Advantage 3100 Facepiece, with rubber head harness
	10031343	10031342	10031344	Advantage 3100 Facepiece, with European-style head harness
Advantage 4100 Single-Port Facepieces Advantage 4100 RD 40 Adapter Required — P\N 10065330	10083796	10083792	10083800	Advantage 4100 Facepiece, black silicone , with polyester net head harness
	10083798	10083794	10083802	Advantage 4100 Facepiece, black silicone , with rubber head harness
	10108576	10108573	10108577	Advantage 4100 Facepiece, black silicone , with Kevlar net head harness
	10083797	10083793	10083801	Advantage 4100 Facepiece, black hycar , with polyester net head harness
	10083799	10083795	10083803	Advantage 4100 Facepiece, black hycar , with rubber head harness
	10108576	10108574	10108578	Advantage 4100 Facepiece, black hycar , with Kevlar net head harness
Ultravue Facepieces	480251	480247	480255	Ultravue Facepiece, black silicone
	471218	457126	471230	Ultravue Facepiece, black hycar
Ultra Elite Facepieces	493072	493028	493116	Ultra Elite Facepiece, black silicone
	493064	493020	493108	Ultra Elite Facepiece, black hycar

Chin-Type Gas Masks

MSA Canister Identification	Purifying Protection Code	Color Coding	Approval	Maximum Escape Use Conditions		Gas/Vapor	Single Canister
				% Volume	PPM		
Phosphine/ammonia/chlorine/P100 canister	PH/AM/CL		TC-14G-0274	0.50% 0.15%	5000 1500	Ammonia, Chlorine Phosphine	10059903*
Organic vapor/P100 canister also effective against organic iodides and iodide vapors	OV		TC-14G-0279	0.50%	5000	Organic Vapors, also effective against organic iodides and iodide vapors	10067469*
Hydrogen fluoride/chlorine/P100 canister	HF/CL		TC-14G-0280	0.10%	1000 5000	Hydrogen Fluoride Chlorine	10067491*
Formaldehyde/acid gas/chlorine dioxide/hydrogen sulfide/P100 canister	FM/AG/CD/HS		TC-14G-0282	0.05% 0.50% 0.10%	500 5000 1000	Formaldehyde Acid Gas, Hydrogen Sulfide Chlorine Dioxide	10067470*

*Canister contains a P100 particulate filter (99.97% filter efficiency level) against all particulate amounts.

Optional Carrying/Storage Plastic Case

Optional carrying/storage plastic case with carrying strap and separate wall-mounting bracket is ideal for storage in car trunks and tool lockers.

	Part No.	Description
Storage Cases	10075204	Phosphine/ammonia/chlorine/P100
	10075207	Organic vapor/P100
	10075206	Formaldehyde/acid gas/chlorine dioxide/hydrogen sulfide/P100 Advantage® 4100



Carrying/Storage Plastic Case

Accessories

	Part No.	Description
Lens Covers	10246693	G1 Lens Cover, clear (25/Pkg)
	10246694	G1 Cover Lens, smoke (25/Pkg)
	10031542	Advantage 3100/4100 clear lens covers (25/pkg.)
	10031543	Advantage 3100/4100 smoke-tinted lens covers (25/pkg.)
	456975	Ultravue Facepiece clear lens covers (25/pkg.)
	480326	Ultravue Facepiece smoke-tinted lens covers (25/pkg.)
	491500	Ultra Elite Facepiece clear lens covers (25/pkg.)
	805456	Ultra Elite Facepiece smoke-tinted lens covers (25/pkg.)
Welder's Adapters	472859	Clip-On Welder's Adapter for Ultravue and Ultra Twin Facepiece; with cover lens, less filter plate
	806482	Clip-On Welder's Adapter for Ultra Elite Facepiece; with cover lens, less filter plate
	10065326	Clip-On Welder's Adapter for Advantage 4100 Facepiece; with cover lens, less filter plate
	10250947	G1 Welding Shield Adapter
Spectacle Kits	10144230	Prescription Eyeglass Kit for G1
	10029298	Prescription Eyeglass Kit for Advantage 3100, 4100
	454819	Prescription Eyeglass Kit for Ultravue Facepiece
	804638	Prescription Eyeglass Kit for Ultra Elite Facepiece
Cleaning Accessories	10009971	MSA Confidence Plus Germicidal Cleaner, 32 oz. bottle



G1 Lens Covers



Clip-On Welder's Adapters



G1 Spectacle Kit



Confidence Plus Cleaner

Riot Control and CBRN Gas Masks

- Provides respiratory protection against chemical warfare, civil unrest and CBRN threats
- High-performance, custom-fit comfort in a variety of military and riot-style masks
- Attracts, regains and neutralizes contaminants
- Flexible lens with a wider field of view for superior visibility
- Permeation-resistant construction
- Built-in speaking diaphragm

Millennium Gas Mask
(for use with CBRN or Riot Control canisters)



Advantage 1000 Riot Control Gas Mask



	Small	Medium	Large	Description
Millennium CBRN/ Riot Control Gas Mask	10051286	10051287	10051288	Millennium Gas Mask, with nose cup, drinking tube, and clear polycarbonate outsert (Order either Riot Control or CBRN canisters separately.)
Advantage 1000 Riot Control Gas Mask	813860	813859	813861	Advantage 1000 Riot Control Mask, complete with canister, nose cup, and identification tag (NOTE: the Advantage 1000 Riot Control Mask is NOT CBRN approved and uses Riot Control canisters only.)

	Part No.	Description
Riot Control Canisters	818264	Millennium riot control canisters, box of 6
	817590	Advantage 1000 riot control canisters, box of 6
CBRN Canister	10046570	CBRN canister, for Millennium and Ultra Elite Facepieces
GME Canister	10160594	GME-P100, CS\CN Riot Control Canister
Lens Outsert For Millennium Facepiece	10008907	Polycarbonate lens outsert, clear, small
	10008906	Polycarbonate lens outsert, clear, medium/large
	10008908	Polycarbonate lens outsert, tinted, medium/large
Lens Outsert For Advantage 1000 Facepiece	806463	Polycarbonate lens outsert, clear, small
	806462	Polycarbonate lens outsert, clear, medium/large
Other Accessories For Millennium And Advantage 1000 Facepieces	10034184	Gas mask pouch, military style
	817040	Black nylon bag
Other Accessories For Millennium And Advantage 1000 Facepieces	10034184	Gas mask pouch, military style
	817040	Black nylon bag
	816137	Advantage 1000/Millennium spectacle kit

MSA G1™ CBRN APR

- G1 APR Facepiece Assembly does not include the CBRN Canister or APR Adapter, must be ordered separately.
- The G1 CBRN APR is approved for the 4-point harness, 5-point harness, and rubber harness.
- The neckstrap is also approved in both kevlar and rubber.
- The standard G1 facepiece nose cup is not approved for CBRN applications and the CBRN nose cup is not approved for use in a traditional firefighting situation.
- If using the standard G1 facepiece in a traditional firefighting situation and CBRN environment, use the CBRN nose cup for the Fit Test.

	Small	Medium	Large	Description
Facepiece Assemblies	10194379	10194380	10194381	G1 APR Facepiece Assembly

	Part No.	Description
Riot Control Canister	10160594	GME-P100, CN\CS Riot Control Canister
Nosecup Kits	10189322	Replacement Kit, CBRN Nosecup, G1 Facepiece, LG
	10189323	KIT, REPL, CBRN Nosecup, G1 Facepiece, MD/SM
Airguides	10191617	Airguide CBRN, G1 Facepiece, left
	10191618	Airguide CBRN, G1 Facepiece, right



	Part No.	Description
Miscellaneous	10194547	Cover, G1 Filter Adapter
	10194548	Washer, RD40, green
	10194549	Button, G1 Filter Adapter
	10046570	Canister, CBRN, PKG, Threaded
	10144231-SP	Kit, Filter Adapter Assy, G1 Facepiece

G1™ Powered Air-Purifying Respirators (PAPRs)

- Long-life unit provides non-IDLH respiratory protection for up to 8 hours
- Responder unit is compatible with MSA Millennium and Ultra Elite facepieces
- Batteries can be “hot-swapped”
- *Applications include:* CBRN incidents, civil disturbances, clandestine labs



The G1 PAPR Kits do not come with cartridges and must be ordered separately.

	Part No.	Description
G1 PAPR Kits less cartridge	10204811	G1 PAPR Kit, 30-inch breathing tube, LiSO ₂ battery, adapter
	10204812	G1 PAPR Kit, 36-inch breathing tube, LiSO ₂ battery, adapter
	10204813	G1 PAPR Kit, 30-inch breathing tube, NiMH battery, adapter
	10204814	G1 PAPR Kit, 36-inch breathing tube, NiMH battery, adapter
	10204815	G1 PAPR Kit, 30-inch breathing tube, LiSO ₂ battery
	10204816	G1 PAPR Kit, 36-inch breathing tube, LiSO ₂ battery
	10204817	G1 PAPR Kit, 30-inch breathing tube, NiMH battery
	10204818	G1 PAPR Kit, 36-inch breathing tube, NiMH battery
	10193956	Breathing tube, 30-inch, G1 PAPR
	10193957	Breathing tube, 36-inch, G1 PAPR
	10144231-SP	G1 APR Single Port Adapter

S-CAP™ Fire Escape Hood

- Filters out CO and smoke; designed for minimum rated service time of 15 min.
- Universal size: easily fitted with quick donning and effective within seconds
- Minimal training required
- Wide field of view lens and highly visible yellow hood

	Part No.	Description
S-CAP Fire Escape Hood	10064644	S-CAP in cardboard box
	10064645	S-CAP in wall box



Wall box

W65 Self-Rescuer Respirator

- Convenient, portable self-rescuer provides emergency protection against CO
- One-time-use device for escape purposes only
- Lightweight—only 2.2 lbs.
- Rugged stainless steel case
- Unit should not be used in atmospheres containing less than 19.5 percent oxygen or in atmospheres containing other toxic gases and vapors



	Part No.	Description
W65 Self-Rescuer Respirator	455299	W65 Self-Rescuer Respirator, complete in carton
Holster	455535	Leather Holster—adapts Self-Rescuer to belts up to 21/2 inches in width
	460027	Neoprene Holster—adapts Self-Rescuer to belts up to 21/2 inches in width
Protective Boot	449428	Protective Boot
Self-Rescuer Training Model	455696	Training Model, in red case



Other MSA Products for Mining Applications

For miner's cap lamp and support system, see p. 86. For ALTAIR 4X MSHA Portable Gas Detector, see p. 60.

Constant Flow Air-Line Respirator

- Full-facepiece protection with G1 and Advantage 4100 facepiece options. Ultra Elite and Ultravue facepieces also approved for use.
- Ideal for use in shipbuilding, utilities, chemical, petrochemical, and pharmaceutical industries.
- A wide range of applications including welding, painting and handling certain hazardous materials in non-IDLH environments
- Complete assemblies are available and include a web support belt, air-flow control valve with quick disconnect, breathing tube and a choice of facepiece.



Note: MSA Air-Supply Hose and other accessories, see p. 29. For separate quick-disconnect plugs and sockets, see p. 28. See pages 20–21 for typical Pressure Demand Air-Line and Constant Flow Air-Line Systems setup.

	G1 Facepiece Medium size	Advantage 4100 Facepiece Medium size	No Facepiece May be used with any approved facepieces Includes G1 adapter	Quick-disconnect
Constant Flow Complete Assemblies High-pressure control valve (35–40 psig inlet pressure for 8–300 ft. of hose)	10250824	10088132	10250832	Snap-Tite aluminum
	10250825	10088134	10250833	Foster/Schrader steel
	10250826	10088136	10250834	Hansen brass
	10250827	10088135	10250835	CEJN Locking chrome-plated brass
Constant Flow Complete Assemblies Low-pressure control valve (10–15 psig inlet pressure for 8–50 ft. of hose)	10250828	10088107	10250836	Snap-Tite aluminum
	10250829	10088109	10250837	Foster/Schrader steel
	10250830	10088121	10250838	Hansen brass
	10250831	10088110	10250839	CEJN Locking chrome-plated brass

G1 Facepiece Options

	Small	Medium	Large	Description
G1 Facepiece Options	10188954	10188955	10188956	G1 Facepiece w/4-pt. polyester head harness
	10156461	10156462	10156463	G1 Facepiece w/rubber head harness
	10156458	10156459	10156460	G1 Facepiece w/4-pt. Kevlar head harness
	10161812	10161813	10161814	G1 Facepiece w/5-pt. Kevlar head harness

See G1 Facepiece Assemble to Order (ATO) matrix for additional options.

*Single port APR Adapter Required

**Twin port APR Adapter Required

G1 Facepiece Accessories

	Part No.	Description
APR Adapters	10144231-SP	Single Port APR Adapter
	10199720	Twin Port APR Adapter
G1 Lens Covers	10246693	G1 Lens Cover, clear
	10246694	G1 Cover Lens, smoke
Spectacle Kit	10144230	Spectacle Kit
Fit Test Adapters	805078	Quik-Check III Fit Test Adapter*
	10056424	Advantage Fit Test Adapter**

Duo-Twin™ Respirators

- Use where ample air supply is available, such as that provided by air compressor
- If air supply fails, user is automatically protected by air-purifying cartridges which protect against a variety of contaminants
- Should not be used in atmospheres containing less than 19.5% oxygen
- NIOSH approved
- Applications: pharmaceutical, chemical, petrochemical, and nuclear industries

Assemblies come complete with facepiece, breathing tube, adapter assembly/regulator, web belt and Foster steel plug and socket assembly.



Duo-Twin Respirator with
Advantage 4000 Facepiece

	Part No.	Description
Duo-Twin Respirator Complete Assemblies	10091873	Constant-Flow Duo-Twin Respirator with Advantage 4200 Facepiece Uses Advantage Respirator Cartridges listed on p. 8
	490143	Constant-Flow Duo-Twin Respirator with Ultravue Facepiece Uses Comfo Respirator Cartridges listed on p. 9

Abrasi-Blast™ Supplied-Air Respirator

- Provides respiratory and upper body protection for personnel engaged in abrasive blasting
- Heavy, rubber hood protects against rebounding abrasive materials
- In addition to hood, respirator includes facepiece with lens housing, breathing tube, lens cartridge, flow-control device, air-supply hose, support belts
- Removable flat-glass cover lens
- Choose waist-length or shoulder-length style



	Waist-Length Hood	Shoulder-Length Hood	Description
Complete Assemblies with Advantage 4000 Facepiece	10089177	10089210	Abrasi-Blast Respirator with Advantage 4000 Facepiece Includes hood, medium facepiece with net head harness (10089910), lens housing, one lens cartridge (three 0.12» untempered glass cover lenses per cartridge), breathing tube (470734), web belt (9961), and adjustable valve connector with Snap-Tite (AL) socket assembly. Flow-control device: 35–40 psi. Order air-supply hose separately.
Complete Assemblies with Duo-Flo Constant Flow Advantage 4000 Facepiece	10116961	10116962	Abrasi-Blast Respirator with Duo-Flo Constant-Flow Advantage 4000 Facepiece Includes hood, medium facepiece with net head harness (10089910), lens housing, one lens cartridge (three 0.12" untempered glass cover lenses per cartridge), breathing tube (457158), web belt (9961), and adjustable valve connector with Snap-Tite (AL) socket assembly. Flow-control device: 35–40 psi.
Complete Assemblies with Ultravue Facepiece Assemblies can be specially ordered with different options	468716	468720	Abrasi-Blast Respirator with Ultravue Facepiece Includes hypalon hood with collar, medium facepiece with dual exhalation valves, lens housing, one lens cartridge (four 0.06-inch untempered glass cover lenses), breathing tube, web belt, flow control device with Snap-Tite (AL) quick-disconnect fitting. Inlet Pressure Range: 10–15 psi.
	468718	468722	Abrasi-Blast Respirator with Ultravue Facepiece Includes hypalon hood with collar, medium facepiece with dual exhalation valves, lens housing, one lens cartridge (four 0.06-inch untempered glass cover lenses), breathing tube, web belt, flow control device with Snap-Tite (AL) quick-disconnect fitting. Inlet Pressure Range: 35–40 psi.
	478116	478117	Abrasi-Blast Respirator with Ultravue Facepiece Includes hypalon hood with collar, medium facepiece with dual exhalation valves, lens housing, one lens cartridge (four 0.06-inch untempered glass cover lenses), breathing tube, web belt, flow control device with Snap-Tite (AL) quick-disconnect fitting. Abrasi-Blast Duo-Flo.

	Part No.	Description
Lens Cartridges 12 cartridges per carton	473798	0.09"-thick, untempered lens; 3 per cartridge; recommended use: medium blasting
	473800	0.09"-thick, tempered lens; 3 per cartridge; recommended use: medium blasting
	10013407	0.12"-thick, untempered, laminated lens; 1 per cartridge; recommended use: heavy blasting
	473802	0.12"-thick, untempered, laminated lens; 2 per cartridge; recommended use: heavy blasting
	481742	0.12"-thick, untempered, laminated lens; 3 per cartridge; recommended use: heavy blasting

Respiratory Protection: Air-Line and Escape

G1™ Cadet Supplied-Air Respirator

The G1 Cadet is a pressure-demand, Type C supplied-air respirator with mask-mounted regulator for use in non-IDLH environments. The G1 facepiece can support multiple applications and respirator platforms including Supplied Air, SCBA, APR, and PAPR.

- The G1 Facepiece provides a wide field of view and is available with choice of rubber, polyester or Kevlar head harness to meet your specific needs such as decontamination, comfort and heat/spark resistance.
- Regulator hose lengths in either 30" or 42" lengths can accommodate front, or back positioning of the air line attachment.
- Comfortable waist belt options include secure attachment and nomex, nylon or urethane coating to meet the specific use, comfort, decontamination needs of the work environment.
- Regulator keeper on belt provides secure mounting when not in use.
- Select from a full line of fittings to meet your installation and facility needs.
- Multiple hose options and lengths to provide up to 300' of air supply.
- Compatible with multiple G1 based respirator platforms to support a complete respiratory program.

	Part No.	Waist Belt	Regulator — Hose Length	Facepiece
G1 Cadet Respirator Options	10239083	Nomex	42"	G1 Medium with 5 pt. Kevlar
	10225585	Nylon		G1 Medium with Rubber
	10225594	Nylon		G1 Medium with Poly Cloth
	10225589	Nomex		None
	10225591	Nylon		
	10225593	Urethane		
	10225587	Nomex	30"	G1 Medium with 5 pt. Kevlar
	10225586	Nylon		G1 Medium with Rubber
	10225584	Nylon		G1 Medium with Poly Cloth
	10225588	Nomex		None
	10225590	Nylon		
	10225592	Urethane		

	Part No.	Description
G1 Facepiece Accessories	10144230	Spectacle Kit
	10144231-SP	Single Port APR Adapter
	10199720	Twin Port APR Adapter
	10225911	G1 Lens Cover, Clear
	10225951	G1 Cover Lens, Smoke
	805078	Quik-Check III Fit Test Adapter*
	10056424	Advantage Fit Test Adapter**

*Single port APR Adapter Required

**Twin port APR Adapter Required



PremAire® Cadet Supplied-Air Respirator

The PremAire Cadet is a pressure-demand, Type C supplied-air respirator with mask-mounted regulator for use in non-IDLH environments.

- Approved with Advantage 4000 and Ultra Elite push-to-connect facepieces.
- Shares function with G1 Cadet Supplied Air Respirator



	Part No.	Description
PremAire Cadet Kits	10108493	PremAire Cadet Air-Line Respirator with Foster Steel quick-disconnects, 50-foot section neoprene air-supply hose with Foster Steel Plug
	10108594	PremAire Cadet Air-Line Respirator with Snap-Tite Aluminum quick-disconnects, 50-foot section neoprene air-supply hose with Snap-Tite Aluminum Plug

PremAire Cadet Respirator Assemblies

	Facepiece	with 30" IP (intermediate pressure) hose		with 42" IP (intermediate pressure) hose	
		no fittings	Snap-Tite AL fittings	no fittings	Snap-Tite AL fittings
PremAire Cadet Complete Assemblies	Ultra Elite	10054790	10054792	10054791	10054793
	Advantage 4000	10081100	10081098	10081171	10081099
	Less facepiece	10121413	—	10121416	—



Facepieces for PremAire Cadet and PremAire Cadet Escape Respirators

Ultra Elite Facepieces



Advantage 4000 Facepieces



	Small	Medium	Large	Description
Ultra Elite Facepieces Push-To-Connect Adapter	10037650	10037648	10037652	hycar, rubber head harness, nose cup
	10043417	10043413	10043431	silicone, rubber head harness, nose cup
	10043419	10043415	10043433	hycar, Speed-ON head harness, nose cup
	10043430	10043416	10043434	silicone, Speed-ON head harness, nose cup
	Small	Medium	Large	Description
Advantage 4000 Facepieces Push-To-Connect Adapter	10075911	10075905	10075917	hycar, rubber head harness, nose cup
	10075910	10075904	10075916	silicone, rubber head harness, nose cup
	10075915	10075909	10075921	hycar, polyester net head harness, nose cup
	10075914	10075908	10075920	silicone, polyester net head harness, nose cup
	10108547	10108561	10108565	hycar, Kevlar net head harness, nose cup
	10108545	10108549	10108563	silicone, Kevlar net head harness, nose cup

Note: See p. 29 to order quick-disconnects for use with the PremAire and PremAire Cadet Systems (column 2 for the plug and column 5 for the socket assembly).

G1™ PremAire® Cadet Escape Respirator

MSA G1 Facepiece offers:

- Wide field of view, 86%
- Comfortable, robust seal geometry to help ensure secure seal every time facepiece is donned
- An open port to provide low breathing resistance, both on- and off-air

PremAire Cadet Escape Respirator with G1 Facepiece features:

- Low-profile escape cylinders that can be worn on either right or left hip, making movements easier in tight spaces
- Escape cylinders rated at 5-, 10- and 15-minutes
- Pressure gauge recessed into valve housing that protects gauge and reduces size and profile
- Two harness materials: standard nylon for chemical resistance and Kevlar for high heat environments or those with spark potential
- NIOSH approval as combination supplied-air respirator and self-contained breathing apparatus



	Part No.	Description
G1 PremAire Cadet Escape Respirators	10192832	G1 PremAire Cadet Escape Air-Line Respirator, 5-minute aluminum cylinder, nylon carrier, G1 facepiece with rubber head harness, Hansen brass fittings, with case
	10192833	G1 PremAire Cadet Escape Air-Line Respirator, 5-minute aluminum cylinder, nylon carrier, G1 facepiece with rubber head harness, no fittings, no case
	10192834	G1 PremAire Cadet Escape Air-Line Respirator, 5-minute aluminum cylinder, nylon carrier, no facepiece, no fittings, no case
	10192835	G1 PremAire Cadet Escape Air-Line Respirator, 5-minute aluminum cylinder, nylon carrier, no facepiece, Hansen brass fittings, no case
	10167678	G1 PremAire Cadet Escape Air-Line Respirator, 15-minute carbon egress cylinder, kevlar strap carrier/harness, G1 Facepiece, 4 pt adjustable head harness, less fittings, hard case
	10167679	G1 PremAire Cadet Escape Air-Line Respirator, 15-minute carbon egress cylinder, kevlar strap carrier/harness, G1 Facepiece, 4 pt adjustable head harness, Hansen brass fittings, less case
	10167680	G1 PremAire Cadet Escape Air-Line Respirator, 10-minute carbon egress cylinder, nylon strap carrier/harness, G1 Facepiece, 5 pt adjustable head harness, less fittings, less case

G1 PremAire® Cadet Escape Respirator

Ordering Selection Matrix



A Type

PCG PremAire Cadet Escape G1

B Carrier & Harness Type

- 1 Nylon, strap carrier, standard
- 2 Kevlar, strap carrier, standard
- 3 Nylon, bag carrier, standard
- 4 Kevlar, bag carrier, standard

Notes:

Aluminum escape cylinders are not compatible with bag carriers.

C Pad Option

- 0 None
- 1 Shoulder

D Escape Cylinder

- A 5-minute aluminum
- B 10-minute aluminum
- C 5-minute carbon
- D 10-minute carbon
- E 15-minute carbon
- F 5-minute aluminum, less air
- G 10-minute aluminum, less air
- H 5-minute carbon, less air
- J 10-minute carbon, less air
- K 15-minute carbon, less air

E MMR Regulator

A G1 Regulator, purge cover

F G1 Facepiece

- 1 None
- 2 G1 Facepiece with 4-pt adjustable head harness, medium¹⁾
- 3 G1 Facepiece with 5-pt adjustable head harness, medium¹⁾
- 4 G1 Facepiece with rubber head harness, medium¹⁾

Notes:

If desired facepiece is not available here, choose "None" and select from the G1 Facepiece ATO.

G Quick Disconnect

- 0 None
- A Snap-Tite, aluminum
- B Snap-Tite, stainless steel
- C Snap-Tite, brass
- D Hansen, stainless steel
- E Hansen, brass
- F Foster, steel
- G Foster, stainless steel
- H Foster, brass
- J Snap-Tite, locking, aluminum
- K Snap-Tite, locking, stainless steel
- M Snap-Tite, locking, brass
- N Foster, stainless steel
- P Cejn, locking

H Case

- 0 None
- 1 Hard plastic case

Key:

¹⁾ Facepiece includes nosecup, but does not include neckstrap.

Note:

An additional surcharge will be added to configurations that are classified as hazardous materials

A	PCG								
	A	B	C	D	E	F	G	H	Qty

PART NUMBER

PremAire® Air-Supplied Respirator System



The **PremAire System** is a **Type-C supplied-air respirator** that provides unmatched flexibility in a supplied air respirator.

- Now approved with the G1 Facepiece which can be used to support a full respiratory program including Air-Line, SCBA, APR and PAPR.
- May be configured with an escape cylinder option that permits emergency escape from Immediately Dangerous to Life or Health (IDLH) atmospheres.
- Air Line-only configurations without escape cylinder available for non IDLH atmospheres.
- A dual-supply option that lets workers connect from one pressurized continuous air source to another without losing air flow continuity.
- Vortex tube option that delivers whole-body temperature control for added worker comfort.

Complete PremAire System Assemblies

	Part No.	Description
PremAire Complete Assemblies with G1 Facepiece	10249971	PremAire System w/medium G1 Facepiece with rubber harness, 5-minute aluminum cylinder, right hip mount with case
	10249972	PremAire System w/medium G1 Facepiece with rubber harness, 10-minute aluminum cylinder, right hip mount with case
PremAire Complete Assemblies with Firehawk STC Regulator	10045164	PremAire System System w/ Firehawk Slide-To-Connect Regulator, 5-minute 3AL aluminum cylinder, right hip model, with case
	10045165	PremAire System System w/ Firehawk Slide-To-Connect Regulator, 10-minute 3AL aluminum cylinder, right hip model, with case

G1 Upgrade Kits for Premaire System

	Part No.	Description
G1 Upgrde Kits for PremAire System	10249967	Premaire system G1 upgrade kit, 30" regulator hose, purge
	10249968	Premaire system G1 upgrade kit, 42" regulator hose, purge
	10249969	Premaire system G1 upgrade kit, 30" regulator hose, solid cover
	10249970	Premaire system G1 upgrade kit, 42" regulator hose, solid cover

Note: any upgrade requires flow testing by an MSA Authorized CARE service center prior to return to service.

G1 Facepiece Options

	Small	Medium	Large	Description
G1 Facepiece Options	10188954	10188955	10188956	G1 Facepiece with 4-pt. polyester head harness
	10156461	10156462	10156463	G1 Facepiece with rubber head harness
	10156458	10156459	10156460	G1 Facepiece with 4-pt. Kevlar head harness
	10161812	10161813	10161814	G1 Facepiece with 5-pt. Kevlar head harness

See G1 Facepiece Assemble to Order (ATO) matrix for additional options.

Replacement Kits and Accessories

	Part No.	Description
Replacement Kits	800696	Cylinder Kit w/fully-wound, carbon-fiber, 5-minute cylinder, for right hip
	800706	Vortex Tube Kit with 6-inch hose, cool-only version
	801012	Vortex Tube Kit with 12-inch hose, cool-only version
	811940	PremAire System Air-Line Filter Kit
	812217	TransportAire System assembly with cylinder carrier, regulator, regulator-to-hose adapter, and high-pressure Audi-Larm Audible Alarm
Support Belts	494030	Nylon web support belt
	492827	Polyurethane-coated nylon support belt, black
	802811	Nomex support belt

PremAire System Options

Escape-Cylinder Option



Portable Air Supply Option



Dual-Supply Option



Vortex Tube Option



Other Facepiece Options

	Small	Medium	Large	Description
Advantage 4000 Facepieces for Firehawk PTC MMR Regulator	10075911	10075905	10075917	hycar, rubber head harness, noseup
	10075910	10075904	10075916	silicone, rubber head harness, noseup
	10075915	10075909	10075921	hycar, polyester net head harness, noseup
	10075914	10075908	10075920	silicone, polyester net head harness, noseup
Ultra Elite Facepieces for Firehawk PTC MMR Regulator	10037650	10037648	10037652	hycar, rubber head harness, noseup
	10043417	10043413	10043431	silicone, rubber head harness, noseup
	10043419	10043415	10043433	hycar, Speed-ON Head Harness, noseup
	10043430	10043416	10043434	silicone, Speed-ON Head Harness, noseup



Ultra Elite Facepiece



Advantage 4000 Facepiece

PremAire® Supplied-Air Respirator System

Ordering Selection Matrix



A Type

PS Prem Aire System

B Belt Assembly

- 1 Nylon
- 2 Urethane
- 3 Nomex

C Escape Cylinders

- 0 None
- 1 5-min right hip carbon fiber
- 2 5-min left hip carbon fiber
- 3 5-min right hip aluminum
- 4 5-min left hip aluminum
- 5 10-Min right hip carbon fiber
- 6 10-min left hip carbon fiber
- 7 10-min right hip aluminum
- 8 10-min left hip aluminum

D Dual-Supply

- 0 None
- 1 8" Hose less QD
- 2 15" Hose less QD

E MMR Regulators ⁽²⁾

- E Firehawk STC 30" solid cover
- F Firehawk STC 42" solid cover
- G Firehawk PTC 30" solid cover
- H Firehawk PTC 42" solid cover
- J Firehawk STC 30" no by-pass
- K Firehawk STC 42" no by-pass
- L Firehawk PTC 30" no by-pass
- M Firehawk PTC 42" no by-pass
- N G1 Premaire Regulator, Solid, 30"
- O G1 Premaire Regulator, Solid, 42"
- P G1 Premaire Regulator, Purge, 30"
- Q G1 Premaire Regulator, Purge, 42"

Notes:

Must choose No By-Pass option when ordering a PremAire less escape cylinder. Note: Firehawk slide regulators not compatible with Advantage 4000 facepiece.

F Facepiece Type

- 0 None
 - 1 Non-NFPA
 - 2 NFPA
- Notes:**
NFPA facepiece is Ultra Elite (UE).

G Facepiece

- 0 None
- 1 Ultra Elite hycar
- 2 Ultra Elite silicone
- E Advantage 4000, hycar, poly net head harness
- F Advantage 4000, silicone, poly net head harness
- G Advantage 4000, hycar, rubber head harness
- H Advantage 4000, silicone, rubber head harness
- J Advantage 4000, hycar, Kevlar head harness
- K Advantage 4000, silicone, Kevlar head harness
- L G1 hycar, rubber head harness
- M G1 hycar, poly net head harness
- N G1 hycar, Kevlar 4pt head harness
- P G1 hycar, Kevlar 5pt head harness

H Facepiece Size

- 0 None
- S Small
- M Medium
- L Large

I Nosecup

- 0 None (only if you have no facepiece)
- 1 UE-medium
- 2 UE-large

J Head Harness

- 0 None
- 1 Ultra Elite, Rubber
- 2 Ultra Elite, EZ-Don, small
- 3 Ultra Elite, EZ-Don, medium
- 4 Ultra Elite, EZ-Don, large
- 5 Ultra Elite, Speed-ON
- 6 Advantage 4000 rubber
- 7 Advantage 4000 poly net
- 8 Advantage 4000 Kevlar net
- 9 G1 Rubber
- A G1 Poly
- B G1 Kevlar 4PT
- C G1 Kevlar 5PT

K Quick-Disconnect

- A None ⁽¹⁾
 - B Snap-Tite alum
 - C Snap-Tite SST
 - D Snap-Tite brass
 - E Hansen SST
 - F Hansen brass
 - G Foster steel
 - H Foster SST
 - I Foster brass
 - J Fein chrome
- Notes:**
⁽¹⁾ Unit requires use of a Quick-Disconnect to maintain approval.
Note: If you have selected the Dual-Supply option, you will need two of the same Quick-Disconnects. Just put one letter in the part number to indicate your selection, but when you calculate the price of your system, make sure you include a price for each Quick-Disconnect.

L Case

- 0 None
- 1 Hard case
- 2 Soft case

Note:

This matrix must only be used for ordering complete PremAire Systems. This matrix cannot be used for ordering individual components (i.e., facepieces, escape cylinders, etc.). Please order components separately using their standard MSA part number. An additional surcharge will be added to configurations that are classified as hazardous materials

Key:

⁽¹⁾ For applications strictly limited to non-IDLH atmospheres, NIOSH requires that the respirator system be configured without a bypass on the mask-mounted regulator (MMR). Please contact MSA Customer Service for more information.

C-PS

PS												
A	B	C	D	E	F	G	H	I	J	K	L	Qty

PART NUMBER

Air-Line Systems and Accessories

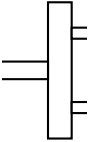
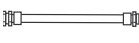
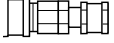
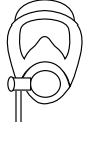
Quick-Disconnects for Air-Line Respirators and Air-Supplied Hoods

Quick-disconnect assemblies connect air-supply hoses to the manifold and to the air source.

For more information, please see MSA's Pocket Guide to Air-Line Systems (Bulletin 0114-28-MC).

Standard Air-Line Setup

Note: Respirator approvals include all fittings and hoses from the respirator up to, but not including, the manifold/point of attachment to the air source. Breathing air couplings and fittings must be incompatible with other non-respirable air or other gas systems.

Manifold/ Point of Attachment	QD 1 Female Socket 1/4" NPT	QD 2 Male Plug w/Female 1/4" NPT	QD 3 Union Adapter 1/4" NPT x 3/4" UNF	Air-Line Hose	QD 4 Female Socket Assembly	Respirator
 <i>Dual outlet shown. Images not to scale.</i>						
Quick-Disconnects & Adapters (AL) = Aluminum (S) = Steel (SST) = Stainless Steel (BR) = Brass Interchangeability A B C D E F <i>Fittings with the same letter code are interchangeable</i>	Used at manifold or point of attachment to air source.	Plugs into the female socket (QD 1) at the manifold or point of attachment. Also installed on the respirator to plug into socket assembly (QD 4).	Used at the end of the air line hose to connect to the male plug (QD 2). Teflon tape used to attach to the male plug.	See air-line hose information on the following page. A maximum total 300' and 6 hose sections is allowed on most pressure demand and high pressure constant flow setups.	Used to connect air-supply hose to male plug (QD 2) on respirator.	Male plug (QD 2) connects respirator to female socket assembly.
Snap-Tite (AL) C	66272	66274	69542		455019	
Snap-Tite (SST) C	629673	629672	808358		471778	
Snap-Tite (BR) C	630305	630307	69542		471777	
Hansen (SST) A	628768	628208	808358		471779	
Hansen (BR) D	630311	630313	69542		471501	
Foster (S) B	628770	55716	69542		467044	
Foster (SST) B	636459	636460	808358		801016	
Foster (BR) A	629980	629981	69542		470194	
Schrader (S) B	SEE FOSTER (S)	SEE FOSTER (S)	SEE FOSTER (S)		SEE FOSTER (S)	
CEJN Locking (Chrome-Plated BR) E	631870	479026	69542		479001	
CEJN Locking (Chrome) E	—	479026	69542		476956	
Snap-Tite Locking (AL) F	—	479027	69542		479032	
Snap-Tite Locking (SST) F	—	479028	808358		479033	
Snap-Tite Locking (BR) F	—	479029	69542		479034	
Foster Locking (SST) D	636473	637851	808358		800805	

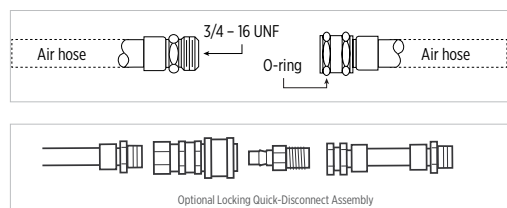
Air-Line Systems and Accessories

Approved Air-Supply Hose (3/8" ID)

- Available in smooth, reinforced, lightweight polyvinylchloride (PVC); chemical-resistant black neoprene; or smooth, coiled nylon
- Must be used with respirators in this section to maintain NIOSH certifications

		Temperature Ranges	Brass Hose Coupling	Stainless Steel Hose Coupling	Length
Neoprene Air-Supply Hose		-25° to 212°F	481071	481077	8 ft.
			455020	481078	15 ft.
			455021	481079	25 ft.
			455022	481080	50 ft.
PVC Air-Supply Hose		32° to 120°F	481051	481057	8 ft.
			471511	481058	15 ft.
			471512	481059	25 ft.
			471513	481060	50 ft.
Coiled Nylon Air-Supply Hose		0° to 160°F	491513 ¹	—	8 ft.
			491514 ¹	—	15 ft.
			491515 ¹	—	25 ft.
			474043 ¹	—	50 ft.

¹ Recommended usable length 4–25 ft



Note: Do not use non-locking quick-disconnects to interconnect air supply hoses. Locking quick-disconnects may be used or hoses may be threaded together directly as shown at left.

Locking Quick-Disconnects for Air-Supply Hose

Locking quick-disconnects are the only means to interconnect lengths of MSA air-supply hose (besides directly threading the air-supply hose together). For most systems, you can use up to 12 sections of hose to make up maximum length.

	Part No.	Description
CEJN Locking QDs	479009	CEJN locking quick-disconnect assembly, socket and plug (CHROME)
	476956	CEJN locking female quick-disconnect socket (CHROME)
	476955	CEJN locking male (w/ male 3/4" NPT) quick-disconnect plug (CHROME)
Snap-Tite Locking QDs	479010	Snap-Tite locking quick-disconnect assembly, socket and plug (AL)
	479032	Snap-Tite locking female quick-disconnect socket (AL)
	479015	Snap-Tite locking male (w/ male 3/4" NPT) quick-disconnect plug (AL)
	479011	Snap-Tite locking quick-disconnect assembly, socket and plug (SST)
	479033	Snap-Tite locking female quick-disconnect socket (SST)
	479016	Snap-Tite locking male (w/ male 3/4" NPT) quick-disconnect plug (SST)

Control Valve with Quick-Disconnect Assembly

High-pressure control valve, gold, inlet pressure range of 35–40 psig for hose lengths of 8 to 300 feet. Low-pressure control valve, black, inlet pressure range of 10–15 psig for hose lengths of 8 to 50 feet.



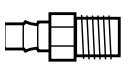
Inlet Pressure Gauge

- Enables user to check pressure at inlet of MSA air-supply hose, thereby assuring that air pressure is within certified range

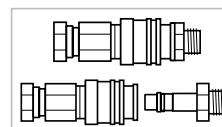


	Part No.	Description
Inlet Pressure Gauge	476734	Inlet pressure gauge, w/Snap-Tite fitting
	476735	Inlet pressure gauge, w/Foster or Schrader fitting
	476737	Inlet pressure gauge, w/Hansen fitting
	492586	Inlet pressure gauge, less quick-disconnect ²

² See chart below for quick-disconnects for inlet pressure gauge.

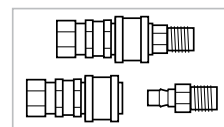
Quick-Disconnects & Adapters		Male Plug w/Female 1/4" NPT
(AL) = Aluminum (S) = Steel (SST) = Stainless Steel (BR) = Brass		
Interchangeability		Used when connecting Inlet Pressure Gauge.
A B C D E F		
Fittings with the same letter code are interchangeable		
Snap-Tite (AL)	C	66272
Snap-Tite (SST)	C	629673
Snap-Tite (BR)	C	630305
Hansen (SST)	A	628768
Hansen (BR)	D	630311
Foster (S)	B	628770
Foster (SST)	B	636459
Foster (BR)	A	629980
Schrader (S)	B	SEE FOSTER (S)
CEJN Locking (Chrome-Plated BR)	E	631870
Foster Locking (SST)	D	636473

CEJN Quick-Disconnect Socket & Plug Assembly



CEJN Q-D Socket
CEJN Q-D Plug

Snap-Tite Quick-Disconnect Socket & Plug Assembly

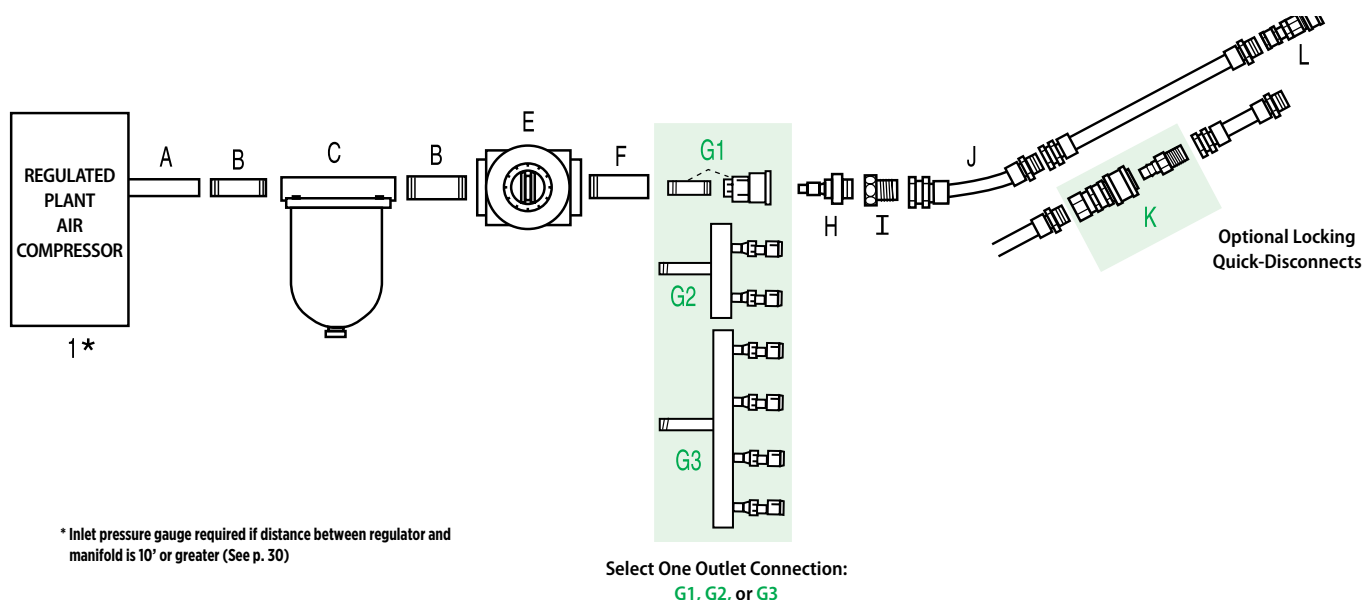


Snap-Tite Q-D Socket
Snap-Tite Q-D Plug

Air-Line Systems and Accessories

Type-C Supplied-Air Respirators, more commonly referred to as air-line respirators, are designed to provide long-duration respiratory protection. For in-depth information on these systems, please see MSA Bulletin 0114-14-MC.

Typical Plant-Supplied Air-Line Systems: Constant Flow or Pressure Demand System



1	PLANT AIR COMPRESSOR	Not supplied by MSA
A	OUTLET FITTING FOR SYSTEM	Varies with system
B	NIPPLE	($\frac{1}{2}$ " x $\frac{1}{2}$ " x 1- $\frac{1}{2}$ " NPT) P/N 68833
C	AIR LINE FILTER	P/N 81857
E	PRESSURE REGULATOR	P/N 66716
F	OUTLET CONNECTIONS	Bushing ($\frac{1}{2}$ " M x $\frac{1}{4}$ " F) P/N 625528
G1	FEMALE SOCKET NIPPLE	Female Socket-P/N varies with type (See p. 29-column QD 1) Nipple- $\frac{1}{4}$ " x $\frac{1}{4}$ " NPT-(needed only w/Female Socket) P/N 459867
G2	2-OUTLET MANIFOLD	Foster Steel P/N 84416 Snap-Tite Aluminum P/N 486053 (See p. 32)
G3	4-OUTLET MANIFOLD	Foster Steel P/N 474370 Snap-Tite Aluminum P/N 93931 (See p. 32)

H	MALE PLUG WITH MALE $\frac{1}{4}$ " NPT	(See p. 29-column QD 2)
I	UNION ADAPTER	(See p. 29-column QD 3)
J	MSA AIR-SUPPLY HOSE	P/N varies with type (See p. 30)
K	OPTIONAL LOCKING QUICK-DISCONNECT ASSEMBLIES	CEJN Locking Quick-Disconnect Assembly (Chrome) P/N 479009 for interconnecting lengths of MSA air-supply hose Snap-Tite Locking Quick-Disconnect Assembly (Aluminum) P/N 479010
L	FEMALE SOCKET ASSEMBLY	P/N varies with type (See p. 29-column 5)

Pressure Regulator

- Used with plant air compressor system to reduce compressor pressure to desired operating pressure
- Maintains pressure on outlet side until readjusted for use with inlet pressure of up to 125 psig



	Part No.	Description
Pressure Regulator	66716	Pressure regulator

Air-line Filter

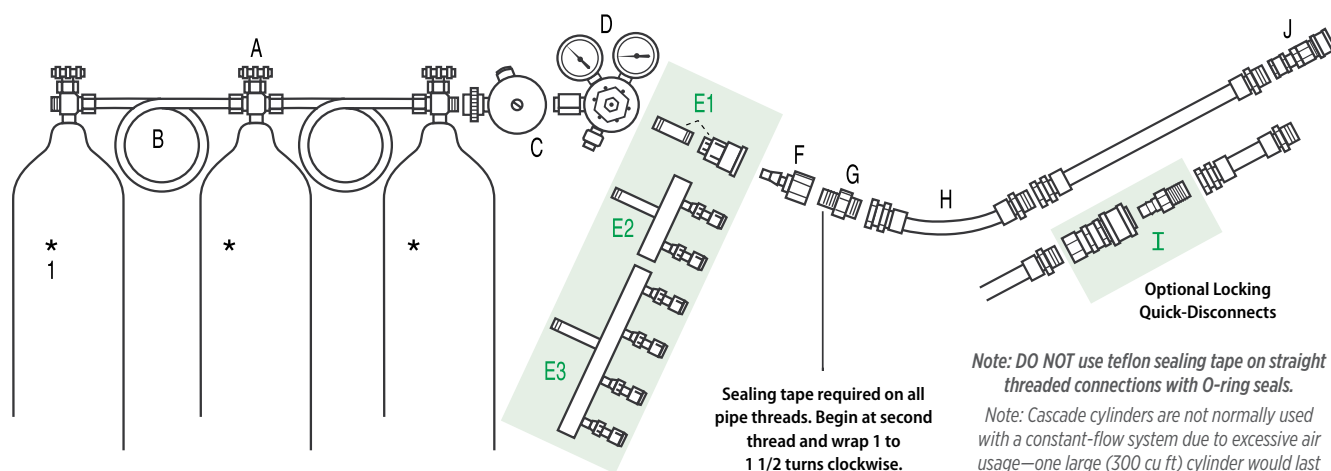
- Removes minimum of 99% of 0.3 micron and larger particulates, including dusts, mists, fumes, smoke, and petroleum vapors. Does **not** remove carbon monoxide.
- Can be used at inlet pressures up to 125 psig



	Part No.	Description
Air-line Filter	81857	With $\frac{1}{2}$ " NPT female inlet and outlet
	488041	With $\frac{3}{4}$ "-16 straight threads
	484923	Replacement Filter Kit

Air-Line Systems and Accessories

Typical Cascade Cylinder Air-Line Systems: Pressure Demand System



* 2400 psig Cascade System

Select One Outlet Connection:
E1, E2, or E3

Note: DO NOT use teflon sealing tape on straight threaded connections with O-ring seals.

Note: Cascade cylinders are not normally used with a constant-flow system due to excessive air usage—one large (300 cu ft) cylinder would last one working person only about 15 minutes. Therefore, using cascade cylinders with a pressure-demand system is recommended.

1	AIR CYLINDER	Not supplied by MSA
A	AIR TEE BLOCK	P/N 68850 or P/N 10081206 (See below)
B	AIR PIGTAIL	P/N 68851 or P/N 10081205 (See below)
C	AUDI-LARM WARNING DEVICE	P/N 85078 or P/N 492307 (See below)
D	AIR CYLINDER PRESSURE REGULATOR	P/N 68858 or P/N 633352 (See below)
E1	OUTLET CONNECTIONS	Female Socket—P/N varies with type (See p. 29); Nipple 1/4" x 1/4" NPT (needed only w/Female Socket) P/N 459867
E2	2-OUTLET MANIFOLD	Foster Steel P/N 84416 Snap-Tite Aluminum P/N 486053 (See below)
E3	4-OUTLET MANIFOLD	Foster Steel P/N 47370 Snap-Tite Aluminum P/N 93931 (See below)

F	MALE PLUG WITH FEMALE 1/4" NPT	P/N varies with type (See p. 29)
G	UNION ADAPTER	(See p. 29)
H	MSA AIR-SUPPLY HOSE	P/N varies with type (See p. 30)
I	OPTIONAL LOCKING QUICK-DISCONNECT ASSEMBLIES FOR INTERCONNECTING LENGTHS OF MSA AIR-SUPPLY HOSE	CEJN Locking Quick-Disconnect Assembly (Chrome) P/N 479009 (See p. 30) Snap-Tite Locking Quick-Disconnect Assembly (Aluminum) P/N 479010 (See p. 30)
J	FEMALE SOCKET ASSEMBLY	P/N varies with type (See p. 29)

Cascade System Accessories

Components for assembling cascade system, which consists of bank of respirable-air cylinders (user-supplied) that supply a flow of air to pressure-demand air-supplied respirators



	Part No.	Description
Cascade System Accessories	85078	Audi-Larm Warning Device, low-pressure CGA 346, 0–3000 psig
	492307	Audi-Larm Warning Device, high-pressure CGA 347, 0–5500 psig
	68850	Air coupler tee—low-pressure CGA 346, 0–3000 psig
	10081206	Air coupler tee—high-pressure CGA 347, 0–5500 psig
	68851	Air pigtail—low-pressure CGA 346, 0–3000 psig
	10081205	Air pigtail—high pressure CGA 347, 0–5500 psig
	68858	Air cylinder pressure regulator, dual-gauge, 0–3000 psig
	633352	High-pressure air cylinder regulator, dual-gauge, 0–5500 psig
	55716	Male air-supply hose adapter for Foster quick-disconnects (for PVC hose)
	69542	Union adapter (required to attach male plug)

Manifolds

Required when using multiple (2–4) respirators from single air source

Note: Gauge required when greater than 10' between air-line point of connection and regulator



	Manifolds	
	4-outlet	2-outlet
With Foster quick-disconnects	47370	84416
With Snap-Tite quick-disconnects	93931	486053
Less quick-disconnects	488914	84418

Respiratory Protection: Air-Line and Escape

Air-Line Accessories

Industrial Air Cart

Industrial Air Cart permits up to 4 NIOSH-approved air-line respirators to be connected to 2 one-hour 4,500 psig breathing apparatus cylinders (not included). See table below for cylinder ordering information. 60-minute cylinder will provide maximum air supply.

Features

- Two-wheel poly powder-coated cart, two sets of double-cylinder straps, air-line hose rack and adjustable pull handle
- 5,500 psig pressure regulator reduces 4,500 psig cylinder air to proper air-line respirator inlet pressure
- Low-pressure cylinder alarm whistle
- An outlet pressure gauge operates in 0-125 psig range
- Four-outlet manifold is available with 4 outlet fitting options

For more information, please see MSA bulletin 0114-28-MC.



Cart Weight and Dimensions

Size: 35" H x 21" W x 15.25" D
Unit Weight: 38.5 pounds
without cylinders

	With union adapters	With Snap-Tite aluminum quick-disconnects	With Foster steel quick-disconnects	With Hansen brass quick-disconnects
Industrial Air Cart	10107537	10107779	10107780	10107811

The TransportAir™ System

- Impact-resistant handle with urethane-coated nylon straps that fit around standard MSA SCBA air cylinder (purchased separately), regulator, and regulator-to-hose adapter
- Audi-Larm device provided standard on high-pressure system, optional for low-pressure system
- Designed for use with MSA supplied-air respirators equipped with dual-supply option, which improves worker mobility; workers need not remain tethered to single air-supply hose throughout work period

For more information, please see MSA bulletin 0114-21-MC.



	Part No.	Description
TransportAir System	812217	TransportAir Assembly, high-pressure (4500 psig)—complete with cylinder carrier, regulator, and regulator-to-hose adapter, and Audi-Larm low-pressure warning device
	10125955	TransportAir Assembly, low-pressure (2216 psig)—complete with cylinder carrier, regulator, and regulator-to-hose adapter
	85078	Low-pressure Audi-Larm assembly
	491513	8-ft. Coiled nylon hose

Cylinders

	Part No.	Description
Cylinders All cylinder weights shown are approximate.	807586	L-30* carbon-wrapped cylinder, 30-minute NIOSH service-life rating, 2216 psig, weight (empty): 8 lb. 0 oz.
	816115	L-30+* carbon-wrapped cylinder, 30-minute NIOSH service-life rating, 3000 psig, weight (empty): 9 lb. 8 oz.
	10127944-SP	H-30SL* , SuperLite, 30-minute NIOSH service-life rating, 4500 psig, weight (empty): 6 lb. 9 oz.
	807570	H-45* carbon-wrapped cylinder, 45-minute NIOSH service-life rating, 4500 psig, weight (empty): 9 lb. 7 oz.
	10127945-SP	H-45SL , SuperLite, 45-minute NIOSH service-life rating, 4500 psig, weight (empty): 8 lb. 8 oz.
	10127946-SP	H-60SL* , SuperLite, 60-minute NIOSH service-life rating, 4500 psig, weight (empty): 10 lb. 12 oz.
	809872	Aluminum cylinder, 30-minute NIOSH service-life rating, 2216 psig, weight (empty): 18 lb. 0 oz.

*These cylinders are capable of custom options. Contact MSA Customer Service at 1-800-MSA-2222 for more information. All weights approximate.

Air-Line Accessories

Breathing Air Distribution System Filtration Box

- Portable Grade-D filtration system provides breathing air for up to four air-line respirators
- Housed in a rugged polymer case
- Equipped with three-stage filtration, pressure regulator, four-outlet manifold and continuous flow 115 VAC carbon monoxide monitor
- May be used in portable or stationary position
- Two models of filtration boxes: one box provides 50 cubic feet of air per minute and second box provides 100 cubic feet of air per minute



	For use in the United States (Carbon Monoxide monitor set at 10 ppm)	For use in Canada (Carbon Monoxide monitor set at 5 ppm)	Description
Filtration Boxes 50 CFM	10107538	10113347	With union adapters
	10107814	10113349	With Snap-Tite aluminum quick-disconnects
	10107812	10113348	With Foster Steel quick-disconnects
	10107813	10113346	With Hansen Brass quick-disconnects
Filtration Boxes 100 CFM	10107539	10113345	With union adapters
	10107816	10113343	With Snap-Tite aluminum quick-disconnects
	10107817	10113342	With Foster Steel quick-disconnects
	10107815	10113344	With Hansen Brass quick-disconnects
Other Replacement Parts and Accessories	10108138	Upright support bracket, 50 and 100 CFM units	
	10107741	Remote audible alarm with mounted visual strobe and guard, includes 50 ft. cable and 9-12 VDC	
	10107527	Calibration Kit (for U.S. models), 20 ppm CO, zero air, regulator and case, 17-liter size	
	10107526	Calibration Kit (for Canadian models), 10 ppm CO, zero air, regulator and case, 17-liter size	
	10116617	Calibration Gas, 20 ppm CO	
	10116618	Calibration Gas, 10 ppm CO	
Breathing Air Distribution Supply Hoses for Inlet Ports from plant air system to filtration box	10113330	Hose, 50 feet, Industrial Interchange Connections, ½-inch NPT male and female	
	10113341	Hose, 100 feet, Industrial Interchange Connections, ½-inch NPT male and female	
	10113328	Quick-Disconnect Socket, Hansen Industrial, ½-inch male NPT	
	10113329	Quick-Disconnect Plug, Hansen Industrial, ½-inch male NPT	

	50 CFM	100 CFM	Description
Filter Change Kits	10107545	10107541	Filter Change Kit, first stage
	10107546	10107542	Filter Change Kit, second stage
	10107544	10107543	Filter Change Kit, third stage

Breathing Air Distribution System—Point of Attachment Box

- Up to four air-line respirators
- Housed in a rugged polymer case
- May be used in portable or stationary position
- Extends range of breathing air systems



	With union adapters	With Snap-Tite aluminum quick-disconnects	With Foster steel quick-disconnects	With Hansen brass quick-disconnects
Point of Attachment Box	10107536	10107822	10107823	10107821

Respiratory Protection: Air-Line and Escape

TransAire® 5 and TransAire® 10 Escape Respirators

- Provides emergency air in dangerous and deadly atmospheres, including those with high concentrations of toxic gases or vapors or oxygen deficiency
- 5- and 10-minute standard-flow air supply
- One-control operation for swift exit
- Compact and lightweight for easy egress from tight spaces
- Fog-reducing hoods in urethane or Teflon easily fit over eyeglasses and facial hair
- Rugged, high-density polyethylene carrying case available
- Washable nylon cloth carrier can be worn on waist, neck or shoulder



Respirators include cylinder, carrier, hood tube, and hood assembly

	Part No.	Description
TransAire 5 Escape Respirator	10008292	With aluminum cylinder
	10066739	With aluminum cylinder, less air
TransAire 10 Escape Respirator	10008293	With aluminum cylinder
	10083327	With full -wound carbon cylinder
	10066740	With aluminum cylinder, less air

Accessories

Chemical-resistant ABS plastic cases resist weathering, moisture, and corrosion to ensure escape respirators stay in ready-to-use condition.



	Part No.	Description
Accessories	696192	Single-unit wall-mounting case
	696193	Two-unit wall-mounting case
	10012530	Single unit carrying case, yellow polyethylene, with handle, for all escape respirators

MSA Airline Respirator Selection Guide



The easy-to-follow MSA Airline Respirator Selection Guide is a web-based tool designed to help configure an airline assembly starting at the PremAire Cadet Escape Respirator, and ending at the point of the attachment.

Available at: <http://webapps.msasafety.com/product-selection-guide/airline/>

Respiratory Protection: Self-Contained Breathing Apparatus

G1™ Industrial SCBA

G1 Facepiece

Lightweight & Low-Profile

- Enhance situational awareness and visibility through a wide field of view.
- Prevent potential cross-contamination when units are shared through unique mask design, which restricts exhaled air from entering the mask-mounted regulator.
- Open port design allows for lower breathing resistance both on and off air with the goal of reducing fatigue.
- Enable short-range communication with mechanical speaking diaphragm.
- Meet a variety of user needs with head harness options available in Kevlar, rubber, or polyester.

G1 Carrier and Harness Assembly

Customized Comfort & Fit

- Clean quickly with easy-to-remove soft goods.
- Improve harness durability in tough environments with nanosphere-coated webbing to improve resistance to water and chemical exposure.
- Increase comfort with optional shoulder pads and lumbar support to help reduce fatigue.
- Improve ease of donning through shoulder pad placement to reduce twisting and increase comfort.
- Choose either nylon or Kevlar harness components and cylinder bands to meet the needs of your work environment.



	Part Number	Description
G1 Industrial SCBA G1 iRC	10215805	Low-pressure 30-min. aluminum cylinder, nylon harness without padding and chest strap, medium G1 Facepiece with polyester head harness, hard case included
	10215806	Low-pressure 30-min. aluminum cylinder, nylon harness without padding and chest strap, medium G1 Facepiece with polyester head harness, no case
	10215807	High-pressure 45-min. low-profile carbon cylinder, nylon harness with shoulder and lumbar pads, no chest strap, medium G1 Facepiece with polyester head harness, hard case included
	10215808	High-pressure 45-min. low-profile carbon cylinder, Kevlar harness with shoulder and lumbar pads, no chest strap, metal cylinder band, medium G1 Facepiece with 4-pt. Kevlar head harness, hard case included

Cylinders

- Choose from two different low-pressure (2216 psig), 30-minute-rated cylinders; or
- Four high-pressure (4500 psig) carbon-wrapped cylinders in 30-, 45- or 60-minute durations.



Cylinder Connection

Choose from a quick-connect cylinder attachment for easy change out, or standard threaded connection. The color-coded band on first stage reducer provides an at-glance indicator as to whether the system is high- or low-pressure.



Shoulder-mounted Quick-Fill® System EBS Accessory

This optional connection allows for SCBA cylinder refill from a mobile compressor or cascade system. It also allows transfilling between two SCBA wearers, providing an emergency breathing system in IDLH atmospheres.



Air-Line Attachment

The optional air-line attachment creates a second port for air-line connection to an independent air source, such as an air compressor or cascade system, to conserve cylinder air for emergency escape.



G1™ Industrial SCBA

MSA G1 SCBA Cylinders for Threaded Remote Connection

Cylinder Pressure	Cylinder Duration	Connection Type	Air	Less Air
2216 psig	30-minute	Threaded	10156422-SP	10156431-SP
2216 aluminum	30-minute	Threaded	10213697	10213701
4500 psig	30-minute	Threaded	10156423-SP	10156432-SP
4500 psig	45-minute LP ¹	Threaded	10156424-SP	10156433-SP
4500 psig	45-minute	Threaded	10156425-SP	10156434-SP
4500 psig	60-minute	Threaded	10156426-SP	10156435-SP

MSA G1 SCBA Cylinders for Quick-Connect Remote Connection

Cylinder Pressure	Cylinder Duration	Connection Type	Air	Less Air
2216 psig	30-minute	Quick-connect	10175706	10175711
2216 aluminum	30-minute	Quick-connect	10213698	10213702
4500 psig	30-minute	Quick-connect	10175707	10175712
4500 psig	45-minute LP ¹	Quick-connect	10175708	10175713
4500 psig	45-minute	Quick-connect	10175709	10175714
4500 psig	60-minute	Quick-connect	10175710	10175715

PLEASE NOTE: Quick-connect cylinder adapter must be ordered for each cylinder separately.

Cylinders, Adapters & Upgrade Kits

Part Number	Description
10149701-SP	Quick-Connect adapter, 2216 PSIG
10149702-SP	Quick-Connect adapter, 4500 PSIG
10158389	Type 2 Dovetail Retainer Kit fro H30
10158390	Type 3 Dovetail Retainer Kit for H45LP
10158401	Type 4 Dovetail Retainer Kit for L30 (Aluminum or Carbon), and H45
10158402	Type 5 Dovetail Retainer Kit for H60
10193164	G1 AirHawk II, continuous hose, hard cover
10193165	G1 AirHawk II, quick-connect hose, hard cover
10193166	G1 AirHawk II, threaded hose, hard cover
Part Number	Direct Connect Cylinders *
10183006	2216 PSIG, 30-min., low-pressure aluminum cylinder, threaded connection
10183005	2216 PSIG, 30-min., low-pressure carbon cylinder, threaded connection
10183007	4500 PSIG, 30-min., high-pressure carbon cylinder, threaded connection
10183008	4500 PSIG, 45-min., high-pressure carbon cylinder, threaded connection
10183009	4500 PSIG, 45-min., high-pressure, low-profile carbon cylinder, threaded connection
10183010	4500 PSIG, 60-min., high-pressure carbon cylinder, threaded connection

* Not compatible with G1 Industrial SCBA with remote connect cylinders

Storage Cabinets

- Chemical resistant ABS plastic case resists weathering, moisture, and corrosion to ensure SCBA stay in ready-to-use condition

	Part No.	Description
Storage Cabinets	10052744	Single case for SCBA supplied with LP30, HP45, HP60 and low-profile cylinders
	10052745	Single case for SCBA supplied with H30 cylinders only

¹Low profile version of the 45-minute, 4500 psig cylinder

G1 Facepiece

Part Number	Description
10188954	G1 Facepiece, small, 4-pt. polyester head harness
10188955	G1 Facepiece, medium, 4-pt. polyester head harness
10188956	G1 Facepiece, large, 4-pt. polyester head harness
10156461	G1 Facepiece, small, rubber head harness
10156462	G1 Facepiece, medium, rubber head harness
10156463	G1 Facepiece, large, rubber head harness
10156458	G1 Facepiece, small, 4-pt. Kevlar head harness
10156459	G1 Facepiece, medium, 4-pt. Kevlar head harness
10156460	G1 Facepiece, large, 4-pt. Kevlar head harness

See G1 Facepiece ATO for additional options.

G1 Accessories

Part Number	Description
10144230	Spectacle kit for G1 Facepiece
10144231-SP	APR adapter for G1 Facepiece (single canister)
496081	Type H filter, 6 pack
10160594	GME P100 canister
10067469	OV/P100 canister
805078	Quick Chek® III fit test adapter
10199720	APR Adapter, twin cartridge for G1 facepiece



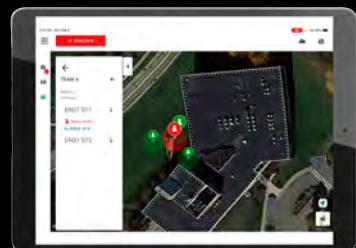
Connected Firefighter Solution Overview

The MSA Connected Firefighter Platform is a system of devices and solutions to help keep your team safe, connected, and able to make proactive and confident decisions—on and off the fire ground. The platform is comprised of the **G1™ SCBA**, **MSA HUB Fire Service**, **LUNAR® Connected Device**, and **FireGrid™**. The Connected Firefighter Platform is supported by our cloud connected products which enable incident management and inventory management, as well as reporting and analytics.

Incident Command

■ LOCAL MONITORING

With advancements in technology, tablet-based local monitoring extends visibility of all cloud connected users on-scene, devices being used and their associated statuses to Incident Command. With MSA's local monitoring application, FireGrid Monitor, information such as alarms, warnings, search status, estimated location, teams and air status complement existing tools, techniques, and processes to aid in more confident decision making.



■ SEARCH AND RESCUE

When a device is in alarm, all LUNAR devices within the vicinity are notified with the personalization of the device in alarm and the reason for the alarm—motion, manual, or hardware. In addition to each team member being notified, Incident Command is also notified in FireGrid Monitor about which device is in alarm, when the search starts, and who is searching. When a search begins, the searcher is given distance and directional information in addition to having their thermal imaging. Search and rescue functionality operates on the LUNAR-to-LUNAR network and is available with or without cellular connectivity.



■ SITUATIONAL AWARENESS

LUNAR provides personal thermal imaging with edge detection to identify hot spots and ventilation points, improving situational awareness and making it easier to navigate through environments with low visibility.

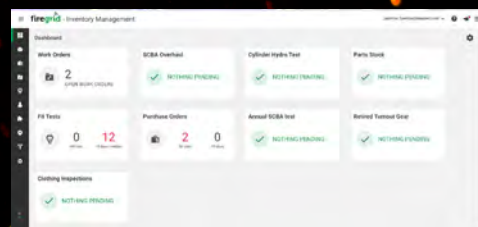


FirstNet®

LUNAR is available for use on FirstNet, the only nationwide communications network built with and for first responders and those who support them.

Inventory Management Compliance

In MSA's web-based application, FireGrid Web, manage assets, work orders, purchase orders, tests, people, parts, and other details for your department. This asset management application supports MSA's SCBAs, facepieces, cylinders, HUBs, LUNARs, turnout gear, and helmets, as well as competitive turnout gear and helmets. Depending on product type, asset management will retain information such as type, model, serial number, sizing information, usage status, inspection/cleaning information, issued department/asset location, history or personnel assigned to, all aiding in compliance and data to aid in better fleet utilization.



Reports and Analytics

After-scene data is automatically sent, aggregated and stored for report generation and data analytics—device and incident information. Each reported incident is listed on the Reports page. Incidents can be filtered by date or alarm type, and reports can be created for each incident.



The MSA G1™ SCBA XR Edition *stands out from the crowd.*

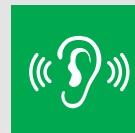
FACEPIECE

- Open port design with cross-contamination protection
- Comfortable and easy to use, with low breathing resistance on and off air
- Zero electronics, reducing weight, snag hazards and cost



COMMUNICATIONS

- Loud and clear communications are included with every G1 SCBA
- Intelligently removes background and inhalation noise, helping your commands to be heard



CONTROL

- Integrated Thermal Imaging Camera (TIC) allows firefighter to see within dark, smoke-filled environments
- Five user-selectable palettes—10+ additional programmable palettes available via MSA A2 Software
- Compatible with all G1 SCBA via simple field upgrade
- Control module provides both colorLCD and analog displays
- Display automatically turns on when control module is lifted into viewing position
- No matter which button is pressed, necessary information displays
- Improved visibility through *buddy lights*



COMFORT

- Swiveling, adjustable lumbar pad properly positions SCBA weight
- Improved comfort, balance, fit
- Low profile swiveling lumbar pad reduces weight and positions backframe close to the body



POWER

- Single power source
- Uses alkaline or rechargeable battery
- Eliminates the need to maintain multiple battery sizes or multiple battery locations
- Low cost of ownership



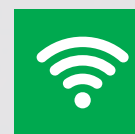
SITUATIONAL AWARENESS

- Wide field of view through the G1 Facepiece
- Seven three-stage buddy lights providing 360-degree visibility of pressure status
- Highly reflective material on shoulder straps and cylinder band
- Optional integrated TIC provides visibility when it is needed most



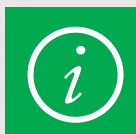
READY FOR THE FUTURE

- Bluetooth connectivity, RFID, Near Field Communication (NFC), long-range radio
- Quickly update the G1 SCBA with the latest advancements through Bluetooth technology, ensuring the SCBA you buy today can easily adapt to meet your needs far into the future



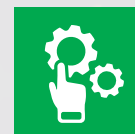
INFORMATION

- HUD provides more information than ever before and can be customized to meet your SOP; cylinder pressure, battery status, evacuation (optional), and so much more



BUILT JUST FOR YOU

- Control module and HUD display required information; easily customized to meet your existing standard operating procedure
- Modular designs allows for quick component change



MSA G1 SCBA Fire Service Edition

Ordering Selection Matrix

A System Pressure

- 4 4500 psig
- 5 5500 psig ^[1]

B Cylinder Connection

- 2 CGA Threaded Remote Connection
- 4 CGA Quick Connect Remote Connection

C Harness

- 3 Serviceable Tunnel without Chest Strap
- 4 Serviceable Tunnel with Chest Strap
- 9 Serviceable Tunnel without Chest Strap No PASS
- 10 Serviceable Tunnel with Chest Strap No PASS

D Cradle Type

- M Metal Band

E Lumbar Type

- A Adjustable Swiveling Lumbar Pad
- D Adjustable Swiveling, Solid buckle
- P Low Profile Swiveling Lumbar Pad
- R Low Profile Swiveling Lumbar Pad, Solid Buckle
- 1 Rescue Belt II Crosby Hook, 50'
- 2 Rescue Belt II Carabiner, 50'
- 8 Rescue Belt II Lightning GT Hook, 50' Aramid/ Nylon Rope

F Regulator Type

- 1 Purge Cover T4 Left Shoulder
- 2 Solid Cover T4 Left Shoulder

G Regulator Hose Type

- C Continuous
- Q Quick Connect

H Emergency Breathing Support

- 0 None
- 1 Waist Mounted Quick-Fill ^[1]
- 2 ExtendAire II
- 3 Waist Mounted Quick-Fill and ExtendAire II ^[1]
- 4 Hose and pouch
- 5 Waist-mounted Quick-Fill w/hose and pouch ^[1]
- 6 ExtendAire II w/ hose and pouch
- 7 Waist-mounted Quick-Fill w/hose and pouch, ExtendAire II ^[1]
- A Pouch only

J Speaker Module

- L Left Chest ^[2]
- 0 None

K PASS

- A PASS Right Shoulder ^[2]
- C PASS Telemetry Right Shoulder ^[2]
- E PASS Right Shoulder w/ Integrated TIC ^[2]
- G PASS Telemetry Right Shoulder w/ Integrated TIC ^[2]
- H No PASS Right Shoulder ^{[2][4]}
- J No PASS Telemetry Right Shoulder ^{[2][4]}
- K No PASS Right Shoulder w/ Integrated TIC ^{[2][4]}
- L No PASS Telemetry Right Shoulder w/ Integrated TIC ^{[2][4]}

L Battery Type

- A Alkaline
 - R Rechargeable ^[3]
- Notes:**
If Telemetry is ordered R must be selected.

Key:

- ^[1] SCBA to SCBA Transfilling is not available with the 5500psig operating system
- ^[2] As Worn
- ^[3] Charger sold separately
- ^[4] Can only be combined with Harness option 9 or 10

Note:

An additional surcharge will be added to configurations that are classified as hazardous materials

A-GIFS

A	B	C	D	E	F	G	H	J	K	L		Qty
PART NUMBER												



MSA G1 Facepiece

Ordering Selection Matrix



A Application

F Fire

B Size

S Small

M Medium

L Large

C Material

1 Hycar

D Nosecup

0 None

S Small

M Medium

L Large

E Head Harness

0 None

4 4 pt Adjustable

5 5 pt Adjustable

R Rubber

F Neckstrap

0 None

C Cloth

R Rubber

G Regulator Connection

1 Fixed Push-to- Connect

Note:

Part numbered facepieces are also available

An additional surcharge will be added to configurations that are classified as hazardous materials

A-G1FP			1				1	
	A	B	C	D	E	F	G	Qty

PART NUMBER

MSA G1™ SCBA Facepieces

Part No.	Type	Size	Nosecup Size	Head Harness	ATO Configuration
10156458	Fire service	Small	Small	4-pt. adjustable	GIFP-F-S-1-S-4-0-1
10156459	Fire service	Medium	Medium	4-pt. adjustable	GIFP-F-M-1-M-4-0-1
10156460	Fire service	Large	Large	4-pt. adjustable	GIFP-F-L-1-L-4-0-1
10156461	Fire service	Small	Small	Rubber	GIFP-F-S-1-S-R-0-1
10156462	Fire service	Medium	Medium	Rubber	GIFP-F-M-1-M-R-0-1
10156463	Fire service	Large	Large	Rubber	GIFP-F-L-1-L-R-0-1
10161812	Fire service	Small	Small	5-pt. adjustable	GIFP-F-S-1-S-5-0-1
10161813	Fire service	Medium	Medium	5-pt. adjustable	GIFP-F-M-1-M-5-0-1
10161814	Fire service	Large	Large	5-pt. adjustable	GIFP-F-L-1-L-5-0-1



MSA G1™ SCBA Cylinders

Standard, Lightweight Carbon Cylinders

MSA Standard, Lightweight Carbon Cylinders (also known as SuperLite Cylinders) are a staple in the Fire Service. Available in 4500 and 5500 psi, these cylinders are durable and lightweight. The cylinder is wound thousands of times with high-strength carbon fibers impregnated with epoxy resin. A final over-wrap of fiberglass fibers enhances abrasion resistance. Then, a glow-in-the-dark luminescent band is applied for improved night visibility.



4500 psi Standard
green band

5500 psi Standard
blue band



G1 SCBA Cylinder Options

MSA G1 SCBA Cylinders are available for purchase in a wide variety of options and ability for customization.

Connection Type



Threaded Remote Connection

Threaded Remote Connection is available in CGA 347 (4500 and 5500 psi) for a traditional, thread-on connection.



Quick-Connect Remote Connection

The Quick-Connect option is available for rapid, quick changing of cylinders. The Quick-Connect Cylinders come with an installed adapter to easily push-to-connect with the remote handwheel.

Handwheel Type



Standard Handwheel

The Standard handwheel allows for simple and easy opening and closing of the cylinder valve by turning the handwheel knob.



Locking Handwheel

The Locking handwheel locks when the cylinder valve is in an open position. It requires only a simple turning motion of the handwheel to open the cylinder, but to close the cylinder valve the user must pull the handwheel outward and then turn to close.

Custom Logo



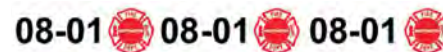
For easy-to-read cylinder identification, MSA can customize any G1 Cylinder to have a department's logo wrapped under the clear coat of the cylinder. This customization can be done by either a reflective or paper band in single or multi-color.

Custom Labels

Single Color



Multi Color



G1 SCBA Cylinder Specs

Standard, Lightweight Carbon Cylinders					
Cylinder Pressure	Service Time	Available Breathable Air	Cylinder Height (w/Valve)	Cylinder Diameter	Cylinder Weight (Full)
30-minute Cylinders					
4500 PSI	30 Minutes	45 ft. ³	21.4" (544 mm)	5.4" (137 mm)	10.4 lb. (4.7 kg)
5500 PSI	30 Minutes	45 ft. ³	21.0" (533 mm)	5.0" (127 mm)	9.9 lb. (4.5 kg)
45-minute Cylinders					
4500 PSI	45 Minutes (<i>low-profile</i>)	65 ft. ³	23.1" (587 mm)	6.3" (160 mm)	13.9 lb. (6.3 kg)
4500 PSI	45 Minutes	65 ft. ³	21.0" (533 mm)	6.8" (173 mm)	14.4 lb. (6.5 kg)
5500 PSI	45 Minutes	65 ft. ³	22.7" (577 mm)	5.8" (147 mm)	13.5 lb. (6.1 kg)
60-minute Cylinders					
4500 PSI	60 Minutes	87 ft. ³	23.9" (607 mm)	7.1" (180 mm)	17.2 lb. (7.8 kg)
5500 PSI	60 Minutes	87 ft. ³	22.7" (577 mm)	6.7" (170 mm)	17.4 lb. (7.9 kg)

G1 SCBA Cylinder Ordering Information

MSA G1 SCBA Standard Cylinders for Threaded Remote Connection

Cylinder Pressure	Cylinder Type	Connection Type	Handwheel Type	Air	Less Air
4500 PSIG	30-minute	Threaded	Standard	10156423-SP	10156432-SP
4500 PSIG	45-minute (<i>low-profile</i>)	Threaded	Standard	10156424-SP	10156433-SP
4500 PSIG	45-minute	Threaded	Standard	10156425-SP	10156434-SP
4500 PSIG	60-minute	Threaded	Standard	10156426-SP	10156435-SP
5500 PSIG	30-minute	Threaded	Standard	10185508	10185602
5500 PSIG	45-minute	Threaded	Standard	10185509	10185603
5500 PSIG	60-minute	Threaded	Standard	10185510	10185604

MSA G1 SCBA Standard Cylinders for Quick-Connect Remote Connection

Cylinder Pressure	Cylinder Type	Connection Type	Handwheel Type	Air	Less Air
4500 PSIG	30-minute	Quick-Connect	Standard	10175707	10175712
4500 PSIG	45-minute (<i>low-profile</i>)	Quick-Connect	Standard	10175708	10175713
4500 PSIG	45-minute	Quick-Connect	Standard	10175709	10175714
4500 PSIG	60-minute	Quick-Connect	Standard	10175710	10175715
5500 PSIG	30-minute	Quick-Connect	Standard	10181628	10181708
5500 PSIG	45-minute	Quick-Connect	Standard	10181629	10181709
5500 PSIG	60-minute	Quick-Connect	Standard	10181630	10181710

MSA G1 SCBA Standard Cylinders for Threaded & Quick-Connect Remote Connection w/Locking Handwheel

Cylinder Pressure	Cylinder Type	Connection Type	Handwheel Type	Air	Less Air
4500 PSIG	30-minute	Threaded	Locking	10191802	10191838
4500 PSIG	45-minute (<i>low-profile</i>)	Threaded	Locking	10191806	10191842
4500 PSIG	45-minute	Threaded	Locking	10191804	10191840
4500 PSIG	60-minute	Threaded	Locking	10191808	10191844
4500 PSIG	30-minute	Quick-Connect	Locking	10191803	10191839
4500 PSIG	45-minute (<i>low-profile</i>)	Quick-Connect	Locking	10191807	10191843
4500 PSIG	45-minute	Quick-Connect	Locking	10191805	10191841
4500 PSIG	60-minute	Quick-Connect	Locking	10191809	10191845

MSA G1 SCBA Eclipse Cylinders

Cylinder Pressure	Cylinder Type	Connection Type	Handwheel Type	Air	Less Air
4500 PSIG	30-minute	Threaded	Standard	10204941	10204965
4500 PSIG	45-minute (<i>low-profile</i>)	Threaded	Standard	10204945	10204969
4500 PSIG	30-minute	Quick-Connect	Standard	10204942	10204966
4500 PSIG	45-minute (<i>low-profile</i>)	Quick-Connect	Standard	10204946	10204970
4500 PSIG	30-minute	Threaded	Locking	10204943	10204967
4500 PSIG	45-minute (<i>low-profile</i>)	Threaded	Locking	10204947	10204971
4500 PSIG	30-minute	Quick-Connect	Locking	10204944	10204968
4500 PSIG	45-minute (<i>low-profile</i>)	Quick-Connect	Locking	10204948	10204972

MSA G1 SCBA Cylinder Accessories

PART NO.	Description
10149702-SP	Quick-Connect adapter for 4500/5500 psig cylinders
10158389	Retainer kit for 4500 psig, 30-min. cylinder (type 2 dovetail)
10158390	Retainer kit for 4500 psig, 45-min. low-profile cylinder (type 3 dovetail)
10158401	Retainer kit for 4500 psig, 45-min. cylinder (type 4 dovetail)
10158402	Retainer kit for 4500 psig, 60-min. cylinder (type 5 dovetail)
10162403	Quick-Connect adapter for fill station
10183992	Kit, protective cap & boot for 30-min. cylinder
10183993	Kit, protective cap & boot for 45-min. low-profile cylinder



Cap & Boot

The Cap & Boot provide a protective rubber cover to the top and bottom of the cylinder.

Only available for Standard, Lightweight Carbon Cylinders in 30-minute and 45-minute LP 4500 psi.

MSA G1 SCBA Accessories

MSA G1 SCBA Accessories

Part No.	Description
10148740-SP	Replacement alkaline battery pack
10148741-SP	Replacement rechargeable battery pack
10158385	Rechargeable battery charging station
10158403	Tool Kit
10083875	RFID tag
10158407	RFID reader/writer
10175021-SP	G1 Control Module w/ Integrated TIC upgrade kit – 4500/5500 psig

MSA G1 SCBA Facepiece Accessories

Part No.	Description
10144230	Spectacle Kit for G1 Facepiece
10144220-SP	Replacement cloth neck strap
10159699-SP	Replacement rubber neck strap
10144231-SP	Single Port APR Filter adapter assembly
10199720	Twin Port APR Filter adapter assembly
805078	Quick Chek® III Fit Test Adapter

MSA G1™ Soft Goods Kits

The G1 SCBA Soft Goods can be easily removed for enhanced cleaning protocols and provides a second set of G1 Soft Goods to reduce out-of-service time and extend the life of your SCBA's soft good components.

Part No.	Description
10181021	G1 Soft Goods Kit (serviceable tunnel straps, low profile swivel lumbar, 4-pt harness)
10181022	G1 Soft Goods Kit (serviceable tunnel straps, swiveling lumbar, 4-pt harness)
10181023	G1 Soft Goods Kit (serviceable tunnel straps, low profile swivel lumbar, 5-pt harness)
10181024	G1 Soft Goods Kit (serviceable tunnel straps, swiveling lumbar, 5-pt harness)



MSA G1 Soft Goods Kits

MSA Rescue Belt II System for MSA G1™ SCBA

MSA's innovative device for emergency egress, the Rescue Belt II System for the G1 SCBA, is an integrated personal escape system that allows firefighters to rappel to safety should they become trapped in a building's upper level. G1 Rescue Belt II System is NFPA 1983-certified for use as a personal escape system for emergency escape when installed on MSA-approved air masks. Device can also be used as a standalone product when not installed on an air mask. The Rescue Belt II System can be ordered as an MSA G1 SCBA option or as an individually-sold component for upgrade of your existing MSA G1 SCBA.

Ergonomically-contoured Ara-Shield rescue belt pouch stores:

- 50-ft. FireTech 32 rescue rope
- Auto-locking Sterling F4 Descender
- Choice of Crosby, Lightning, Lightning GT hook, or carabiner

Rope	Connectors			
50-ft. FireTech 32				
50-ft. MSA SafeTech	Crosby hook	Carabiner	Lightning hook	Lightning GT hook
50-ft. FireTech 32	10173088	10173089	10173090	10173101
50-ft. MSA SafeTech	10173102	10173103	10173104	10173105



MSA Accountability System

A new way to monitor vital information

- Each MSA HUB can monitor as many as 50 firefighters; multiple HUBs can be used on a single computer.
- MSA G1 SCBA Air Mask with telemetry transmits to incident command the firefighter's name, team assignment, cylinder pressure, service-time remaining, PASS alarms (motion or manual), thermal alarms, battery status, radio connectivity, and evacuation acknowledgement.

A fireground management system

- Personalized ID tags for each firefighter tell incident command exactly who is on scene.
- Integrated PAR (personnel accountability report) timer helps manage radio calls to each team.
- Incident command can manually add firefighters who are not wearing SCBA or mutual aid firefighters, so all personnel can be accounted for.

Intuitive and easy to use

- Assign firefighters to teams by clicking on firefighter's icon and dragging to appropriate team.
- Critical information is available at a screen glance due to large number of firefighters that can display, as well as pictorial information format.
- Receive both audible and visual indications of critical events such as PASS alarms or low-pressure alarms.

Two-way evacuation feature

- Individual firefighter, team of firefighters or all firefighters can be evacuated with click of a button.
- When incident command transmits an alarm through MSA G1 SCBA Air Mask, they'll know that the firefighter received it, as unit automatically sends confirmation message to the HUB.
- Firefighters hear evacuation alarm on their personal PASS devices. Visual HUD indications and control module icon alert firefighter that it is time to evacuate.
- By simply pressing control module, firefighters can send manual confirmation to acknowledge that they have received and understand critically important evacuation message.
- Although certain concrete and steel commercial structures can challenge any radio signal, MSA's Accountability System coverage with radio technology provides highly reliable performance for one-mile line-of-sight range.
- Due to spread-spectrum design, system does not interfere with other high-band radio frequency equipment.
- For additional safety, both HUB and firefighter modules have icon message to inform users if firefighter leaves radio signal range, so that alternate accountability measures, such as voice contact with teammates, can be taken.



MSA HUB Fire Service and Replacement Parts

Part No.	Description
10197700	MSA HUB Fire Service – US
10201790-SP	Wall power supply
10204998-SP	Power cable for car installation (82 ft./25 m)
10201801-SP	Multi antenna with antenna cable for car installation (9.8 ft./3 m)
10201944-SP	LRR antenna for car installation
10205446-SP	Antenna cable for LRR antenna (10 ft./3 m)

MSA HUB Fire Service Accessories

Part No.	Description
10195741-SP	Ethernet kit (Fire Service Standard)
10195743-SP	Ethernet cable, 66 ft./20 m (Fire Service)
10195747-SP	Ethernet cable, 16 ft./5 m (Fire Service)
10203364	Wall brackets (all)

MSA G1™ Rescue Breathing Options

MSA G1 ExtendAire™ System

The all new MSA G1 ExtendAire II System is a Universal Emergency Breathing Supply System (UEBSS) accessory that uses intermediate pressure air to provide firefighters with emergency breathing air.

The G1 ExtendAire II System allows firefighters to quickly and easily interconnect to a fellow firefighter's air supply. The ExtendAire II System integrated into the G1 SCBA, providing mobility and easy access during emergency situations. The system uses locking quick-connects with integrated check valve.

The new MSA G1 ExtendAire II System features an integrated rescue hose and manifold assembly that uses both male and female quick-connect fittings. The system is stowed in a low-profile pouch that mounts on the carrier assembly, positioned to help prevent snagging and accidental opening.



Approvals & Standards

The G1 ExtendAire II is NIOSH approved and NFPA 1970-2025 edition compliant.

ExtendAire II System	G1 ExtendAire II can be configured on the purchase of a new G1 SCBA or by installing a field upgradeable conversion kit.	
	Part No.	Description
	10205767	G1 ExtendAire II System Conversion Kit, UEBSS, 2018 Ed.
	10203820	Replacement pouch for G1 ExtendAire II System, UEBSS, 2018 Ed. and 2025 Ed.
	10156464	G1 ExtendAire II System Conversion Kit, 2013 Ed.
	10156466-SP	Replacement pouch for G1 ExtendAire II System, 2013 Ed.

MSA G1 Airline Capabilities

The MSA G1 ExtendAire II also provides an airline solution for quick connection at emergency events requiring an extended air supply like bucket operations, Hazmat or confined spaces. An airline adapter connects to the ExtendAire II manifold assembly, to provide external air from distances up to 300 feet away.

Airline Adapters for ExtendAire II System	Part No.	Description
	10188834	Airline Adapter, Snap-Tite Aluminum, ExtendAire II, UEBSS
	10188835	Airline Adapter, Snap-Tite Stainless Steel, ExtendAire II, UEBSS
	10188836	Airline Adapter, Snap-Tite Brass, ExtendAire II, UEBSS
	10188837	Airline Adapter, Hansen Stainless Steel, ExtendAire II, UEBSS
	10188838	Airline Adapter, Hansen Brass, ExtendAire II, UEBSS
	10188840	Airline Adapter, Foster Steel, ExtendAire II, UEBSS
	10188841	Airline Adapter, Foster Stainless Steel, ExtendAire II, UEBSS
	10188842	Airline Adapter, Foster Brass, ExtendAire II, UEBSS
	10188843	Airline Adapter, Steel, Locking, Aluminum, ExtendAire II, UEBSS
	10188844	Airline Adapter, Steel, Locking, Stainless Steel, ExtendAire II, UEBSS
	10188845	Airline Adapter, Steel, Locking, Brass, ExtendAire II, UEBSS
	10188846	Airline Adapter, Foster, Locking, Stainless Steel, ExtendAire II, UEBSS
	10188847	Airline Adapter, Ceijn, Locking, ExtendAire II, UEBSS

MSA G1™ Quick-Fill System

The Quick-Fill System lets MSA air mask users refill and transfill air cylinders¹ while SCBA is worn, without removing the air cylinder—even in IDLH atmospheres. Use this MSA option to:

- Fill SCBA cylinder from a mobile compressor or cascade system in less than a minute.
- Transfill between two cylinders, providing emergency breathing system.¹
- Extend air supply over longer durations, using a remote compressed-air source.

Air masks compliant to recent NFPA standards have Quick-Fill System URC fitting located at the Audi-Larm Audible Alarm warning device. Quick-Fill System hose with quick-disconnect connects air source to adapter for air transfer. See Bulletin 0105-92-MC for a Quick-Fill System Q&A.

¹SCBA to SCBA Transfilling is not available with the 5500 psig operating system



	Part No.	Description
MSA G1 Quick-Fill System Replacement Parts	10156465	Waist-mounted Quick-Fill for MSA G1 SCBA
	10156467	Replacement Quick-Fill pouch for MSA G1 SCBA
	10156468	3-ft. Quick-Fill hose in pouch for MSA G1 SCBA

	25-ft.	12-ft.	10-ft.	8-ft.	6-ft.	3-ft.	Fittings
Quick-Fill System Hoses	485332	802690	802689	802688	802687	485331	FQD x FQD
	487907	802677	802675	802673	802671	492796	FQD x CGA-347 outlet
	487909	802685	802683	802681	802679	487427	FQD x CGA-347 CN
	487906	802704	802703	802702	802701	802705	FQD x SAE-4
	487908	802678	802676	802674	802672	492797	FQD x CGA-346 outlet
	487910	802686	802684	802682	802680	487428	FQD x CGA-346 CN

25-ft. lengths are stocked; custom lengths are available on special material basis. All SAE fittings are for high-pressure service. Female quick-disconnect fittings have dust covers.

RescueAire™ II Portable Air-Supply System

The MSA G1 RescueAire II System provides Rapid Intervention Teams (RITs) and firefighters with emergency breathing air within almost any situation quickly and easily. Versatile system enables selection of the right option for your application, including capability of supplying emergency breathing air to trapped firefighters wearing SCBA with compatible system(s). Built for extreme fire service conditions, G1 RescueAire II System is available in two operating pressures, 2216 and 4500 psi. Optional-use shoulder strap provides hands-free carrying.

G1 RescueAire II System incorporates a G1 Regulator, allowing a RIT team to provide air to a downed firefighter wearing a G1 Facepiece. Feature-packed system consists of G1 Cylinder, Quick-Fill® emergency breathing system (EBS), ExtendAire™ System EBS, and G1 Regulator (The G1 Regulator connects directly to the MSA G1 Facepiece for maximum rescue capability), supported by a flame- and heat-resistant carrying harness.

G1 RescueAire II System features include:

- 36" Quick-Fill System EBSS Connection
- ExtendAire System EBSS Connection
- G1 PR-14 Pressure Reducer
- G1 Regulator
- Carrying harness with adjustable shoulder strap
- Audi-Larm™ Audible Alarm low pressure warning device



	Part No.	Description
MSA G1 RescueAire System	10161130	RescueAire II System, Snap-Tite, 4500, 60-min cylinder
	10207540	RescueAire II System, UEBSS, 4500, 60-min cylinder
	10161142	RescueAire II System, Snap-Tite, 4500, less cylinder
	10207542	RescueAire II System, UEBSS, 4500, less cylinder
	10161141	RescueAire II System, Snap-Tite, 2216, 30-min cylinder
	10207541	RescueAire II System, UEBSS, 2216, 30-min cylinder
	10161143	RescueAire II System, Snap-Tite, 2216, less cylinder
	10207543	RescueAire II System, UEBSS, 2216, less cylinder

MSA G1™ RIT System

The G1 RIT System provides multiple options for RIT response. Internal pneumatics include G1 RIT System quick-connect pressure reducer that mounts directly onto user-supplied SCBA cylinder. Available in 2216, 4500, and 5500 psi operating pressures, cylinders are sold separately.

G1 RIT System features include:

- Six-foot high pressure supply line that terminates with female Quick-Fill System fitting
- Six-foot intermediate pressure supply line that terminates with ExtendAir II System manifold assembly
- Quick-connect second-stage G1 MMR
- Remote external gauge for easy cylinder pressure readings
- Medium size G1 Facepiece with four-point Speed-ON® Head Harness
- URC fitting on G1 RIT System pressure reducer that allows for interconnection of G1 RIT Systems

MSA G1 RIT System	Part No.	Description
5500 PSI Operating Pressure		
	10206312	G1 RIT System, 5500, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (UEBSS, 2018 ed.), remote gauge, URC, Quick-Connect
	10197179	G1 RIT System, 5500, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (2013 ed.), remote gauge, URC, Quick-Connect
4500 PSI Operating Pressure		
	10206311	G1 RIT System, 4500, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (UEBSS, 2018 ed.), remote gauge, URC, Thread Connect
	10206313	G1 RIT System, 4500, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (UEBSS, 2018 ed.), remote gauge, URC, Quick-Connect
	10169711	G1 RIT System, 4500, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (2013 ed.), remote gauge, URC, Quick-Connect
	10192465	G1 RIT System, 4500, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (2013 ed.), remote gauge, URC, Thread Connect
2216 PSI Operating Pressure		
	10206310	G1 RIT System, 2216, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (UEBSS, 2018 ed.), remote gauge, URC, Quick-Connect
	10169710	G1 RIT System, 2216, FCPC, Regulator, 6-Ft Quick-Fill & ExtendAir II Systems (2013 ed.), remote gauge, URC, Quick-Connect

This RIT system does NOT include cylinder. Please see cylinder ordering information on p 43–45.

Technical Rescue Cart

Technical Rescue Cart is of steel construction with color-designated control panel that allows one side of panel to be used for primary respirator breathing-air and one side for tool/secondary air requirements.

Two one-hour cylinders provide air for respirators. High-pressure cascade (fire truck) cylinder air is used to operate pneumatic tools.

Features

Breathing-air segment includes:

- Two-wheeled, poly-coated steel cart, two sets of double-cylinder straps, air-line hose rack, and adjustable pull handle
- Low-pressure cylinder bell alarm
- Four-outlet manifold—available with four outlet fitting options

Tooling-air segment includes:

- CGA-347 fitting to attach to auxiliary remote high-pressure air source
- Low-pressure pneumatic alarm whistle
- Four-outlet manifold with quick-disconnects

Technical Rescue Cart is sold without air cylinders. These MSA cylinders can be used with cart:

- 60-minute, H-60SL carbon-wrapped cylinder, PN 10127946-SP
- 45-minute, H-45SL carbon-wrapped cylinder, PN 10127945-SP
- 30-minute, H-30SL carbon-wrapped cylinder, PN 10127944-SP
- 45-minute, H-45S SL SuperLite Carbon Cylinder, short, PN 10149432-SP

See pp. 43–45 for cylinder ordering information. 60-minute cylinders provides maximum air supply.

Technical Rescue Cart	Part No.	Description
	10107535	Technical Rescue Cart equipped with union adapters
	10107818	Technical Rescue Cart equipped with Snap-Tite aluminum quick-disconnects
	10107820	Technical Rescue Cart equipped with Foster steel quick-disconnects
	10107819	Technical Rescue Cart equipped with Hansen brass quick-disconnects



Cart Weight and Dimensions

Size: 35" H x 21" W x 15" D

Unit weight: 54.5 lbs. without cylinders



Field Maintenance and Repair

MSA offers a complete program for maintenance and repair of MSA air masks. The program is supported with personalized training tailored to customer needs and taught in the field by MSA-authorized personnel.

User maintenance covers procedures necessary to conduct general cleaning, inspection and limited maintenance in accordance with the Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA) and American National Standards Institute (ANSI) standards.

C.A.R.E. Certified Air Mask Repair Education covers all maintenance for both low- and high-pressure SCBA. Air mask inspection and maintenance can be performed by MSA or a factory-authorized service center. Individuals can also obtain training for C.A.R.E. certification from MSA. With a C.A.R.E.-certified technician on staff, fire departments and other facilities with a large number of air masks can perform all inspection and maintenance in-house.

- All repairs and maintenance can be done in the field.
- A selection of overhaul kits, spare parts and tool kits is available.
- Users may conduct periodic performance testing using an authorized MSA regulator tester.



Cleaning Accessories



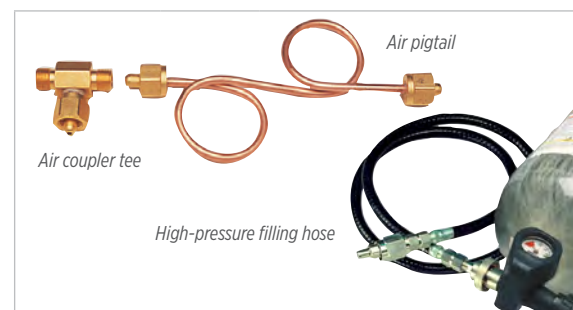
Cleaner and Towelettes	Part No.	Description
	10009971	MSA Confidence Plus 2 Germicidal Cleaner, 32 oz. bottle
	697383	Box of 100 individually wrapped towelettes, 7¼" x 5"
	697382	Canister with 220 towelettes, 4¼" x 6"
	10022871	The Big Ones box of 50 individually wrapped towelettes, 8" x 11"

G1 Cleaning	Part No.	Description
	10207584	G1 Washing and Decon Kit

- Clean your entire G1 SCBA (including cylinder and facepiece) in a qualified SCBA Washing Machine*
- Solo Rescue and Meiko are qualified manufacturers to clean the G1 SCBA



Other SCBA Accessories



	Part No.	Description
Accessories for filling Low-Pressure cylinders	68846	Air outlet connection, complete w/ gauge
	68850	Air coupler tee
	68851	Air pigtail
	476156	Low-pressure air-filling hose, 5-ft.
High-Pressure Filling Hose	476105	High-pressure filling hose assembly (provides convenient means to connect and charge high-pressure air into high-pressure 4500 psig cylinder)

* Internal testing determined no degradation of the G1 SCBA after 180 wash cycles.



Portable Gas Detection

MSA Connected Work Platform
Multigas Detectors
Two-Tox and Single-Gas Detectors
Calibration



MSA Connected Work Platform

The MSA Connected Work Platform builds connections between workers and worksites, providing actionable data that helps safety managers create safer and more efficient work environments.



ALTAIR io™ 4 Gas Detection Wearable

Tough. Intuitive. Connected.

With fully integrated cellular connectivity right out-of-the-box, the ALTAIR io 4 delivers real-time visibility to help drive safety and productivity across workers, worksites, and workflows.

ALTAIR io 4 features:

- Available through MSA+, our comprehensive subscription program including hardware and software, gives you access to powerful cloud-based solutions enabling faster implementation, increased warranty coverage and automatic software and firmware upgrades—with minimal capital expense.
- Designed with fully integrated connectivity for real-time visibility across your worksites from Day One.
- CAT-M LTE cellular connectivity and integration with the MSA Grid.
- Deploys in seconds, right out of the box. No IT required.
- Rugged, durable design and Industry-Leading XCell® Sensors.
- Survives a 25-foot drop test. Breakthrough sensor design enables faster response and shorter span calibrations.
- 1 to 4 gas options available. Sensor Options: Combustible (LEL), Oxygen, Carbon Monoxide, Hydrogen Sulfide, Methane, Sulfur Dioxide, Nitrogen Dioxide, H₂S Low-Concentration, CO, Hydrogen-Resistant SO₂.

The ALTAIR io 4 is part of the **MSA Connected Work Platform**, which helps to simplify safety, curb risk, and boost productivity.



ALTAIR io™ 6 Multigas Detector

The ALTAIR io™ 6 Multigas Detector is purpose-built for industrial worksites and emergency responses, offering outstanding simplicity, powerful sampling capabilities, durability, and ease of use at its core.

Unlike wearable gas detectors with snap-on sampling accessories, the ALTAIR io 6 features a built-in pump, 6-gas capability, out-of-box connectivity, and a large, high-visibility screen for easy reading under a variety of worksite conditions.

Designed to perform throughout the full shift—day in and day out—the ALTAIR io 6 features easy serviceability to maximize uptime, and offers seamless out-of-box connectivity to the MSA Grid to enhance worker and worksite visibility, data access, compliance, and operational accountability.





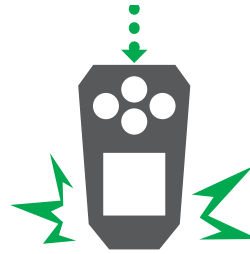
Zero-Effort, Cloud Compliance

Out of the box and into the cloud. All device data streamed instantly and securely to the cloud and available anytime on the MSA Grid.



Proactively Manage Your Fleet

Your safety should be about progress, not pain. Take control of your fleet with one-click configuration updates and real-time, actionable data at your fingertips.



Designed to be Workproof

A device as rugged as your work. Patented, rugged sensor technology that leads the industry in response time and lifetime, military-grade durability, and the ability to survive a 25 ft. (7.6 m) drop test.



Monitor Your Workforce & Worksite Safety in Real-Time

Know when, where, and who in real-time. With connectivity to the cloud, integrated GPS, and seamless MSA id™ digital device assignment, your safety program has a level of visibility its never had before.

Build your safety program with the simplicity of an MSA+ subscription.

MSA+ gives you access to powerful cloud-based solutions enabling faster implementation, increased warranty coverage, and automatic software and firmware upgrades—with minimal capital expense.



Zero Up-Front Capex Expense

Skip the capital expenditure process and up-front purchase of devices and get your gas detection program approved and running quickly.



Always Under Warranty

While you're a subscriber, you're covered under warranty regardless of the age of the device. Peace of mind and less hassle.



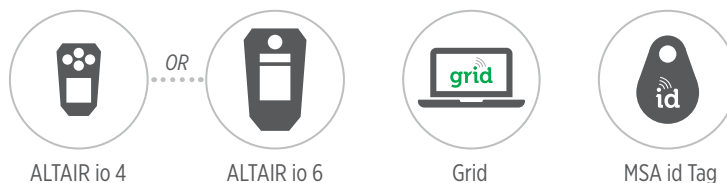
Better with Time

Features and functionality routinely released to improve your safety program. And you're never stuck with old devices—upgrade to latest generation devices with every subscription renewal.

How it Works

We have a range of packages to suit your safety program's needs.

What's Included



Packages	ALTAIR io 4			ALTAIR io 6		
	Starter	Standard	Complete	Starter	Standard	Complete
Grid Compliance Service						
Cellular Connectivity	✓	✓	✓	✓	✓	✓
Emergency Live Monitor	✓	✓	✓	✓	✓	✓
OTA Software Updates	✓	✓	✓	✓	✓	✓
MSA id Digital Device Assignment	✓	✓	✓	✓	✓	✓
Fleet Cloud Configuration	✓	✓	✓	✓	✓	✓
Cloud Logs*	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime
Grid Fleet Manager Service						
Fleet Manager Dashboard	—	✓	✓	—	✓	✓
Streamlined Device Compliance	—	✓	✓	—	✓	✓
Fleet Manager Reporting	—	✓	✓	—	✓	✓
ALTAIR io DOCK Monitoring	—	✓	✓	—	✓	✓
Insights Dashboard	—	—	—	—	✓	✓
Grid Live Monitor Service						
Full Event Live Monitoring	—	—	✓	—	—	✓
Shared Alerts	—	—	✓	—	—	✓
Live & Historical Location Monitoring	—	—	✓	—	—	✓
Event Management	—	—	✓	—	—	✓
Location Awareness	—	—	✓	—	—	✓
Mobile Notifications	—	—	✓	—	—	✓

* While under an active Grid subscription

Part No.	Description
ALTAIR io™ 4 Gas Detectors — Purchase	
10245598	ALTAIR io 4 Gas Detector NA/IEC/ATEX, LTE-M USA (VZW, AT&T, T-Mobile), General Combustible 0-100% LEL, O ₂ Std., CO Std., H ₂ S Std., NA/EU/UK Charger, Purchase
10248523	ALTAIR io 4 Performance Approved, LTE-M/2G Global (Excluding USA), General Combustible 0-100% LEL, O ₂ Std., CO Std., H ₂ S Std., NA/EU/UK Charger, Purchase Canada
Includes four years of access to MSA's Grid Starter Package and a four-year non-renewable device warranty. The Starter Package allows for effortless access to historic data logs and fleet-wide configurations, helping automate compliance for your program.	
ALTAIR io™ 6 Gas Detectors — Purchase	
10255038	ALTAIR io 6 Multigas Detector, Purchase, NA/IEC/ATEX, LEL 0-100%, O ₂ 0-30% vol, CO std, H ₂ S std, NA/EU/UK Charger
10255039	ALTAIR io 6 Multigas Detector, Purchase, NA/IEC/ATEX, LEL 0-100%, O ₂ 0-30% vol, CO std, H ₂ S std, SO ₂ std, Charger NA/EU/UK
10255040	ALTAIR io 6 Multigas Detector, Purchase, NA/IEC/ATEX, LEL 0-100%, O ₂ 0-30% vol, CO std, H ₂ S std, Cl ₂ , Charger NA/EU/UK
10255041	ALTAIR io 6 Multigas Detector, Purchase, NA/IEC/ATEX, LEL 0-100%, O ₂ 0-30% vol, CO std, H ₂ S std, NH ₃ , Charger NA/EU/UK
10255042	Altair io 6 Multigas Detector, Purchase, NA/IEC/ATEX, LEL 0-100%, O ₂ 0-30% vol, CO std, H ₂ S std, NO ₂ std, Charger NA/EU/UK
Includes four years of access to MSA's Grid Starter Package and a four-year non-renewable device warranty. The Starter Package allows for effortless access to historic data logs and fleet-wide configurations, helping automate compliance for your program.	

ALTAIR io™ Accessories & Services

Accessories

ALTAIR io DOCK TEST STAND



Plug & Play With Automated Testing

Plug the system in and get going—no networking required. The ALTAIR io 6 Multigas Detector automatically conducts bumps and calibrations, and the ALTAIR io 4 starts the correct test automatically.

Monitor Your Systems Effortlessly in the Cloud

No network setup needed—both the ALTAIR io 6 and ALTAIR io 4 automatically link to the ALTAIR io DOCK test stand, sending data directly to the cloud. Monitor your fleet and calibration gas needs from anywhere.

ALTAIR io CHARGE CHARGERS



Multi-Device Charger



Cradle Charger

Zero-Touch Digital Device Return

Placing an ALTAIR io 4 or ALTAIR io 6 Multigas Detector in the charger automatically marks it as returned in your Fleet Management System.

Organize & Charge Your Fleet in a Compact Design

The ALTAIR io CHARGE Multi-Device Charger's wall-mountable five-bay design provides an organized home for devices in your fleet. Other optional accessories include a cradle charger for vehicle and desk top use.

Part No.	Description
ALTAIR io™ Accessories — Purchase	
10246442	Altair io™ 4 io Dock Test Stand, Purchase
10253973	Altair io™ 6 io Dock Test Stand, Purchase
10242913	Altair io Dock Cylinder Holder, Purchase
10242927	Altair io Charge Multi-Device Charger Purchase

Additional Accessories

Part No.	Description
ALTAIR io™ Accessories — Purchase	
10042621	Sampling Probe: straight, air line, 1 ft.
10040665	Sample Line: probe, air line, 10 ft.
10105839	Probe & Sample Line for Reactive Gases (NH ₃ /CL ₂), 10 ft.
801582	Sample Probe Filter, 10 pack
710917	Inlet Filter
10250799	ALTAIR io 6 Battery Pack Replacement Kit



AutoFill Calibration Gas

Calibration gas shows up when you need it—fully automated. Monthly cost includes order, delivery, and calibration gas.

Learn more at: <https://us.msasafety.com/connected-work/msa-plus>

ALTAIR® 5X, ALTAIR® 5X PID, and ALTAIR® 5X IR Multigas Detectors

- Built upon durability
- Powered by performance
- Flexibility & connectivity
- Industry-first man-down alarm
- ALTAIR Connect App available on Google Play
- Industry-leading warranty

XCell
SENSORS



ALTAIR 5X
Multigas Detector
monochrome screen shown



ALTAIR 5X PID
Multigas Detector
available with color screen only



	UL Part No.	CSA Part No.	
INSTRUMENT ONLY KITS	10116924	10115118	ALTAIR 5X Detector Mono, (LEL, O ₂ , CO, H ₂ S)
	10116925	10115119	ALTAIR 5X Detector Mono, (LEL, O ₂ , CO, H ₂ S, SO ₂)
	10165445		ALTAIR 5X Detector COLOR, (LEL, O ₂ , CO, H ₂ S, PID)
STANDARD KITS monochrome display, 10-ft sampling line, 1-ft probe	10116926	10115120	ALTAIR 5X Detector Mono, (LEL, O ₂ , CO, H ₂ S)
	10116927	10115141	ALTAIR 5X Detector Mono, (LEL, O ₂ , CO, H ₂ S, SO ₂)
DELUXE KITS color display, 10-ft sampling line, 1-ft probe	10165446		ALTAIR 5X Detector COLOR, (LEL, O ₂ , CO, H ₂ S, PID)

ALTAIR 5X Multigas Detector Sensor Options

Gas Type	Range	Resolution	Gas Type	Range	Resolution
Combustible	0-100% LEL	1% LEL	Nitrogen Dioxide (XCell)	0-50 ppm	0.1 ppm
Combustible	0-5% Vol, CH ₄	0.05% Vol CH ₄	Chlorine Dioxide	0-1 ppm	0.01 ppm
Oxygen	0-30%Vol	0.1%Vol	Phosphine	0-5 ppm	0.05 ppm
Carbon Monoxide	0-2000 ppm	1 ppm	Hydrogen Cyanide	0-30 ppm	0.5 ppm
Carbon Monoxide	0-10,000 ppm	5 ppm	Carbon Dioxide, CO ₂	0-10%Vol	0.01%Vol
Hydrogen sulfide	0-200 ppm	1 ppm	Butane, C ₄ H ₁₀	0-25%Vol	0.1%Vol
Hydrogen Sulfide - LC	0-100 ppm	0.1 ppm	Methane, CH ₄	0-100%Vol	1%Vol
Sulfur Dioxide	0-20 ppm	0.1 ppm	Propane, C ₃ H ₈	0-100%Vol	1%Vol
Chlorine	0-10 ppm	0.05 ppm	Propane, C ₃ H ₈	0-100% LEL	1% LEL
Ammonia	0-100 ppm	1 ppm	PID - 10.6eV	0-999 ppm	0.1 ppm
Nitrogen Dioxide	0-20 ppm	0.1 ppm	PID - 10.6eV	1000-2000 ppm	1 ppm

ALTAIR® 5X, ALTAIR® 5X PID, and ALTAIR® 5X IR Multigas Detectors

ALTAIR 5X Assemble-To-Order (ATO) Options

Ordering Selection Matrix



A INSTRUMENT TYPE

All ALTAIR 5X Multigas Detectors come standard with data logging and MotionAlert and InstantAlert features. Choose your instrument type, equipped with internal pump. The monochrome full-graphic display is standard; a high-resolution crystal-clear color display with logo customization is optional.

A Pumped with monochrome display

D Pumped with color display for PID (unit must be configured with PID sensor)

B COMBUSTIBLE SENSOR

Choose your combustible sensor calibration. To select 0-100% LEL pentane, please choose L; for 0-5% Vol methane choose M. For no combustible sensor, select 0 for none.

0 None

L LEL 1- 100% pentane

M 0-5% Vol methane

C SENSOR #1

To have an oxygen sensor installed in your new ALTAIR 5X Multigas Detector, please select K; if you plan on configuring the ALTAIR 5X Detector with two exotic sensors with CO/H2S, please select 1 for both CO and H2S sensors; for no sensor enter 0. NOTE: Please go to www.msasafety.com and navigate to the ALTAIR 5X product page. There you can click on and use the Configure This Product tool to determine which sensor combinations are allowed in configuring an ALTAIR 5X. For example, you can not combine NH3 and Cl2 sensors in one ALTAIR 5X.

0 None

K Oxygen 0-30%

1 CO/H2S 0-1999 ppm & 0-200 ppm

2 CO 0-1999 ppm

3 H2S 0-200 ppm

4 CO/H2S-LC 0-1999 ppm & 0-99.9 ppm

5 CO-HC 0-10,000 ppm

6 CO/NO2 0-1999 ppm & 50 ppm

7 CO H2-ResH2S 0-1999 ppm & 0-200 ppm

D SENSOR #2

Choose your toxic gas sensor.

0 None

A SO2 0-20 ppm

B Cl2 0-10 ppm

C NO2 0-20 ppm

D NH3 0-100 ppm

E PH3 0-5 ppm

F HCN 0-30 ppm

G ClO2 0-1 ppm

H NO 0-200 ppm

E SENSOR #3

Choose your additional toxic gas sensors.

0 None

1 CO/H2S 0-1999 ppm & 0-200 ppm

2 CO 0-1999 ppm

3 H2S 0-200 ppm

4 CO/H2S-LC 0-1999 ppm & 0-99.9 ppm

5 CO-HC 0-10,000 ppm

6 CO/NO2 0-1999 ppm & 50 ppm

7 CO H2-ResH2S 0-1999 ppm & 0-200 ppm

A SO2 0-20 ppm

B Cl2 0-10 ppm

D NH3 0-100 ppm

F ADVANCED SENSOR

Add your advanced IR or PID sensor to complete your sensor suite in the ALTAIR 5X Multigas Detector. Combustible sensors are not available with CSA performance approvals.

0 None

1 10.6eV 0-2000 ppm

B CO2 0-10% Vol

D Butane 0-25% Vol

F Propane 0-100% Vol

L Methane 0-100% Vol

G PACKAGING

For an economy plastic carrying case, choose E; for red, choose R; for standard carton packaging, choose 0.

0 Standard carton

E Economy plastic

R Red economy

H APPROVAL LABEL

Choose the applicable approval label for your area. For North America, choose C; for Europe choose E; for Australia, choose A.

C NORTH AMERICA

T UL only (no catalytic combustible sensor in unit)

I LOGO EXPRESS® SERVICE

Upon startup, the ALTAIR 5X Multigas Detector can display your company logo or other information. Be sure to select color display for this option. To add your company logo, choose L and upload your logo to the web address which will be sent automatically to you via email. Your order with customized logo cannot be processed without uploading your logo.

0 None

L Logo Express Service

J SAMPLING LINE AND PROBE KIT

MSA's quality sampling lines and probes are durable, easy to use and offer high speed and convenience using our quick-connect fittings. If you are sampling Cl2, ClO2 and/or NH3, please select option 2; for all other gases select options S or 1. Options 1 and 2 come with quick disconnect sampling lines and probes. For no sampling line or probe, select 0.

0 None

S 1-ft clear probe and 10-ft PU Line

1 1-ft probe and 10-ft PU line w/ QD

2 1-ft probe and 10-ft teflon line w/ QD (reactive gases)

Note:

An additional surcharge will be added to configurations that are classified as hazardous materials

A-ALT5X-

A	B	C	D	E	F	G	H	I	J	Qty

PART NUMBER

ALTAIR® 4XR Multigas Detector

Reliability

- State-of-the-art MSA XCell Sensors—two times faster than industry average

Rugged Durability

- Drop-tested
 - 25 drops from 4 ft (1.2 m)
 - 25-ft (7.5 m) drop onto concrete
- MIL-STD-810g
- IP68: waterproof to 6 ft (2 m) for 1 hr
- Temperature: -40° F (-40° C) to +140° F (+60° C)

Real-Time Connectivity

- Live gas readings
- Text alerts from the field for gas alarm or man-down alarm
- Non-compliance warnings

Warranty

- Four-year warranty for instrument and sensors

XCell®
SENSORS



	Charcoal Version	Glow Version	
ALTAIR 4XR Gas Detectors North American Configuration	10178557	101785578	LEL, O ₂ , CO, H ₂ S
	101785560	101785571	LEL, O ₂ , CO, H ₂ S with Global Charger
	101785572	—	LEL, O ₂ , CO, H ₂ S-LC
	10179330	—	LEL, O ₂ , CO-H ₂ , H ₂ S
	10178566	10178567	LEL, O ₂ , CO
	101785678	10178559	LEL, O ₂

ALTAIR® 4XR Multigas Detector

Ordering Selection Matrix



A COMBUSTIBLE SENSOR

- 0 None
- L 1-100% LEL Pentane
- M 0-5% Vol Methane

B OXYGEN SENSOR

- 0 None
- 1 0-30% Vol

C TOXIC SENSOR

- 0 None
- A 0-1999 ppm CO and 0-200 ppm H₂S
- B 0-1999 ppm CO
- C 0-200 ppm H₂S
- G 0-1999 ppm CO and 0-99.9 ppm H₂S-LC
- H 0-99.9 ppm H₂S-LC
- J 0-1999 ppm CO and 0-50 ppm NO₂
- K 0-99.9 ppm H₂S-LC and 0-20 ppm SO₂
- L 0-1999 ppm CO H₂-Res and 0-200 ppm H₂S

D POWER SUPPLY

- 0 None
- N North American
- M North American with cradle
- E European with cradle
- A Australian with cradle
- G Global

E APPROVAL LABEL

- C North America

F WARRANTY

- 0 4-year standard warranty
- 1 WARRANTY 1-year extended warranty (5-years total)

G PACKAGING

- 0 Single carton
- 1⁷⁷ 10-unit bulk package

H COLOR CASE

- 0 Standard Charcoal
- G Glow-in-the-Dark

Note:

An additional surcharge will be added to configurations that are classified as hazardous materials

Key

⁷⁷ If bulk packaging is selected, multiply Total Unit Price by 10 times.

A-ALT4XR-

								0	0	
A	B	C	D	E	F	G	H			Qty
PART NUMBER										

ALTAIR® 4X Detector (MSHA)

- 3-year instrument warranty
- Lower maintenance cost
- Reduced required calibration gas
- GALAXY GX2 System compatibility for powerful calibration and fleet management
- MotionAlert feature activation when no movement is detected for 30 seconds, indicating “man down”
- InstantAlert feature manually-activated alarm to alert others of hazardous situations
- 30+ hour run time for continuous operation over three shifts

XCell
SENSORS



30 CFR Part 22, Methane Detector
30 CFR Part 75 Determination testing
for methane and oxygen deficiency

	Description	Part No.
ALTAIR 4X Multigas Detector with North American approval, quick-start card, data logging, charger, calibration cap, tubing, and CD manual. MotionAlert feature comes standard on all detectors.		
ALTAIR 4X Mining Multigas Detector	ALTAIR 4X Multigas Detector (CH ₄ , O ₂ , CO) Charcoal	10125912
	ALTAIR 4X Multigas Detector (CH ₄ , O ₂ , CO) Phosphorescent	10125913
	ALTAIR 4X Multigas Detector (CH ₄ , O ₂ , CO, NO ₂) Charcoal	10125914
	ALTAIR 4X Multigas Detector (CH ₄ , O ₂ , CO, NO ₂) Phosphorescent	10125915
Replacement sensors	Kit, XCell Ex-M Combustible Sensor	10121212
	Kit, XCell O ₂ Sensor	10106729
	Kit, XCell CO/H ₂ S Two-Tox Sensor	10106725
	Kit, XCell CO/NO ₂ Two-Tox Sensor	10121217
Power supply	4-Unit Multi-Unit Charger NA Plug	10127422
	12-Unit Multi-Unit Charger NA Plug	10143372

ALTAIR 4X Multigas Detector (MSHA)

Ordering Selection Matrix



A INSTRUMENT TYPE

The ALTAIR 4X Multigas Detector now comes standard with MSA's new XCell Sensors and MotionAlert feature to indicate “man down”. Please select your instrument's case color; select option C for charcoal and option G for phosphorescent (glow-in-the-dark).

- C Charcoal
G Phosphorescent (glow-in-the-dark)

B COMBUSTIBLE SENSOR

To have a combustible sensor installed in your new ALTAIR 4X Multigas Detector, please select C. For no combustible sensor, please select O.

- O None
C 0-5% Vol methane

C OXYGEN SENSOR

To have an oxygen sensor installed in your new ALTAIR 4X Multigas Detector, please select 1. For no sensor, enter 0.

- O None
1 0-30% Vol

D TOXIC SENSOR

To configure your new ALTAIR 4X Multigas Detector, choose O for no toxic sensor. Choose A for both CO and H₂S sensors, choose B for CO, C for H₂S, D for CO and NO₂, and E for NO₂.

- O None
A 0-1999 ppm CO and 0-200 ppm H₂S
B 0-1999 ppm CO
C 0-200 ppm H₂S
D 0-1999 ppm CO and 0-50 ppm NO₂
E 0-50 ppm NO₂

E POWER SUPPLY

Select the correct power supply for your region. Add an instrument cradle to firmly secure your instrument while charging on the shelf or in a vehicle.

- O None
N North American
M North American with cradle

F APPROVAL LABEL

The ALTAIR 4X Multigas Detector is fully approved by MSHA.

- M MSHA

G EXTENDED WARRANTY

MSA includes a full 3-year warranty on the ALTAIR 4X Multigas Detector, including sensors, battery and electronics. Choose 1 for an additional year (4 years total).

- O 3 years standard warranty
1 Extended warranty (4 years total)

Note:

An additional surcharge will be added to configurations that are classified as hazardous materials

A-ALT4XM-

					M		
A	B	C	D	E	F	G	Qty

PART NUMBER

ALTAIR® 5X Multigas Detector Accessories

Part No.	Spare Parts/Replacements
10114835	Battery Pack Assembly, Rechargeable
10114837	Battery Pack, Alkaline (Includes Belt Clip)
10114839	Battery Pack, Rechargeable, PID/IR
10094830	Belt Clip Replacement Kit
10083591	Filter Cover Assembly
10165275	Filter Cover Assembly, PID/IR
10114949	Maintenance Kit
10165285	Maintenance Kit, PID/IR
10114950	Maintenance Kit (Cl ₂ , ClO ₂ , NH ₃)
10165284	Maintenance Kit PID/IR (Cl ₂ , ClO ₂ , NH ₃)
474555	Shoulder Strap
10050976	Retractable Line With Belt Clip
10040586	Carrying Case, Cordura, UL Only
10099648	ALTAIR 5X Holster, Leather
10099397	Vehicle Charger
10114853	Front Housing With Integrated Filters
10165249	Front Housing With Integrated Filters (PID)
10127427	Multi-Unit Charger, ALTAIR 5X Detector, 4-unit

Part No.	Sensor Spare Parts/Replacements
10106722	Kit, XCell Ex Sensor, combustible
10106729	Kit, XCell O ₂ Sensor
10106725	Kit, XCell CO/H ₂ S Two-Tox Sensor
10121213	Kit, XCell CO/H ₂ S-LC Two-Tox Sensor
10121214	Kit, XCell CO H ₂ -RES/H ₂ S Two-Tox Sensor
10121216	Kit, XCell CO-HC Sensor
10121217	Kit, XCell NO ₂ /CO Two-Tox Sensor
10106375	Kit, Replacement, HCN
10106728	Kit, XCell Cl ₂ Sensor Replacement
10080222	Kit, Replacement, ClO ₂
10106727	Kit, XCell SO ₂ Sensor Replacement
10080224	Kit, Replacement, NO ₂
10106726	Kit, XCell NH ₃ Sensor Replacement
10116638	Kit, Replacement, PH ₃
10114750	Kit, Replacement, NO
10165271	Kit, Replacement, PID 10.6ev 0-2000 ppm sensor
10165272	Kit, Replacement, PID 10.6ev 0-2000 ppm lamp
10165287	Kit, Replacement, PID 10.6ev 0-10k ppm sensor
10176653	Kit, Replacement PID 10.6ev 0-10k ppm lamp
10165248	Kit, PID Lamp Cleaning
10165247	Kit, PID Maintenance
10105650	XCell Sensor Plug
10088192	Sensor Plug, Oxygen and toxics (20 mm)

Part No.	Sampling Accessories
10153218	Sampling Line, general purpose, 10-ft. PU
10153219	Sampling Line, general purpose, 15-ft. PU
10040665	Sampling Line with quick-disconnect, 10-ft. PU
10040664	Sampling Line with quick-disconnect, 25-ft. PU
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. PU coiled
10105839	Sampling Line with quick-disconnect for reactive gases, 10-ft. Teflon straight, with Probe, 1-ft.
10153041	General Purpose Probe, Clear, 1-ft.
10042621	Probe, 1-ft.
10042622	Probe, 3-ft.
10161755	Quick-Disconnect Adapter
801582	Filter, Water Stop, pack of 10
10177856	Filter, General Purpose Probe
Dilution Tube Set-Up All 3 items below required.	
813514	Dilution Tube
10049059	Sampling Line Adapter
10049060	Sampling Line Adapter

Part No.	Calibration Accessories
710288	Demand Regulator Kit
10034391	Cl ₂ /NH ₃ /ClO ₂ Demand Regulator Kit
10050985	Case With Gas Miser® Regulator, Demand Flow RP Kit (includes tubing and fitting, less gas)
10041225	Calibration Tubing with quick-disconnect fitting
10045035	58L RP, 60 ppm CO, 20 ppm H ₂ S, 15% O ₂ , 1.45% CH ₄
10103262	58L RP, 60 ppm CO, 20 ppm H ₂ S, 15% O ₂ , 1.45% CH ₄ , 2.5% CO ₂
10117738	58L RP, 60 ppm CO, 20 ppm H ₂ S, 15% O ₂ , 1.45% CH ₄ , 10 ppm SO ₂
10048280	34L Econo-Cal® Cylinder, 60 ppm CO, 20 ppm H ₂ S, 15% O ₂ , 1.45% CH ₄
10048789	34L Econo-Cal Cylinder, 60 ppm CO, 15% O ₂ , 1.45% CH ₄
10048279	34L Econo-Cal 100 ppm Isobutylene
494450	100L 100 ppm Isobutylene

Part No.	ID Stickers
10177767	ID Stickers – Light Blue
10177768	ID Stickers – Red
10177769	ID Stickers – Green
10177770	ID Stickers – Orange
10177771	ID Stickers – Yellow

ALTAIR® 4X/4XR Multigas Detector Accessories

Part No.	Accessories
10152669	Altair Pump Probe NA w/charger
10088099	MSA Link™ Software CD-Rom
10082834	Jeteye IR Adapter with USB Connector

Part No.	Sensors / Spare Parts
10106722	Kit, XCell Ex Sensor, combustible
10106729	Kit, XCell O ₂ Sensor
10106725	Kit, XCell CO/H ₂ S Two-Tox Sensor
10121213	Kit, XCell CO/H ₂ S-LC Two-Tox Sensor
10121214	Kit, XCell CO H ₂ -RES/H ₂ S Two-Tox Sensor
10121215	KIT, XCell SO ₂ /H ₂ S-LC Two-Tox Sensor
10121217	KIT, XCell NO ₂ /CO Two-Tox Sensor
10178360	Front housing with dust filters (Charcoal)
10178361	Front housing with dust filters (Phosphorescent)
10179265	LCD assembly
10110062	Stainless steel clip, screws, & sensor gasket
10208647	Stainless Steel Replacement Clip Kit

Part No.	Calibration Accessories
467895	Regulator 0.25 lpm Model RP
10089321	Calibration Assembly (cap, tube, connector)
10048280	34L Quad Gas Mix (1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S)
10045035	58L Quad Gas Mix (1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S)

Part No.	Power Supply
10087368	Charging cradle with power supply
10092233	Power Supply with Charge Connector
10095774	Vehicle Charger
10127422	4-Unit Multi-Unit Charger NA Plug

ALTAIR Pump Probe

- Rugged unibody housing provides unsurpassed durability, including ability to survive a 10-foot drop
- Large, glove-friendly button for single handed use
- Universal design allows ALTAIR Pump Probe to be utilized with a number of MSA diffusion-type portable gas detectors
- Translucent cap for easy filter inspection
- Tool-free quick change components for simplified maintenance
- Compatibility with MSA ALTAIR chargers

Part No.	ALTAIR Pump Probe
Comes with 3-year warranty, wand, calibration cap and coupling hose	
10152669	ALTAIR Pump Probe (North America) with charger
10161948	Pump Probe Adapter for ALTAIR 2X
Part No.	Sampling Lines
10153103	10-foot polyurethane Sampling Line
10153104	25-foot polyurethane Sampling Line
10153105	50-foot polyurethane Sampling Line



ALTAIR® 2X Gas Detector

- incorporates proven XCell sensor technology.
- enhances worker safety, compliance and traceability.
- minimizes cost of ownership.
- demonstrates rugged durability.



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.

ALTAIR 2XT – Two-Tox Gas Detector

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

ALTAIR 2X – Single-Gas Detector

ALTAIR 2X Gas Detectors: CO, CO-HC (High Concentration), CO-H₂ (Hydrogen Resistant), H₂S-LC, SO₂, NO₂, NH₃ and Cl₂



ALTAIR 2XP Gas Detector
(H₂S only)



ALTAIR 2XT Two-Tox Gas Detector
(CO/H₂S version shown)



ALTAIR 2X Single-Gas Detector
(NH₃ version shown)

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)
Increased safety awareness & real-time compliance	• Bump PASS: Green LED flash every 15 seconds, large on-screen checkmark for real-time compliance • Bump FAIL: Red LED flash every 15 seconds, 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 • Records can be easily downloaded during periodic gas calibrations using the GALAXY GX2 Automated Test System
Rugged durability	• Tough over-molded rubber armor • Survives multiple 25-ft 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

	Detector Type (Low, High Alarm in ppm)	Charcoal	Replacement Sensor
ALTAIR 2XP – with XCell Pulse Technology	H ₂ S-Pulse (10, 15)	10153984	10121227
ALTAIR 2XT Two-Tox Gas Detector	CO/H ₂ S (CO: 25, 100; H ₂ S: 10, 15)	10154040	10152603
	CO-H ₂ /H ₂ S (CO: 25, 100; H ₂ S: 10, 15)	10154071	10152604
	CO/H ₂ S-LC (CO: 25, 100; H ₂ S: 5, 10)	10154072	10152605
	CO/NO ₂ (CO: 25, 100; NO ₂ : 2.5, 5)	10154073	10152606
	SO ₂ /H ₂ S-LC (SO ₂ : 2, 5; H ₂ S: 10, 15)	10153985	10152607
ALTAIR 2X Single Gas Detector	CO (25, 100)	10153986	10152603
	H ₂ S/CO-H ₂ (25, 100)	10154074	10152604
	CO-HC (25, 100)	10154075	10152602
	H ₂ S-LC (5, 10)	10154076	10152605
	SO ₂ (2, 5)	10154077	10152607
	NO ₂ (2.5, 5)	10154078	10152606
	NH ₃ (25, 50)	10154079	10152601
	Cl ₂ (0.5, 1)	10154080	10152600

Part No.	Power
10155203-SP	Battery (pack of 8)

ALTAIR® 2X Gas Detector

ALTAIR® 2X Gas Detector

Ordering Selection Matrix



A Instrument Type

1	CO/H2S
2	CO-H2/H2S
3	CO/H2S-LC
4	CO/NO2
5	CO
6	CO-H2
7	CO-HC
8	H2S-PLS
9	H2S-LC
11	SO2/H2S-LC
12	SO2
13	NO2
14	NH3
15	Cl2
16	H2S

**B Alternate Alarm Setpoint
(Low, High, STEL, TWA) Gas
#1**

1	Default Setpoints
2	CO (30,60,60,30)
3	CO (35,100,100,35)
4	CO (35, 400,400, 35)
5	CO (50, 200, 200, 50)
6	CO (100, 300,300, 100)
7	CO (25, 100, 100, 25)
8	CO (75, 200,200,75)
9	CO (199, 200, 35, 200)
10	CO (30, 200, 200, 30)
11	CO (25, 50, 50, 25)
12	CO (200, 300, 300, 30)
13	H2S-PLS (10, 20, 20, 10)
14	H2S-PLS (5, 10, 10, 5)
15	H2S-PLS (8, 12, 12, 8)
16	H2S-PLS (7, 14, 7, 7)
19	SO2 (1, 2, 1, 1)
20	Cl2 (0.3, 0.5, 0.5, 0.3)
21	Cl2 (0.5, 1, 1, 0.5)
22	NH3 (10, 20, 20, 10)
23	NH3 (20, 40, 40, 20)

Notes:

If alternate alarm setpoints are desired, users may select from one of the presets in columns B or C. Alternatively, custom setpoints may be chosen by selecting "I" in columns B and C and option "C" in the Custom Features selection in Column "G". Please provide the Low, High, STEL and TWA for each gas and note any other software settings.

**C Alternate Alarm Setpoint
(Low, High, STEL, TWA) Gas
#2**

1	Default Setpoints
13	H2S (10, 20, 20, 10)
14	H2S (5, 10, 10, 5)
15	H2S (8, 12, 12, 8)
16	H2S (7, 14, 7, 7)
17	H2S-LC (5, 10, 10, 1.6)
18	H2S-LC (5, 10, 10, 1)
24	NO2 (2, 5, 5, 2)
25	NO2 (1, 3, 3, 1)

Notes:

If alternate alarm setpoints are desired, users may select from one of the presets in columns B or C. Alternatively, custom setpoints may be chosen by selecting "I" in columns B and C and option "C" in the Custom Features selection in Column "G". Please provide the Low, High, STEL and TWA for each gas and note any other software settings.

D Approvals

U	UL/CSA/ATEX/AUST
---	------------------

E Case Color

C	Charcoal
G	Glow-in-the- Dark

F Packaging

1	Individual
2	Bulk Packaging (25/box)

G Custom Features

O	None
A	"Always On" Mode ON
B	Operating Beep ON
C	Custom
G	Go/No Go Mode ON
H	Hibernate/Sleep Mode ON
M	Motion Alert ON
P	Persistent Alarm mode ON

Notes:

If "C Custom" was selected, please indicate any specific software settings. If this includes alternate alarm setpoints also indicate the gas and setpoints for High, Low, STEL, and TWA.

A-ALT2X

			U				
A	B	C	D	E	F	G	Qty

PART NUMBER

ALTAIR® Pro Gas Detector

ALTAIR Pro toxic gas and oxygen detectors combine reliable detection and LED/audible/ flashing/vibrating alarms with clear, backlit LCD displays. Electrochemical sensors measure concentrations of toxic gas (chlorine dioxide, hydrogen cyanide, phosphine) or percent oxygen.



	Instrument Type	Part No.	Low Alarm	High Alarm	STEL	TWA
Altair Pro Single-Gas Detectors	Oxygen (O ₂)	10074137	19.50%	23.00%	N/A	N/A
	Hydrogen Cyanide (HCN)	10076729	4.5 ppm	10 ppm	10 ppm	4.7 ppm
	Chlorine Dioxide (ClO ₂)	10076717	0.1 ppm	0.3 ppm	0.3 ppm	0.1 ppm
	Phosphine (PH ₃)	10076735	0.3 ppm	1.0 ppm	1.0 ppm	0.3 ppm
Alternate Set Point Model	Oxygen (O ₂)	10076732	18.00%	19.50%	N/A	N/A

ALTAIR® Maintenance-Free Single-Gas Detector

- Sensor options for CO, H₂S, and O₂
- Patented electrochemical sensors & MSA-built button sensors operate for over 2 years
- Stainless steel and solid electrolyte construction virtually eliminate sensor leakage
- Automatically records the last 25 alarm/test events and can communicate data by connecting to MSA Link via built-in IR communication port
- No-miss triple alarm system includes bright flashing LEDs, piercing audible alarm, and an internal vibrating alarm
- Rubberized armor housing and one-button operation for maximum durability and simplicity



	Instrument Type	Part No.	First Alarm	Second Alarm
Altair Pro Single-Gas Detectors	Carbon Monoxide (CO)	10092522	25 ppm	100 ppm
	Hydrogen Sulfide (H ₂ S)	10092521	10 ppm	15 ppm
	Oxygen (O ₂)	10092523	19.5% Vol	23% Vol
Alternate Set Point Model	Carbon Monoxide (CO)	10071334	30 ppm	60 ppm
	Carbon Monoxide (CO)	10071335	35 ppm	100 ppm
	Hydrogen Sulfide (H ₂ S)	10071340	10 ppm	20 ppm
	Hydrogen Sulfide (H ₂ S)	10071361	5 ppm	10 ppm
	Hydrogen Sulfide (H ₂ S)	10071363	7 ppm	14 ppm
	Oxygen (O ₂)	10071364	19.5% Vol	18% Vol

ALTAIR® and ALTAIR® Pro Accessories and Parts

Part No.	Accessories
467895	Regulator, 0.25 lpm
10030325	Tubing, 16" (do not use with NH ₃ , Cl ₂ , and ClO ₂)
10080534	Tubing, 16" Teflon-lined (NH ₃ , Cl ₂ , and ClO ₂)
10074132	3V CR2 battery – ALTAIR Pro only
10082834	JetEye IR USB adapter
10088099	MSA Link software CD-ROM

Part No.	Clips
10069894	Clip, stainless steel
10041105	Cell phone clip
10041107	Lanyard clip
10073346	Hard hat clip
10040002	Clip, suspender (standard)

GALAXY® GX2 Automated Test System

Ease of Use: Calibrate & Test Effortlessly

- Easy setup, simple use with touch-free testing.
- Color touch screen enhances user experience at the test stand.
- Can be used with a PC or as a stand-alone system, the perfect solution for large fleet end users, as well as for smaller applications.
- Automated test system provided in many commonly spoken languages.

Cost of Ownership: Save Time, Save Gas, & Save Money

- Exceeds 50% reduction in cost of ownership, including calibration gas expenses when combined with high-performance MSA XCell Sensors.
- Faster total testing of ALTAIR Family Gas Detectors.
- Test up to 10 gas detectors simultaneously in the time most competitive systems take to test one device.
- RFID-tagged calibration gas.



	Part No.	Description
Galaxy GX2 System Test Stand/ 1 Valve for use with 1 calibration gas cylinder	10128644	ALTAIR / ALTAIR PRO / ALTAIR 2X Detectors, no-charging
	10128630	ALTAIR 4/4X Multigas Detector, charging
	10128642	ALTAIR 4/4X Multigas Detector, no-charging
	10128626	ALTAIR 5/5X Multigas Detector, charging
	10128628	ALTAIR 5/5X Multigas Detector, no-charging
Galaxy GX2 System Test Stand/ 4 Valve for use with 1-4 calibration gas cylinders	10128643	ALTAIR / ALTAIR PRO / ALTAIR 2X Detectors, no-charging
	10128629	ALTAIR 4/4X Multigas Detector, charging
	10128641	ALTAIR 4/4X Multigas Detector, no-charging
	10128625	ALTAIR 5/5X Multigas Detector, charging
	10128627	ALTAIR 5/5X Multigas Detector, no-charging
Calibration Gas	10048280	Calibration gas cylinder (34L) 1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S
	10045035	Calibration gas cylinder (58L) 1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S
	10117738	Calibration gas cylinder (58L) 1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S, 10 ppm SO ₂
	10098855	Calibration gas cylinder (34L) 1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S, 10 ppm SO ₂
	10103262	Calibration gas cylinder (58L) 1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S, 2.5% CO ₂

GALAXY® GX2 Accessories

Part No.	Accessories
10105756	Electronic cylinder holder
10125135	Non-electronic cylinder holder
10127111	4 GB SD card
10123937	Digital secure USB key
10125907	End cap
10127422	ALTAIR 4XR/4XM Detector Multi-unit Charger, NA
10127427	ALTAIR 5X/5X PID Detector Multi-unit Charger, NA
10127112	Laminated quick start guide
10127518	12" (TBR) Ethernet cable for test stand to test stand connection

Part No.	Accessories
10082834	USB IR dongle
10034391	Demand flow regulator (universal)
710289	Large capacity (<3000 psi) demand regulator
10124286	NA power supply (1 of 2)
10127146	NA power cord (2 of 2)
10126268	Vehicle power adapter

GALAXY® GX2 Automated Test System

**Galaxy® Automated Test System
Assemble-to-Order (ATO) Options**



Ordering Selection Matrix

**A TEST STAND INSTRUMENT
TYPE**

Each instrument type has a dedicated GALAXY GX2 System test stand. 10 test stands can be banked together in any combination, allowing for ultimate flexibility.

- A ALTAIR/ALTAIR Pro/ALTAIR 2X Detector
- B ALTAIR 4/4X Detector
- C ALTAIR 5/5X Detector

B ACTIVE CYLINDER PORTS

Single valve test stands allow for only one calibration cylinder to be used. 4 valves allow for 1- 4 calibration cylinders to be accessed.

- 1 1 Valve / 1 Cylinder
- 4 4 Valves / Up to 4 Cylinders

C INSTRUMENT CHARGING

Instrument charging allows for a single instrument to be charged per test stand. Only available on ALTAIR® 4/4X and ALTAIR 5/5X Multigas Detector test stands. Choose Yes/1 if you wish to use the "always ready" function of ALTAIR 4X or ALTAIR 5X Detectors.

- 0 No
- 1 Yes

D SMART CYLINDER HOLDER

Smart cylinder holder provides calibration gas information and gas levels. Information such as part number, gas types, concentrations, expiration date, lot number, and real time pressure levels are automatically set up in the test stand. Smart cylinder holder provides end users with automated, remote warnings as to low or no gas and expired or nearly expired cylinders.

- 0 None
- 1 1 Cylinder Holder
- 2 2 Cylinder Holders
- 3 3 Cylinder Holders
- 4 4 Cylinder Holders

E MULTI-UNIT CHARGER

Selection of ALTAIR 4/4X Detector and multi-unit charger provides charging for 1-4 ALTAIR 4/4X Detectors. Selection of ALTAIR 5/5X Detectors and multi-unit charger provides charging for 1-4 ALTAIR 5/5X Detectors. Additional units may be purchased from accessory list below.

- 0 None
- B Multi-unit charger, ALTAIR 4/4X
- C Multi-unit charger, ALTAIR 5/5X
- D Multi-unit charger, ALTAIR 4/4X & 5/5X (2 positions of each)

F POWER CORD

Each test stand (with the exception of Argentina version) comes with 6V power supply. Power cord option then chooses the appropriate power cord by region. None provides power supply and no power cord. Argentina version provides no power supply and no power cord.

- N North America

H SECURE DIGITAL USB

Allows end user to securely configure instrument set points at GALAXY GX2 System test stand. Must be inserted to process any setting changes to an instrument.

- 0 None
- A 1 Secure Digital USB Key

Note:

An additional surcharge will be added to configurations that are classified as hazardous materials

A-GX2-							0		0	
	A	B	C	D	E	F		H		Qty

PART NUMBER

MSA Calibration Cylinders

100L	34L, 58L and 116L	875L
		 Call for availability of other gas mixtures
Model RP and Model R Calibration Cylinders—Non-Reactive Gases	Model RP and Econo-Cal Calibration Cylinders—Reactive Gases	BD-20 Calibration Cylinder—Reactive or Non-Reactive Gases
Model RP Cylinder - Contents: Pressure 1000 psig; approximately 100 liters at atmospheric pressure - Material: Steel	Model RP & Econo-Cal Cylinders - Contents: Pressure 500 psig–1000psig - Material: Aluminum	Cylinder - Contents: Pressure 2216 psig - Material: Aluminum - Part No. 10152629 (standard quad gas)

Model RP Calibration Check Kit

- Includes regulator with cylinder pressure gauge, adapter hose, sensor adapter (where applicable), instructions, and two-cylinder case
- Model RP Kit steel calibration gas cylinders measure approximately 14¼" high, 3½" in diameter
- Aluminum container 13¼" high, 3" in diameter
- Depending upon individual pressure requirements, cylinders contain 58 to 100 liters of specified gas mixture



Part No.	Description
477149	Model RP Calibration Check Kit, with 0.25 lpm regulator, includes:
467895	Regulator (0.25 lpm)
24194	Tubing, 30" (without sampling line connection)
10089321	Calibration cap: ALTAIR 4/4X
635833	Quick disconnect fitting
628474	Zero plug for MSA electrochemical sensors
465898	Quick disconnect fitting, internal, 3/16 barb

Calibration Cylinders Are Recyclable

MSA has affiliated with The Arc™ of Butler County—a nonprofit organization that employs people with intellectual and developmental disabilities—and established a Cylinder Recycling Center. The calibration cylinders are not refilled, but salvaged for scrap. All money generated from selling the scrap cylinders is placed in the Arc operating fund for salaries and operating costs. Calibration cylinders are considered hazardous unless the cylinders are empty. MSA has developed special devalving tools that will ensure the cylinder is

empty and render the cylinder non-fillable. For your convenience, MSA also offers a specially pre-addressed shipping box (also recyclable) which helps you pay the lowest shipping costs available.

The MSA Recycling Center limits the return of calibration cylinders to MSA-logoed cylinders only. Non-MSA cylinders will be rejected. Contact the Customer Service Center for additional details at 1-800-MSA-2222.

Devalving Tools		
Model RP	Model R	Return Box
711228	711229	711227

MSA Calibration Cylinders

Non-Reactive Gases					
Gas Type	Concentration	34L	58L	100L	116L
Air (zero gas)	THC < 1 ppm	–	–	801050	10150608
Carbon dioxide (CO ₂)	2.5%	–	–	479265	–
	1.5%	–	–	807386	–
	10.00%	–	801050	–	–
Carbon monoxide (CO)	300 ppm	–	–	473180	–
	60 ppm	–	–	710882	10150609
	50 ppm	–	–	809241	–
Isobutylene	100 ppm	–	–	494450	–
Oxygen (O ₂)	20.80%	–	–	–	10150610
Methane	50%	–	10075804	–	–
Methane (w/odorant)	100%	–	711014	–	–

Reactive Gases				
Gas Type	Concentration	34L	58L	116L
Ammonia (NH ₃)	25 ppm	711078	814866	10150611
Chlorine (Cl ₂)	10 ppm	711066	806740	10150612
	2 ppm	711082	710331	10150613
Hydrogen chloride (HCl)	40 ppm	711080	710210	–
Hydrogen cyanide (HCN)	10 ppm	711072	809351	10150614
Hydrogen sulfide (H ₂ S)	40 ppm	711062	467897	10150616
	20 ppm	10153844	10153845	10153846
	15 ppm	711064	806253	–
	10 ppm	711060	467898	–
	5 ppm	711086	710414	–
Nitric oxide (NO)	50 ppm	711074	812144	10150617
Nitrogen dioxide (NO ₂)	10 ppm	711068	808977	10150599
	5 ppm	711084	710332	–
Sulfur dioxide (SO ₂)	10 ppm	711070	808978	10150600
Phosphine (PH ₃)	0.5 ppm	711088	710553	10151016
Isobutylene	100 ppm	10048279	10028038	–



AutoFill for Calibration Gas

Simplify the management of your gas detection program.

See page 55 for details.

MSA Calibration Cylinders

Multigas (“Cocktail Mixes”) Table									
Reactive Gases									
COMB Gas	CO	O ₂	H ₂ S	NO ₂	SO ₂	CO ₂	34L	58L	116L
1.45% Methane as Pentane Simulant	60 ppm	15%	20 ppm	–	–	–	10048280	10045035	10150595
1.45% Methane as Pentane Simulant	60 ppm	15%	20 ppm	–	10 ppm	–	10098855	10117738	10150622
1.45% Methane as Pentane Simulant	60 ppm	15%	–	10 ppm	–	–	10058036	10058034	10150597
1.45% Methane as Pentane Simulant	60 ppm	15%	20 ppm	–	–	2.50%	10104621	10103262	10150606
1.45% Methane as Pentane Simulant	300 ppm	15%	10 ppm	–	–	–	711058	804770	–
2.5% Methane	60 ppm	15%	20 ppm	–	–	–	10048981	10048890	10150596
2.5% Methane	60 ppm	15%	–	10 ppm	–	–	10058172	10058171	10150598
2.5% Methane	300 ppm	15%	10 ppm	–	–	–	711076	813720	–
Non-Reactive Gases									
COMB Gas	CO	O ₂	34L		58L	116L		100L	
1.45% Methane as Pentane Simulant	60 ppm	15%	10048789		478191	–		–	
2.5% Methane	60 ppm	15%	10049056		813718	–		–	
1.45% Methane as Pentane Simulant	300 ppm	15%	–		–	–		10010162	
1.45% Methane as Pentane Simulant	–	15%	–		–	–		478192	
ALTAIR 2X Detector									
H ₂ S		SO ₂	CO	NO ₂	34L	58L	116L		
20 ppm		–	–	–	10153844	10153845	10153846		
20 ppm		10 ppm	–	–	10153808	10153807	10153808		
20 ppm		–	60 ppm	–	10153800	10153801	10153802		
–		–	60 ppm	10 ppm	10153803	10153804	10153805		

Regulators							
Gas Miser® Demand Regulator			Fixed Flow Regulators				Combination Regulator
Model RP	BD-20	BD-20	Model RP		Model R		Model RP
	CGA 330	CGA 590	0.25 lpm	1.5 lpm	0.25 lpm	0.5 lpm	0.25 lpm
10034391	10148159	710289	467895	467896	459949	459948	711175
	Up to 3000 psi cylinders	Up to 3000 psi cylinders	–	–	–	–	–
Can be used with all reactive gases (replaces 710288)	CGA 330 is standard fitting for H ₂ S containing mixtures	CGA 590 is standard fitting for non-H ₂ S mixtures	–	–	–	–	Easily converts 34, 58, 116, or 100L into "squirt" bottle; provides stable gas concentration

Model RP – Regulator threads onto into 34, 58 and 116L aluminum bottles and 100L steel bottles; limited to 1000 psi

Model BD – Regulator attaches directly onto cylinder containing up to 3000 psi gas pressure

Model R – Regulator fits 19L steel cylinder (red or blue); often contains combustible gas mixture



Head, Eye, Face, and Hearing Protection

Head Protection
Eye and Face Protection
Hearing Protection



Considerations & Factors for Choosing Head Protection

MSA Safety head protection options include both Type I and Type II helmets and helmets, accessories for additional protection from specific hazards, various class options, and several different safety certifications varying by head protection style.



Offering Type II impact protection, the V-Gard H2 Helmet integrates seamlessly with a comprehensive suite of V-Gard and V-Gard H1 accessories. The helmet is available with the optional Mips® brain protection system for industrial helmets, designed to help reduce the risk of traumatic brain injury.



The V-Gard H1 Helmet offers versatility with a low-profile design and multiple customization options. The non-contact foam liner helps maximize air flow and breathability for optimal cooling and hygiene. The helmet is available in both vented or non-vented models.



Built with the patent-pending ReflectIR® Thermal Barrier, the V-Gard C1 Helmet can help reduce worker heat stress by helping keep the inside of the helmet up to 20°F cooler.¹ The larger helmet brim offers 12% greater coverage, providing additional shade and sun protection.



The iconic “V” gives the helmet a unique profile which enables it to deflect objects and provide added protection in the event of impact. V-Gard Helmets are available in full brim and front brim styles, vented or non-vented, and can be enhanced with multiple hearing and face protection options.



The Skullgard Helmet is designed to offer protection in industries where heat protection is necessary. The helmet has been tested to radiant heat loads of up to 350°F. Skullgard Helmets are available in both a full brim or a front brim style helmet.



- General industry
- Construction
- Working at heights
- Confined space
- Search & rescue



- ANSI Z89.1



- Type II
- Mips® Brain Protection System (optional)



- Class E (non-vented)
- Class C (vented)



- Brimless
- Full brim helmet



- V-Gard/V-Gard H1 Accessories



- Logo & striping options



- General industry
- Construction
- Confined space
- Working at heights
- Turnarounds & plant maintenance
- Search & rescue



- ANSI Z89.1
- CSA Z94.1
- EN397 & EN12492



- Type I



- Class E (non-vented)
- Class C (vented)



- Brimless



- V-Gard/V-Gard H1 Accessories



- Logo options



- General industry
- Construction
- Working at heights
- Turnarounds & plant maintenance



- ANSI Z89.1
- CSA Z94.1



- Type I



- Class E (non-vented)
- Class C (vented)



- Full brim helmet



- V-Gard Full Brim Helmet Accessories



- Helps reduce heat stress
- Logo & striping options



- General industry
- Construction
- Confined space
- Working at heights
- Welding



- ANSI Z89.1
- CSA Z94.1



- Type I



- Class E



- Front brim helmet
- Full brim helmet



- V-Gard Accessories



- Logo & striping options



- General industry
- Construction
- Working at heights
- Welding



- ANSI Z89.1



- Type I



- Class G



- Front brim helmet
- Full brim helmet



- V-Gard Visors



- High-heat protection

LEGEND



Hazards & Applications



Standards Compliance



Type



Class



Style



Accessories



Other Considerations

Sources:

¹ Based on MSA sales data showing the V-Gard helmet is the #1 selling helmet.

² Compared to a helmet without the ReflectIR Thermal Barrier in sunny conditions; testing done with black, non-vented, V-Gard C1 Helmets

Head, Eye, Face, and Hearing Protection

V-Gard® Helmets (FRONT BRIM)

The MSA V-Gard Helmet, with its distinctive trademark “V” design, is a world recognized brand known for comfort, quality, and durability. MSA has sold well over 750 million V-Gard Helmets since its introduction — so many in fact, that the iconic “V” design has been a mainstay for many years on even the toughest worksites.

Gloss Finish

Classification..... Type I

Application..... General purpose

Shell Material Polyethylene

Styles Slotted front brim-style helmet; slotted full-brim helmet

Sizes **Front Brim:** small (6 – 7½); standard (6½ – 8); large (7– 8½)
Full Brim: standard (6½ – 8)

Standards..... ANSI/ISEA Z89.1-2014 (Class E);
CSA Z94.1-2015 (Class E)

Certification Third-party by SEI

Matte Finish

Classification..... Type I

Application..... General purpose

Shell Material Polyethylene

Styles Slotted front brim helmet only

Sizes **Front Brim:** standard (6½ – 8)

Standards..... ANSI/ISEA Z89.1-2014 (Class E); CSA Z94.1-2015 (Class E)

Certification Third-party by SEI



V-Gard Front Brim-Style Helmet with Fas-Trac® III Suspension



V-Gard Full-Brim Helmet with Fas-Trac® III Suspension



V-Gard Front Brim-Style Helmet (matte finish) with Fas-Trac® III Suspension

CUSTOMIZATION:

Imprinting and striping available—see pages 86–87

REPLACEMENT SUSPENSIONS: See page 88



DID YOU KNOW?

All V-Gard Helmets have UV inhibitor molded right in.

MSA offers a complete line of **MSA helmet accessories**.
See pages 95–112 for more information.



V-Gard® Helmets (FRONT BRIM)

STANDARD V-Gard Slotted Helmets (FRONT BRIM)			
Color		w/ Staz-On® Suspension	w/ Fas-Trac III Suspension¹
Gloss Finish			
White		463942	475358
Blue		463943	475359
Yellow		463944	475360
Orange		463945	475361
Red		463947	475363
Green		463946	475362
Gray		463948	475364
Hi-Viz® Orange²		488148	488146
Hi-Viz Yellow-Green²		—	10061512
Bright Lime Green		815558	815565
Dark (Canadian) Blue		—	802972
Gold		464852	475365
Robin's Egg Blue		463111	495853
Brown		464658	495854
Silver		484340	495855
Tan		461180	—
Black		475235	492559
Light Buff		478237	495856
Purple		488398	495858
Pink		—	495862
Hot Pink		10155231	10155230

STANDARD V-Gard Slotted Helmets (FRONT BRIM)		
Color		w/ Fas-Trac III Suspension¹
Matte Finish		
White		10203081
Blue		10203082
Yellow		10203083
Orange		10203087
Red		10203086
Green		10203085
Gray		10203084
Hi-Viz® Orange²		10203089
Hi-Viz Yellow²		10203088
Black		10203092



DID YOU KNOW?

MSA helmets marked LT meet voluntary requirements for "Lower Temperature." Helmets marked LT are conditioned to -22°F and then tested for impact and penetration, as outlined in the Standard. Any helmet NOT marked with LT is tested to 0°F.

SMALL V-Gard Slotted Helmets (FRONT BRIM)			
Color		w/ Staz-On® Suspension	w/ Fas-Trac III Suspension¹
Gloss Finish			
White		466354	477477
Blue		466355	477478
Yellow		466356	477479
Bright Lime Green		—	489368

LARGE V-Gard Slotted Helmets (FRONT BRIM)			
Color		w/ Staz-On® Suspension	w/ Fas-Trac III Suspension¹
Gloss Finish			
White		473284	477482
Blue		476928	477483
Yellow		473285	477484
Hi-Viz® Orange²		—	489364

STANDARD V-Gard Helmet Special Assemblies (FRONT BRIM)			
Color		w/ Staz-On® Suspension	w/ Fas-Trac III Suspension¹
Gloss Finish			
Hi-Viz Orange w/yellow-green stripe²		—	10102193
Hi-Viz Yellow-Green w/red-orange stripe²		—	10102233
Hi-Viz Yellow-Green w/silver stripe²		—	10102194
White w/lamp bracket and cord holder (Class C)		460018	—
White w/American Flag		474159	—
White w/Swing-Ratchet Suspension		10004689	—



V-Gard w/Lamp Bracket and Cord Holder



V-Gard w/Swing-Ratchet Suspension

¹Certified to CSA.

²V-Gard Helmet meets voluntary standard for hi-visibility as prescribed by ANSI/ISEA Z89.1-2014. Look for official hi-visibility marking [HV] on the helmet's ANSI label.

STANDARD V-Gard Helmets (FULL BRIM)				
Color		w/ Staz-On®Suspension		w/ Fas-Trac IIISuspension¹
Gloss Finish				
White		454733		475369
Blue		454732		475368
Yellow		454730		475366
Orange		454734		496075
Red		454736		475371
Green		454735		475370
Gray		454731		475367
Hi-Viz® Orange²		489360		10021292
Hi-Viz Yellow-Green²		—		10061515
Bright Lime Green		815562		815570
Dark (Canadian) Blue		—		802975
Hot Pink		10156374		10156373

STANDARD V-Gard Helmets Special Assemblies (FULL BRIM)			
	Color	w/ Staz-On®Suspension	w/ Fas-Trac IIISuspension¹
Gloss Finish			
	White	454733	475369
	w/lamp bracket and cord holder (Class C)		

V-Gard GREEN helmets are constructed of renewable green high-density polyethylene (GHDPE); traditional V-Gard Helmets are manufactured through standard HDPE production methods. V-Gard GREEN helmets provide the same appearance and quality as MSA V-Gard helmet. Test results for V-Gard GREEN helmet shells indicated 95% bio-based content.

Classification	Type I
Application	General purpose
Shell Material	Green high-density polyethylene (GHDPE)
Styles	Slotted front brim helmet w/4-point Fas-Trac III Suspension; Slotted full brim helmet w/4-point Fas-Trac III Suspension
Sizes	Standard (6½ – 8)
Standards	ANSI/ISEA Z89.1-2014 (Class E); CSA Z94.1-2015 (Class E)
Certification	Third-party by SEI; USDA Biobased Certified



V-Gard GREEN Helmets (FRONT BRIM and FULL BRIM)			
Color		Front Brim	Full Brim
Gloss Finish			
White		10150199	10160923
Blue		10150221	10160925
Yellow		10150200	10160924
Red		10150223	10160927
Green		10150222	10160926

²V-Gard Helmet meets voluntary standard for hi-visibility as prescribed by ANSI/ISEA Z89.1-2014. Look for official hi-visibility marking [HV] on the helmet's ANSI label.

DID YOU KNOW?
On average, the production of each V-Gard GREEN helmet removes approximately 1.3 to 1.5 lbs. of CO₂ from the atmosphere, according to the material supplier.

CUSTOMIZATION: Imprinting and striping available—see pages 86–87

REPLACEMENT SUSPENSIONS: See page 88

Head, Eye, Face, and Hearing Protection

V-Gard H2® Helmets (BRIMLESS and FULL BRIM)

The V-Gard H2 Helmet provides superior comfort and versatility while incorporating the latest technology to help protect against lateral impacts. The optional Mips® brain protection system adds another layer of protection in industrial helmets, designed to help reduce the risk of brain trauma by redirecting rotational energies in the event of certain angled impacts.

- **Quick and easy customization** with thousands of existing logos, easy creation of new logos, and reflective stripes.
- **Integrated headlamp strap clips** for easy and secure donning and doffing of lights on the helmet.
- **ANSI Z89.1 Type II certification** with integrated chinstrap for enhanced protection against lateral impacts.
- **Non-vented options** for use in electrical applications where Class E certification is needed.
- **Optional venting** for improved air flow, cooling and reduced heat stress.
- **Extensive accessory compatibility with nearly all V-Gard H1 and V-Gard accessories** for a wide variety of industrial applications and easy integration with existing inventory.
- **Comfortable ratchet suspension** that's easily adjustable with a gloved hand.
- **Antimicrobial sweatband, crown pad, and ratchet pad** with Ionic+® high-purity silver to eliminate odor-causing bacteria.
- **Optional Mips® system** for additional rotational impact protection designed to help reduce the risk of traumatic brain injury.

Classification **Type II**

Markets Utilities; oil, gas and petrochemical; general industry; construction

Application General Industry; construction; working-at-heights; confined space; rescue

Shell Material ABS (Acrylonitrile Butadiene Styrene)

Styles Vented and non-vented; brimless and full brim; with or without Mips

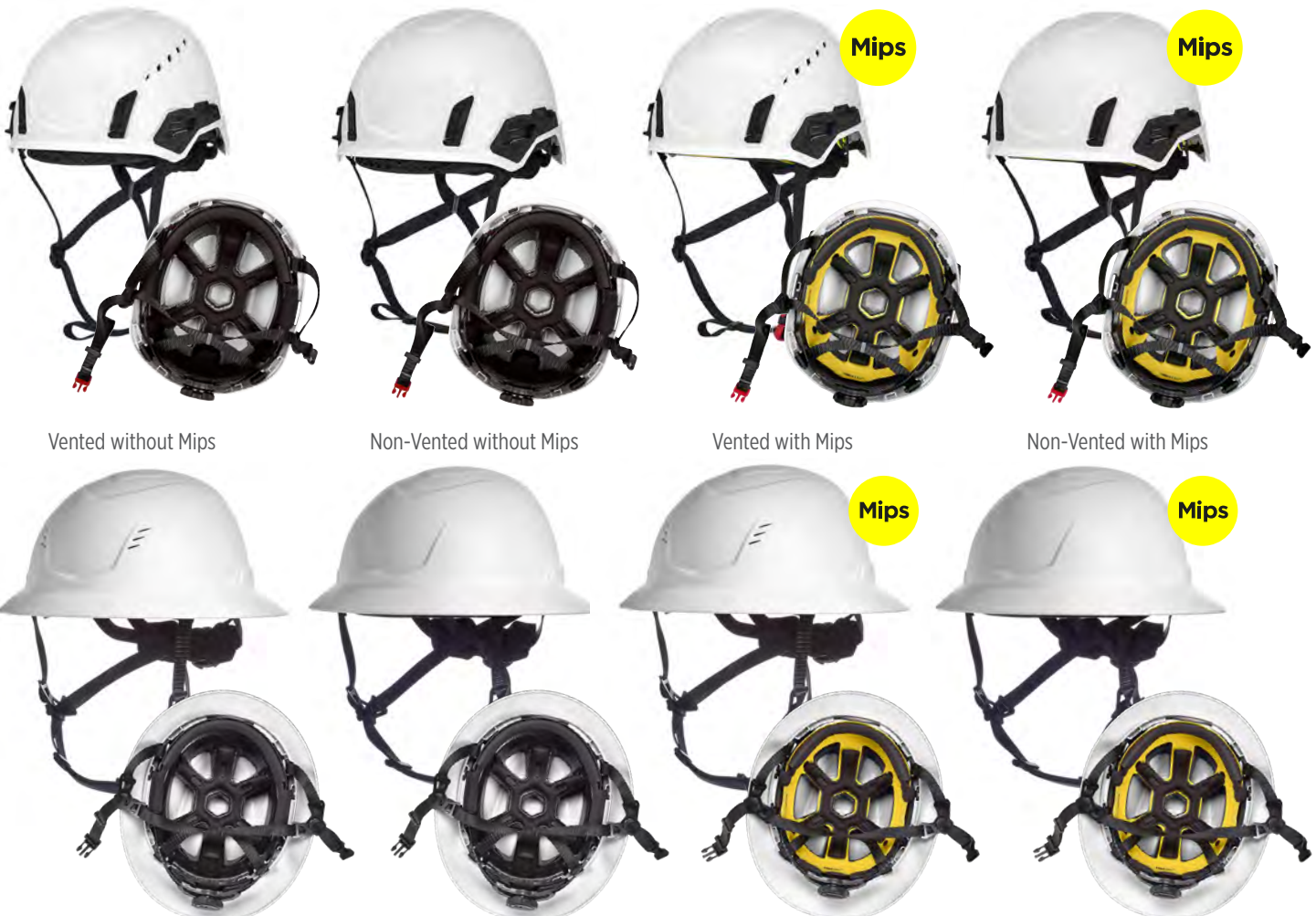
Sizes Standard 6½ – 8 (53 – 63 cm) head circumference

Standards VENTED: ANSI/ISEA Z89.1-2014 (R2019), Type II, Class C, HT, HV (if applicable)

NON-VENTED: ANSI/ISEA Z89.1-2014 (R2019), Type II, Class E, HT, HV (if applicable)

CUSTOMIZATION:
With gray striping or yellow striping options. Imprinting available—see pages 86–87

ACCESSORIES:
See page 84



Vented without Mips

Non-Vented without Mips

Vented with Mips

Non-Vented with Mips

V-Gard H2® Helmets (BRIMLESS and FULL BRIM)

		VENTED without Mips	NON-VENTED without Mips	VENTED with Mips	NON-VENTED with Mips
				Mips	Mips
V-Gard H2 Helmet Assemblies — BRIMLESS					
White		10242629	10242635	10242813	10242822
Red		10242808	10242811	10242819	10242828
Blue		10242632	10242638	10242816	10242825
Green		10242809	10242812	10242820	10242829
Yellow		10242631	10242637	10242815	10242824
Hi-Viz Yellow Green		10242634	10242640	10242821	10242830
Orange		10242807	10242810	10242818	10242827
Black		10242630	10242636	10242814	10242823
Gray		10242633	10242639	10242817	10242826

		VENTED without Mips	NON-VENTED without Mips	VENTED with Mips	NON-VENTED with Mips
				Mips	Mips
V-Gard H2 Helmet Assemblies — FULL BRIM					
White		10250581	10250593	10250605	10250617
Red		10250587	10250599	10250611	10250623
Blue		10250584	10250596	10250608	10250620
Green		10250588	10250600	10250612	10250624
Yellow		10250583	10250595	10250607	10250619
Orange		10250586	10250598	10250610	10250622
Black		10250582	10250594	10250606	10250620
Gray		10250585	10250597	10250609	10250621
Hi-Viz Yellow Green		10250590	10250602	10250614	10250626
Hi-Viz Yellow Orange		10250589	10250601	10250613	10250625
Brown Fiber		10250591	10250603	10250615	10250627
Carbon Fiber		10250592	10250604	10250616	10250628
Light Buff		10250872	10250882	—	—
Robin's Egg Blue		10250874	10250884	—	—
Custom		YES (480 MOQ)	YES (480 MOQ)	YES (480 MOQ)	YES (480 MOQ)



V-Gard H1® and V-Gard H1® Pro Helmets (BRIMLESS)

The V-Gard H1 and H1 Pro Helmets and accessories provide **exceptional comfort** and ease of use in a **stylish low-profile design**. A complete above-the-neck platform **for all applications**, especially work-at-heights, confined spaces, and rescue.

Classification..... **Type I**

Markets..... Utilities; oil, gas and petrochemical; general industry; construction

Application..... General Industry; construction; working-at-heights; confined space; rescue

Shell Material HDPE (high-density polyethylene)

Styles Novent; trivent (H1 and H1 Pro); bivent (H1 only)

Sizes Standard (6½ – 8) head circumference

Standards..... See chart on p. 83



V-Gard H1 Helmet (novent)



V-Gard H1 Helmet (trivent)



V-Gard H1 Helmet (bivent)

V-Gard H1 Helmet (Global & Canada)

Features

- Fas-Trac® III Pivot ratchet suspension for superior comfort, adjustability and range of motion; field replaceable
- Non-contact foam liner maximizes air flow & breathability for optimal cooling and hygiene
- 4-point chinstrap with multiple adjustment points for customized fit and comfort; field replaceable
- Convenient rescue whistle integrated into the chin strap buckle
- Premium sweatband with sweat-wicking fabric, breathable foam and Velcro® attachment for easy field replacement
- Patent pending “push-button” accessory attachment rail and universal light strap clips for simplicity and convenience
- Suspension and chinstrap fully assembled
- Reflective gray 360° striping included



V-Gard H1 Pro Helmet (trivent)



V-Gard H1 Pro Helmet (novent)

V-Gard H1 Pro Helmet (ANSI Only)

Features

- Fas-Trac® III H1 non-pivoting ratchet suspension comes standard for superior comfort, easy cleaning and durability; field replaceable
- Non-contact foam liner maximizes air flow & breathability for optimal cooling and hygiene
- 4-point chinstrap with multiple adjustment points for customized fit and comfort; field replaceable
- Convenient rescue whistle integrated into the chin strap buckle
- Sewn-in vinyl sweatband for added comfort, easy cleaning and durability
- Patent pending “push-button” accessory attachment rail and universal light strap clips for simplicity and convenience
- Meets the requirements of European standard EN12492:2012 for Shock Energy Absorption Capacity [4.2.1.1 (vertical/top), 4.2.1.2 (front), 4.2.1.3 (lateral), 4.2.1.4 (rear)], Penetration [4.2.2] and Retention System [4.2.3 (strength), 4.2.4 (effectiveness)]

Customization Options for:

■ V-Gard H1 Helmet (Global & Canada)

- Multiple printing services: one-color logo to digital photos, including individually personalized logos
- Up to three logo locations: Front, Back Left, Back Right
- With or without reflective gray 360° striping

■ V-Gard H1 Pro Helmet (ANSI Only)

- Multiple printing services: one-color logo to digital photos, including individually personalized logos
- Up to three logo locations: Front, Back Left, Back Right
- With or without reflective gray 360° striping
- Suspension type: Pivoting with Velcro Sweatband or Non-Pivoting with Sewn-In Vinyl Sweatband
- Chinstrap type: EN397 or EN12492 compliant
- Custom helmet colors available

CUSTOMIZATION: Stylish dark gray reflective striping standard. Imprinting available—see pages 86–87

ACCESSORIES: See page 84

V-Gard H1® and V-Gard H1® Pro Helmets

V-Gard H1 and H1 Pro Helmets — Standard Colors								
Color		V-Gard H1 Helmet (Global)			V-Gard H1 Pro Helmet (ANSI Only)		V-Gard H1 Helmet (Canada & ANSI)	
		Novent	Trivent	Bivent	Novent	Trivent	Novent	Bivent
White		10194791	10194783	10212394	10236213	10236204	10219932	10219941
Red		10194792	10194784	10212395	10236214	10236205	10219933	10219942
Blue		10194793	10194785	10212396	10236215	10236206	10219934	10219943
Green		10194794	10194786	10212397	10236216	10236207	10219935	10219944
Yellow		10194795	10194787	10212398	10236217	10236208	10219936	10219945
Hi-Viz Yellow Green		10194796	10194788	10212399	10236218	10236209	10219937	10219946
Orange		10194797	10194789	10212400	10236219	10236210	10219938	10219947
Black		10194798	10194790	10212401	10236220	10236211	10219939	10219948
Gray		10204347	10204346	10212402	10236221	10236212	10219940	10219949
Custom Colors*		NA	NA	NA	YES	YES	YES	YES

*Contact Customer Service for Minimum Order Qty.

Standards Information

Specification	V-GARD H1 HELMET (GLOBAL)			V-GARD H1 PRO HELMET (ANSI ONLY)		V-GARD H1 HELMET (CANADA & ANSI)	
	Novent	Trivent	Bivent	Novent	Trivent	Novent	Bivent
Standards Compliance	ANSI/ISEA Z89.1-2014 EN 397:2012+A1:2012 EN 50365: 2002-05 UKCA IRAM UNE-EN 397:1995	ANSI/ISEA Z89.1-2014 EN 12492: 2012-04 UKCA	ANSI/ISEA Z89.1-2014 EN 397:2012+A1:2012 UKCA	ANSI/ISEA Z89.1-2014	ANSI/ISEA Z89.1-2014	ANSI/ISEA Z89.1-2014 CSA Z94.1-2015	ANSI/ISEA Z89.1-2014 CSA Z94.1-2015
Optional Requirements (ANSI)	LT (Low Temp) HT (High Temp) HV (Hi-Viz, as indicated)	LT (Low Temp) HT (High Temp) HV (Hi-Viz, as indicated)	LT (Low Temp) HT (High Temp) HV (Hi-Viz, as indicated)	LT (Low Temp) HT (High Temp) HV (Hi-Viz, as indicated)	LT (Low Temp) HT (High Temp) HV (Hi-Viz, as indicated)	LT (Low Temp) HV (Hi-Viz, as indicated)	LT (Low Temp) HV (Hi-Viz, as indicated)
Optional Requirements (EN)	-30°C 440 V AC ELECTROSTATIC-INERIS ATEX Dust Zones 20, 21, 22"	ELECTROSTATIC-INERIS ATEX Dust Zones 20, 21, 22"	ELECTROSTATIC-INERIS ATEX Dust Zones 20, 21, 22"				
ANSI Z89.1 & CSA Z94.1 Classification	Type I, Class E	Type I, Class C	Type I, Class C	Type I, Class E	Type I, Class C	Type I, Class E	Type I, Class C
EN12492:2012-04 Clauses							
Shock Energy Absorption Capacity							
4.2.1.1 (vertical/top)	Meets	Certified	Meets	Meets	Meets		
4.2.1.2 (front)	Meets	Certified	Meets	Meets	Meets		
4.2.1.3 (lateral)	Meets	Certified	Meets	Meets	Meets		
4.2.1.4 (rear)	Meets	Certified	Meets	Meets	Meets		
Penetration: 4.2.2	Meets	Certified	Meets	Meets	Meets		
Retention system							
4.2.3 (strength)		Certified		Meets	Meets		
4.2.4 (effectiveness)		Certified		Meets	Meets		

V-Gard H1® and V-Gard H2® Helmet Accessories



V-Gard H1 and V-Gard H2 BRIMLESS Helmet Accessories

Part No.	Description	Approvals
10194818	Clear Face Shield for V-Gard H1 and V-Gard H2 Brimless Helmets , clear polycarbonate, frameless design with anti-fog and anti-scratch coatings	ANSI/ISEA Z87.1-2015, CSA Z94.3, EN 166
10194819	Mesh/Forestry Face Shield for V-Gard H1 and V-Gard H2 Brimless Helmets , steel mesh	ANSI/ISEA Z87.1-2015, EN 1731
10194820	Half-Face Spectacles for V-Gard H1 and V-Gard H2 Brimless Helmets , clear polycarbonate, frameless design with anti-fog and anti-scratch coatings	ANSI/ISEA Z87.1-2015, CSA Z94.3, EN 166
10217333	Shaded Half-Face Spectacles for V-Gard H1 and V-Gard H2 Brimless Helmets , smoke-shaded polycarbonate, frameless design with anti-fog and anti-scratch coatings	ANSI/ISEA Z87.1-2020, CSA Z94.3, EN 166
10236392	V-Gard Visor Frame for V-Gard H1 and V-Gard H2 Brimless Helmets , <i>without</i> debris control	ANSI/ISEA Z87.1-2015, CSA Z94.3
10235987	V-Gard Visor Frame for V-Gard H1 and V-Gard H2 Brimless Helmets , <i>with</i> debris control	ANSI/ISEA Z87.1-2015, CSA Z94.3
10236393	Debris Control for V-Gard H1 and V-Gard H2 Brimless Helmet Visor Frame (replacement)	ANSI/ISEA Z87.1-2015, CSA Z94.3

V-Gard H2 FULL-BRIM Helmet Accessories

Part No.	Description
10154622	V-Gard Accessory System Frame for V-Gard H2 Full-Brim Helmets , for slotted hats, plastic, general purpose, WITH debris control (see p. 97 for more information)
10154604	V-Gard Accessory System Frame for V-Gard H2 Full-Brim Helmets , for slotted hats, plastic, general purpose, NO debris control (see p. 97 for more information)
10116627	V-Gard Accessory System Frame for V-Gard H2 Full-Brim Helmets , universal fit, plastic, general purpose, NO debris control (see p. 96 for more information)
10116628	V-Gard Accessory System Frame for V-Gard H2 Full-Brim Helmets , universal fit, plastic, elevated temp, NO debris control (see p. 96 for more information)
10176739	V-Gard Accessory System Frame for V-Gard H2 Full-Brim Helmets , universal fit, metal, elevated temp, NO debris control (see p. 97 for more information)

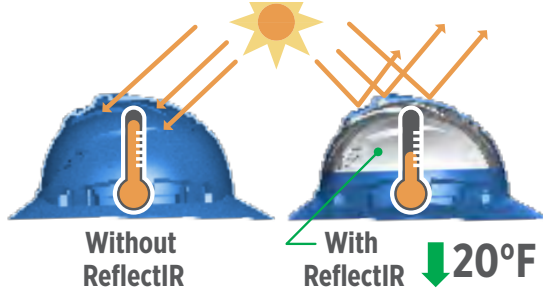
V-Gard H1 Helmet ONLY Replacement Parts

Part No.	Description
10194760	V-Gard H1 Replacement Suspension Assembly, Fas-Trac III Pivot
10194761	V-Gard H1 Replacement Sweatband, Fas-Trac III Pivot, 3-pack
10220915	V-Gard H1 FR (Flame-Retardant) Chinstrap, Kevlar, 4-point chinstrap with multiple adjustment points, integrated rescue whistle
10194765	V-Gard H1 Replacement Chin Strap, Trivent
10194766	V-Gard H1 Replacement Chin Strap, Novent/Bivent

V-Gard H2 Helmet ONLY Replacement Parts

Part No.	Description
10242641	V-Gard H2 Replacement Chinstrap
10250725	V-Gard H2 FR Chinstrap
10242642	V-Gard H2 Replacement Crown Pad
10242643	V-Gard H2 Replacement Sweatband
10246731	V-Gard H2 Replacement Sweatband, MIPS
10242644	V-Gard H2 Replacement Padding Set
10246730	V-Gard H2 Replacement Padding Set, MIPS

V-Gard C1® Helmets (FULL BRIM)



- **ReflectIR® Thermal Barrier** works to block the energy of the sun, keeping the inside of the helmet up to 20°F (11°C) cooler¹, reducing the risk of heat stress.
- **Largest vents MSA offers on a full brim helmet** (*vented version*) are strategically placed to optimize airflow, increase comfort and further reduce heat stress.
- **Premium moisture-wicking sweat band** pulls sweat away from the head allowing it to evaporate into the air, while breathable foam padding keeps you dry and comfortable. Can be easily removed for laundering or replacement.
- **Full brim on the V-Gard C1 Helmet** offers 12% more coverage², providing additional shade while protecting you from harmful UV rays. Unique textured brim provides added grip when donning and doffing the helmet.



V-Gard C1 Hats (FULL BRIM)			
Color		Non-Vented	Vented
Textured Brim			
White		10215837	10215828
Blue		10215839	10215830
Yellow		10215841	10215832
Orange		10215843	10215834
Red		10215838	10215829
Green		10215840	10215831
Gray		10215845	10215836
Black		10215844	10215835
Hi-Viz® Orange ³		10215842	10215833
Hi-Viz® YELLOW Green ³		10237724	10236066
Custom Color		CUSTOM COLOR OPTIONS AVAILABLE.	

SPECIFICATIONS	Non-Vented	Vented
STANDARDS COMPLIANCE	ANSI/ISEA Z89.1-2014 (R2019)	CSA Z94.1-15
OPTIONAL REQUIREMENTS (ANSI)	LT (Low Temp) Reverse Donning	HT High Temp HV (Hi-Viz, as indicated)
ANSI Z89.1 & CSA Z94.1 CLASSIFICATION	Type 1, Class E	Type 1, Class C
3RD PARTY CERTIFICATIONS	SEI	
STYLE	Non-Vented	Vented
PRODUCT SIZE	Standard head size 6½-8 (52-64 cm head circumference)	
OTHER PPE	Compatible with all current V-Gard Helmet accessories: Fas-Trac III Suspension, frames, visors, hearing protection, chinstraps, sun shades, sun shields, cooling pads, & winter liners	

CUSTOMIZATION

- Full-color logos available in up to three locations:
 - Front and back
 - Front, back left, and back right
- Reflective striping available in silver or yellow up to 360° coverage: front, back, and sides
- Custom helmet colors available



¹Compared to a helmet without the ReflectIR Thermal Barrier in sunny conditions; testing done with black, non-vented, V-Gard C1 Helmets.

²Compared to a full-brim V-Gard or V-Gard 500 Helmet.

³V-Gard Helmet meets voluntary standard for hi-visibility as prescribed by ANSI/ISEA Z89.1-2014. Look for official hi-visibility marking [HV] on the helmet's ANSI label.

Head, Eye, Face, and Hearing Protection

Helmet Customization For 30+ Years



Practice makes *perfect* logos

- MSA uses inks and processes that create durable logos. **We have never had a complaint about a logo “scratching off” in the 30+ years we have been in the logo business!**
- It can be tricky to avoid logo distortion due to the curvature of the helmet. That's why MSA Logo Express® Service employs graphic designers who process logos onto helmets. These skilled artisans ensure each logo is placed properly so it not only endures, but also accurately represents your brand and logo in color, size and shape—despite the curve of the helmet.
- MSA offers multiple printing services from simple one-color logo to digital photos, in up to four locations
- We don't require “color-separated” artwork for 1+ color logos; nor do we require customers to identify the PMS colors in their logos. Our graphic artists can manage that, if you do not have these details.
- Re-ordering is easy because we keep your logo on file until you change it¹.



Our Process

Once your order has been received by the MSA Logo Express Service Design center we get to work. Files are imported from your on-line helmet configuration, assessed for usability and colors separated (if the PMS colors have not been identified) and layout finalized



Delivery

Once the layout process is complete, our factory craftsman get to work on your order. Your order for a new helmet logo should ship within eight (8) days from our Murrysville, PA plant from the date we receive your approval on the artwork².



Minimum Order Quantities (MOQ)

MSA requires MOQs, by helmet type, for logoing and striping. Qualifying MOQs of custom-imprinted or striped helmets must be of the same size, model and options (i.e., color and suspension). MOQs are:

- 20 for V-Gard®, V-Gard® GREEN, V-Gard® 500, SmoothDome®, Topgard®, Comfo Cap® Helmets
- 16 for V-Gard® C1, Skullgard®, Thermalgard®, V-Gard H1™, V-Gard H2™ Helmets
- 40 for Bump Caps



Pricing

Please refer to your local distributor for pricing details on standard and non-standard charges that may apply to your order.



Striping

Add any of 27+ different reflective and retro-reflective stripes to your helmet. MSA reflective stripes help enhance the visibility of workers in daytime conditions, while retro-reflective stripes³ offer additional enhancement in nighttime or low-light conditions. Stripes are available in various sizes and shapes, and can be placed on all types of MSA helmets.

Keep in mind too, that while you can order more stripes for self-application, MSA does not recommend doing this. The reason for this is MSA pre-treats all helmets prior to striping with an electrical discharge treatment to enhance the ability of the stripes adhesive bonds.



Stock Logos and Slogans

With 23 “pre-built” stock logos and slogans, MSA offers more “off-the-shelf” helmet graphics than anyone in the industry. Standard logos make it easy for you to place emphasis on safety, patriotism or personnel identification without having to develop your own artwork. They can be used alone or with your customized logo and striping.



Helmet Color Choices

MSA offers more stocked color options than competitors—in our popular V-Gard helmet, we offer 21 stocked colors. There are non-stocked color options available for all MSA helmets; a qualifying MOQ of 100 helmets is required.

You can create a shell color of your choice. You need only order a qualifying MOQ of 500 helmets or more.

¹ Files are purged from MSA's system if no logoed helmet order is received within three (3) years of the first order.

² Orders for repeat logos ship within seven (7) days. This includes 2-3 days for order processing, and 5 days for production.

Placing Customized Helmet Orders

Steps to complete your online logo configuration order:

Summary of how to submit artwork to MSA Logo Express Service

Please review the document for process details.

METHOD FOR SUBMITTING ARTWORK	Electronic file emailed to your MSA distributor
PROGRAMS FOR SUBMITTING ARTWORK	Corel Draw (version x6 or lower) Adobe Illustrator (version cs6 or lower) Adobe Photoshop (version cs6 or lower)
ARTWORK FILES	Vector files: .cdr (Corel Draw) .ai (Adobe Illustrator) .eps (encapsulated postscript)
FONT REQUIREMENTS	- Convert all fonts to "outlines" (Adobe Illustrator) or "curves" (Corel Draw). - Provide a list of actual fonts used with artwork file. Font type must be true type and/or postscript type 1.

Submitting Artwork

1. Send the artwork by email to the MSA distributor taking your order. They will send it to MSA Logo Express Service.
2. Name the Pantone Matching System (PMS) ink colors used in your artwork (if you know them). Type the actual numbers in the email, as colors sometimes don't transmit properly through email. For example, MSA's logo is green, but specifically, the color of our brand logo is PMS 355.
3. Provide all linked graphics and fonts (see "Font Submission")

Note: Should you not have access to email please contact MSA Logo Express for alternate methods.

Font Submission

Failure to specify or provide files for the typefaces used in your artwork is the most common source of delays and logo errors. If your artwork includes text, please be sure to:

- Convert type to outlines:
 - **Adobe Illustrator** (Type > Create Outlines)
 - **Corel Draw** (Convert to Curves using Ctrl+Q or Command+Q)
- Submit a list of all fonts used, along with the actual font files. All fonts should be TrueType and/or Postscript Type 1 formats.

NOTE: Do not use Helvetica Narrow; it is unreliable and could complicate the printing process.



DID YOU KNOW?

If you **only** have other types of artwork, (e.g. printed copies of letterhead or business cards), please contact MSA Logo Express Service for submission instructions.



The "Try-It" Sample Program

The "Try It" sample program offers some of the most popular MSA head, eye, face and hearing protection products, including V-Gard Helmets, V-Gard Accessories, left/RIGHT Hearing Protection, and Sightgard® Eyewear — completely FREE of charge! Look for the  that tells you which products are included in the program.



See what a logoed V-Gard or V-Gard 500 Helmet looks like. Pre-designed logoed helmet samples are available through the FREE sample Try It program. Contact your MSA sales representative for more details.



Questions About Helmet Customization?

Contact your MSA distributor or MSA Logo Express Service.

EMAIL: Logo.Express@msasafety.com

PHONE: 1-800-MSA-LOGO
(1-800-672-5646)

ADDRESS: MSA Logo Express
3880 Meadowbrook Rd.
Murrysville, PA 15668-1753

Visit us on the web:

us.msasafety.com/logoexpress

KEYWORD: Logo

Replacement Suspensions for MSA Helmets

MSA Fas-Trac® III Ratchet Suspension

The MSA Fas-Trac III Suspension helps to reduce pressure headaches and pulled hair, and stays on your head.

- ❶ Sweatband fully covers headband and worker's forehead
- ❷ Three levels of nape strap adjustment for customized fit
- ❸ Lower nape strap improves retention
- ❹ Smooth ratchet rotation and secure hold

Learn how the Fas-Trac III Suspension can relieve your headaches.
Visit www.MSAafety.com/fastrac.



HELMET TYPE (SIZE)	Suspension Type (4-point, unless otherwise noted)		
	Fas-Trac III	Staz-On	Swing Ratchet ¹
V-Gard Full Brim/Front Brim Helmet (Standard)	10148708	10087218	816645
V-Gard 500 Front Brim Helmet (Standard)	10148708	10087218	816645
V-Gard 500 Full-Brim Helmet (Standard)	10148708	10087218	—
SmoothDome Front Brim Helmet (Standard)	10148708	10087218	816645
Topgard Full-Brim/Front Brim Helmet (Standard)	10153384	—	816648
Thermalgard Front Brim Helmet (Standard)	10153384	—	816648
Skullgard Full-Brim/Front Brim Helmet (Standard)	10153385	454231	816654
Skullgard Front Brim Helmet (Standard)	10126693	468096	—
Super-V Front Brim Helmet (Standard)	10126683	—	—
Vanguard Helmet (Standard)	10153386	—	—
Comfo-Cap (Standard)	10153385	454231	—

¹Swing ratchet size is 6½ through 7½

The **Fas-Trac III Suspension sweatband** accessory keeps workers cool and dry.

	Part No.	Product Specifics
	10153518 	• For use with MSA Fas-Trac® III Suspension • Optional, moisture-wicking and washable • Can be attached/replaced while suspension is assembled in helmet • Sold ONLY in packages of 10

⚠ WARNING

Use only the indicated MSA suspension in your MSA helmet. Do not mix suspension sizes and helmet sizes (i.e., putting a standard sized suspension in a large helmet or any other mismatched combination). Do not use competitor suspensions in MSA helmets. Inspect your suspension frequently. Suspensions should be replaced every 12 months, regardless of inspection results. Replace immediately (along with the helmet), if an impact has occurred. Failure to follow these instructions will reduce the energy absorbing ability of the protective helmet to receive impact, and could result in serious injury or death.



DID YOU KNOW?

NFPA 70E is a work practice; it is not a standard and does not specify any test methods. No products “meet” NFPA 70E—users simply follow the practice of NFPA 70E. For head protection, NFPA 70E recommends that users wear Class E helmets in following this work practice.

Freedom Series™ and Specialty V-Gard® Helmets (FRONT BRIM and FULL BRIM)

ClassificationType I	SuspensionFas-Trac III
ApplicationGeneral purpose	SizesStandard (6½ – 8)
Shell MaterialPolyethylene with thermoformed graphics	StandardsANSI/ISEA Z89.1-2014 (Class E); CSA Z94.1-2015 (Class E)
StylesSlotted front brim helmet; Slotted full brim helmet (Freedom Series only)	CertificationThird-party by SEI

American Freedom Series Assemblies

			
American Stars and Stripes V-Gard Slotted Front Brim Helmet Part No. 10052945	American Stars and Stripes V-Gard Slotted Full-Brim Helmet Part No. 10071157	American Flag w/2 Eagles V-Gard Slotted Front Brim Helmet Part No. 10052947	American Flag w/2 Eagles V-Gard Slotted Full-Brim Helmet Part No. 10071159
			
Camouflage V-Gard Slotted Front Brim Helmet Part No. 10103908	Camouflage V-Gard Slotted Full-Brim Helmet Part No. 10104254	American Eagle V-Gard Slotted Front Brim Helmet Part No. 10079479	Dual American Flag V-Gard Slotted Front Brim Helmet Part No. 10050611

Canadian Freedom Series Assemblies

			
White w/Red Maple Leaf V-Gard Slotted Front Brim Helmet Part No. 10050613	White w/Red Maple Leaf V-Gard Slotted Full-Brim Helmet Part No. 10082234	Black w/Red Maple Leaf V-Gard Slotted Front Brim Helmet Part No. 10082233	Black w/Red Maple Leaf V-Gard Slotted Full-Brim Helmet Part No. 10082235
Camouflage w/Canadian Flag on front¹ V-Gard Slotted Front Brim Helmet Part No. 10104925			

Specialty V-Gard Assemblies

			
Rally Cap V-Gard Slotted Front Brim Helmet Part No. 10101535	Metallic Gold V-Gard Slotted Front Brim Helmet Part No. 10101854	Black Fire V-Gard Slotted Front Brim Helmet Part No. 10092015	

CUSTOMIZATION: Imprinting and striping available—see pages 86–87

REPLACEMENT SUSPENSIONS: See page 88

¹Not pictured

²Extreme Hi-Viz Front Brim-Style Helmet meets high-visibility requirements of ANSI/ISEA 107.

Hydro Dip V-Gard® Helmets (FRONT BRIM and FULL BRIM)

Classification	Type I	Sizes	Standard (6½ – 8)
Application	General purpose	Standards	ANSI/ISEA Z89.1-2014 (Class E); CSA Z94.1-2015 (Class E)
Shell Material	Polyethylene	Certification	Third-party by SEI
Styles	Slotted front brim helmet; Slotted full brim helmet		
Suspension	Fas-Trac III		

The features that have set the MSA V-Gard as a world leader in head protection remain: comfort, durability, customization, and support. The hydro dip finish provides a contemporary twist on style, without sacrificing safety or performance. Choose from eight different standard looks, with the ability to customize to your specific design.* All V-Gard hydro dip helmets come with the first-in-class comfort of the Fas-Trac® III Suspension and are products of the U.S.

Hydro Dip V-Gard Assemblies

STANDARD FRONT BRIM STYLES

			
Muddy Girl <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204770	One Nation <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204771	Italian Leather <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204773	Oilfield Camo <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204774
			
Multi Camo <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204775	Silver Carbon Fiber <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204776	Sport Carbon Fiber <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204777	Devil's Canyon <i>V-Gard Slotted Front Brim Helmet</i> Part No. 10204778

STANDARD FULL-BRIM STYLES

			
Muddy Girl <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204779	One Nation <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204780	Italian Leather <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204782	Oilfield Camo <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204783
			
Multi Camo <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204784	Silver Carbon Fiber <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204785	Sport Carbon Fiber <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204786	Devil's Canyon <i>V-Gard Slotted Full-Brim Helmet</i> Part No. 10204787

CUSTOMIZATION: Imprinting and striping available—pages 86–87

REPLACEMENT SUSPENSIONS: See page 88

*Restrictions apply

V-Gard® 500 Helmets (FRONT BRIM and FULL BRIM)

Vented models provide cooling vents for improved air circulation and comfort; **Non-Vented** models provide dielectric head protection.

Classification..... **Type I**
Application..... General purpose
Shell Material..... Polyethylene
Styles..... Vented or non-vented; slotted front brim or non-slotted full brim helmet
Sizes..... Standard (6½ – 8)
Standards..... ANSI/ISEA Z89.1-2014 (Vented Class C; Non-Vented Class E)
 CSA Z94.1-2015 (Vented Class C; Non-Vented Class E)
Certification..... Third-party by SEI



Color	w/4-Point Fas-Trac III Suspension	w/6-Point Fas-Trac III Suspension
VENTED Front Brim Helmet		
White	10034018	10034027
Blue	10034019	10034028
Yellow	10034020	10034029
Red	10034022	10034031
Green	10034023	10034032
Hi-Viz Orange ¹	10034026	10034035
Hi-Viz Yellow-Green ¹	10074819	10074820
NON-VENTED Front Brim Helmet		
White	10034088	10034097

Color	w/4-Point Fas-Trac III Suspension	w/6-Point Fas-Trac III Suspension
VENTED Full Brim Helmet		
White	10167911	10167950
Blue	10167912	10167951
Yellow	10167913	10167952
Red	10167915	10168437
Green	10167916	10168438
Hi-Viz Orange ¹	10167921	10168453
Hi-Viz Yellow-Green ¹	10167931	10168461
NON-VENTED Full Brim Helmet		
White	10168521	10168589

CUSTOMIZATION: Imprinting and striping available—pages 86–87

REPLACEMENT SUSPENSIONS: See page 88

Topgard® Helmets (FRONT BRIM and FULL BRIM)

Classification..... **Type I**
Application..... General purpose; elevated temperature²
Shell Material..... Polycarbonate
Styles..... Slotted front brim; non-slotted full brim helmet
Sizes..... Standard (6½ – 8)
Standards..... ANSI/ISEA Z89.1-2014 (Class E); CSA Z94.1-2015 (Class E)
Certification..... Third-party by SEI



Color	w/ Fas-Trac III Suspension
Topgard Slotted Front Brim Helmet (standard size)	
White	475385
Yellow	475378
Gray	475379
Blue	475380
Orange	475382
Green	475383
Red	475384
Bright Orange	804396
White w/lamp bracket & cord holder	—

Color	w/ Fas-Trac III Suspension
Topgard Slotted Full Brim Helmet (standard size)	
White	475393
Yellow	475387
Gray	—
Bright Orange	804397

CUSTOMIZATION:
Imprinting and striping available—pages 86–87
REPLACEMENT SUSPENSIONS: See page 88

¹V-Gard Helmet meets voluntary standard for hi-visibility as prescribed by ANSI/ISEA Z89.1-2014. Look for official hi-visibility marking [HV] on the helmet's ANSI label.

²Helmets marked with the HT designation have been certified to the optional Higher Temperature test of ANSI/ISEA Z89.1. In this test, helmets are pre-conditioned in an oven at 60°C ± 2°C (140°F ± 3.6°F) and then tested per the ANSI/ISEA Z89.1 Industrial Head Protection Standard for top force transmission. In addition, Topgard Helmets were exposed to a radiant heat load until the surface temperature on the top of the helmet reaches 257°F and then tested per the ANSI/ISEA Z89.1 Industrial Head Protection Standard for top force transmission. The source of the radiant heat load was located above the top of the helmet. This testing is performed by MSA and is not part of the helmet certification process.

SmoothDome® Helmets (FRONT BRIM)

Classification.....Type I
Application.....General purpose; welding
Shell Material.....Polyethylene
Styles.....Vented or non-vented slotted front brim helmet
Sizes.....Standard (6½ – 8)
Standards.....ANSI/ISEA Z89.1-2014 (Class E); CSA Z94.1-2015 (Class E)
Certification.....Third-party by SEI



Color	w/4-Point Fas-Trac III Suspension	w/6-Point Fas-Trac III Suspension
SmoothDome Front Brim-Style Helmet (Standard Size)		
White	10074067	10084078
Blue	10074068	10084079
Yellow	10074069	10084080
Orange	10074070	10084081
Red	10074071	10084082
Green	10074072	10084083
Gray	10074073	10084084
Hi-Viz Orange ¹	10074077	10084088
Hi-Viz Yellow-Green ¹	10074084	10084095
HI-VIZ ORANGE w/yellow-green stripe ¹	10095987	10095988
HI-VIZ YELLOW-GREEN w/orange stripe ¹	10095989	10095990
HI-VIZ ORANGE w/silver stripe ¹	10096141	—
HI-VIZ YELLOW-GREEN w/silver stripe ¹	10096142	—

CUSTOMIZATION:
Imprinting and striping
available—pages 86–87
REPLACEMENT SUSPENSIONS:
See page 88

Thermalgard® Helmets (FRONT BRIM)

Classification.....Type I
Application.....General purpose; elevated temperature²
Shell Material.....Glass-reinforced nylon
Styles.....Slotted front brim helmet
Sizes.....Standard (6½ – 8)
Standards.....ANSI/ISEA Z89.1-2014 (Class G); CSA Z94.1-2015 (Class G)
Certification.....Third-party by SEI



Color	w/ Fas-Trac III Suspension
Thermalgard Front Brim-Style Helmet (Standard Size)	
Yellow	486959
White	486960
Red	486961
Orange	486962
Blue	486963
Bright Orange	800360
Green	814343
Steel Gray	10095325

CUSTOMIZATION:
Imprinting and striping
available—pages 86–87
REPLACEMENT SUSPENSIONS:
See page 88

¹V-Gard Helmet meets voluntary standard for hi-visibility as prescribed by ANSI/ISEA Z89.1-2014. Look for official hi-visibility marking [HV] on the helmet's ANSI label.

²Helmets marked with the HT designation have been certified to the optional Higher Temperature test of ANSI/ISEA Z89.1. In this test, helmets are pre-conditioned in an oven at 60°C ± 2°C (140°F ± 3.6°F) and then tested per the ANSI/ISEA Z89.1 Industrial Head Protection Standard for top force transmission. In addition, Thermalgard Helmets were exposed to a radiant heat load until the surface temperature on the top of the helmet reaches 350°F and then tested per the ANSI/ISEA Z89.1 Industrial Head Protection Standard for top force transmission. The source of the radiant heat load was located above the top of the helmet. This testing is performed by MSA and is not part of the helmet certification process.

Skullgard® Helmets (FRONT BRIM and FULL BRIM)

Classification.....Type I
Application.....General purpose; elevated temperature¹
Shell Material.....Phenolic
Styles.....Non-slotted front brim and full brim helmet
Sizes.....**Front Brim:** Standard (6½ – 8); Small (6 – 7½); Large (7 – 8½)
Full Brim: Standard (6½ – 8)
Standards.....ANSI/ISEA Z89.1-2014 (Class G)
Certification.....Third-party by SEI



Color	w/ Staz-On Suspension	w/ Fas-Trac III Suspension	w/ Swing-Ratchet Suspension
Skullgard Front Brim Helmet (Standard Size)			
Natural Tan	454617	475395	816651
White	454618	475396	—
Yellow	454619	475397	—
Red	454620	—	—
Green	454621	—	—
Gray	454622	—	—
Blue	454623	—	—
Orange	454626	—	—
Hi-Viz Red-Orange ²	458702	—	—
Skullgard Full Brim Helmet (Standard Size)			
Natural Tan	454664	475407	—
White	454665	475408	—
Yellow	454666	—	—
Green	454668	—	—
Orange	454673	—	—

	w/ Staz-On Suspension	w/ Fas-Trac III Suspension	
Alternative Skullgard Assemblies			
Skullgard Front Brim-Style Helmet	—	475405	Large size, natural tan
	—	10104377	Small size, natural tan
	460409	—	Standard size, with lamp bracket and cord holder, natural tan ³
Skullgard Full-Brim Helmet	—	482002	With welder's lugs, natural tan ³
	460389	—	Standard size, with lamp bracket and cord holder, natural tan ³

CUSTOMIZATION:
Imprinting and striping available—pages 86–87
REPLACEMENT SUSPENSIONS: See page 88

Super V® Helmets (FRONT BRIM)

Classification.....Type II (ANSI and CSA)
Application.....Lateral protection
Shell Material.....Polyethylene
Styles.....Slotted front brim helmet w/foam liner
Sizes.....Standard (6½ – 7¾)
Standards.....ANSI/ISEA Z89.1-2014 (Class E); CSA Z94.1-2015 (Class E)
Certification.....Third-party by SEI



Color	w/Fas-Trac III Suspension
Super V Assemblies	
White	C217091
Yellow	C217093
Red	C217095
Orange	C217094
Blue	C217092
Navy Gray	C217097
Hi-Viz Orange ²	C217100

Color	w/Fas-Trac III Suspension
Super V Assemblies	
Green	C217096
Gold	C217098
Black	C217140
Silver	10025227

CUSTOMIZATION:
Imprinting and striping available—pages 86–87
REPLACEMENT SUSPENSIONS:
See page 88

⚠ WARNING

Use only MSA's Fas-Trac III Suspension designed for Super-V Helmets. Use of any other suspension will reduce the energy-absorbing ability of the protective helmet, which can result in serious personal injury or death.

¹ Helmets marked with the HT designation have been certified to the optional Higher Temperature test of ANSI/ISEA Z89.1. In this test, helmets are pre-conditioned in an oven at 60°C ± 2°C (140°F ± 3.6°F) and then tested per the ANSI/ISEA Z89.1 Industrial Head Protection Standard for top force transmission. In addition, Skullgard Helmets were exposed to a radiant heat load until the surface temperature on the top of the helmet reaches 350°F and then tested per the ANSI/ISEA Z89.1 Industrial Head Protection Standard for top force transmission. The source of the radiant heat load was located above the top of the helmet. This testing is performed by MSA and is not part of the helmet certification process.

² Hi-Viz red-orange Skullgard Front Brim-Style Helmet and Hi-Viz orange Super V Front Brim-Style Helmet meet voluntary standard for hi-visibility as prescribed by ANSI/ISEA Z89.1-2014. Look for official hi-visibility marking [HV] on the helmet's ANSI label.

³ Alternative Skullgard Assemblies that include welder's lugs or lamp bracket and cord holder are certified to Class C electrical rating.

Comfo-Cap® Helmets (FRONT BRIM)

Classification.....	Type I
Application.....	Mining
Shell Material.....	Polycarbonate
Styles.....	Non-slotted front brim helmet w/ lamp bracket & cord holder
Sizes.....	Standard (6½ – 8)
Standards.....	ANSI/ISEA Z89.1-2014 (Class G)
Certification.....	Third-party by SEI



Color		w/ Staz-On Suspension	w/ Fas-Trac III Suspension
Comfo-Cap Assemblies			
White		91522	475336
Blue		91586	—
Yellow		91585	—
Orange		91589	—
Red		91590	—
Green		91584	—
Black		82769	—

CUSTOMIZATION:
Imprinting and striping available—pages 86–87
REPLACEMENT SUSPENSIONS: See page 88

Miner's Support System

- Lightweight, sturdy miner's belt
- Offers comfort, lumbar support, versatility and durability
- Enables miner to carry cap lamp battery pack, filter self-rescuer, SCSR, tools, etc., on the job
- 1" reflective strip sewn over 2" nylon strap makes support system highly visible



▶ Other MSA Products for Mining Applications
For W65 Self-Rescuer, see page 19.
For ALTAIR 4X MSHA Portable Gas Detector, see page 60.

Bump Caps (FRONT BRIM)

Classification.....	None
Application.....	Non-impact
Shell Material.....	Polyethylene
Styles.....	Non-slotted front brim helmet w/ plastic suspension
Sizes.....	Standard (6½ – 8)
Standards.....	ANSI/ISEA 100-2024
Certification.....	ANSI/ISEA 100-2024, LEVEL 2



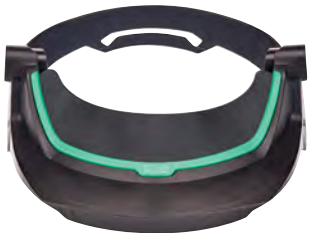
Color		w/ Plastic Suspension
Bump Cap Assemblies		
White		10033652
Blue		10033650
Yellow		10033651
Orange		10033654
Red		10033653
Green		10033655

⚠ WARNING

Bump caps are not helmets and do not meet OSHA or ANSI/ISEA Z89.1 requirements. DO NOT use bumps caps for impact protection, for sports or when an ANSI-compliant helmet is required.

CUSTOMIZATION:
Imprinting and striping available (locations limited)

V-Gard® Accessory System: V-Gard® Frames for FRONT BRIM Helmets

V-Gard Universal Front Brim Helmet Frame			
Part No.	Debris Control	Product Specifics	
10187161	With debris control	Easy to Use - Add and remove accessories¹ - Quicker visor installation and removal - Green color coded parts Built to Last - Infinity joints - Universal strap - Debris control Reducing Complexity - Designed to work with all MSA V-Gard front brim-style helmets	
10187162	Without debris control	Easy to Use - Add and remove accessories¹ - Quicker visor installation and removal - Green color coded parts Built to Last - Infinity joints - Universal strap Reducing Complexity - Designed to work with all MSA V-Gard front brim-style helmets	

Part No.	Product Specifics	Part No.	Product Specifics
10187163	Replacement debris wiper	10187251	Replacement rubber strap

V-Gard Frames for general purposes				
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		Standards²: ANSI/ISEA Z87.1-2015; CSA Z94.3; EN 166; AS/NZS 1337 Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd. Min Order Qty: 10		
Part No.	Material	Debris Control	Product Specifics	
10115730 	High density polyethylene (HDPE)	Includes replaceable debris control which creates tight seal between frame and cap	- Fits all MSA Slotted Caps - Stowable slot adaptors secure frame tightly in slotted MSA caps, and allow frame to work with or without earmuffs³ - Sliding adjustment blades allow visor to work with most half-mask respirators and other PPE worn under a visor	
10121266 	High density polyethylene (HDPE)	Debris control sold separately	- Fits all MSA Slotted Caps⁴ - Stowable slot adaptors secure frame tightly in slotted MSA caps, and allow frame to work with or without earmuffs³ - Sliding adjustment blades allow visor to work with most half-mask respirators and other PPE worn under a visor	

⚠ WARNING

Use V-Gard Frames ONLY with V-Gard Visors, to ensure compliance with safety standards. Misuse can result in death, permanent impairment of sight, or other serious injury.

¹MSA does not recommend the use of the V-Gard Universal Frame with the MSA SmoothDome when using cap-mounted muffs and large V-Gard molded Visors. The V-Gard Frame for Slotted Caps should be worn with this particular combination.

²Standards requirements met by each V-Gard Frame/V-Gard Visor combination designated on each V-Gard Visor.

³Patent pending

⁴MSA recommends the use of debris control on V-Gard frames when wearing BOTH large V-Gard molded Visors and cap-mounted earmuffs.

V-Gard® Accessory System: V-Gard® Frames for FRONT BRIM Helmets

V-Gard Frames for Elevated Temperature Applications				
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 Features: Tested to withstand temperatures of 350°F (176.7°C), reducing warping, cracking or crazing			Standards¹: ANSI/ISEA Z87.1-2015; CSA Z94.3; EN 166; AS/NZS 1337 Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd. Min Order Qty: 10	
Part No.	Material	Debris Control	Product Specifics	
10115821 	Polycarbonate — all non-metal construction	Replaceable debris control tested against EN 166 hot solids requirements	- Stowable slot adaptors secure frame tightly in slotted MSA caps, and allow frame to work with or without earmuffs² - Sliding adjustment blades allow visor to work with most half-mask respirators and other PPE worn under a visor	
10121267 	Polycarbonate — all non-metal construction	Debris control sold separately ³	- Stowable slot adaptors secure frame tightly in slotted MSA caps, and allow frame to work with or without earmuffs - Sliding adjustment blades allow visor to work with most half-mask respirators and other PPE worn under a visor	
10116552 	Polycarbonate — all non-metal construction	Replaceable debris control tested against EN 166 hot solids requirements	- Heavy duty flat rubber strap allows easy and secure placement on all MSA caps, including non-slotted models⁴ - Design allows use with other PPE, including MSA earmuffs and respirators	

V-Gard® Accessory System: V-Gard® Frames for FULL BRIM Helmets

V-Gard Frames for General Purposes				
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			Standards¹: ANSI/ISEA Z87.1-2015; CSA Z94.3; EN 166; AS/NZS 1337 Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd. Min Order Qty: 10	
Part No.	Material	Debris Control	Product Specifics	
10116627 	High density polyethylene (HDPE)	Offered without debris control ONLY	- Heavy duty flat rubber strap allows easy and secure placement on all MSA hats, including non-slotted models - Design allows use with other PPE, including MSA earmuffs and respirators - Fits MSA full brim helmets	

V-Gard Frames for Elevated Temperature Applications				
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 Features: Tested to withstand temperatures of 350°F (176.7°C), reducing warping, cracking or crazing			Standards¹: ANSI/ISEA Z87.1-2015; CSA Z94.3; EN 166; and AS/NZS 1337 Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd. Min Order Qty: 10	
Part No.	Material	Debris Control	Product Specifics	
10116628 	Polycarbonate — all non-metal construction	Offered without debris control ONLY	- Heavy duty flat rubber strap allows easy and secure placement on all MSA hats, including non-slotted models - Design allows use with other PPE, including MSA earmuffs and respirators - Fits MSA full brim helmets	

¹Standards requirements met by each V-Gard Frame/V-Gard Visor combination designated on each V-Gard Visor.

²Patent pending

³MSA recommends the use of debris control on V-Gard frames when wearing BOTH large V-Gard molded Visors and cap-mounted earmuffs.

⁴MSA does not recommend the use of the V-Gard Universal Frame with the MSA SmoothDome when using cap-mounted muffs and large V-Gard molded Visors. The V-Gard Frame for Slotted Caps should be worn with this particular combination.

V-Gard® Accessory System: V-Gard® Frames for MSA Slotted FULL BRIM Helmets

V-Gard Frames for General Purposes

Markets: Oil, gas & petrochemical, manufacturing, repair and maintenance, construction, general industry, forestry, shipbuilding, metalworking, automotive, mining

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

Standards: ANSI/ISEA Z87.1-2015 and CSA Z94.3

Certification/Testing: CSA International and Intertek

Min Order Qty: 10

Part No.	Material	Debris Control	Product Specifics	
10154622 	Polybutylene terephthalate (PBT)	Sold with replaceable debris control which creates tight seal between frame and helmet	- Fits MSA slotted full brim helmets - Sliding adjustment blades allow visor to work with most half-mask respirators and other PPE worn under a visor - Patented Infini-just allows lift/closure adjustment using grippable knobs that can't be lost ²	
10154604 	Polybutylene terephthalate (PBT)	Debris control sold separately	- Fits MSA slotted full brim helmets - Sliding adjustment blades allow visor to work with most half-mask respirators and other PPE worn under a visor - Patented Infini-just allows lift/closure adjustment using grippable knobs that can't be lost ²	
10116628	All rubber construction	Exceeds EN requirements for molten metal	Debris Control	

V-Gard® Accessory System: V-Gard® Metal Frames for FRONT BRIM and FULL BRIM Helmets

V-Gard Frames for General Purposes and Elevated Temperature Applications

Markets: Manufacturing; construction; steel/smelting operations

Applications: Machine operation, maintenance, millwright, extrusion, drilling, blasting, casting/conveying

Standards: ANSI/ISEA Z87.1-2015; CSA Z94.3

Certification: Third-party by Intertek, CSA International (as marked)

Part No.	Material	Product Specifics	
10158799 	Heavy-duty anodized aluminum	- For use with MSA front brim helmets - Spring coil for fast loading of frame to helmet - Three visor resting positions - Locking device holds visor securely in the down position	
10158800 	Heavy-duty anodized aluminum	- For use with MSA Skullgard front brim helmets - Spring coil for fast loading of frame to helmet - Three visor resting positions - Locking device holds visor securely in the down position	
10176739 	Heavy-duty anodized aluminum	- For use with MSA full brim helmets - Spring coil for fast loading of frame to helmet - Three visor resting positions - Locking device holds visor securely in the down position	

⚠ WARNING

MSA does not recommend V-Gard Metal Frames for use where electrical hazards, including but not limited to arc flash, could occur.

¹Standards requirements met by each V-Gard Frame/V-Gard Visor combination designated on each V-Gard Visor.

²Patent pending

V-Gard® Accessory System: Visors

V-Gard Visors: General Purpose

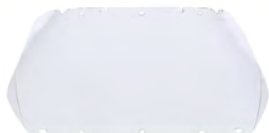
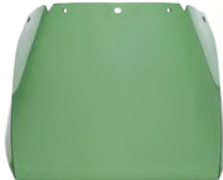
Markets: General industry, manufacturing, repair and maintenance, construction, oil and gas, forestry, shipbuilding, metalworking, automotive, mining

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

Standards¹: ANSI/ISEA Z87.1-2015; CSA Z94.3 and EN 166 (2C-1.2 MSA 1B); AS/NZS 1337 (except as noted)

Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd.

Min Order Qty: 10

Part No.	Product Specifics		
	Impact-rated (Z87+) with Maximum UV Protection		
10144486 	Material Polycarbonate — clear	5" (14.61 cm) x 17" (43.2 cm) x .04" (1.02 mm) - Contoured visor; closer fit and improved resistance to impact and splash hazards - Approved to ANSI and CSA² standards; does not meet EN standards ■ Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors	
10115836  10120108 Bulk pack/20 	Material Polycarbonate — clear	8" (20.3 cm) x 17" (43.2 cm) x .04" (1.02 mm) - Contoured visor; closer fit and improved resistance to impact and splash hazards	
10115837  	Material Polycarbonate — clear	8" (20.3 cm) x 17" (43.2 cm) x .04" (1.02 mm) - Contoured visor; closer fit and improved resistance to impact and splash hazards ■ Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors	
10115863  	Material Polycarbonate — clear	9.5" (24.1 cm) x 17" (43.2 cm) x .04" (1.02 mm) - Contoured visor; closer fit and improved resistance to impact and splash hazards	
10115839  	Material Polycarbonate with antifog/anti-scratch coatings for humid conditions — clear	8" (20.3 cm) x 17" (43.2 cm) x .06" (1.52 mm) - Slightly thicker for industrial impact applications resistance to impact and splash hazards - Contoured visor; closer fit and improved resistance to impact and splash hazards	
10115841  	Material Polycarbonate with antifog/anti-scratch coatings for humid conditions — clear	8" (20.3 cm) x 17" (43.2 cm) x .06" (1.52 mm) - Slightly thicker for industrial impact applications resistance to impact and splash hazards - Contoured visor; closer fit and improved resistance to impact and splash hazards ■ Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors	
10115842  	Material Polycarbonate with antifog/anti-scratch coatings for humid conditions — green tint to reduce glare	8" (20.3 cm) x 17" (43.2 cm) x .06" (1.52 mm) - Slightly thicker for industrial impact applications resistance to impact and splash hazards - Contoured visor; closer fit and improved resistance to impact and splash hazards ◆ Not for use where a Shade infrared (IR) visor is required	

¹Standards requirements met by each V-Gard Frame or Headgear/V-Gard Visor combination designated on each V-Gard Visor.

V-Gard® Accessory System: Visors

V-Gard Visors: 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

Standards¹:

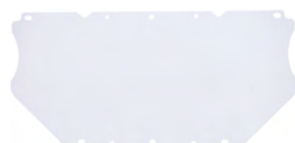
ANSI/ISEA Z87.1-2015; CSA Z94.3 and EN 166 (2C-1.2 MSA 1B); AS/ NZS 1337 (except as noted)

Certification:

Third-party by Intertek, INSPEC International Ltd.,CSA International and SAI Global Ltd.

Min Order Qty:

10

Part No.	Product Specifics		
	Impact-rated (Z87+) with Maximum UV Protection		
10115840  	Material Polycarbonate — clear	• 8" (20.3 cm) x 17" (43.2 cm) x .06" (1.52 mm) • Slightly thicker for industrial impact applications resistance to impact and splash hazards • Contoured visor; closer fit and improved resistance to impact and splash hazards	
10117783 	Material Polycarbonate — clear	• 8" (20.3 cm) x 17" (43.2 cm) x .06" (1.52 mm) • Slightly thicker for industrial impact applications resistance to impact and splash hazards • Wider design; improved resistance to impact and splash hazards • Does not meet CSA Z94.3 ■ Flat Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors	

V-Gard Visors: General Purpose (Non-Impact)			
Markets: General industry, manufacturing, repair and maintenance, construction, oil and gas, forestry, shipbuilding, metalworking, automotive, mining		Standards¹: ANSI/ISEA Z87.1-2015; EN 1731-F; and AS/NZS 1337	
Applications: Flying chips and other light debris		Certification: Third-party by Intertek, INSPEC International Ltd., and SAI Global Ltd.	
		Min Order Qty: 10	
Part No.	Product Specifics		
	General Protector (Z87) — NOT FOR IMPACT HAZARDS		
10116557	Material Epoxy-coated steel mesh (20 x 20) — black, plastic edged	• 8" (20.3 cm) x 17" (43.2 cm) • Not for use against splash, impact, elevated temperatures or UV hazards • Can be worn with earmuffs	
10116558	Material Epoxy-coated steel mesh (20 x 20) — black, plastic edged	• 8" (20.3 cm) x 17" (43.2 cm) • Not for use against splash, impact, elevated temperatures or UV hazards • Can be worn with earmuffs ■ Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors	
10158822	Material Epoxy-coated steel mesh (20 x 20) — aluminum-bound mesh	• 8" (20.3 cm) x 16.5" (41.9 cm) • Not for use against splash, impact, electrical or UV hazards	

¹Standards requirements met by each V-Gard Frame or Headgear/V-Gard Visor combination designated on each V-Gard Visor.

V-Gard® Accessory System: Visors

V-Gard Visors: Heavy-Duty Chemical and Splash

Markets: General industry, heavy manufacturing, laboratories, chem/ petrochemical, oil and gas, mining
Applications: Chipping, splash, chemical mixing, grinding, machining, power fastening, sanding, sawing

Standards: ANSI/ISEA Z87.1-2015; EN 166 (MSA 1B 3); CSA Z94.3 and AS/NZS 1337
Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd.
Min Order Qty: 5

Part No.	Product Specifics	
	Impact-rated (Z87+)	
10115855 	Material Propionate — clear	• 8" (20.3 cm) x 17" (43.2 cm) x .098" (2.5mm) • Extra-thick to help prevent warping, cracking or crazing under tough conditions • Please refer to MSA's <i>Chemical Application Quick Reference Guide</i> (ID 0670-007-MC) for chemical performance details 
10115856 	Material Propionate — clear	• 8" (20.3 cm) x 17" (43.2 cm) x .098" (2.5mm) • Extra-thick to help prevent warping, cracking or crazing under tough conditions ■ Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors • Please refer to MSA's <i>Chemical Application Quick Reference Guide</i> (ID 0670-007-MC) for chemical performance details 
10115851 	Material Propionate — clear	• 9.25" (23.5 cm) x 18" (45.7 cm) x .098" (2.5mm) • Extra-thick to help prevent warping, cracking or crazing under tough conditions • Extended length and width for greater coverage of neck and face • Please refer to MSA's <i>Chemical Application Quick Reference Guide</i> (ID 0670-007-MC) for chemical performance details 

NOTE: V-Gard propionate Visors offer both chemical resistance and impact protection, unlike most propionate visors on the market. Not only are they marked with Z87+, but the clear visors are also compliant with EN166, meaning they were tested at a velocity nearly 32% faster than ANSI/ISEA Z87.1-2010.

V-Gard Visors: Elevated Temperature with High-Performance Anti-Fog/Anti-Scratch coatings

Markets: Food manufacturing/canneries, steel mills, construction, open-pit mining, agriculture, oil/gas/petrochemical refineries, rubber manufacturing, steam tunnels
Applications: Hot/humid conditions, chipping, splash, chiseling, drilling, grinding, machining, power fastening, sanding, sawing, outdoor work

Standards: ANSI/ISEA Z87.1-2015; EN 166 (2C-1.2 MSA 1BT9KN); CSA Z94.3 and AS/NZS 1337
Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd.
Min Order Qty: 5

Part No.	Product Specifics	
	Impact-rated (Z87+) with Maximum UV Protection	
10115853 	Material Polycarbonate with EN 166 performance-rated anti-fog/ anti-scratch coatings for hot/humid conditions (N,K marks, respectively) — clear	• 10.375" (26.4 cm) x 17" (43.2 cm) x .098" (2.5 mm) • Molded visor for superior optics under heavy-duty use • Extended length for greater coverage of neck/face • Performs well against many chemicals. Refer to MSA's <i>Chemical Application Quick Reference Guide</i> (ID 0670-007-MC) for details 
10115854 	Material Polycarbonate with EN 166 performance-rated anti-fog/ anti-scratch coatings for hot/humid conditions (N,K marks, respectively) — green tint to reduce glare	• 10.375" (26.4 cm) x 17" (43.2 cm) x .098" (2.5 mm) • Molded visor for superior optics under heavy-duty use • Extended length for greater coverage of neck/face ◆ Not for use where a Shade infrared (IR) visor is required 

NOTE: V-Gard molded, green and clear visors offer superior optical quality and resistance to many chemicals. For details on optics, please refer to the MSA White Paper, "Optical Quality Requirements and V-Gard® Visors" (ID 0302-32 MC) available for download from MSA's Asset Library.

¹Standards requirements met by each V-Gard Frame or Headgear/V-Gard Visor combination designated on each V-Gard Visor.

V-Gard® Accessory System: Visors

V-Gard Visors: Elevated Temperature

Markets: Food manufacturing/canneries, steel mills, construction, open pit mining, agriculture, oil/gas/petrochemical refineries, rubber manufacturing, steam tunnels

Applications: Food processing, machine operation, maintenance, millwright, cutting, punching, extrusion, drilling, blasting, casting/conveying, chemical mixing, sanding

Standards¹: ANSI/ISEA Z87.1-2015; EN 166 (2C-1.2 MSA 1BT89KN); CSA Z94.3 and AS/NZS 1337

Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd.

Min Order Qty: 5

Part No.	Product Specifics		
	Impact-rated (Z87+) with Maximum UV Protection		
10115844	Material Polycarbonate with EN 166 performance-rated anti-fog/anti-scratch coatings for hot/humid conditions (N,K marks, respectively) — clear	9.25" (23.5 cm) x 17" (43.2 cm) x .098" (2.5mm) • Molded visor for superior optics under heavy-duty use • Extra-thick visor helps prevent warping, cracking or crazing • Conditioned to a high of 131 °F (and a low of -23 °F) and then tested to the medium impact rating in the EN166 standard (higher impact speed than ANSI/ISEA Z87.1-2010) ◆ Visors do not reflect IR; not recommended for use against radiant heat hazards	
10115845	Material Polycarbonate with EN 166 performance-rated anti-fog/anti-scratch coatings for hot/humid conditions (N,K marks, respectively) — green tint to reduce glare	9.25" (23.5 cm) x 17" (43.2 cm) x .098" (2.5mm) • Molded visor for superior optics under heavy-duty use • Extra-thick visor helps prevent warping, cracking or crazing • Conditioned to a high of 131 °F (and a low of -23 °F) and then tested to the medium impact rating in the EN166 standard (higher impact speed than ANSI/ISEA Z87.1-2010) ◆ Visors do not reflect IR; not recommended for use against radiant heat hazards ◆ Not for use where a Shade Infrared (IR) visor is required	

NOTE: V-Gard molded, green and clear visors offer superior optical quality and resistance to many chemicals. For details on optics, please refer to the MSA White Paper, "Optical Quality Requirements and V-Gard® Visors" (ID 0302-32 MC) available for download from MSA's Asset Library.

V-Gard Visors: Radiant Heat/Elevated Temperature

Markets: Metal industries, glass manufacturing, iron and steel foundries, chemical manufacturing, construction, general manufacturing, textile manufacturing, mining, oil and gas

Applications: Grinding, pouring, casting, blowing/melting, rolling, sawing, cutting, crimping, millwrighting, machining/operating, pipelining, pulping

Standards¹: ANSI/ISEA Z87.1-2015; EN 166 (2C-2.5 MSA 1BT3R [clear] and 2-4 MSA 1BT3R [green tint]); CSA Z94.3 and AS/NZS 1337

Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd.

Min Order Qty: 5

Part No.	Product Specifics		
	Impact-rated (Z87+) with Maximum UV Protection		
10115848	 Material Polycarbonate with EN 166 performance-rated anti-fog/anti-scratch coatings for hot/humid conditions (N,K marks, respectively) — clear	• 9.5" (24.1 cm) x 17.75" (45.09 cm) x .07" (1.8 mm) • Reflective coating reflects IR and helps dissipate heat: reflects >60% Infrared (IR) radiation (EN166 R mark) in the 780nm to 2000nm wavelength • Thick visor helps prevent warping, cracking or crazing • Extended length for greater coverage of face and neck; DO NOT use for welding	
10115850	Material Polycarbonate with EN 166 performance-rated anti-fog/anti-scratch coatings for hot/humid conditions (N,K marks, respectively) — green tint to reduce glare	• 9.5" (24.1 cm) x 17.75" (45.09 cm) x .07" (1.8 mm) • Reflective coating reflects IR and helps dissipate heat: reflects >60% Infrared (IR) radiation (EN166 R mark) in the 780nm to 2000nm wavelength • Thick visor helps prevent warping, cracking or crazing • Extended length for greater coverage of face and neck; DO NOT use for welding ◆ Not for use where a Shade infrared (IR) visor is required	

NOTE: Reflective-coated visors offer protection from irradiance, or the electromagnetic radiation (EMR) energy created in elevated temperature environments. V-Gard Reflective Coated Visors offer an EN166 "R" mark. This means they have been certified to reflect >60% Infrared (IR) radiation in the 780 nm to 2000 nm wavelengths. V-Gard Reflective Visors have been shown to reduce temperatures behind the visor by several hundred degrees, and lower irradiance to below 0.1 kW/m². For details on V-Gard Reflective-Coated Visor performance, please see the MSA White Paper, "Radiant Heat Resistance" (ID 0670-020 MC) and "MSA V-Gard® Reflective-Coated Visors: Radiant Heat Resistance Simplified" (ID 0670-023 MC), available on MSAsafety.com.

V-Gard® Accessory System: Visors

V-Gard Visors: Welding (Shade 3, Shade 5, Shade 8, Shade 10, and Shade 12)

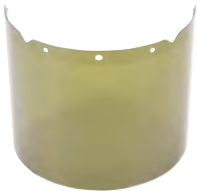
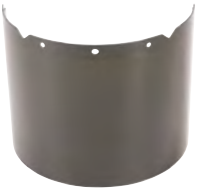
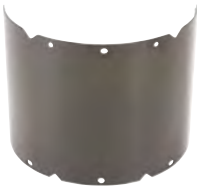
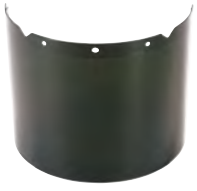
Markets: Fabrication, steel mills, shipbuilding, construction, open-pit mining, agriculture, oil/gas/petrochemical refineries, rubber manufacturing

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

Standards: ANSI/ISEA Z87.1-2015; EN 166 (4-3/3 MSA 1BT39 [shade 3] and 4-5/5 MSA 1BT39 [shade 5]); CSA Z94.3 and AS/NZS 1337, ANSI/ISEA Z87 + W8; CSA Z94.3 Shade 8

Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd.

Min Order Qty: 5

Part No.	Product Specifics		
	Impact-rated (Z87+)		
10115859 	Material Polycarbonate — Shade 3 IR	8" (20.3 cm) x 17" (43.2 cm) x .07" (1.8 mm) - Thickness helps prevent pitting and warping from heat or weld spatter	
10115860 	Material Polycarbonate — Shade 3 IR	8" (20.3 cm) x 17" (43.2 cm) x .07" (1.8 mm) - Thickness helps prevent pitting and warping from heat or weld spatter ■ Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors	
10115861 	Material Polycarbonate — Shade 5 IR	8" (20.3 cm) x 17" (43.2 cm) x .07" (1.8 mm) - Thickness helps prevent pitting and warping from heat or weld spatter	
10115862 	Material Polycarbonate — Shade 5 IR	8" (20.3 cm) x 17" (43.2 cm) x .07" (1.8 mm) - Thickness helps prevent pitting and warping from heat or weld spatter ■ Nitrometer; for use with V-Gard Retractable or Standard Chin Protectors	
10236001	Material Polycarbonate — Shade 8 IR	8" (20.3 cm) x 17" (43.2 cm) x .07" (1.8 mm) - Thickness helps prevent pitting and warping from heat or weld spatter	
10246714	Material Polycarbonate — Shade 10 IR	8" (20.3 cm) x 17" (43.2 cm) x .07" (1.8 mm) - Thickness helps prevent pitting and warping from heat or weld spatter	
10246715	Material Polycarbonate — Shade 12 IR	8" (20.3 cm) x 17" (43.2 cm) x .07" (1.8 mm) - Thickness helps prevent pitting and warping from heat or weld spatter	

V-Gard® Accessory System: Visors

V-Gard Visors: Arc Flash Application²

Markets: Manufacturing, utilities, construction, oil/gas/ petrochemical

Applications: Maintenance, impact and debris, testing/repair

Standards¹: ANSI/ISEA Z87.1-2015; ASTM F2178-2008 (Ref: NFPA 70E, HRC 2)

Certification: Third-party by Intertek and ArcWear

Min Order Qty: 5

Part No.	Product Specifics		
	Impact-rated (Z87+)		
10115847	Material Polycarbonate — special tint, gray-blue visor; molded	9.25" (23.5 cm) x 18" (45.7 cm) x .065" (1.7 cm) - Extended length and width for greater coverage of face and neck Rated to 16.0 cal/cm² when tested to ASTM F2178-2008 (ref. NFPA 70E-2015 PPE Category 2), and when worn with a V-Gard Helmet (PN 475358) and V-Gard Frame (PN 10115730) <i>Call MSA Customer Service (800-MSA-2222) for protection levels when using this V-Gard Arc Visor with other V-Gard Frames and MSA Helmet combinations</i>	
10118480	Material Polycarbonate — special tint, gray-blue visor; molded (for use with designated V-Gard Chin Protector)	Arc Visor Kit—consists of Visor (PN 10115858) + Chin Protector (PN 10115827) 8" (20.3 cm) x 17.25" (43.8 cm) x .065" (1.7 cm) - Extended length and width for greater coverage of face and neck Rated to 21.0 cal/cm² when tested to ASTM F2178-2008 (ref. NFPA 70E-2015 PPE Category 2), and when worn with a V-Gard Helmet (PN 475369) and V-Gard Frame (PN 10116627) and V-Gard Standard Chin Protector (PN/10115827) <i>Call MSA Customer Service (800-MSA-2222) for protection levels when using this V-Gard Arc Visor with other V-Gard Frames and MSA Helmet combinations</i>	

¹Standards requirements met by each V-Gard Frame or Headgear/V-Gard Visor combination designated on each V-Gard Visor.

²Do not use V-Gard Arc Visors with V-Gard Headgear. These visors are designated for use with specified V-Gard Frames and MSA helmets ONLY. See "V-Gard Headgear" for additional details.



V-Gard® Accessory System: V-Gard® Chin Protectors¹

Work with select V-Gard Nitrometer Visors to provide extra protection from impact and splash hazards to face and neck.

V-Gard Chin Protectors				
Part No.	Product Name	Material	Product Specifics	
10115828 	Retractable Chin Protector	Polycarbonate – opaque (ensures safety and standards compliance with clear, tinted, shaded and coated V-Gard Visors)	3.82" (9.7 cm) in height, when unretracted - Unique retractable plates allow greater flexibility of head movement both up and down, as well as side-to-side - Minimum order quantity: 5	
10149029 	Chin Protector	Polycarbonate – clear (for improved visibility)	2.86" (7.26 cm) in height - Compact, lightweight design provides additional protection between chin and neck area - Should not be worn with tinted, arc or shaded nitrometer visors to ensure compliance with stated Standards markings/requirements - Minimum order quantity: 5	
10115827	Standard Chin Protector	Polycarbonate – opaque (ensures safety and standards compliance with clear, tinted, shaded and coated V-Gard Visors)	2.86" (7.26 cm) in height - Compact, lightweight design provides additional protection between chin and neck area - Minimum order quantity: 5	

V-Gard® Accessory System: Replacement Parts²

V-Gard Accessory System Replacement Parts			
Part No.	Product Name	Product Specifics	
10117496	Front Brim-Style Helmet Frame Replacement Slot Adapters	- For use with V-Gard Frames for Slotted Caps - Sold in boxes of 5 (5 packages of 1 pair)	 
10225804	Full-Brim Helmet Frame Replacement Slot Adapters	- For use with V-Gard Frames for Slotted Hats - Sold in boxes of 5 (5 packages of 1 pair) - Full-Brim Helmet Frame Replacement Slot Adapter is marked with an "H" (see inset image)	
10116539	Debris Control for V-Gard Frames	- Debris control exceeds EN requirements for molten metal - All-rubber construction - Minimum order quantity: 10	
10117495	Heavy-duty Rubber Strap	- For V-Gard Universal Front Brim-Style Helmet or Full-Brim Helmet Frames - Minimum order quantity: 10	

¹ MSA V-Gard Chin Protectors meet the applicable safety requirements as noted on the V-Gard Nitrometer Visor when worn in conjunction with V-Gard Frames and V-Gard Nitrometer Visors.

² Use only genuine MSA V-Gard Accessory System replacement parts to help ensure compatibility and compliance. MSA does not warrant, guarantee, or promote the use of components manufactured by other companies when used in conjunction with MSA products.

V-Gard® Accessory System: V-Gard® Headgear

V-Gard Headgear can be used for face protection when head protection is not required. V-Gard Headgear is available in two versions: General Purpose and Elevated Temperature (Extended). V-Gard Headgear are designed and approved for use with V-Gard Visors.¹

V-Gard Headgear			
Markets: General industry, manufacturing, repair and maintenance, construction, oil and gas, forestry, shipbuilding, metalworking, automotive, mining, chemical industries Applications: Chipping, splash, chiseling, drilling, grinding, machining, power fastening, sanding, sawing, laboratory		Size: Standard (6 1/2 – 8) Standards²: ANSI/ISEA Z87.1-2015; EN 166; CSA Z94.3; and AS/NZS 1337 Certification: Third-party by Intertek, INSPEC International Ltd., CSA International and SAI Global Ltd.	
Part No.	Product Name	Product Specifics	
10127061 	V-Gard Headgear — General Purpose Material: High Density Polyethylene (HDE) — black	- Patent-pending, Infini-just lift/closure with grippable knobs that don't unscrew; no parts to lose - Ratchet closure - Seven-point crown adjustment - Replaceable, sweat-wicking, cushioned headband helps keep workers dry and cool - Sweat-wicking ratchet cover keeps nape comfortable - For use ONLY with V-Gard Visors; not for use where head protection is required - All non-metal construction - Minimum order quantity: 10	
10127062 	V-Gard Headgear — Elevated Temperature Material: Heat-resistant nylon — gray	- Extended browguard for additional coverage in high temperatures - Tested to withstand temperatures up to 400 °F³ - Patent-pending, Infini-just lift/closure with grippable knobs that don't unscrew; no parts to lose - Ratchet closure - Seven-point crown adjustment - Replaceable, sweat-wicking, cushioned headband helps keep workers dry and cool - Sweat-wicking ratchet cover keeps nape comfortable - For use ONLY with V-Gard Visors; not for use where head protection is required - All non-metal construction - Minimum order quantity: 5	
10127063	V-Gard Headgear Kit — General Purpose	Kit Contains: - V-Gard General Purpose Headgear (PN 10127061) - V-Gard Clear, PC Visor, 8" (20.3 cm) x 17" (43.2 cm) x .04" (1.02 mm) (PN 10115836)	
10127065	V-Gard Headgear Replacement Sweatband⁴	- Sweat-wicking material over breathable foam helps keep workers cool, dry and comfortable - Hook & loop closure makes replacement easy - Tested to the FR requirements in CSA Z94.3-07 - Sold in boxes of 25 (5 packages of 5)	

DO NOT use V-Gard Headgear with V-Gard Arc Visors tested to ASTM F2178-2008 Test Method (ref. NFPA 70E-2012, Hazard Risk Category). These visors are designated for use with specified V-Gard Frames and MSA helmet 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.

² Standards requirements met by each V-Gard Frame or Headgear/V-Gard Visor combination designated on each V-Gard Visor.

³ Exposure to extreme heat can cause thermal discomfort. Proper precautions should be taken to prevent heat stress and other injuries.

⁴ Use only genuine MSA V-Gard Headgear replacement parts to help ensure compatibility and compliance. MSA does not warrant, guarantee or promote the use of components manufactured by other companies when used in conjunction with MSA products.

V-Gard® Accessory System: Kits

V-Gard Accessory System Kits			
Part No.	Product Name	Product Specifics	
10118695	V-Gard Accessory System Kit — with V-Gard Front Brim Helmet	Kit Contains: • White V-Gard Front Brim Helmet with ratchet suspension (PN 475358) • V-Gard Frame for Slotted Caps; with debris control (PN 10115730) • V-Gard Clear, Polycarbonate Visor, 8" (20.3 cm) x 17" (43.2 cm) x .04" (1.02 mm) (PN 10115836)	
10118697	V-Gard Accessory System Kit — without V-Gard Front Brim Helmet	Kit Contains: • V-Gard Universal Frame for Front Brim Helmet with debris control (PN 10115822) • V-Gard Clear, Polycarbonate Visor, 8" (20.3 cm) x 17" (43.2 cm) x .04" (1.02 mm) (PN 10115836) ► Does not contain an MSA helmet.	
10118694	V-Gard Forestry Kit	Kit Contains: • Hi-Viz orange V-Gard Front Brim Helmet with ratchet suspension (PN 488146) • V-Gard Frame for Slotted Caps; with debris control (PN 10115730) • V-Gard Mesh Nitrometer (PN 10116558) • V-Gard Retractable Chin Protector (PN 10115828) • left/RIGHT, HIGH (NRR 28 db) Cap-Mounted Earmuffs (PN 10087422)	
10118696 ¹	V-Gard Accessory Arc Kit	Kit Contains: • White V-Gard Front Brim Helmet with ratchet suspension (PN 475358) • V-Gard Frame for Slotted Caps (PN 10121266) • V-Gard Arc Nitrometer (special tint) with V-Gard Standard Chin Protector (PN 10118480); must be assembled by user prior to wearing to secure stated calorie rating. • Rated to 11.3 cal/cm² when tested to ASTM F2178-2008 (ref. NFPA 70E-2012, Hazard Risk Category 2), and when worn with a V-Gard Front Brim-Style Helmet (PN 475358), V-Gard Frame (PN 10121266) and V-Gard Standard Chin Protector (PN/10115827)	

¹ Call MSA Customer Service (800-MSA-2222) for protection levels when using this V-Gard Arc Visor with other V-Gard Frames, V-Gard Chin Protectors and MSA Helmet combinations.

Helmet Accessories

V-Gard® Winter Liners

V-Gard Winter Liners deliver extra warmth and protection under helmets.

V-Gard Winter Liners			
Part No.	Product Name	Product Specifics	
10118417 	V-Gard Winter Liner, Knit Cap	• Stylish skullie cap • Design prevents liner from obstructing vision • 100% high bulk acrylic • Sold in sets of 12	
10118418	V-Gard Winter Liner, Knit Helmet Cover	• 100% acrylic • Bright yellow-green for greater visibility • Full face tube mounts under or over brim of MSA helmets, covering ears, mouth, cheeks and neck • Extended nape and wraparound collar for tucking into coat/shirt • Sold in sets of 12	
10118427 	V-Gard Supreme Liner, Flame-Resistant 2-piece 	• Fabric tested to withstand arc exposure to an ATPV of 8 cal/cm² • Water repellant • Inside neck pocket holds warming packet² • Multi-layered flame-resistant top cap • Extended, zipper on/off high-bulk flame-resistant knit bottom • No metal parts • Sold in sets of 3	
Note: Flame resistant (FR) liner is made of special fibers that allow it to self-extinguish when exposed to flame or thermal ignition. Flame resistance cannot be removed by washing. Unlike many other winter liners in the market, ALL layers of fabric in V-Gard Supreme Liner are flame-resistant, affording FR protection throughout the life of the product.³ For this reason, only V-Gard Supreme Liner offers resistance to arc exposure.			

¹ Follow all instructions and perform daily, pre-, and post-use inspections.

² Warming packets available at most sporting goods retailers; not sold with liners.

³ Garment care instructions must be followed.

Helmet Accessories

Universal 4-Point Chinstrap

Part No.	Product Name	
GA90047	Universal 4-Point Chinstrap	

Standard Chinstraps

Part No.	Product Name	Product Specifics	
10171103 ¹	2-Point Chinstrap	- Non-metal chinstraps keep helmets in place - Flexible construction and adjustable design for long-wearing comfort ¾" Nomex webbing - Attaches to shell	
10171104	2-Point Chinstrap	- Non-metal chinstraps keep helmets in place - Flexible construction and adjustable design for long-wearing comfort ¾" polyester webbing - Attaches to shell	
10171105	2-Point Chinstrap	- Non-metal chinstraps keep helmets in place - Flexible construction and adjustable design for long-wearing comfort ¾" cotton webbing - Attaches to shell	
10171106	2-Point Chinstrap	- Non-metal chinstraps keep helmets in place - Flexible construction and adjustable design for long-wearing comfort ¾" cotton webbing - Attaches to suspension²	
10171107	2-Point Chinstrap	- Non-metal chinstraps keep helmets in place - Flexible construction and adjustable design for long-wearing comfort ¾" polyester webbing - Attaches to suspension²	
10124238	4-Point Chinstrap	- Non-metal chinstraps keep helmets in place - Flexible construction and adjustable design for long-wearing comfort ¾" polyester webbing - Attaches to suspension² - Pkg/10	

¹For elevated temperatures; flame-resistant. Not recommended for use where molten metal splash hazards exist.

²Staz-On suspension only.

Head Protection & PPE Storage & Carry Bag

Part No.	Product Name	Product Specifics	
10228677	Drawstring Storage Bag 1-pack	For head protection equipment and PPE storage and transport	
10228298	Drawstring Storage Bag 4-pack		

Helmet Accessories



SunShade Helmet Accessories

Part No.	Product Name	Product Specifics
10098032 	SunShade Helmet Accessory Yellow-green, with reflective striping	- Fit most helmets - Breathable, bright mesh fabric - Helmet clips help to keep SunShade from falling or rotating - Minimum order quantity: 5
10098031 	SunShade Helmet Accessory Orange, with reflective striping	



Sun Shields

Part No.	Product Name	Product Specifics
697290	Sun Shield for standard V-Gard Front Brim Helmets only	- Easily attaches to helmets and caps - Polyurethane brim extender protects against sun and heat - Smoke-tinted Lexan front for extra protection
697410 	Sun Shield for standard V-Gard Full Brim Helmets only	
10039114	Sun Shield for standard V-Gard 500 Front Brim Helmets only	

Helmet Sweatband

Part No.	Product Name	Product Specifics
696688	Terri-Band Sweatband Gray, pkg/10	- Custom design fits all MSA suspensions - Washable, with plastic snaps
10068911	Terri-Band Sweatband Gray, single	



Emergency Medical Info Accessory

Part No.	Product Name	Product Specifics
10013393	Emergency Medical Information Accessory	- Provides crucial, lifesaving information in the event of a medical crisis on the job - Pkg of 10 - Trilingual: English/Spanish/French



inside view



outside view

In-Service Label

Part No.	Product Name	Product Specifics
804358	In-Service Label	- To track shell's service life, affix label inside helmet with date of helmet's first use - MSA recommended replacement: shell every 5 years/suspension every 12 months



Industrial Hearing Protection and Communication Systems

MSA has hearing protection products for nearly every industrial application. In fact, MSA offers what customers want most: economical options, cutting-edge technology, quality and outstanding performance.

V-Gard® Helmet-Mounted Hearing Protection



Superior Performance

- Offers the highest attenuation for a helmet-mounted earmuff on the market.
- Custom MSA sealing rings allow for optimal NRR performance.
- Works with slotted MSA industrial front brim style helmets.
- Works with existing MSA visors and frames for seamless integration into your safety program.



Enhanced Comfort and Fit

- Improved sealing ring and adapters optimize pressure on the ears for all-day comfort.
- Foam-injected ear pads cushion the outer ears to allow for soft points of contact.
- Vertical adjustment allows for custom fit.
- Recessed interior foam does not touch user's ear while in use.
- When not in use, earmuffs may be stowed in "parking" position, ready for when you need them.



Modern Style

- Includes the next generation "V" design from the iconic V-Gard.
- Incorporates red, yellow, and green color-coding on the backplate and front logo to easily identify level of attenuation.
- Upgraded fork design provides a sleek look and modernized feel.
- Matte material for both cup and ear pads decreases look of wear and tear.

V-GARD HELMET-MOUNTED HEARING PROTECTION

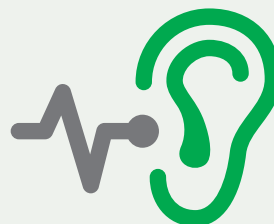
PRODUCT NAME	V-Gard	V-Gard	V-Gard
ATTENUATION LEVEL	LOW	MEDIUM	HIGH
PART NO.	10190356	10190357	10190358

PRODUCT NAME	Hygiene Kit	Hygiene Kit	Hygiene Kit
PART NO.	10193450	10193451	10193452
PRODUCT SPECIFICS	for V-Gard Helmet-Mounted Hearing Protection, LOW	for V-Gard Helmet-Mounted Hearing Protection, MEDIUM	for V-Gard Helmet-Mounted Hearing Protection, HIGH

¹ https://www.osha.gov/dts/osta/otm/noise/hcp/attenuation_estimation.html

The **Noise Reduction Rating (NRR)** describes the average sound level reduction (“attenuation”) provided by hearing protectors in a laboratory setting. Because the NRR reflects lab (and perhaps not real-world) usage, the Occupational Safety and Health Administration (OSHA), recommends “de-rating” the NRR to help account for incorrect fit and inconsistent wear time on worksites. OSHA’s methodology for Estimating Hearing Protector Attenuation¹:

1. 8-hour Time Weighted Exposure (TWA) = 94 dBA
2. NRR of hearing protector = 31 dBA
3. Subtract 7 dB from the NRR = 31 dB – 7 dB is 24 dB
4. Reduce value by 50% = 12 dB
5. Subtract this value from the TWA = 82 dB (Estimated Protection)
6. Decide if the Estimated Protection works for your environment!



NRR and CSA Class Ratings for V-Gard Hearing Protection

	LOW		MEDIUM		HIGH	
	NRR	CSA Class	NRR	CSA Class	NRR	CSA Class
V-GARD FRONT BRIM HELMET (<i>medium</i>)	22	B	27	A	31	AL
V-GARD FRONT BRIM HELMET (<i>small</i>)	23	B	28	AL	31	AL
V-GARD FRONT BRIM HELMET (<i>large</i>)	23	B	27	AL	30	AL
THERMALGARD FRONT BRIM HELMET	24	A	27	A	29	AL
SUPER-V FRONT BRIM HELMET	23	B	28	AL	30	AL
V-GARD 500 FRONT BRIM HELMET	22	B	28	AL	31	AL
TOPGARD FRONT BRIM HELMET	24	A	28	AL	30	AL
SMOOTHDOME FRONT BRIM HELMET	24	A	27	AL	30	AL
V-GARD H1 ANSI/CSA HELMET	22	A	24	A	26	A
V-GARD H1 ANSI/EN HELMET	23	B	25	A	28	AL
V-GARD H2 BRIMLESS WITH MIPS HELMET	20	B	22	B	29	AL
V-GARD H2 BRIMLESS WITHOUT MIPS HELMET	22	B	24	A	27	A

NRR and CSA Class Ratings for Sound Control SH Hearing Protection

	NRR	CSA Class
V-GARD H2 FULL BRIM HELMET	28	AL



DID YOU HEAR?

The **EPA requirement (40 CFR 211)** specifies that hearing protectors sold in the U.S. must be tested to ANSI S3.19-1974 and labeled with a Noise Reduction Rating (NRR). MSA Hearing Protectors have been tested and labeled according to the EPA requirements. Standards organizations, such as ANSI and CSA, do not approve or certify hearing protectors.



DID YOU HEAR?

The **attenuation of an earmuff depends on the fit** of the muff against the head and around the pinnae (i.e., the “tightness” of the seal). Gaps, including those caused by safety glasses, provide an easy path for sound to travel, reducing protection levels. To reduce this effect, try not to put anything under the cup (such as pencils, hair, etc.). But, if you must wear protective eyewear, select either those with a thin strap or a very thin temple. If the gap is noticeable, the protection level is compromised.

SoundControl® Classic Helmet-Mounted Hearing Protection

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

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

Standards: Meets ANSI S3.19-1974 and CSA Class A Standards

Compatible PPE:

- V-Gard Slotted and Universal Frames—no additional parts needed
- Most V-Gard Visors
- MSA helmets, as indicated in chart below

SOUNDCONTROL CLASSIC HELMET-MOUNTED HEARING PROTECTION

		
PRODUCT NAME	Sound Blocker™ 26	Soprano™
PART NO.	10022021	10034487
PRODUCT SPECIFICS	For use with MSA non-slotted FRONT BRIM helmets • Requires drilling into the helmet to mount the muffs • The ANSI/ISEA Z89.1 class rating of a drilled helmet is Class C	For use with MSA non-slotted FULL BRIM helmets • Requires drilling into the helmet to mount the muffs • The ANSI/ISEA Z89.1 class rating of a drilled helmet is Class C
		
PRODUCT NAME	SoundControl SH	Hygiene Kit
PART NO.	10129327	10003360
	For use with MSA slotted FULL BRIM helmets	• Foam cushions and inserts • Works with Sound Blocker 26 and SoundControl SH hearing protection



Headbands: left/RIGHT™ Hearing Protection

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

Applications:

- Heavy mechanical industries, compression rooms, airports (**HIGH**)
- Utilities, construction, general industry (**MEDIUM**)
- Food manufacturing, automotive, light industry (**LOW**)

Standards: Meets ANSI S3.19-1974 and CSA Class A Standards

left/RIGHT HEARING PROTECTION

			
PRODUCT NAME	left/RIGHT (HIGH)	left/RIGHT (MEDIUM)	left/RIGHT (LOW)
PART NO.	 MSA 10251221 = Sordin 63000-04-S	 MSA 10251224 = Sordin 62000-04-S	MSA 10251226 = Sordin 61000-04-S
PRODUCT SPECIFICS	• For use in high-noise environments	• For use in medium-noise environments	• For use in low-noise environments

			
PRODUCT NAME	left/RIGHT (HIGH) Hygiene Kit	left/RIGHT (MEDIUM) Hygiene Kit	left/RIGHT (LOW) Hygiene Kit
PART NO.	MSA 10092880 = Sordin 60099-S	MSA 10092879 = Sordin 60098-S	MSA 10092878 = Sordin 60097-S
PRODUCT SPECIFICS	• Cushions and inserts • Work with left/RIGHT helmet-mounted or headband products		

Economuff™ Earmuff Value Hearing Protection

Economuff Earmuff hearing protectors provide cost-effective options that don't sacrifice comfort or protection.

Markets: Repair and operation (MRO), mining, food and beverage manufacturing, metal fabrication, oil and gas, general manufacturing

Applications: Facility maintenance, grinding, machine operations, sanding, welding, demolition, painting, assembly, cleaning

Standards: Meet ANSI S3.19-1974 and CSA Class B Standards

Compatible PPE: MSA helmets¹

Economuff Hearing Protection

	
PRODUCT NAME	Economuff Multi-Position
PART NO.	10061273
NRR	23 dBA (under chin/behind head) 24 dBA (over the head)
PRODUCT SPECIFICS	• Offers 3 positions: under the chin, behind the head or over the head • Durable design for use in tough environments • Padded headband makes longer wear possible • Under the chin or behind the head positions allow use of head protection • No metal parts • 1 size fits most

¹Economuff Earmuff multi-position worn in behind-the-head or under-the-chin positions only.

Sightgard® Safety Glasses

Material: Polycarbonate

Standards¹: ANSI/ISEA Z87.1-2015 and CSA Z94.3 (as noted)

Certification: Third-party by ICS and CSA International

Minimum Order Qty: 12

Indoor

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

INDOOR	
MODEL	
Arctic	
PART NO.	
697514	
	
SAFETY FEATURES	
• Impact-rated (Z87+) • Tuff Stuff™ Anti-Scratch Coating	
STYLING	
• Clear lens • Frameless and lightweight • Among our most popular models • Full side coverage	

INDOOR	
MODEL	
Discovery II	
PART NO.	
10106382	
SAFETY FEATURES	STYLING
• Impact-rated (Z87+)	• Clear lens • Flexible, nylon temple arms adjust to head width • Soft nose bridge • Extra-lightweight

INDOOR	
MODEL	
Luxor	
PART NO.	
697516	
SAFETY FEATURES	
• Impact-rated (Z87+) • Tuff Stuff Anti-Scratch Coating	
STYLING	
• Clear lens • Single wrap-style lens • Horizontal temple adjustment	

INDOOR	
MODEL	
Sierra	
PART NO.	
697550	
SAFETY FEATURES	STYLING
• Impact-rated (Z87+) • Tuff Stuff Anti-Scratch Coating	• Clear lens • Classic full-coverage look • Adjustable temples • Integral side protection • Full side coverage

¹ CSA International certified models are denoted with a  symbol.

INDOOR	
MODEL	
Vista	
PART NO.	
10070914	
SAFETY FEATURES	STYLING
• Impact-rated (Z87+) • Tuff Stuff Anti-Scratch Coating	• Clear lens • Frameless and lightweight • Among our most popular models • Full side coverage

Indoor/Humid Conditions

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

INDOOR/HUMID	
MODEL	
Arctic Elite	
PART NO.	
10038845	
	
SAFETY FEATURES	STYLING
• Impact-rated (Z87+) • Tuff Stuff Anti-Scratch Coating • Anti-fog coating	• Clear lens • Rubber tipped temples and nosebridge for comfortable, yet secure fit

INDOOR/HUMID	
MODEL	
Aurora	
PART NO.	
10026005	
SAFETY FEATURES	STYLING
• Impact-rated (Z87+) • Tuff Stuff Anti-Scratch Coating • Anti-fog coating	• Clear lens • Ratchet temple adjustment • Single, 7-base wrap curve lens

INDOOR/HUMID	
MODEL	
Pyrenees	
PART NO.	
10033718	
SAFETY FEATURES	STYLING
• Impact-rated (Z87+) • Anti-fog coating	• Clear lens • Full side protection • Dual injected, soft-tipped temples

Sightgard® Safety Glasses

Material: Polycarbonate

Standards¹: ANSI/ISEA Z87.1-2015 and CSA Z94.3 (as noted)

Certification: Third-party by ICS and CSA International

Minimum Order Qty: 12

INDOOR/HUMID	
MODEL	
Voyager	
PART NO.	
10065849	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-fog coating	- Clear lens - Single wrap-style lens

Indoor/Outdoor

Markets: General industry, manufacturing, construction, oil and gas, forestry, shipbuilding, automotive, food and beverage, mining, pharmaceuticals, primary metals, transportation

Applications: Assembly and mechanical, chipping, chiseling, cleaning, drilling, grinding, machining, masonry, riveting, sanding, sawing, UV protection

INDOOR/OUTDOOR	
MODEL	
Arctic	
PART NO.	
10008179	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-scratch coating - Anti-fog coating - Maximum UV protection (U6)	- Blue mirror reduces glare without causing color degradation - Popular, lightweight model - Full side coverage

INDOOR/OUTDOOR	
MODEL	
Arctic Elite	
PART NO.	
10059671	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-fog coating - Maximum UV protection (U6)	- Indoor/outdoor mirror allows workers to go from bright to low light conditions - Rubber tipped temples and nosebridge for comfortable, yet secure fit

INDOOR/OUTDOOR	
MODEL	
Vista	
PART NO.	
10070916	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Tuff Stuff Anti-Scratch Coating - Maximum UV protection (U6)	- Indoor/outdoor mirror allows workers to go from bright to low light conditions - Vertical temple adjustment - Lightweight, single lens

Outdoor

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

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

OUTDOOR	
MODEL	
Arctic	
PART NO.	
697515	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-scratch coating	- Gray tint lens - Temples flex for a custom fit - Full side coverage

OUTDOOR	
MODEL	
Arctic Elite	
PART NO.	
10038846	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-fog coating	- Gray tint lens - Rubber tipped temples and nosebridge for comfortable, yet secure fit

OUTDOOR	
MODEL	
Easy Flex	
PART NO.	
10070918	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Tuff Stuff Anti-Scratch Coating	- Gray tint lens - Temples flex for a custom fit

OUTDOOR	
MODEL	
Luxor	
PART NO.	
697517	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Tuff Stuff Anti-Scratch Coating	- Gray tint lens - Horizontal temple adjustment - Wrap-style single lens

¹ CSA International certified models are denoted with a  symbol.

Sightgard® Safety Glasses

Material: Polycarbonate

Standards¹: ANSI/ISEA Z87.1-2015 and CSA Z94.3 (as noted)

Certification: Third-party by ICS and CSA International

Minimum Order Qty: 12

OUTDOOR	
MODEL	
Pyrenees	
PART NO.	
10033719	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-fog coating	- Gray tint lens - Full side protection - Dual-injected soft-tipped temples - Single wrap-style lens - Full side coverage



Outdoor with UV Exposure

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

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

OUTDOOR/UV	
MODEL	
Feather Fit	
PART NO.	
10106384	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Maximum UV protection (U6)	- Gray tint lens - Comfortable rubber flange nosepiece - Rubber temple grips help glasses stay put under hot working conditions - Full side coverage



OUTDOOR/UV	
MODEL	
Voyager	
PART NO.	
10065850	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-scratch coating - Maximum UV protection (U6)	- Gray tint lens - Single lens



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

OVER-THE-GLASSES	
MODEL	
OvrG™ II	
PART NO.	
10118475	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Maximum UV protection (U6)	- Clear lens - For use over small-to-medium Rx glasses - Squared-off, stylish look 30% lighter weight than standard visitor specs



OVER-THE-GLASSES	
MODEL	
OvrG II	
PART NO.	
10118476	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Maximum UV protection (U6)	- Indoor/outdoor mirrored lens - For use over small-to-medium Rx glasses



OVER-THE-GLASSES	
MODEL	
Rx Overglasses	
PART NO.	
10118476	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-fog coating	- Clear lenses - Fits over most Rx glasses - Horizontal and vertical temple adjustment



OVER-THE-GLASSES	
MODEL	
Plant Visitor	
PART NO.	
10027944 (EA) 697500 (10/BOX) 10008174 (144/BOX)	
SAFETY FEATURES	STYLING
Impact-rated (Z87+)	- Clear lens - Classic look fits over most Rx glasses - Integral, vented side shields



DID YOU KNOW?

A common misconception is that all polycarbonate blocks UV. This is not the case. Under ANSI/ISEA Z87.1-2015 there is a required marking if the manufacturer claims protection from UV. Look for eyewear that both meets ANSI/ISEA Z87.1-2015 and has a **U mark**.

¹ CSA International certified models are denoted with a  symbol.

Sightgard® Safety Glasses

Material: Polycarbonate

Standards¹: ANSI/ISEA Z87.1-2015 and CSA Z94.3 (as noted)

Certification: Third-party by ICS and CSA International

Minimum Order Qty: 12

Low Light

Markets: Transportation, inspection and repair, assembly, general industry, indoor construction, shipbuilding, automotive, food and beverage, pharmaceuticals

Applications: Assembly, chipping, chiseling, drilling, grinding, machining, pouring/casting, power fastening, riveting, sanding, sawing

LOW LIGHT	
MODEL	
Easy Flex	
PART NO.	
10070919	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Tuff Stuff Anti-Scratch Coating	- Amber lens increases contrast in low light - Temples flex for a custom fit - Full side coverage



LOW LIGHT	
MODEL	
Pyrenees	
PART NO.	
10033740	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-fog coating	- Amber lens increases contrast in low light - Full side protection - Dual-injected soft-tipped temples



Magnifiers

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

Applications: Fine assembly and detail work, drilling, grinding, machining, soldering, riveting, sanding

MAGNIFIERS	
MODEL	
Pyrenees MAG	
PART NO.	
10068832	
1.5 bifocal magnification	
10065847	
2.0 bifocal magnification	
SAFETY FEATURES	STYLING
- Impact-rated (Z87+) - Anti-fog coating	- Clear lenses - Full side protection - Dual-injected soft-tipped temples



Welding

Markets: General industry, manufacturing, construction, oil and gas, forestry, shipbuilding, metalworking; automotive, aviation

Applications: Welding, chiseling, drilling, grinding, machining, masonry, pouring/casting, power fastening, riveting, sanding, sawing

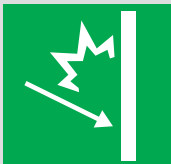
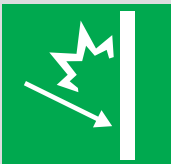
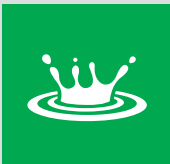
WELDING	
MODEL	
Clearvue® IR	
PART NO.	
10012847	
SAFETY FEATURES	STYLING
Impact-rated (Z87+)	- Classic look with Infrared (IR) radiation eye protection, up to Shade 5 - Fits over most Rx glasses - Integral, vented side shields



¹ CSA International certified models are denoted with a  symbol.

Sightgard® Safety Goggles

Standards¹: ANSI/ISEA Z87.1-2015 and CSA Z94.3 **Certification:** Third-party by ICS and CSA International

Sightgard Safety Goggles Selection Guide						
STYLE	CONDITIONS					
						
	General purpose: impact/splash		Industrial: impact/splash		Industrial: chemical/splash	
SIGHTGARD NV		■				
SIGHTGARD iV		■				
CLEARVUE® 200		■		■		
FLEXICHEM™ iV		■		■		■
VAULT™		■		■		
VERTOGGLE™		■		■		

SAFETY GOGGLES	
MODEL	
Sightgard NV	
PART NO.	
10106268	
	
SAFETY FEATURES	PRODUCT SPECIFICS
• Impact-rated (Z87+) • Splash-rated (D3) • Anti-fog coating • Tuff Stuff Anti-Scratch Coating	• Non-vented for tighter seal • Minimum order quantity: 12

SAFETY GOGGLES	
MODEL	
Sightgard iV	
PART NO.	
10106270	
	
SAFETY FEATURES	PRODUCT SPECIFICS
• Impact-rated (Z87+) • Splash-rated (D3) • Anti-fog coating • Tuff Stuff Anti-Scratch Coating	• Indirect-venting helps keep goggles fog-free • Minimum order quantity: 12

¹ CSA International certified models are denoted with a  symbol.



WARNING: The products listed below can expose you to chemicals including Di(2-ethylhexyl)phthalate (DEHP) which is known to the State of California to cause cancer or reproductive harm. For more information, visit www.P65Warnings.ca.gov.

MSA Product Part No.	MSA Product Description	CA Prop 65 Chemical Name	Chemical Hazard Type
10106281	Safety Goggles, FlexiChem iV, Clear	DEHP (di-(2-ethylhexyl)phthalate	Carcinogen & Reproductive

Sightgard® Safety Goggles

Standards¹: ANSI/ISEA Z87.1-2015 and CSA Z94.3 **Certification:** Third-party by ICS and CSA International

SAFETY GOGGLES	
MODEL	
Clearvue 200	
PART NO.	
10029693 	
SAFETY FEATURES	PRODUCT SPECIFICS
- Impact-rated (Z87+) - Splash-rated (D3) - Anti-fog coating	- Clear acetate lens resists warping, cracking and crazing from chemical splash - Flame-retardant strap - Soft, pliable goggle body ensures all-day comfort - Indirect vent helps eliminate fogging while retaining splash resistance - Minimum order quantity: 6

SAFETY GOGGLES	
MODEL	
FlexiChem iV	
PART NO.	
10106281	
SAFETY FEATURES	PRODUCT SPECIFICS
- Impact-rated (Z87+) - Splash-rated (D3) - Anti-fog coating	- Clear acetate lens resists warping, cracking and crazing from chemical splash - Flame-retardant strap - Soft, pliable goggle body ensures all-day comfort - Indirect vent helps eliminate fogging while retaining splash resistance - Minimum order quantity: 6

SAFETY GOGGLES	
MODEL	
Vault	
PART NO.	
10106282	
SAFETY FEATURES	PRODUCT SPECIFICS
- Impact-rated (Z87+) - Splash-rated (D3) - Anti-fog coating	- Modern styling - Comfortable, thick strap - Minimum order quantity: 6

SAFETY GOGGLES	
MODEL	
Sightgard Vertogoggle™ Safety Goggles/Faceshield Combination	
PART NO.	
10150069 	
SAFETY FEATURES	PRODUCT SPECIFICS
- Impact-rated (Z87+) - Splash-rated (D3) - Anti-fog coating anti-scratch coating on goggle lens	- Clear polycarbonate lens - Frosted polycarbonate faceshield - Soft, pliable goggle body helps ensure all-day comfort - Unique, articulated lift-front retains the shield on the goggle in any of five positions - Indirect venting on goggle and faceshield improve airflow while providing splash and high impact protection - Entire assembly tested at ANSI/ISEA Z87.1-2010 faceshield impact speed (300 ft/sec) - Fully adjustable FR-tested (CSA Z94.3 test methodology) elastic strap prevents hair pulling - Disposable respirators can be worn under shield - Designed to work with MSA goggle retainers - Minimum order quantity: 5

¹ CSA International certified models are denoted with a  symbol.

 **WARNING:** The products listed below can expose you to chemicals including Di-(2-ethylhexyl)phthalate (DEHP) which is known to the State of California to cause cancer or reproductive harm. For more information, visit www.P65Warnings.ca.gov.

MSA Product Part No.	MSA Product Description	CA Prop 65 Chemical Name	Chemical Hazard Type
10106268	Safety Goggles, Sightgard NV, Clear	DEHP (di-(2-ethylhexyl)phthalate	Carcinogen & Reproductive
10106270	Safety Goggles, Sightgard iV, Clear	DEHP (di-(2-ethylhexyl)phthalate	Carcinogen & Reproductive
10029693	Safety Goggles, Clearvue 200, Clear	DEHP (di-(2-ethylhexyl)phthalate	Carcinogen & Reproductive
10150069	Safety Goggle and Faceshield Combination, Clear	DEHP (di-(2-ethylhexyl)phthalate	Carcinogen & Reproductive

Eyewear and Goggle Accessories

Standards¹: ANSI/ISEA Z87.1-2015 and CSA Z94.3 **Certification:** Third-party by ICS and CSA International

Accessories			
Part No.	Product Name	Product Specifics	
459458 for caps 449895 for hats 	Goggle Retainer	- Sturdy neoprene-rubber accessory - Can be used with any protective helmet - Retains goggle on headwear when not in use - Holds goggle securely when worn for eye protection. MSA goggle retainers are manufactured for use ONLY with MSA goggles in order to comply with the applicable standards of the products in the assembly.	
10020871	Deluxe Eyewear Lanyard	- Holds eyewear securely - Lanyard strap slides over temple - Pkg of 12	
13016	Fogpruf™ Cleaner Refill	4 oz. bottle	
10022087	Towelettes	- Pre-moistened - Box of 100	

Great Reasons to Choose MSA Cairns® Fire & Rescue Helmets

We've proudly manufactured fire helmets since 1836. And to this day for head protection, more first responders trust MSA Cairns Fire Helmets than any other. Here are just a few reasons why:

1 Shell Release System (SRS)

The MSA Cairns Shell Release System (SRS), offered in our most popular fire helmets, protects from impact and heat—even when your helmet is dislodged from your head.

With the SRS, if your helmet falls off due to a fall through a floor or roof, the impact cap separates from the helmet shell, but remains on your head, leaving your head better protected from additional impact, projectiles and heat. Without SRS, all you've got is a hood.

2 Retractable MSA Cairns Defender® Visor

North America's first (and still best) NFPA 1970 and ANSI/ISEA Z87.1 impact-rated, integral visor. The Defender Visor was designed with firefighters in mind. Entire visor stows when not in use, and can be deployed the instant it's needed—even with a gloved hand. Visor replacement does not require special tools or helmet disassembly. These benefits make the Defender Visor the best-selling firefighting eye protection on the market.

3 Best In Class

In a survey of firefighters across the nation¹, the majority listed MSA Cairns Helmets brand as best in class.¹ When you consider the combined effectiveness of our SRS, crumple-zone front holder, impact cap, and suspension—our fire helmets offer the most complete package available.

4 With MSA Cairns Helmets, You Get More than You Pay For: 10-Year Warranty

We know, as do firefighters, that MSA Cairns Helmets are the most durable offered. We back up that claim with a 10-year lifetime warranty that the product will be free from defects in materials and/or faulty workmanship². When you factor in quality, ease of maintenance and unique safety features found in ONLY MSA Cairns Helmets, it's easy to see why firefighters are loyal to the MSA Cairns Helmets brand.

5 Same Day Shipping on Our Most Popular Items

When you can't afford to wait another day, MSA offers our most popular Cairns Helmets products in our Stock-Order-Ship (SOS) program. For these products, if your order is entered by 2:30 PM (EST), the product ships the same day from our warehouse in Pittsburgh, PA. Look for the SOS symbol  beside products in the program. Remember, too, you can always order customized Cairns Fire Helmets through Assemble-to-Order (ATO). ATO forms are located on every fire helmet page at MSAsafety.com



For complete information about Cairns Fire and Rescue Helmets, see Bulletin 3600-01-MC.

¹Fire helmet brand assessment study conducted by outside research firm for MSA.

²10-year warranty applies to MSA Cairns Helmets manufactured on or after January 1, 2015. For MSA Cairns Fire Helmet warranty details, please see www.MSAsafety.com.

Traditional Fire Helmets

Cairns® 1836 Fire Helmet

- **Designed for easy cleaning**—can be taken apart in minutes for easy inspection and cleaning.
- **Lightweight & low ride height**—one of the lightest and lowest ride height helmets on the market.
- **New anchor base**—patent-pending Slide-Lok system means no specific tool is needed to assemble and disassemble the helmet.
- **Articulating Defender® Visor**—designed to stow neatly in the fire helmet, Defender® Visor snaps into place and can be deployed by simply pulling down on the lens.
- **Large D-ring & clamp**—design makes storage and hanging of accountability tags easy. The clamp securely fastens the edge trim to the helmet shell.
- **New leather fronts & holder designs**—5.5" front and holder design option with five new front style choices, customizable with department identification.



- **Quick-connect soft goods & earlaps**—few hook and loop fasteners offer excellent durability while quick-connect system enhances ease of attaching or detaching for cleaning.
- **Laser engraved labeling & RFID tag**—improved helmet label durability and built-in rfid tag enable integration with FireGrid™, simplifying asset management.

	P/N	Color	Eye Protection	Cushion Liner	Earlaps	Front Holder	Chinstrap	Trim Type	Trim Color
SOS	10247314	Black	Defender Clear	Standard	Yellow Nomex	6" Silkscreened Eagle	2-pt Standard	Reflexite	Lime Yellow
SOS	10247315	Black	Defender Clear	Standard	Black Nomex	6" Carved Eagle	2-pt Standard	Reflexite	Lime Yellow
SOS	10247316	Black	Defender Clear	Leather	PBI/Kevlar	6" Carved Eagle	2-pt Standard	Reflexite	Lime Yellow
	10247317	Black	Defender Amber	Standard	Black Nomex	6" Silkscreened Maltese Cross	2-pt Standard	Reflexite	Lime Yellow
SOS	10247318	Black	NFPA Bourkes	Standard	Black Nomex	6" Silkscreened Maltese Cross	2-pt Standard	Reflexite	Lime Yellow
SOS	10247319	Black	NFPA Bourkes	Standard	Black Nomex	6" Carved Eagle	2-pt Standard	Reflexite	Lime Yellow
SOS	10247320	Black	Defender Clear	Standard	Yellow Nomex	6" Carved Eagle	2-pt Standard	Reflexite	Lime Yellow
SOS	10247331	Black	Defender Clear	Standard	Black Nomex	6" Carved Eagle	2-pt Standard	Scotchlite	Lime Yellow
	10247332	Yellow	Defender Clear	Standard	Yellow Nomex	6" Silkscreened Eagle	2-pt Standard	Reflexite	Lime Yellow
SOS	10247333	Yellow	Defender Clear	Standard	Black Nomex	6" Carved Eagle	2-pt Standard	Reflexite	Lime Yellow
SOS	10247334	Red	Defender Clear	Standard	Black Nomex	6" Carved Eagle	2-pt Standard	Reflexite	Lime Yellow
	10247335	Red	Defender Clear	Standard	Yellow Nomex	6" Silkscreened Eagle	2-pt Standard	Reflexite	Lime Yellow
	10247336	White	Defender Clear	Standard	Yellow Nomex	6" Silkscreened Eagle	2-pt Standard	Reflexite	Lime Yellow
	10247337	White	Defender Clear	Leather	PBI/Kevlar	6" Carved Eagle	2-pt Standard	Reflexite	Lime Yellow

Cairns® 880 Tradition Fire Helmet

- Low-profile shell allows for optimum clearance and maneuverability
- Non-corroding, high-temperature glass-filled faceshield/goggle hardware
- Rugged, high-temperature (TPR) edge trim will not melt or drip
- Soft black Nomex chinstrap features one-hand quick-release buckle and postman slide for quick removal and adjustment
- Nomex or PBI/Kevlar earlap for increased neck/ear coverage and protection
- Three-position rear ratchet height adjust for a secure and comfortable fit
- SCBA interface front headband adjustment matches the fit of any SCBA mask
- Removable flannel or leather cushion liners



	P/N	Color	Eye Protection	Cushion Liner	Earlaps	Front Holder
SOS	10224023	Black	Bourkes	Leather	Black Nomex	6" Carved Eagle
SOS	10221007	Black	Bourkes	Standard	Black Nomex	6" Carved Eagle
SOS	10200984	Red	Bourkes	Leather	Black Nomex	6" Carved Eagle
SOS	10223635	White	Bourkes	Standard	Black Nomex	6" Carved Eagle

Jet-Style Fire Helmets

Cairns® XF1 Fire Helmet

Reduced snags—The Cairns XF1's brimless design makes it easier to crawl into tight spaces and retain the helmet.

Easy to clean—The Cairns XF1's modular design allows it to be quickly disassembled for thorough inspection, care and maintenance. Plus, the helmet's soft goods are removable, washable and replaceable—all without the use of tools.

Integrated visor—The optional integrated visor provides additional eye protection that is easy to deploy, clean, and replace. The internally-mounted communication headset snaps easily inside the helmet, providing incoming communication right to the ear.

Personalized fit—Several easy-to-find adjustments can be made enabling the fire helmet fit to be customized to the individual.

Lighting the way—A compact light accessory is housed inside the helmet, reducing exposure to heat, flames, and impact.



P/N	Model	Color	Finish	Size
GYM1018500000-NE16	Cairns XF1 Fire Helmet	Black	Matte	Medium
GYL1018500000-NE16	Cairns XF1 Fire Helmet	Black	Matte	Large
GYM1018500000-NA16	Cairns XF1 Fire Helmet	Black	Glossy	Medium
GYL1018500000-NA16	Cairns XF1 Fire Helmet	Black	Glossy	Large

Jet-Style Fire Helmet Accessories

P/N	Description
GA1484	XF1 Lighting Module
GA1087C XF1	Defender Visor, amber Tuffshield lens

Note: The Cairns XF1 Fire Helmet is certified to the NFPA 1970:2025 standard. Adding the helmet-mounted lighting accessory (Part No. GA1484) will result in the helmet no longer being certified to NFPA 1970:2025.

Jet-Style Rescue Helmets

Cairns® XR2 Technical Rescue Helmet

Full modularity—Modular platform with a range of easily attachable accessories including responder goggles, face protection, and hearing protection with an integrated communication system.

User-focused design—Compact design, lightweight materials, ride height adjustment and integrated modular accessories all contribute to an optimized weight distribution.

Customizable options—These include custom logos, decals, and reflective trim.



P/N	Model	Color	Style	Size
GS210003A001-BA001	Cairns XR2 Technical Rescue Helmet	White	Non-vented	One size fits most
GS2100032001-OP001	Cairns XR2 Technical Rescue Helmet	Hi-Viz Orange	Non-vented	One size fits most
GS1100030001-BA001	Cairns XR2 Technical Rescue Helmet	White	Vented	One size fits most
GS1100030001-OP001	Cairns XR2 Technical Rescue Helmet	Hi-Viz Orange	Vented	One size fits most

Jet-Style Fire Helmet Accessories

P/N	Description
GA3701	Water Rescue kit (x5)
GA3702	Ocular Visor
GA3705	Responder goggle
GA3709	Neck protector
GA3723	Goggles protection cover (x10)

Modern & Rescue Fire Helmets

Cairns® 660C, 664, and 360S Fire Helmets

- 660C Helmet: **composite** painted high-luster finish / 664 Helmet: **composite** unpainted matte finish / 360S Helmet: **thermoplastic**
- Impact cap provides superior impact and thermal protection
- Patented shell release allows escape from snag hazards while still offering impact cap coverage for head
- Non-corroding, through-color fiberglass composite (660/664) and Ultem high temperature plastic (360S) shells resist cracking and chipping
- Rugged, high-temperature (TPR) edge trim will not melt or drip
- Soft black Nomex chinstrap features one-hand quick-release buckle and postman slide for quick removal and adjustment
- Nomex or PBI/Kevlar earlap for increased neck/ear coverage and protection
- 3-position rear ratchet height adjust for a secure and comfortable fit
- SCBA interface front headband adjustment matches the fit of any SCBA mask
- Lowest-profile traditional-style fire helmet on the market
- Fewer parts reduce service cost and make maintenance easier



	P/N	Model	Color	Eye Protection	Cushion Liner	Earlaps
	660CFSB	Cairns 660C Fire Helmet	Black	4" standard faceshield	Standard	Nomex
	10100833	Cairns 660C Fire Helmet	Yellow	4" Tuffshield	Standard	Nomex
	660CFSY	Cairns 660C Fire Helmet	Yellow	4" standard faceshield	Standard	Nomex
	660CF SR	Cairns 660C Fire Helmet	Red	4" standard faceshield	Standard	Nomex
	664DSB	Cairns 664 Fire Helmet	Black	Defender Visor, clear	Standard	Nomex
	664FSB	Cairns 664 Fire Helmet	Black	4" standard faceshield	Standard	Nomex
	10224021	Cairns 664 Fire Helmet	Black	4" standard faceshield	Standard	Nomex, extended, CA label
	664DSY	Cairns 664 Fire Helmet	Yellow	Defender Visor, clear	Standard	Nomex
	10224022	Cairns 664 Fire Helmet	Yellow	4" standard faceshield	Standard	Nomex, extended, CA label
	664FSY	Cairns 664 Fire Helmet	Yellow	4" standard faceshield	Standard	Nomex
	664FSR	Cairns 664 Fire Helmet	Red	4" standard faceshield	Standard	Nomex
	360SFSY	Cairns 360S Fire Helmet	Yellow	4" standard faceshield	Economy	Nomex

Select Replacement Parts for Cairns 660C and 664 Helmets

P/N	Description
10077117	Defender Visor, clear lens
10077118	Defender Visor, amber Tuffshield lens
10160548	Soft Goods Kit: Standard liner, yellow Nomex ear lap, Velcro tabs, mesh laundering bag
10160549	Soft Goods Kit: Standard liner, black Nomex ear lap, Velcro tabs, mesh laundering bag
L655XP	Yellow Nomex earlap
L655AP	Yellow Nomex earlap w/under-chin extension
L655GP	Black Nomex earlap
10124742	Black Nomex earlap w/under-chin extension
L955P	PBI/Kevlar earlap
L955AP	PBI/Kevlar earlap w/under-chin extension

PERFORMANCE AND PROTECTION IN PERFECT BALANCE.

Globe® turnout gear is designed to meet the new challenges you face every day to help keep you safe and healthy throughout your career.

Featured Styles

Globe ATHLETIX™ Turnout Gear

- Game-Changing Range of Motion – All-over stretch allows closer, less bulky fit with unprecedented range of motion, more flexibility, and minimum restriction.
- Streamlined Athletic Design – Reduces oversize for less bulk under SCBA. Elasticized side panels provide flexible, more athletic fit at the waist. Lower rise, less bulky pant design fits closer to your body.
- Lightweight, Flexible Fit – Thermal liner is thinner, lighter, more flexible, more breathable, and quicker drying. Moisture barrier provides the highest breathability in the widest range of environmental conditions, to reduce heat stress.

Globe G-XTREME® PRO Jacket

- Enhanced Mobility – The popular AXTION® Back and AXTION Sleeve are combined with Kevlar® mesh channels aligned with the AXTION Back. This unique AXTION System provides enhanced mobility while working on scene and reduces bulk.
- Mic Pass-Through Option – Allows a radio to be worn under the jacket without sacrificing comfort or the protection of a zipper closure. The radio lapel mic attaches elegantly to a mic strap without the need to be fed out of the top of the jacket.
- Enhanced T-Collar – Redesigned T-collar fits comfortably with the helmet and SCBA plus easily stows out of the way when not engaged.

Get the full story on Globe turnout gear at MSAfire.com/Globe.

GLOBE®

ATHLETIC FOOTWEAR FOR FIREFIGHTERS.

With a unique cushioned and contoured sole and athletic footwear construction, Globe® boots are flexible like your feet, grip like no other, and feel broken in right out of the box.

Globe Boots

- Scientific studies have proven that lighter weight and more flexible footwear isn't just about comfort — it's about safety.
- HEELPORT™ Internal Fit System holds your heel securely so it won't slip while cushioning your ankle.
- Vibram® Contoured Cup Outsole wraps onto the leather upper for athletic shoe performance.
- Slip-Resistant Tread pattern designed for superior performance in all terrains and when working on ladders.
- Composite safety toe cap, puncture protection, and shank are lighter and far more flexible than steel and don't transmit heat or cold.
- Optional Vibram® Arctic Grip Pro outsoles are available for even better slip resistance on wet ice.

Get the full story on Globe Boots at MSAfire.com/Globe

GLOBE®

Fall Protection

Fall Protection Engineered Systems

Fall Protection for Confined Spaces

Personal Protective Equipment

MSA Safety Training Courses



Fall Protection

Engineered Systems pages 129–141

Confined Space.....pages 142–154

Personal Protective Equipment..... pages 155–203

MSA Safety Training Coursespages 204–208



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 replace or 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
1100 Cranberry Woods Drive
Cranberry Township, PA 16066-5204



Global Leaders in Fall Protection

Because we provide customized fall protection solutions all around the world with our range of Latchways® systems, MSA has a thorough understanding of any given country's safety concerns and needs. We have wide-ranging support, too, as our product leadership is backed by a worldwide network of highly trained registered installers and contractor companies.

And MSA is always thinking ahead—monitoring legislative developments around the world so that we can respond quickly with products and services designed to comply with new regulations without sacrificing productivity.

Simply put: MSA is fluent in the global language of fall protection.

No wonder our trusted systems and award-winning components can be found on structures as far away as Sydney's Harbour Bridge and as close by as Milwaukee's Miller Park Stadium.

Premium fall protection solutions tailored to your project needs

MSA 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.

So tell us what you're looking for. With our Latchways range of smartly engineered systems and best-quality products, you're in the hands of experts.



Commercial and Public Buildings

Imagine providing safe access without damaging roof integrity. Latchways horizontal and inclined systems, with their Constant Force® Posts, do just that. We created systems like WalkSafe® to help further reduce wear and tear and LadderLatch™ to keep workers safe as they climb new heights.



Transmission Towers, Distribution and Telecommunications

From towers to masts to monopoles, Latchways vertical systems can be seen protecting workers on transmission towers and distribution and telecommunication structures all over the world—even those in the most icy, rainy conditions.



Bridges and Infrastructure

Each bridge and infrastructure project has different fall protection requirements. Latchways inclined, horizontal and vertical systems deliver unprecedented versatility, making it safe for workers to maintain cables, traverse bridge undersides, or safely access towers—no matter how harsh the conditions.



Industrial Manufacturing

From permanently installed overhead lifelines to temporary SRL's for one-off maintenance jobs, Latchways brings safety solutions to virtually any industrial manufacturing project. Our systems can link together horizontally, vertically and up inclines, and can be retrofitted or included as part of a new build.



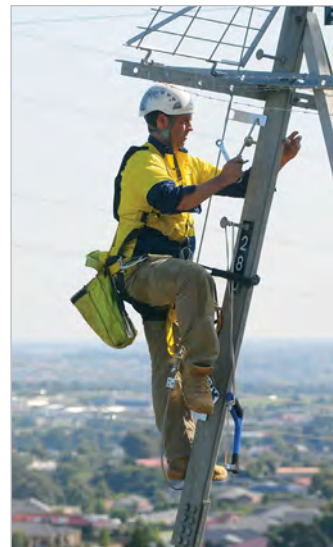
Oil and Gas

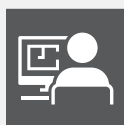
Our range of user-friendly safety solutions, from Latchways Self-Retracting Lifelines to Latchways Personal Rescue Device®, meet the demands of the oil and gas industry—and then some. With vertical, horizontal and inclined cable systems designed to follow complex contours found on rigs, pipe racks, gantries and more, we bring fall protection to the most severe environments.



Wind Energy

From wind farm owners to maintenance contractors to global turbine manufacturers, wind energy professionals rely on innovations like our Latchways Sealed Self-Retracting Lifeline for safety and our TowerLatch™ unit for uninterrupted ladder ascension.





Elevating the Science of Fall Protection

Better science means better protection—it's that simple, really.

No wonder MSA has been putting its resources, energy and smarts into the most cutting-edge technologies and most inspired breakthroughs with the Latchways range of products. We combine innovative technologies, best-in-class materials and advanced design to take fall protection to great new heights. The result is precisely engineered systems and components built for exceptional safety. Latchways systems are smartly designed for simple integration into nearly every work environment, bringing confidence to workers at height.



Fall Protection Designed by Us. Just for You.

With our dedicated in-house Design and Specification Team offering a number of free-of-charge services, MSA can assist you with your fall protection requirements.



Design services—creating with your needs in mind

Design and Spec Service—MSA's team of experts works with your AutoCAD roof plans or Building Information Modeling (BIM) files building elevations and sections to produce a complete fall protection system plan—integrated into your working files.

Design Advice Service—Here, our Design and Spec team assesses your own drawings featuring a fall protection layout and then offers advice and recommendations where necessary.

Simply choose whichever service suits you best, and we will provide you with a full Work-at-Height proposal to fulfill all your needs, all your legislative requirements, all within 10 working days.

In-Person Consultation—On more unusual projects that present different kinds of design challenges, it is sometimes easier to talk things through face-to-face. If you would prefer an in-person meeting, MSA will have a member of our team, or a representative from our network of Registered Installers, visit your offices to further discuss your specific design needs.



Road and Rail

With time- and cost-saving options like Latchways Personal Rescue Device, Self-Retracting Lifeline and overhead cable systems, MSA keeps road and rail workers safe. Whether refurbishing stations, locomotives and loading trucks, or testing signals, you're on the right track with MSA.



Stadiums and Tourism

The inherent flexibility of MSA horizontal, vertical and incline systems means fall protection is available to virtually any structure—from sports arenas like the Manchester Stadium to tourist attractions like the Orlando Eye.



Aerospace

Working with aircraft engineers, MSA developed the easy-to-use Latchways WinGrip® system (for aircraft) to protect aerospace workers at height, without sacrificing productivity or quality. Among its many remarkable features, a WinGrip lifeline can span the length of any aircraft wing, allowing up to four workers access to all areas without ever disconnecting from the WinGrip lifeline. With the WinGrip AIO, flightline and hangar tasks become more efficient. Compact and lightweight, this self-contained vacuum anchor requires little setup or removal time. In addition, it's powered by a shop air supply or refillable gas cylinder that provides a minimum of six hours of stationary use. This is advanced technology at its best, able to perform in extreme hot or cold temperatures.

Latchways® Horizontal Lifelines (HLL)



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 customized 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—not to mention famous sites like New York's Grand Central Station, the Hong Kong Airport, and the Eden Project in Cornwall, home to the world's largest indoor rainforest.

Committed to bringing you the best in quality, versatility and satisfaction, MSA continues to work closely with major roofing manufacturers to produce a full range of fall protection systems for all designs and types of roofs.

Constant Force® Post Technology

In typical leadership fashion, MSA takes the science of Latchways Constant Force and applies it to the fall protection industry—providing an easy-to-install, reliable and cost-effective solution to rooftop safety.

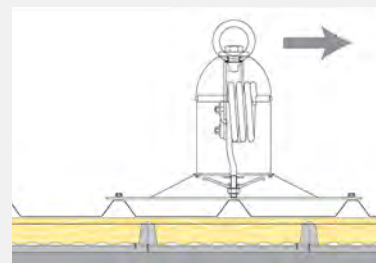
Constant Force Explained

The principles of fall arrest are based on effective load control, meaning that a system must be able to withstand the force of a person's fall while absorbing the energy it generates. In the past, this was achieved by attaching the system to the structure of the building with the anchor point absorbing the load. This inherently caused difficulties for designers and installers, since the system location was determined by the structural elements of the building. System installation, meanwhile, was time consuming because anchors had to be fixed above and below, often creating issues regarding warranties, leakage and cold bridging.

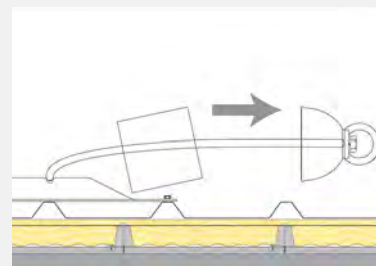


The MSA Solution

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.



The Constant Force Coil controls the load when a fall occurs, limiting the impact to the roof construction.



Latchways® Horizontal Lifelines (HLL)

Constant Force® Post Components

Recognizing the importance of installing a fully compliant solution to all major roof constructions, manufacturers across the globe were consulted to create a brilliantly compatible anchor: the Latchways Constant Force Post. With just a handful of components, the Constant Force technology can be designed to fit nearly any roof configuration.



Turnbuckle Assembly

The turnbuckle assembly provides a cable termination and method of tensioning the system. The integral indicator disc spins when the correct system tension is reached.



Swage & Clevis

The swage and clevis unit provides the method of terminating the cable at the opposite end of the system to the turnbuckle assembly.



90° Corner Bracket

This one-piece corner bracket, attached to an intermediate anchor, provides an angle change of 90° within the system.



Variable Bracket

This bracket attaches to an intermediate anchor and provides an angle change of between 0° and 80° on either horizontal or vertical planes.



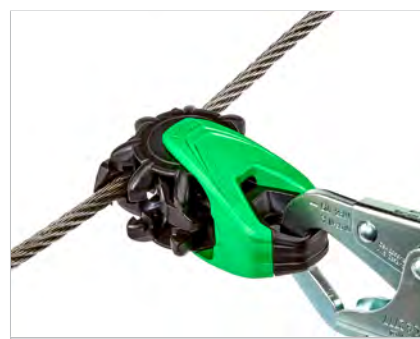
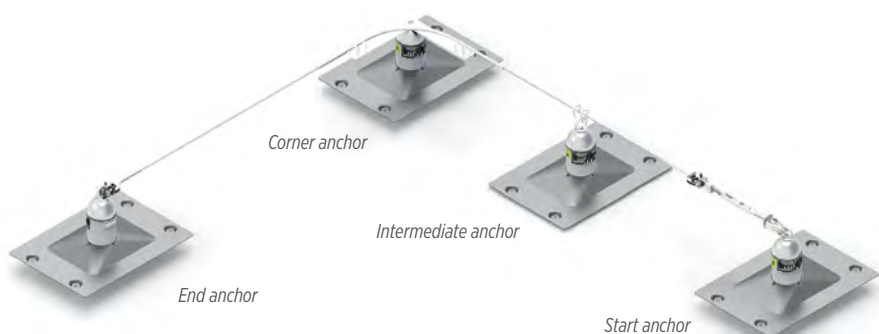
D-Ring & Hanger

The D-ring and hanger form an intermediate cable support. The cable passes through the hanger, allowing the Transfastener to travel the length of the system without disconnecting.



Entry Terminal

Where a Transfastener is used on a system, the entry terminal is used to enable entry and connection.



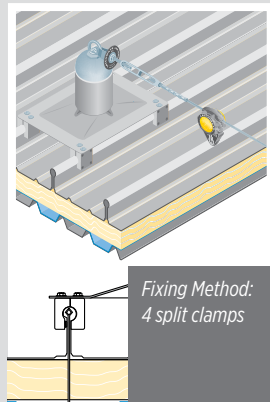
The user, wearing a full-body harness and energy-absorbing lanyard, is continuously attached to the system with a Latchways Transfastener™, MSA's innovative device that can rotate its way through the intermediate cable supports. For systems with no entry terminal, a Removable Transfastener can be used.

Roof-Type Fixing Options

Latchways Constant Force Systems bring complete fall protection solutions to both fall restraint and fall arrest. The simplicity of our fixings allows for quick and easy installation, providing safe solutions to workers at height.

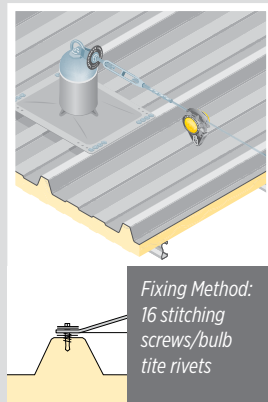
Latchways systems work with all major roof manufacturers.

Constant Force Post on standing-seam roofing



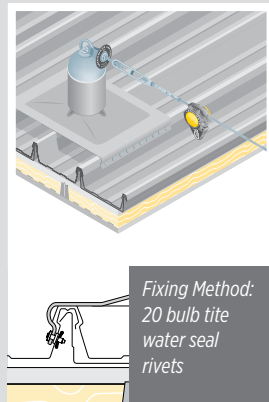
Fixing Method:
4 split clamps

Constant Force Post on corrugated metal decking



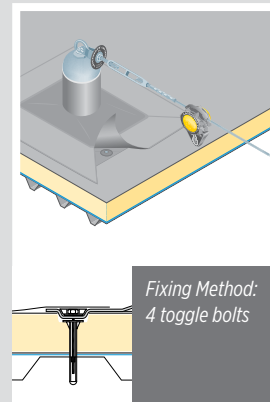
Fixing Method:
16 stitching screws/bulb tite rivets

Constant Force Post on secret-fix roofing



Fixing Method:
20 bulb tite water seal rivets

Constant Force Post on flat roofing



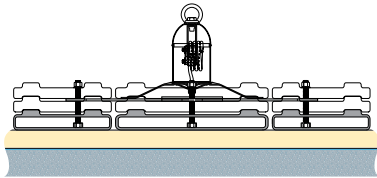
Fixing Method:
4 toggle bolts

Latchways® Horizontal Lifelines (HLL)



Freestanding Constant Force® Post

Typically, a cable-based system is installed top-fixed to the roof structure. However, this isn't always practical or desired—for example, when a permanent roof edge or gutter maintenance system is in place but a “one-off” repair is required in the center or another location accessible from this system. Another example is when the facility is being leased and alterations to the roof are not allowed.



For these situations and more, you need the Latchways freestanding Constant Force Post (CFP). Designed to be used on a variety of roof types, this expertly engineered self-weighted anchor incorporates CFP technology but does not require fixing through the roof sheet. When required, a number of CFPs can be combined to create a full system.

Overhead Systems—Single- and Multi-Span Systems Components

With 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. Simply put, it's a smartly designed system precisely engineered to react lightning quick.

Ideal for industrial environments and in applications such as warehouses, loading bays and airplane hangars, Latchways overhead system is heads above when it comes to fall protection safety.

Did you know that, for systems up to 200 ft (61 m), intermediate brackets are not necessary? Latchways overhead systems remove the need for structural elements and intermediate bracket fittings to be installed. Latchways is the only product to achieve this.



Single-Span System Components—distances up to 200 ft (61 m)



Multi-Span System Components—all distances and those greater than 200 ft (61 m)



A



Constant Force Energy Absorber

Located at one end of the system, the energy absorber ensures that, in the event of a fall, the maximum load transferred to the structure does not exceed 4047 lb. (18 kN).

B



Overhead System Mobile Anchorage

Allows an SRL to be connected to the overhead system.

C



Line Tensioning Device

Allows the system to be correctly tensioned for use. The indicator disc will spin freely when the correct tension is reached at 1124 lb. (5 kN).

D



Mobile Anchorage

Allows an SRL to be connected to the overhead system. Anchorage can travel over intermediate brackets without disconnection.

E



Intermediate Brackets

Support the cable on multi-span systems and also accommodate change in direction.

Latchways® Vertical Lifelines (VLL)

Anywhere in the world, wherever there's a call for telecoms, masts, rooftops or any at-height work space—you are likely to find a Latchways vertical cable-based fall protection system. All you have to do is scan the horizon.

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 1349 lbs (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 stop can be incorporated into the systems' attachment device to facilitate rescue as needed

Engineering excellence

All MSA systems are manufactured to the highest international standards, using only the best materials. Critical components are individually numbered and batch-conformance and dye-penetrant tested—a quality standard unsurpassed in the industry. In addition to rigorous in-house testing, all MSA products undergo external verification to ensure they meet or exceed relevant industry standards.

The TowerLatch system has also been subjected to accelerated aging, wind tunnel trials and cyclic testing—all of which have confirmed the inherent quality and durability of the system.

MSA products are specifically developed to take into account the latest structural innovations, while the company's commitment to excellence means that its systems have a proven track record of safety and reliability—even in the most extreme environments.

Ease of installation and use

- Incorporation at the design stage for new towers or retrofitting to existing structures
- Installation that follows the contours of any structure, including horizontal and inclined sections
- A comprehensive range of components that enables quick and easy installation on any type of overhead line tower, vertical structure or ladder
- Utilization by up to four users
- Units that can be attached or detached at any point in the system
- Installation in virtually any environment



Fixed Ladder Systems

With its simple design concept built for optimal flexibility and superior protection, MSA TowerLatch and LadderLatch systems can be installed to follow the contours of any structure, maximizing the system's safety value in a working environment.



Networks and Telecoms

MSA's mission is to make sure every customer gets the solution they need. Whether the systems you require are for greenfield sites or rooftops sites, new build or retrofit, network roll-out programs or upgrading of antennas, MSA offers tailor-made service with maximum support.



Transmission Towers

Flexible enough to accommodate every safety need for working at height, Latchways vertical systems are ideal for personnel accessing high-voltage transmission towers or transformers in substations.



Wind Turbines

When ascending a ladder within a new build or retrofit turbine, rely on Latchways TowerLatch to deliver the ideal hands-free solution, securing the climber to the cable via the chest D-ring on their full-body harness.

Fixed Ladder Systems

For use on stadiums, oil rigs, land-based wind towers and other elevated work environments, Latchways fixed ladder systems are always ready for climbing. Featuring our innovative LadderLatch™ unit, with its unique starwheel component that provides continuous security with hands-free climbing, our fixed ladder systems are designed to maximize confidence and productivity. And, because they are flexible enough to follow the contours of virtually any structure, these fixed ladder systems maximize the safety value in a working environment, too.



Fixed ladder systems use the LadderLatch attachment device.

Vertical Ladder System Kits	
The prepackaged ladder system kits listed below are ready to go and can be installed by the end-user. LadderLatch Climbing Device sold separately.	
Kit Numbers	Length
30901-00	20 ft (6 m)
30902-00	40 ft (12 m)
30903-00	55 ft (17 m)
30904-00	75 ft (22 m)
30905-00	90 ft (27 m)

LadderLatch Climbing Device	
Part No.	Description
3104L-00	US version
3103L-00	Canadian version



Putting a typical system together

A typical vertical system usually consists of a top anchor, a bottom anchor and a Constant Force energy absorber in between.

Top anchor

The top anchor is a bracket with a built-in safety factor greater than 2 times the potential load generated when a fall occurs.

Constant Force energy absorber

The Constant Force energy absorber ensures that the load applied back to the structure and the climber, in the event of a fall, is limited to a maximum of 1349 lbs (6 kN).



Intermediate cable guides

These brackets support the cable, ensuring that a correct stand-off distance from the structure is maintained. The spacing of the intermediates is dependent on the height and location of the structure. An extensive range is available to cater to all types of structures.



Bottom anchor

The bottom anchor is a bracket that provides a swage-free system termination and an integral tensioning device. At the correct cable pre-tension, the unit's indicator disc will spin freely. Captive security bolts prevent unauthorized system adjustment.

TowerLatch™ Engineered Cable Lifelines

There are two types of systems for overhead line towers: StepBolt and L-Bolt.

StepBolt

Latchways StepBolt is a vertical fall protection system for retro-fitting to overhead line tower climbing legs. Fixed to the structure by the step bolts, the system has no in-line energy absorber. The TowerLatch SP attachment device incorporates a built-in energy-absorbing pack to reduce the end load in the event of a fall. The system is designed for use by up to four workers at the same time.

L-Bolt

Like the StepBolt, Latchways L-Bolt system is also for retrofitting to overhead line tower climbing legs—though it is fixed to the tower by L-bolts, which are available in a range of sizes to suit each structure. The TowerLatch attachment device incorporates a webbing strap to facilitate rescue.



Top anchor

This bracket has a built-in safety factor of greater than 2 times the potential load generated when a fall occurs. The Constant Force energy absorber can be attached at this point.

Constant Force energy absorber (L-Bolt system only)

The Constant Force energy absorber ensures that, in the event of a fall, the load applied back to the structure and the climber is limited to a maximum of 1349 lbs (6 kN). A red fluorescent indicator shows if a fall has occurred.



Intermediate cable guides

These brackets support the cable, ensuring that a correct stand-off distance from the structure is maintained and also controls the cable against the effects of wind. The spacing of the intermediates depends on the height and location of the structure. An extensive range is available to cater to all types of structures.



TowerLatch systems for overhead towers use the TowerLatch or TowerLatch SP attachment devices.



Bottom anchor

This bottom bracket provides a swage-free system termination and an integral tensioning device. At the correct cable pre-tension, the unit's indicator disc will spin freely. Captive security bolts prevent unauthorized system adjustment.



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 or loss in productivity.

The result is confident, hands-free operation with optimal freedom of movement, because workers can now move up or down the cable system's incline—without the need to detach.

Better still, in the event of a fall, 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.

Depending on the incline of the system, MSA offers two different types of devices: one that covers inclines up to a 40° pitch, another that should be used on a pitch of up to 70°.

Typical Latchways BridgeLatch System Components



A	B	C	D
Entry and exit terminals	Cable	Intermediate cable guides	Mid-entry terminal
BridgeLatch can be connected and disconnected only at designated entry and exit terminals. This built-in safety feature is designed to prevent the user from improperly using or accidentally disconnecting from the device.	Latchways uses a 516" (8 mm) 1 x 19" 316-grade stainless-steel cable that has a unique identification system. The cable is factory tested to check its physical properties and to ensure consistent performance.	These brackets support the cable, keeping the correct stand-off distance from the structure. The design of the bracket allows for easy retrofit, while the spacing of the brackets is dependent on the height and location of the structure.	With a mid-entry terminal, a user can enter or exit the system at any designated point rather than having to return to the terminals at the ends of the system.



Bridges

BridgeLatch is an ideal choice when the cable system you're attaching to is located at waist height, such as when walking on bridge suspension cables. The Latchways BridgeLatch device has been utilized across the world, including on the Lyiesford Bridges in Norway.



Stadiums

BridgeLatch is the chosen attachment device on more unusual constructions, including highly popular visitor attractions such as "Up at the O2"—where a BridgeLatch device and cable system assists thousands of tourists as they climb and descend the steep profile of the O2 Arena in London.



BridgeLatch attachment device.



Latchways® Inclined Systems

ClimbLatch

Designed to protect the user from a sliding fall on a sloped surface, the ClimbLatch™ device was created for use on an inclined system between 0–90 degrees—though it can also be used on a system that moves from horizontal to vertical orientation.

Compatibility among components ensures your customized system—whether vertical, horizontal or inclined—delivers smooth, continuous transitions.

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 down the system.



ClimbLatch attachment device.

Attachment Devices

All 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.

			
• Universal devices for use on all Latchways horizontal systems, suitable for both fall restraint and arrest systems • Incorporate unique starwheel, allowing the unit to pass over cable supports and corners without the need to detach			
Transfastener and Removable Transfastener	LadderLatch	TowerLatch	TowerLatch SP
• The Removable Transfastener does not require entry gates as it attaches and detaches directly from the cable. The Starwheel design allows the anchor point to roll right through the intermediates.	• 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	• Includes integral webbing stop to provide fast post-fall rescue	• Includes an integral energy absorber ("shock pack") for use where a Constant Force absorber is not present in the vertical lifeline system



BridgeLatch

- Latchways BridgeLatch device secures the user to the lifeline cable on inclines that run between 0° and 70°.
- Featuring our groundbreaking starwheel mechanism that rotates freely over intermediate cable supports and brackets, the BridgeLatch's intelligent engineering means you don't have to disconnect the unit and risk potential accidents or loss in productivity.
- The result is remarkable freedom of movement and hands-free operation so users can do their best, most confident work.



ClimbLatch

- The ClimbLatch device has many similar features of the LadderLatch and TowerLatch but is designed to be used on an inclined system—suitable for inclines between 0–90 degrees.



Latchways® WinGrip® Vacuum Anchor

Latchways WinGrip Vacuum Anchor is a fall protection system developed for use in the maintenance and manufacturing of aircraft.

As flexible as it is safe, a WinGrip Anchor can be fixed to wings, fuselage or stabilizers. The system is quick to install, easy to use and suitable for work inside the hangar, or outside, on the apron. Originally developed in collaboration with aircraft engineers seeking revolutionary new ways to protect workers at height, the first WinGrip vacuum anchor systems were delivered to British Airways in 1999. These first single-user systems gave the industry a time saving, cost-cutting lift by delivering fall protection in a radius around the anchor, in virtually any location on the aircraft—and they're still being used today. In fact, these days the WinGrip product is so ubiquitous, you'll find it in the aircraft maintenance manuals of both Boeing and Airbus.

Latchways WinGrip aerospace line consists of four different products—each with its own unique benefits that accommodate ever-evolving customer needs and ever-changing legislative requirements.

WinGrip at a Glance

- Lightweight and portable anchors weigh less than 13 lbs (5.9 kg).
- Suitable for wet or dry surfaces, inside hangars, or on the apron
- Intrinsically safe, even with fuel tanks open—runs on compressed air or nitrogen; no electrical requirements
- Approved and used by all major aircraft manufacturers
- Easy to install and simple hands-free operation
- Independently tested to meet all relevant international standards
- Absence of metal-on-metal contact protects surfaces and eliminates risk of sparking
- Single- or multiple-user cable-based systems are available
- Suitable for heavy and light maintenance environments
- Should air supply fail, an alarm will sound and workers have at least 20 minutes to reach safety



WinGrip Single-User System



The original WinGrip is our single-user system, providing a fall protection anchor point for wings, fuselage or stabilizers. Highly portable, this easily installed system is particularly suited to line maintenance and other temporary work. Here, the anchor is positioned and vacuum-locked in place, then used by a worker wearing a full-body harness with a safety lanyard and work positioning rope, connected to the vacuum anchor. The adjustable work positioning rope provides comfortable operation within a radius of 10 ft (3 m). Two vacuum anchors can be used to triangulate and fix the worker's position.

WinGrip Barrier System



The WinGrip barrier system offers multi-personnel protection. The system provides a safe, enclosed working environment for several workers at a time. Here, workers do not need to use harnesses or lanyards, and they require only basic training to work within the system. Initially designed for Boeing maintenance programs, our barrier system consists of a series of upright stanchions and telescoping horizontal rails. The stanchion is connected at the base to a WinGrip vacuum anchor and is fully adjustable, ensuring a perfect installation on flat or curved surfaces. The horizontal rails are adjustable in length and angle, allowing any shape of the system to be installed in large areas.

Latchways® WinGrip® Vacuum Anchor



WinGrip Lifeline System

The WinGrip lifeline system was introduced in 2005 as an ideal solution for use in construction, heavy maintenance and return operations, allowing for safe, hands-free access for multiple workers along the entire length of a wing or fuselage.

The system consists of two end-anchor vacuum anchors with cables spanning between them, and intermediate anchors as needed to suit any cable length. Each anchor is positioned and vacuum-locked in place, with stainless-steel safety cables connected and tensioned at one end. Workers connect to the cable using the unique Latchways shuttle. Up to four workers can use the system, wearing full-body harnesses and work positioning ropes. Built for greater flexibility and productivity, this system allows hands-free movement along the whole cable length, with shuttles gliding over intermediate anchors.

System benefits

- Can be customized to fit any length of aircraft wing
- Ideal for heavy maintenance and longer access requirements
- Up to 4 users per system
- Fall arrest rated
- Safe method of installation and removal
- Provides full access to any wing without needing to disconnect
- Hands-free operation

Latchways WinGrip AIO Vacuum Anchor

Looking for ways to make flightline or hangar tasks more efficient, MSA's visionary team created the WinGrip AIO: a self-contained, compact, lightweight vacuum anchor. Powered by shop air supply or a refillable gas cylinder that provides at least six hours of stationary use, this marvel of fall protection technology is able to perform in extreme temperature—from arctic cold to desert heat. With little setup or removal time needed, the WinGrip AIO is ideal for use on “walking” areas of wings or structural sections of the fuselage.

Once the WinGrip AIO anchor has been vacuum-locked in place, the worker can attach to the system wearing a full-body harness and work positioning ropes with access to undertake all necessary maintenance. A single WinGrip AIO anchor provides a working area radius of nearly 10 ft (3 m), while an additional anchor can be attached to allow a larger work area. When using additional anchors, users can “step-stone” their way along the work area.

If for some reason the air or nitrogen supply used by the WinGrip AIO should fail, an audible alarm sounds, and the vacuum anchor will maintain a safe working vacuum for at least 20 minutes.



MSA XTIRPA™ Manhole Guard System

- Used for confined space vertical entry and fall protection when portable base is needed
- Barricades exposed entry points while providing necessary strength needed for fall protection, entry and retrieval applications
- Davit arm and manhole guard with integrated mast interface allows for reduced material surrounding the confined space entry, thus reducing the presence of trip and fall hazards



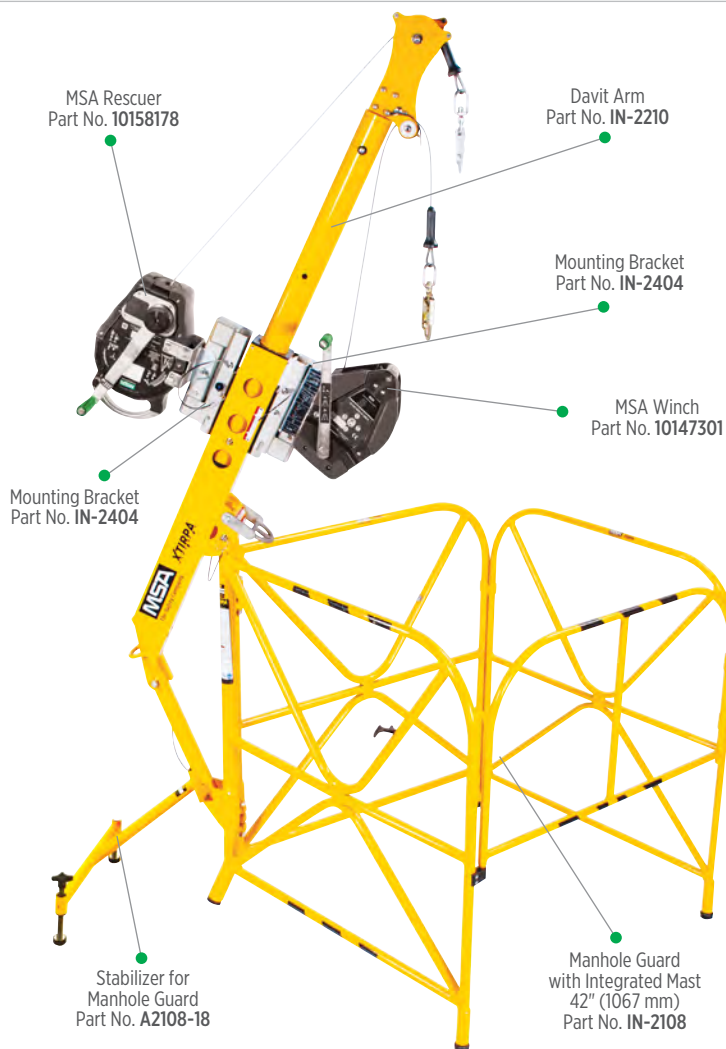
Weight Capacity

400 lbs. (181 kg) as pictured with MSA Rescuer and MSA Winch



Required System Components

- Davit Arm IN-2210
- Manhole Guard with Integrated Mast IN-2108
- OR
- Large Manhole Guard with Integrated Mast IN-2324
- Rescuer SRL such as 10158178 and corresponding attachment bracket such as IN-2404



System Components

 Davit 24" Reach IN-2210 OSHA	 Manhole Guard Integrated Mast 42" IN-2108 OSHA	 Large Manhole Guard Integrated Mast 42" IN-2324 OSHA	 Multifunctional Barricade 4 Side IN-2101 OSHA	 Multifunctional Barricade 1 Side A2101-07 OSHA	 Kick Plate for Manhole Guard and Barricade IN-2176 OSHA
 Stabilizer for Manhole Guard 42" A2108-18 OSHA	 Stabilizer w/ Wheels for Manhole Guard 42" A2108-20 OSHA				

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Adapter Base System—24" Reach

- Used for confined space vertical entry and fall protection when fixed base is needed
- Adapter base permanently affixed to existing structure
- Many different adapter base options can accommodate any work environment
- Designed for work areas that require regular setup and teardown



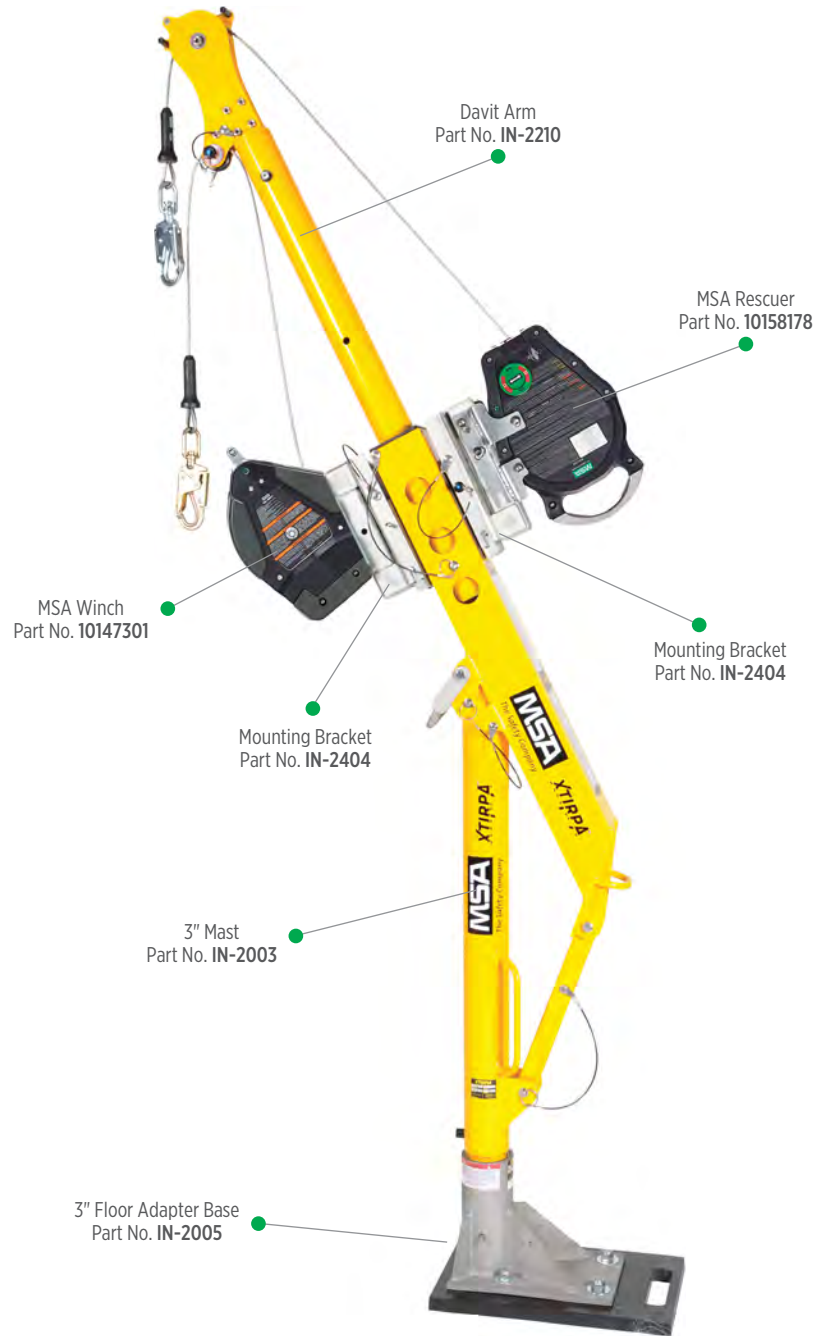
Weight Capacity

360 lbs. (163 kg) as pictured with MSA Rescuer



Required System Components

- Davit Arm IN-2210
- 3" Mast IN-2003
- 3" Adapter Base
- Rescuer SRL such as 10158178 and corresponding attachment bracket such as IN-2404



System Components (see following page)

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Adapter Base System—24" Reach

System Components

 Davitt Arm 24" Reach IN-2210 OSHA	 3" Diameter Mast IN-2003 OSHA	 Mast Extension IN-2044 15" IN-2109 18" IN-2045 24" OSHA	 3" Floor Adapter Base IN-2005 304 stainless steel IN-2106 Zinc-plated IN-2311 316 stainless steel OSHA	 3" Flush Floor Adapter Base IN-2006 304 stainless steel IN-2114 Zinc-plated IN-2325 316 stainless steel OSHA
 3" Fresh Concrete Floor Adapter Base IN-2007 304 stainless steel IN-2326 316 stainless steel OSHA	 3" Center Mount Floor Adapter Base IN-2105 304 stainless steel IN-2137 Zinc-plated IN-2329 316 stainless steel OSHA	 3" Wall Adapter Base IN-2013 304 stainless steel IN-2107 Zinc-plated IN-2327 316 stainless steel OSHA	 3" Mural Adapter Base w/8" Offset IN-2124 304 stainless steel OSHA	 3" Mural Adapter Base w/14" Offset IN-2067 304 stainless steel IN-2312 316 stainless steel OSHA
 3" Top Wall Adapter 90° IN-2117 304 stainless steel OSHA	 3" Exterior Corner Wall Adapter Base IN-2131 304 stainless steel OSHA	 3" Interior Corner Wall Adapter Base IN-2133 304 stainless steel OSHA	 Mural Wall Angular Adapter IN-2314 OSHA	 3" Sleeve Adapter Base IN-2097 304 stainless steel IN-2328 316 stainless steel OSHA
 3" Barrel Adapter Base IN-2021 304 stainless steel IN-2129 Zinc-plated OSHA	 3" Barrel Adapter Base 2" to 5" IN-2315 Zinc-plated OSHA	 3" H-Beam Adapter Base IN-2085 304 stainless steel OSHA	 Fall Arrest and Rescue Link Adapter IN-2271 OSHA	 Wire Rope Link IN-2400 OSHA
 Warning Post IN-2161 OSHA	 3" Adapter Cap IN-2072 OSHA	 3" Adapter Cap with SST Wire IN-2073 OSHA	 Reinforcement Plates P2006-006 For adapter IN-2006 (304 stainless steel) P2105-001 For adapter IN-2105 (304 stainless steel) P2005-001 For adapter IN-2005 (304 stainless steel) P2087-004 For adapter IN-2087 (304 stainless steel) P2013-008 For adapter IN-2013 (304 stainless steel) OSHA	
 Threaded Rod Kit 3/4-10 x 12" IN-2174 OSHA	 Threaded Rod Kit 3/4-10 x 16" IN-2212 OSHA			

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Adapter Base System—30"– 48" Reach

- Used for confined space vertical entry and fall protection when fixed base is needed
- Adapter base permanently affixed to existing structure
- Different adapter base options can accommodate any work environment
- Designed for work areas that require regular setup and teardown



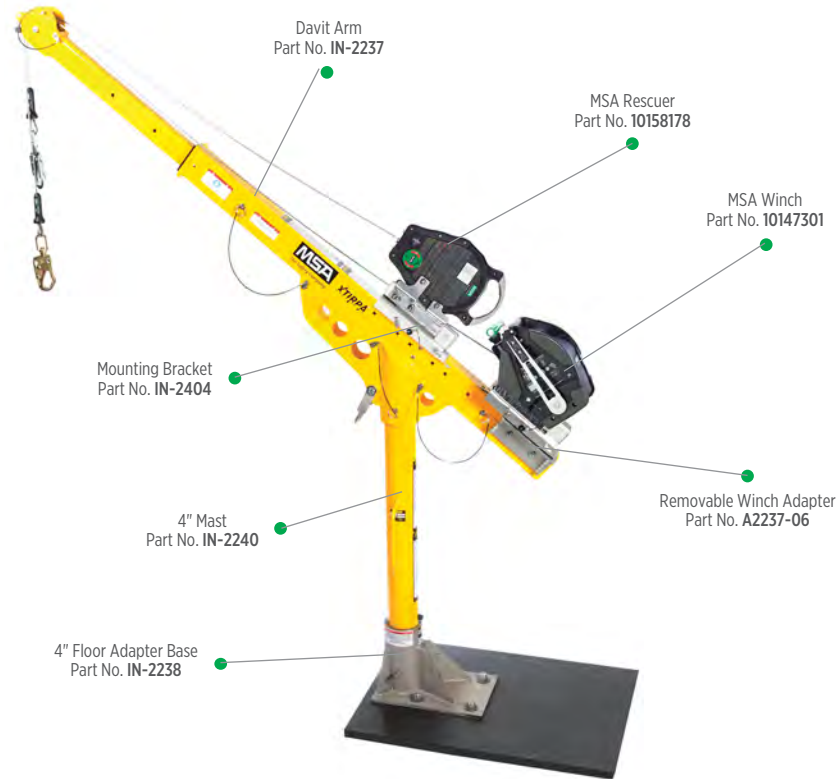
Weight Capacity

360 lbs. (163 kg) as pictured with MSA Rescuer

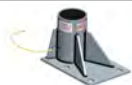


Required System Components

- Davit Arm IN-2237
- 4" Mast with 42" Height IN-2240 or 4" Mast with 60" Height IN-2313
- 4" Adapter Base
- Rescuer SRL such as 10158178 and corresponding attachment bracket such as IN-2404



System Components

 Davit Arm 30" to 48" Reach IN-2237 OSHA	 Davit Arm 60" to 96" Reach IN-2197 OSHA	 5.5" Mast for Davit Arm IN-2199 OSHA	 Removable Winch Adapter A2237-06 OSHA	 4" Mast for Davit Arm IN-2240 42" Height IN-2313 60" Height OSHA
 4" Floor Adapter Base IN-2238 304 stainless steel IN-2302 Zinc-plated OSHA	 4" Center Mount Floor Adapter Base IN-2254 304 stainless steel IN-2304 Zinc-plated OSHA	 5.5" Floor Adapter Base IN-2201 304 stainless steel OSHA	 4" Flush Floor Adapter Base IN-2266 304 stainless steel OSHA	 4" Mural Adapter Base IN-2253 304 stainless steel IN-2303 Zinc-plated OSHA
not shown 5.5" Mural Wall Adapter Base IN-2420 OSHA	 4" Sleeve Adapter Base IN-2255 304 stainless steel OSHA	 4" Adapter Cap IN-2272 OSHA	 4" Adapter Cap with SST Wire IN-2273 OSHA	 4" to 3" Cylinder Reducer with Cable A2238-03 OSHA

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Hitch Mount System

- Used for confined space vertical entry and fall protection when portable base is needed
- Hitch mount can be customized to accommodate variety of confined space applications
- Commonly used with rescue vehicles for confined space rescue



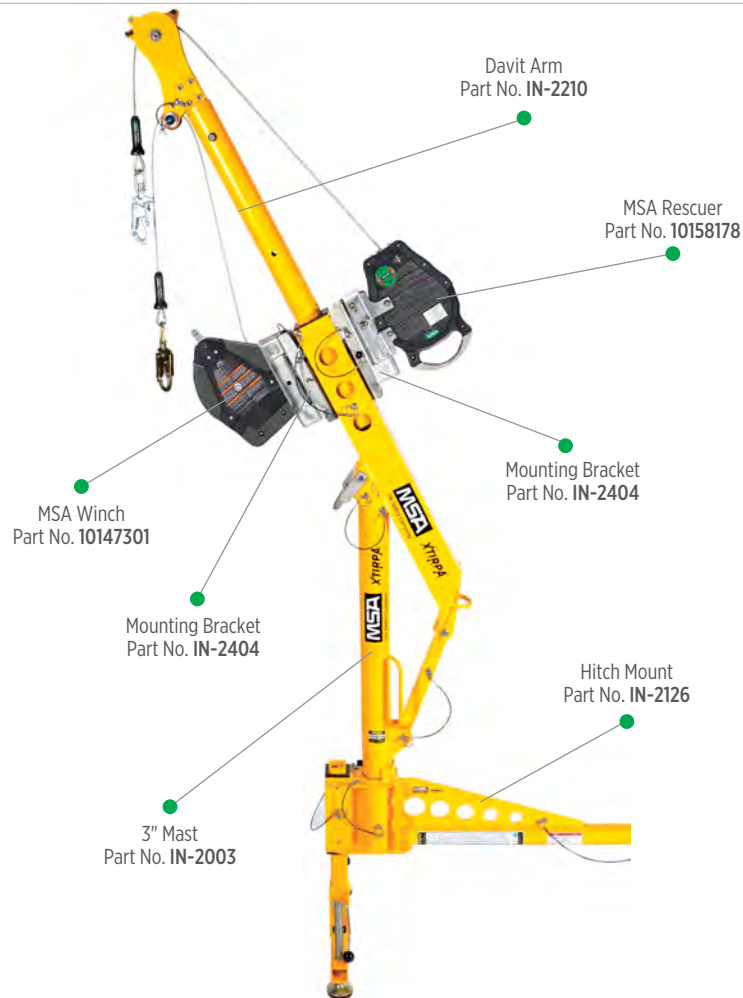
Weight Capacity

360 lbs. (163 kg) as pictured with MSA Rescuer



Required System Components

- Davit Arm IN-2210
 - 3" Mast IN-2003
 - Hitch Mount with 24" Stabilizer IN-2126
- OR**
- Hitch Mount with 60" Stabilizer IN-2204
 - Rescuer SRL such as 10158178 and corresponding attachment bracket such as IN-2404



System Components

 Davit Arm 24" Reach IN-2210 OSHA	 3" Diameter Mast IN-2003 OSHA	 Mast Extension IN-2044 15" IN-2109 18" IN-2045 24" OSHA	 3" Hitch Mount w/24" Stabilizer IN-2126 OSHA	 3" Hitch Mount w/60" Stabilizer IN-2204 OSHA	 Universal Joint Assembly for Hitch Mount A2126-07 OSHA	 90° Extension for Hitch Mount A2126-10 OSHA
 C-Clamp Adapters for Hitch Mount A2126-14 16" C-clamp A2126-33 23.5" C-clamp OSHA	 Anchor Bolt Adapter for Hitch Mount A2126-21 OSHA	 Universal Wall Adapter for Hitch Mount IN-2348 OSHA	 Beam Adapter for Universal Wall Adapter A2348-08 OSHA	 90° Extensions for Universal Wall Adapter A2348-03 8" extension for IN-2348 A2348-05 16" extension for IN-2348 OSHA		

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Pole Hoist System—Horizontal and Vertical Entry

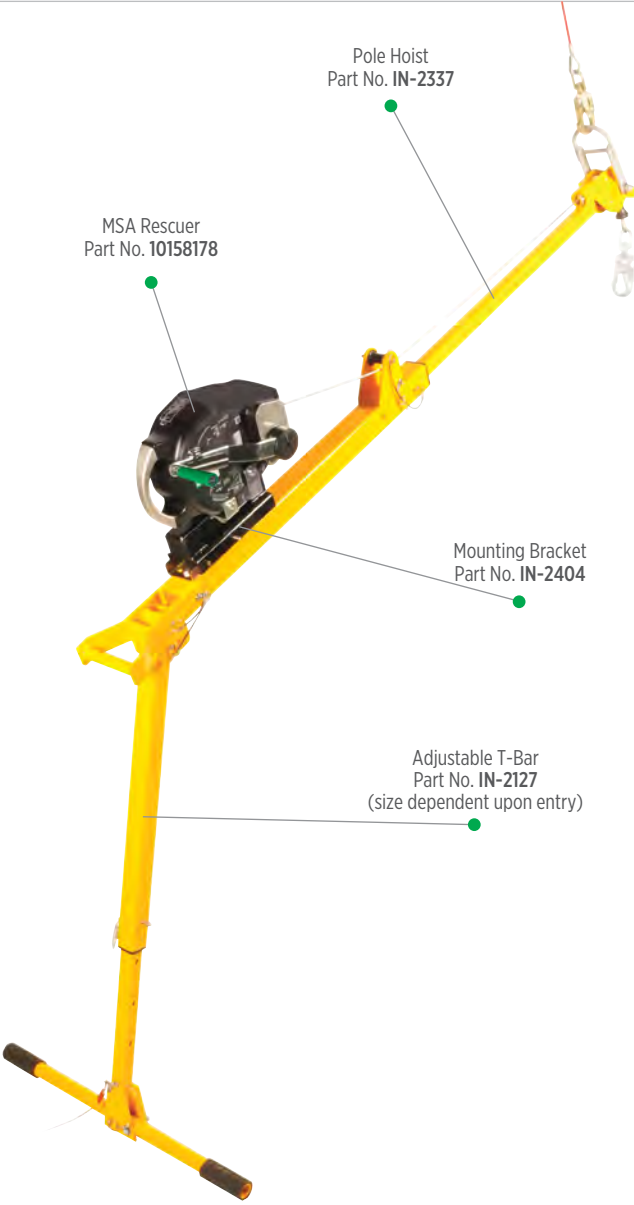
- Used for confined space vertical/horizontal entry and fall protection when portable base is needed
- When attached to anchor point, Pole Hoist provides retrieval and fall protection when limited overhead clearance is present
- Can also be configured for horizontal entry applications such as lifting, lowering and fall protection

**Weight Capacity**

360 lbs. (163 kg) as pictured with MSA Rescuer

**Required System Components**

- 48"-72" Pole Hoist **IN-2337**
OR
57"-102" Pole Hoist **IN-2338**
- Adjustable T-Bar (size dependent upon entry)
- Anchorage Connector
- Rescuer SRL such as **10158178** and corresponding attachment bracket such as **IN-2404**



Pole Hoist
Part No. **IN-2337**

MSA Rescuer
Part No. **10158178**

Mounting Bracket
Part No. **IN-2404**

Adjustable T-Bar
Part No. **IN-2127**
(size dependent upon entry)

System Components

				
Pole Hoist	Adjustable T-Bar	Flange Adapter for Lateral Entry	Universal Ring Adapter	Jib Adapter for Lateral Entry
IN-2337 48-78" IN-2338 57-102"	IN-2127 48" IN-2256 47-75" IN-2274 12-14"	IN-2242	IN-2087	IN-2241
OSHA	OSHA	OSHA	OSHA	OSHA

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Manhole Collar System

- Used for confined space vertical entry and fall protection when portable base is needed
- Provides adapter base by fitting within manhole opening
- Designed for frequent setup of confined space equipment over similarly-sized openings



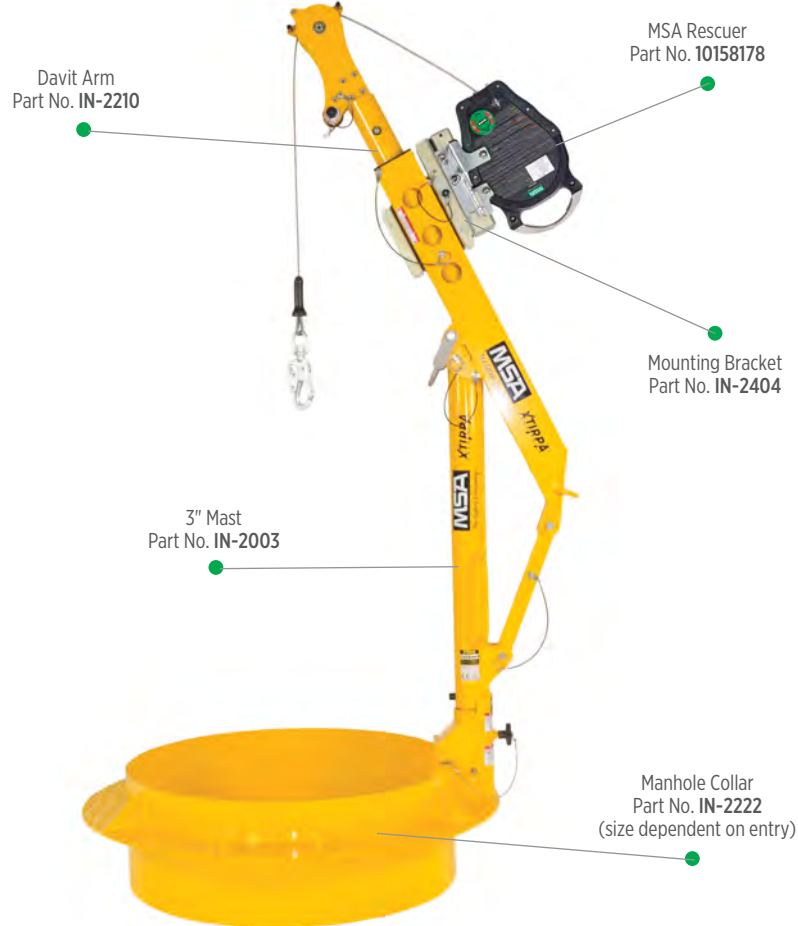
Weight Capacity

360 lbs. (163 kg) as pictured with MSA Rescuer



Required System Components

- Davit Arm IN-2210
- 3" Mast IN-2003
- Manhole Collar (size dependent upon entry)
- Rescuer SRL such as 10158178 and corresponding attachment bracket such as IN-2404



System Components

					
Davitt Arm 24" Reach	3" Diameter Mast	Mast Extension	Mast/Davitt Arm	Manhole Retaining Ring	Cone Shaped Safety Ring
IN-2210	IN-2003	IN-2044 15" IN-2109 18" IN-2045 24"	IN-2295 18" reach IN-2363 9" reach	IN-2010	IN-2009
OSHA	OSHA	OSHA	OSHA	OSHA	OSHA

																																
Manhole Collar Seat	Hand Rail Attachment for Mast	Ladder Adapter	Positioning Seat	Manhole Collar (sizes are for diameter)	Variable Collar for Convex Entry																											
A2217-10	IN-2282	A2217-05	IN-2244	IN-2287 Fits 16"-18" IN-2219 Fits 18"-20" IN-2220 Fits 20"-22" IN-2221 Fits 22"-24" IN-2217 Fits 24"-26" IN-2222 Fits 26"-28" IN-2218 Fits 28"-30" IN-2167 Fits 30"-32" IN-2223 Fits 32"-34" IN-2224 Fits 34"-36"	<table><tr><th>P/N</th><th>Inclination</th><th>Diameter</th></tr><tr><td>IN-2486</td><td>0-30°</td><td>16"-18"</td></tr><tr><td>IN-2496</td><td>0-30°</td><td>18"-20"</td></tr><tr><td>IN-2497</td><td>0-30°</td><td>20"-22"</td></tr><tr><td>IN-2490</td><td>0-30°</td><td>22"-24"</td></tr><tr><td>IN-2498</td><td>0-30°</td><td>24"-26"</td></tr><tr><td>IN-2475</td><td>0-45°</td><td>24"-26"</td></tr><tr><td>IN-2500</td><td>0-30°</td><td>28"-30"</td></tr><tr><td>IN-2487</td><td>0-30°</td><td>30"-32"</td></tr></table>	P/N	Inclination	Diameter	IN-2486	0-30°	16"-18"	IN-2496	0-30°	18"-20"	IN-2497	0-30°	20"-22"	IN-2490	0-30°	22"-24"	IN-2498	0-30°	24"-26"	IN-2475	0-45°	24"-26"	IN-2500	0-30°	28"-30"	IN-2487	0-30°	30"-32"
P/N	Inclination	Diameter																														
IN-2486	0-30°	16"-18"																														
IN-2496	0-30°	18"-20"																														
IN-2497	0-30°	20"-22"																														
IN-2490	0-30°	22"-24"																														
IN-2498	0-30°	24"-26"																														
IN-2475	0-45°	24"-26"																														
IN-2500	0-30°	28"-30"																														
IN-2487	0-30°	30"-32"																														
OSHA	OSHA	OSHA	OSHA	OSHA	OSHA																											

For rescuer, winch, and mounting bracket ordering information, see page 152.

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Adjustable Wall Adapter System

- Used for confined space vertical entry and fall protection when portable base is needed
- Range from 6" to 45" to accommodate wide range of confined space applications
- Designed for frequent setup of confined space equipment



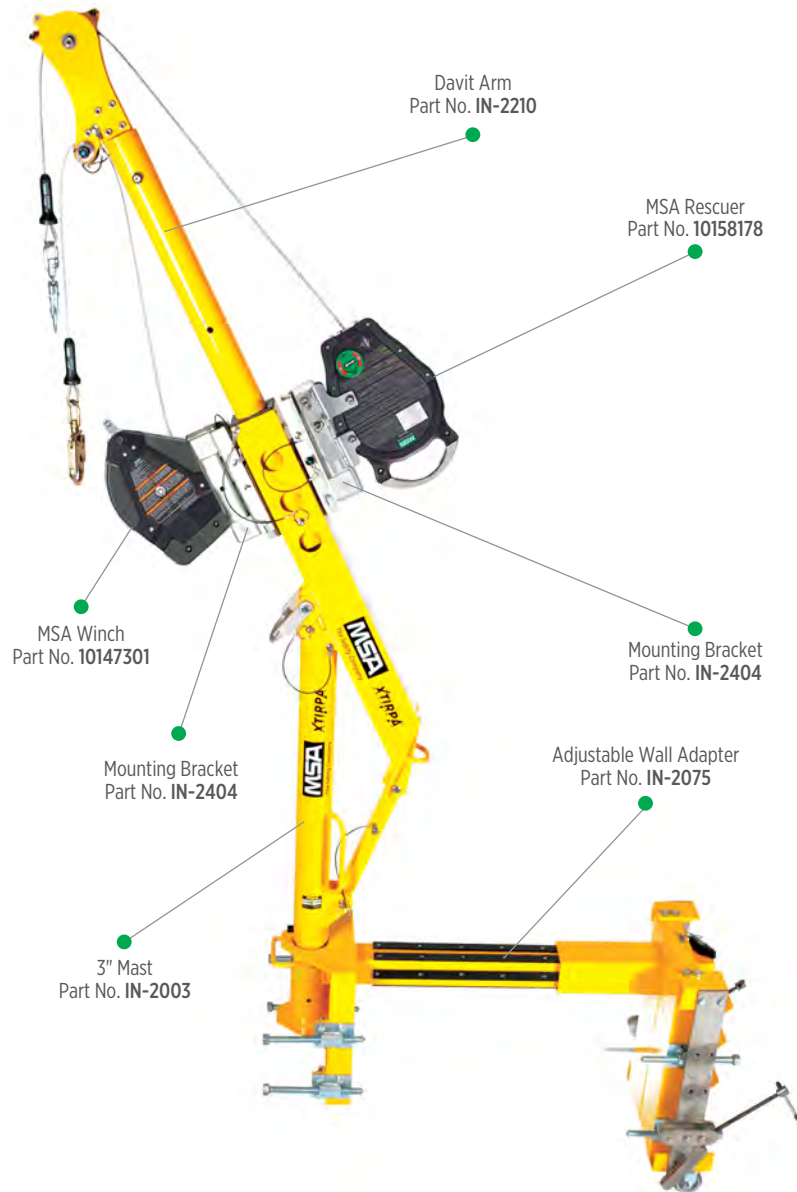
Weight Capacity

360 lbs. (163 kg) as pictured with MSA Rescuer



Required System Components

- Davit Arm IN-2210
- 3" Mast IN-2003
- Adjustable Wall Adapter
- Rescuer SRL such as 10158178 and corresponding attachment bracket such as IN-2404



System Components

Davit Arm 24" Reach	3" Diameter Mast	Mast Extension	Mast/Davit Arm	Adjustable Wall Adapter
IN-2210	IN-2003	IN-2044 15" IN-2109 18" IN-2045 24"	IN-2295 18" reach IN-2363 9" reach	IN-2008 6"-15.75" IN-2168 12"-24" IN-2075 12"-31.5" IN-2125 24"-45" IN-2251 12"-30"
OSHA	OSHA	OSHA	OSHA	OSHA

For rescuer, winch, and mounting bracket ordering information, see page 152.

MSA XTIRPA™ Counter Weight System

- Used for confined space vertical entry and fall protection when portable base is needed
- System used with Counter Weight Base for counterbalance
- Ideal for movement and access between various confined space entry points in the same area



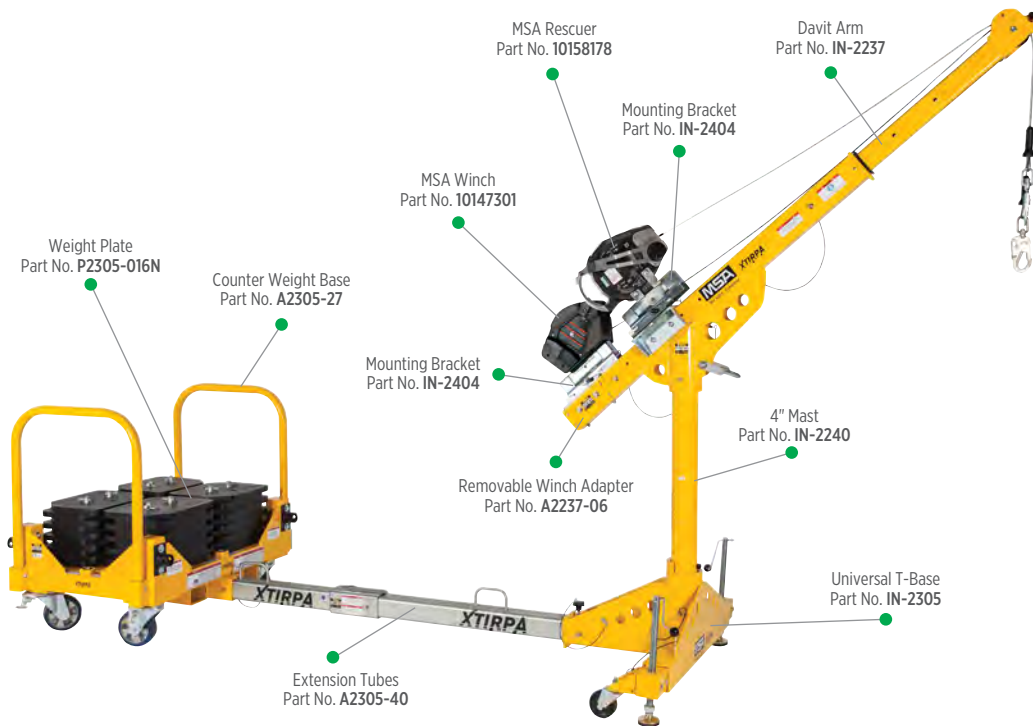
Weight Capacity

360 lbs. (163 kg) as pictured with MSA Rescuer



Required System Components

- Davit Arm IN-2237
- 4" Mast with 42" Height IN-2240 or 4" Mast with 60" Height IN-2313
- T-Base Extension 72" A2305-16
- Universal T-Base for 4" Mast IN-2305
- 50 lb. Weight Plates P2305-016N (Qty: 40)
- Rescuer SRL such as 10158178 and corresponding attachment bracket such as IN-2404



System Components

Davit Arm 30" to 48" Reach IN-2237	Removable Winch Adapter A2237-06	4" Mast for Davit Arm IN-2240 42" Height IN-2313 60" Height	Universal T-Base for 4" Mast IN-2305	Counter Weight Base A2305-27	Weight Plate, 50 lbs. P2525-017
OSHA	OSHA	OSHA	OSHA	OSHA	OSHA

T-Base Extension, 72" with 2.5" Receiver A2305-16	Reducer 2.5 to 2" for T-Base Extension A2217-10	Extension Tubes 96" for Counter Weight Base A2305-40	T-Base Reducer for 72" Extension A2305-25	90 Degree Extension for Universal T-Base for 4" Mast A2305-29
OSHA	OSHA	OSHA	OSHA	OSHA

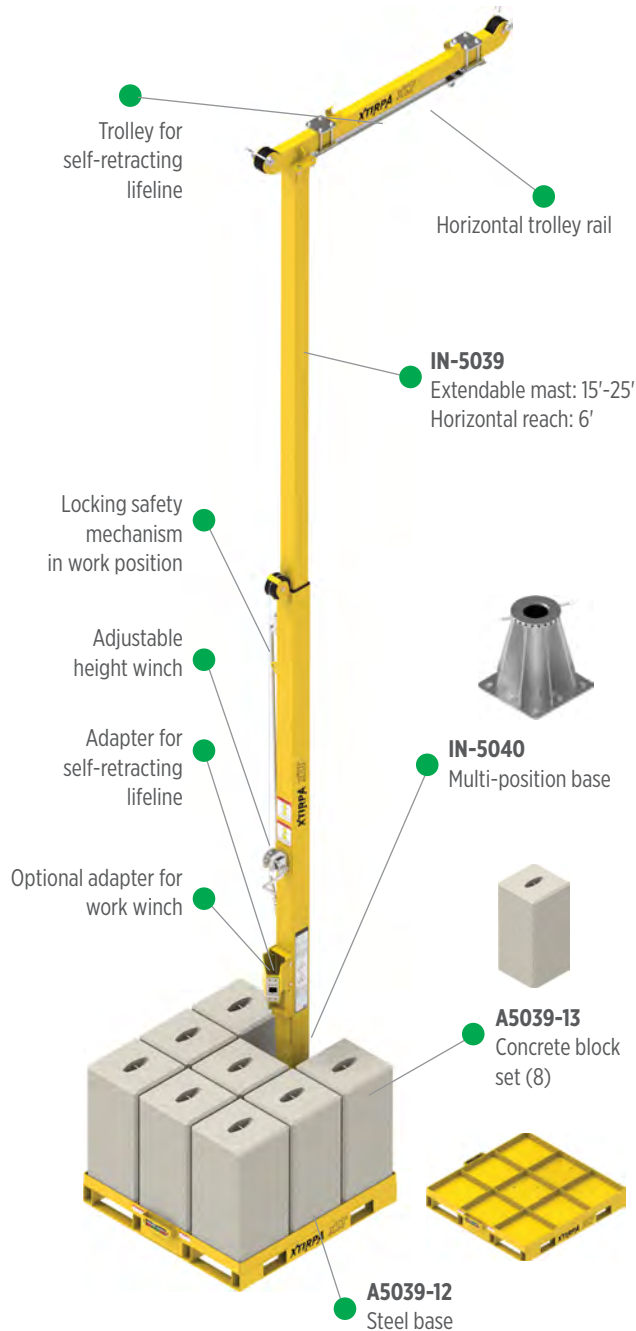
For rescuer, winch, and mounting bracket ordering information, see page 152.

XTIRPA™ XLT

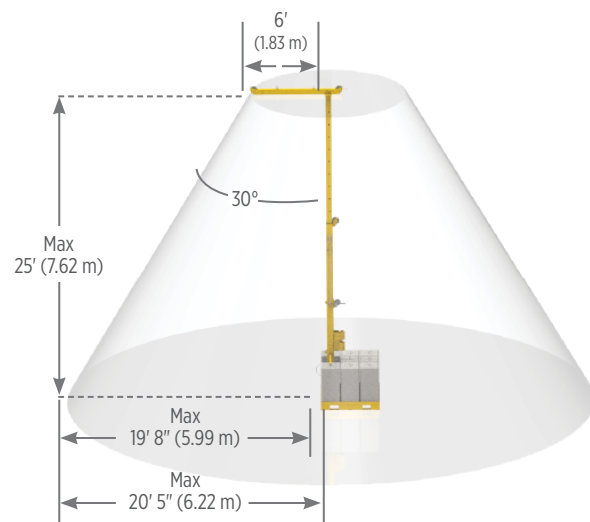
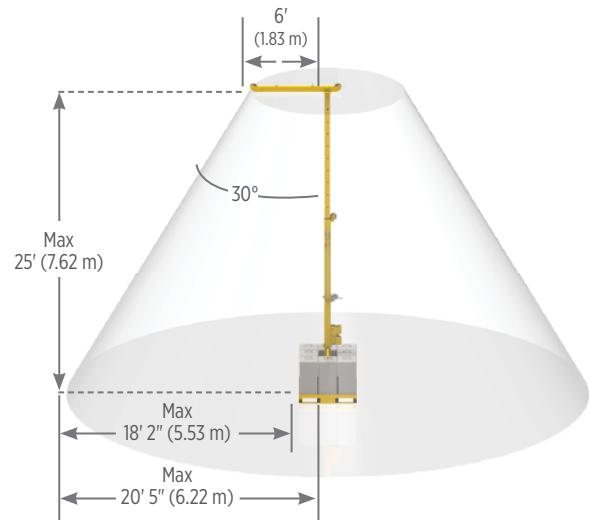
The XTIRPA XLT provides workers with great versatility when looking for elevated tie-off platform solutions. The XLT meets both ANSI and CSA standards for anchorage connectors, and is designed with solid steel for utmost durability in tough environments.



System Components



Meets ANSI Z359.18 and CSA Z259.15-17: Anchorage Connectors
Self-Retracting Lifelines sold separately



A5039-46
Recommended transport structure

Accessories for XTIRPA™ Confined Space Products



MSA Rescuer

10158178 (ANSI)
10158180 (CSA)

ANSI Z359.14, OSHA, CSA Z259.2.2



MSA Winch

10147301

OSHA



Mounting Bracket (MSA)

IN-2404

Mounting bracket needed for Rescuer (10158178) and Winch (10147301) if using on both XTIRPA confined space products and MSA Tripod



MSA Rescuer — XTIRPA use only

10217196 (ANSI)
10217197 (CSA)

This MSA rescuer can be mounted directly to XTIRPA Confined Space products without the use of mounting bracket IN-2404.



MSA Winch — XTIRPA use only

10217097

OSHA



Square J Hook



Medium Square Hook



Large J Hook

Manhole Cover Lifter

IN-2071 Ratchet Manhole Cover Lifter
P2071-021P Square J Hook
P2071-022P Medium Square Hook
P2071-023P Large J Hook



Manhole Guard Carrying Bag

P2108-025



24" Davit Carrying Bag

P2002-046

MSA Confined Space Entry Equipment: Retrieval

Tripod System

	
MSA Confined Space Entry Kit	MSA Tripod
10163033	10102002
Includes: • MSA Tripod • MSA Rescuer & carry bag • MSA Winch & carry bag • Carabiner • Pulley	• Can be set up/dismantled without the use of tools • Automatic hinge lock legs with incremental adjustment • Skid-resistant feet

MSA Confined Space Entry Kits

Part No.	Stainless Steel Kit Components					Standards		
	8' Tripod	50' MSA Rescuer	65' MSA Winch	Pulleys	Carabiners	ANSI Z359.14	CSA Z259.2.2	OSHA
10163033	■	■	■	2	2	■		■
10163034	■	■		1	1	■		■
10174588	■	■	■	2	2		■	
10174589	■	■		1	1		■	

Replacement Parts and Accessories

Part No.	Description
10105612	Leg base support strap
10089207	Carabiner
506222	Pulley
506232	Mounting bracket for Dynevac II, 50'
10169369	Tripod duffel bag

MSA Confined Space Entry Equipment: Retrieval/Lifting/Lowering Devices



MSA Rescuer

- Fast, easy and intuitive fall protection with integral bi-directional retrieval capability
- Arrests fall and allows fallen worker to ascend or descend to safe location
- Durable, economical
- Fast installation and setup
- Patent-pending integral bracket
- Intuitive mode switch
- ANSI Z359.14 and CSA Z259.2.2

Part No.	Description
10158178	MSA Rescuer, stainless steel cable, 50 ft. (16m) – ANSI Z359.14
10158180	MSA Rescuer, stainless steel cable, 50 ft. (16m) – CSA Z259.2.2
10159755	MSA Rescuer, rope, 50 ft. (16m) – ANSI Z359.14



MSA Winch

- Rugged, versatile and economical mechanism for lifting, lowering and positioning of personnel and materials within confined space applications
- Maximum work load of 400 lb. for personnel, 620 lbs for materials (20:1 design factor)
- Patent-pending bracket attachment for easy installation
- Ergonomic carry grip and foldable crank handle
- Includes self-locking swivel 36C snaphook
- ANSI Z359.1-compliant

Part No.	Description
10153757	MSA Winch, galvanized cable, 65-ft (20m)
10147301	MSA Winch, stainless steel cable, 65-ft (20m)
10154684	MSA Winch, stainless steel cable, 95-ft (29m)
10148277	Synthetic rope for MSA Winch, 65-ft (20m)



Bosun Chair

- Attaches to chest D-ring of MSA full-body harnesses
- Keeps user in upright position while suspended for long durations
- Padded seat for comfort
- Adjustable web assembly ensures security

Part No.	Description
SSH3505017	Bosun Chair, 5" x 16½" padded seat, black nylon straps, 2 carabiners



Spreader Bars

Part No.	Description
507131	Spreader bar, 22"

Because the safest fall protection is the one you'll actually want to wear, each V-SERIES harness includes unique features to deliver **exceptional comfort**—so you can focus on your work, not your harness:



The exclusive racing style buckle allows for a close, comfortable fitting harness—eliminating the need for bulky chest straps or cumbersome buckles.



The racing style buckle creates an athletic cut, contouring the harness to the body for improved upper torso movement on the job.



Pull-down adjustment on each harness allows you to quickly get the right fit, that last throughout the work day.



Features:

- Racing-style or Qwik-fit buckle
- Athletic cut
- Pull-down adjustment
- Easy-to-inspect stitch patterns



Features:

- All the benefits of the V-FORM, plus...*
- Body-conforming shoulder pad
 - Dedicated attachment point for personal fall limiters



Features:

- Removable, body-conforming shoulder pad
- Horizontal leg straps
- Aluminum hardware



Features:

- Thermoform shoulder pad designed for cooling
- Leg padding
- Swiveling hip juncture for mobility
- Integrated suspension trauma straps
- Re-settable lanvard keepers

	ft.	(m)
	6'-6"	(2.0)
	6'-4"	(1.9)
	6'-2"	(1.9)
	6'-0"	(1.8)
	5'-10"	(1.8)
	5'-8"	(1.7)
	5'-6"	(1.7)
	5'-4"	(1.6)
	5'-2"	(1.6)
	5'-0"	(1.5)

Size	Weight (kg)	Weight (lb)
Small / X-Small	110 (50)	130 (59)
Standard	150 (68)	170 (77)
X-Large	210 (95)	230 (105)
SX-Large	290 (132)	310 (141)

V-FLEX® Full-Body Harness



Superior Comfort

1 Using a patented RaceFLEX connection, webbing is routed across the chest for a secure and comfortable fit—eliminating the need for bulky chest straps or cumbersome buckles.

2 Reduce fatigue with flexible foam shoulder pad that responds to your movement to conform to your body, eliminating pressure points and chafing.

3 Keep cool and reduce heat stress with interior padding designed with channels for continuous air flow and ventilation.



Flexibility

4 Using an exclusive racing style design, webbing contours to the torso, reducing the need for adjustments throughout the day and allowing for better mobility on the job.

5 Featuring a patented hip connection, the harness “flexes” with the worker, reducing fatigue throughout the day.



Adjustability

6 Pull down adjustment allows you to quickly and easily get the right fit that last throughout the work day.



V-FLEX Harness Padding



Contoured padding fits the body's normal curves to reduce pinch points and chaffing.



Closed cell foam reduces moisture build-up—keeping your pad from getting soggy and extending the life of your harness.



Keep cool and reduce heat stress with interior padding designed with channels for continuous air flow. Vented “V” feature allows for fresh air to flow from outside the pad, to inside.

Check out our [Harness Heat Study](#) here!



V-FLEX® Full-Body Harness

V-FLEX Standard Full-Body Harnesses												
Part Number	Size (See chart on page 155.)				D-Ring Configuration			Leg Straps		Standards		
	XSM	STD	XLG	SXL	Back	Chest	Hip	Tongue Buckle	Quick-Connect	ANSI Z359.11	CSA Z259.5	OSHA
10239822	■				■				■	■	■	■
10239740		■			■				■	■	■	■
10239981			■		■				■	■	■	■
10239982				■	■				■	■	■	■
10239983	■				■			■		■	■	■
10239984		■			■			■		■	■	■
10239985			■		■			■		■	■	■
10239986				■	■			■		■	■	■

V-FLEX Standard Full-Body Harnesses with Front D-Ring												
Part Number	Size (See chart on page 155.)				D-Ring Configuration			Leg Straps		Standards		
	XSM	STD	XLG	SXL	Back	Chest	Hip	Tongue Buckle	Quick-Connect	ANSI Z359.11	CSA Z259.5	OSHA
10211316	■				■	■			■	■	■	■
10211317		■			■	■			■	■	■	■
10211318			■		■	■			■	■	■	■
10211319				■	■	■			■	■	■	■
10211320	■				■	■		■		■	■	■
10211321		■			■	■		■		■	■	■
10211322			■		■	■		■		■	■	■
10211323				■	■	■		■		■	■	■

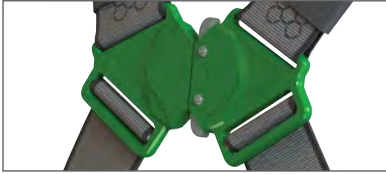
V-FLEX Construction Full-Body Harnesses												
Part Number	Size (See chart on page 155.)				D-Ring Configuration			Leg Straps		Standards		
	XSM	STD	XLG	SXL	Back	Chest	Hip	Tongue Buckle	Quick-Connect	ANSI Z359.11	CSA Z259.5	OSHA
10211324	■				■		■		■	■	■	■
10211325		■			■		■		■	■	■	■
10211326			■		■		■		■	■	■	■
10211327				■	■		■		■	■	■	■
10211328	■				■		■	■		■	■	■
10211329		■			■		■	■		■	■	■
10211330			■		■		■	■		■	■	■
10211331				■	■		■	■		■	■	■
10211342	■				■	■	■		■	■	■	■
10211343		■			■	■	■		■	■	■	■
10211344			■		■	■	■		■	■	■	■
10211345				■	■	■	■		■	■	■	■
10211346	■				■	■	■	■		■	■	■
10211347		■			■	■	■	■		■	■	■
10211348			■		■	■	■	■		■	■	■
10211349				■	■	■	■	■		■	■	■

V-FIT® Full-Body Harness



Superior Comfort

1 Using a patented RaceFLEX™ connection, webbing is routed across the chest for a secure and comfortable fit—eliminating the need for bulky chest straps or cumbersome buckles.



RaceFLEX Chest Buckle

2 Shoulder padding responds to your movement to conform to your body, eliminating pressure points and chafing. Shoulder padding can be removed for cleaning, extending the life of the harness.

3 Patented leg strap design keeps leg straps in place as webbing lies horizontally across the thighs, creating a more natural fit.



Flexibility

4 The RaceFLEX Buckle creates an athletic cut contouring the harness to the body and improving upper torso movement on the job.



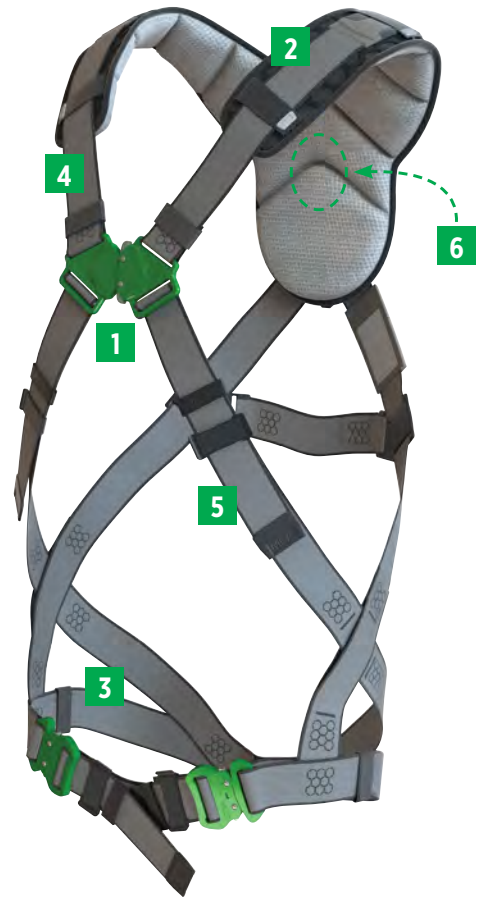
Adjustability

5 Pull-down adjustment allows you to quickly and easily get the right fit that lasts throughout the work day.

6 Dedicated attachment point for Personal Fall Limiters allows for quick and easy attachment, and keeps your back D-ring free for other use.



Dedicated PFL attachment



V-FIT Construction Harness Adjustable Waist Pad

The V-FIT Harness' adjustable waist pad allows you to position the waist pad specifically for you and your work day. With its patented design, the V-FIT waist pad can be adjusted higher on your torso for lumbar support or lower for work positioning applications. Designed around pressure points and by choosing breathable materials, the V-FIT waist pad delivers ultimate on-the-job comfort.



V-FIT Standard Harness with quick-connect buckles

V-FIT Construction Harness with tongue buckles

V-FIT Construction Harness with integral suspension trauma safety steps and tongue buckles

NEW!
integral suspension trauma safety steps

V-FIT® Full-Body Harness

V-FIT Standard Full-Body Harnesses																	
Part Number	Size (See chart on page 155.)				D-Ring Configuration				Leg Straps			Padding		Accessory	Standards		
	XSM	STD	XLG	SXL	Back	Back & Hips	Back, Shoulder	Back, Hip, & Shoulder	Tongue Buckle	Quick-Connect	None	Shoulder	Shoulder & Leg	Suspension Trauma Safety Steps	ANSI Z359.11	CSA Z259.10	OSHA
10194536	■				■					■		■			■	■	■
10194630		■			■					■		■			■	■	■
10194671			■		■					■		■			■	■	■
10194672				■	■					■		■			■	■	■
10194872	■					■				■		■			■	■	■
10194873		■				■				■		■			■	■	■
10194874			■			■				■		■			■	■	■
10194875				■		■				■		■			■	■	■
10194888	■				■				■			■			■	■	■
10194889		■			■				■			■			■	■	■
10194890			■		■				■			■			■	■	■
10194891				■	■				■			■			■	■	■
10194908	■					■			■			■			■	■	■
10194909		■				■			■			■			■	■	■
10194910			■			■			■			■			■	■	■
10194931				■		■			■			■			■	■	■
10194936	■						■		■			■			■	■	■
10194937		■					■		■			■			■	■	■
10194938			■				■		■			■			■	■	■
10194939				■			■		■			■			■	■	■
10194940	■							■	■			■			■	■	■
10194941		■						■	■			■			■	■	■
10194942			■					■	■			■			■	■	■
10194943				■				■	■			■			■	■	■
10194961		■				■				■			■		■	■	■
10194962			■			■				■			■		■	■	■
10195038		■			■					■	■				■	■	■
10195039			■		■					■	■				■	■	■
10195092		■			■				■		■				■	■	■
10195093			■		■				■		■				■	■	■
10195110		■				■			■		■				■	■	■
10195111			■			■			■		■				■	■	■
10262591	■				■				■			■		■	■	■	■
10262486		■			■				■			■		■	■	■	■
10262487			■		■				■			■		■	■	■	■
10262592				■	■				■			■		■	■	■	■
10262593	■				■					■		■		■	■	■	■
10262484		■			■					■		■		■	■	■	■
10262485			■		■					■		■		■	■	■	■
10262594				■	■					■		■		■	■	■	■

V-FIT® Full-Body Harness

V-FIT Construction Full-Body Harnesses														
Part Number	Size (See chart on page 155.)				D-Ring Configuration		Leg Straps		Padding		Accessory	Standards		
	XSM	STD	XLG	SXL	Back, Chest, & Hip	Back & Hips	Tongue Buckle	Quick-Connect	Shoulder & Lumbar	Shoulder, Leg, & Lumbar	Suspension Trauma Safety Steps	ANSI Z359.11	CSA Z259.10	OSHA
10195133	■					■		■	■			■	■	■
10195134		■				■		■	■			■	■	■
10195135			■			■		■	■			■	■	■
10195136				■		■		■	■			■	■	■
10195140	■				■		■		■			■	■	■
10195141		■			■		■		■			■	■	■
10195142			■		■		■		■			■	■	■
10195143				■	■		■		■			■	■	■
10195149		■				■	■		■			■	■	■
10195150			■			■	■		■			■	■	■
10195151				■		■	■		■			■	■	■
10195181		■				■	■			■		■	■	■
10195182			■			■	■			■		■	■	■
10262595	■					■	■		■		■	■	■	■
10262488		■				■	■		■		■	■	■	■
10262489			■			■	■		■		■	■	■	■
10262596				■		■	■		■		■	■	■	■

V-FIT Standard Full-Body Harnesses with Front D-Ring													
Part Number	Size (See chart on page 155.)				D-Ring Configuration			Leg Straps		Padding	Standards		
	XSM	STD	XLG	SXL	Back & Chest	Back, Chest, & Hip	Shoulder	Tongue Buckle	Quick-Connect	Shoulder	ANSI Z359.11	CSA Z259.10	OSHA
10194673	■				■				■	■	■	■	■
10194656		■			■				■	■	■	■	■
10194657			■		■				■	■	■	■	■
10194862				■	■				■	■	■	■	■
10194863	■					■			■	■	■	■	■
10194864		■				■			■	■	■	■	■
10194865			■			■			■	■	■	■	■
10194866				■		■			■	■	■	■	■
10194892	■				■			■		■	■	■	■
10194893		■			■			■		■	■	■	■
10194894			■		■			■		■	■	■	■
10194895				■	■			■		■	■	■	■
10194896	■					■		■		■	■	■	■
10194897		■				■		■		■	■	■	■
10194898			■			■		■		■	■	■	■
10194899				■		■		■		■	■	■	■
10194900	■						■	■		■	■	■	■
10194905		■					■	■		■	■	■	■
10194906			■				■	■		■	■	■	■
10194907				■			■	■		■	■	■	■

V-FIT® Full-Body Harness



V-FIT Derrick Harness



V-FIT Tower Harness

V-FIT Derrick Full-Body Harnesses

Part Number	Size (See chart on page 155.)				D-Ring Configuration	Leg Straps	Padding	Standards		
	XSM	STD	XLG	SXL	Back, Chest, & Hip	Tongue Buckle	Shoulder & Lumbar	ANSI Z359.11	CSA Z259.10	OSHA
10195204	■				■	■	■	■	■	■
10195205		■			■	■	■	■	■	■
10195206			■		■	■	■	■	■	■
10195207				■	■	■	■	■	■	■

V-FIT Tower Full-Body Harnesses with Front D-Ring

Part Number	Size (See chart on page 155.)				D-Ring Configuration	Leg Straps		Tool Belt		Padding	Standards		
	XSM	STD	XLG	SXL	Back, Hip, & Shoulder	Tongue Buckle	Quick-Connect	Tongue Buckle	Quick-Connect	Shoulder, Leg, & Lumbar	ANSI Z359.11	CSA Z259.10	OSHA
10218041	■				■	■		■		■	■	■	■
10218042		■			■	■		■		■	■	■	■
10218043			■		■	■		■		■	■	■	■
10218045				■	■	■		■		■	■	■	■
10218046	■				■		■		■	■	■	■	■
10218048		■			■		■		■	■	■	■	■
10218049			■		■		■		■	■	■	■	■
10218050				■	■		■		■	■	■	■	■

V-FORM®+ Full-Body Harness



Superior Comfort

1 The patented racing-style allows for a close, comfortable harness fit — eliminating the need for bulky chest straps or cumbersome buckles.



2 Shoulder padding responds to your movement to conform to your body, eliminating pressure points and chafing.



Increased Flexibility

3 The racing-style buckle creates an athletic cut, contouring the harness to the body and improving upper torso movement on the job.



Adjustability

4 Pull-down adjustment allows you to quickly and easily get the right fit that lasts throughout the work day.

5 Dedicated attachment point for Personal Fall Limiters allows for quick and easy attachment, and keeps your back D-ring free for other use.



V-FORM+ Harness with tongue-buckle leg straps



V-FORM+ Harness with quick-connect leg straps

V-FORM®+ Full-Body Harness

V-FORM+ Harnesses												
Part Number	D-Ring Configuration				Size (See chart on page 155.)				Leg Buckle Type		Padding	Standards
	Back	Back, Hips	Back, Chest	Back, Chest, Hips	XSM	STD	XLG	SXL	Tongue Buckle	Quick-Connect	Shoulder	ANSI Z359.11/ CSA Z259.10/ OSHA
10206085	■				■				■		■	■
10205845	■					■			■		■	■
10206086	■						■		■		■	■
10206087	■							■	■		■	■
10206088		■			■				■		■	■
10206089		■				■			■		■	■
10206090		■					■		■		■	■
10206091		■						■	■		■	■
10206092			■		■				■		■	■
10206093			■			■			■		■	■
10206094			■				■		■		■	■
10206095			■					■	■		■	■
10206136				■	■				■		■	■
10206137				■		■			■		■	■
10206138				■			■		■		■	■
10206139				■				■	■		■	■
10206100	■				■					■	■	■
10206101	■					■				■	■	■
10206102	■						■			■	■	■
10206103	■							■		■	■	■
10206104		■			■					■	■	■
10206105		■				■				■	■	■
10206106		■					■			■	■	■
10206107		■						■		■	■	■
10206108			■		■					■	■	■
10206109			■			■				■	■	■
10206110			■				■			■	■	■
10206111			■					■		■	■	■
10206144				■	■					■	■	■
10206145				■		■				■	■	■
10206146				■			■			■	■	■
10206147				■				■		■	■	■

V-FORM®+ Full-Body Harness

V-FORM+ Construction Harnesses									
Part Number	D-Ring Configuration		Size (See chart on page 155.)				Leg Buckle Type		Standards
	Back, Hips	Back, Chest, Hips	XSM	STD	XLG	SXL	Tongue Buckle	Quick-Connect	ANSI Z359.11/ CSA Z259.10/ OSHA
10206160	■		■				■		■
10206161	■			■			■		■
10206162	■				■		■		■
10206163	■					■	■		■
10206164		■	■				■		■
10206165		■		■			■		■
10206166		■			■		■		■
10206167		■				■	■		■
10206172	■		■					■	■
10206173	■			■				■	■
10206174	■				■			■	■
10206175	■					■		■	■
10206176		■	■					■	■
10206177		■		■				■	■
10206178		■			■			■	■
10206179		■				■		■	■



V-FORM+ Construction Harness with tongue-buckle leg straps

V-FORM® Full-Body Harness



Superior Comfort

1 The Racing Style buckle allows for a close, comfortable harness fit—eliminating the need for bulky chest straps or cumbersome buckles.



Quick-Connect Racing-Style Chest Buckle



V-FORM Construction Harness Waist Pad



Increased Flexibility

2 The Racing Style buckle creates an athletic cut, contouring the harness to the body and improving upper torso movement on the job.



Adjustability

3 Pull-down adjustment allows you to quickly and easily get the right fit that lasts throughout the work day.



V-FORM Construction Harness Shoulder Padding



V-FORM Harness with front D-ring



V-FORM Harness with Quick-Connect Racing-Style Buckle

V-FORM® Full-Body Harness

V-FORM Harnesses with Quick-Connect Racing-Style Buckle														
Part Number	D-Ring Configuration						Size (See chart on page 155.)				Leg Buckle Type		Padding	Standards
	Back	Back with D-Ring Extender	Back, Chest	Back, Chest, Hips	Back, Shoulders	Back, Hips	XSM	STD	XLG	SXL	Tongue Buckle	Qwik-Fit	None	ANSI Z359.11/ CSA Z259.10/ OSHA
10206057	■						■				■		■	■
10206058	■							■			■		■	■
10206059	■								■		■		■	■
10206060	■									■	■		■	■
10206065			■				■				■		■	■
10206066			■					■			■		■	■
10206067			■						■		■		■	■
10206068			■							■	■		■	■
10206069				■			■				■		■	■
10206070				■				■			■		■	■
10206071				■					■		■		■	■
10206072				■						■	■		■	■
10206073					■		■				■		■	■
10206074					■			■			■		■	■
10206075					■				■		■		■	■
10206076					■					■	■		■	■
10206061						■	■				■		■	■
10206062						■		■			■		■	■
10206063						■			■		■		■	■
10206064						■				■	■		■	■
10207679	■						■					■	■	■
10207680	■							■				■	■	■
10207731	■								■			■	■	■
10207732	■									■		■	■	■
10208260						■	■					■	■	■
10208271						■		■				■	■	■
10208272						■			■			■	■	■
10208273						■				■		■	■	■
10208274		■					■				■		■	■
10208275		■						■			■		■	■
10208276		■							■		■		■	■
10208277		■								■	■		■	■

V-FORM Construction Harnesses with Quick-Connect Racing-Style Buckle								
Part Number	D-Ring Configuration		Size (See chart on page 155.)				Leg Buckle Type	Standards
	Back, Hips		XSM	STD	XLG	SXL	Tongue Buckle	ANSI Z359.11/ CSA Z259.10/OSHA
10207733	■		■				■	■
10207734	■			■			■	■
10207735	■				■		■	■
10207736	■					■	■	■

V-FORM® Full-Body Harness

V-FORM Harnesses with Stainless Steel Hardware									
Part Number	D-Ring Configuration	Size (See chart on page 155.)				Leg Buckle Type		Padding	Standards
	Back	XSM	STD	XLG	SXL	Tongue Buckle	Qwik-Fit	None	ANSI Z359.11/ CSA Z259.10/ OSHA
10197233	■	■					■	■	■
10197234	■		■				■	■	■
10197235	■			■			■	■	■
10197236	■				■		■	■	■
10197237	■	■				■		■	■
10197238	■		■			■		■	■
10197239	■			■		■		■	■
10197240	■				■	■		■	■



V-FORM Standard Harness with stainless steel hardware

V-SERIES® Hot Work Harnesses

Solutions designed specifically for welding and arc flash applications, with the comfort and flexibility expected from MSA fall protection PPE.



V-FIT® Arc Flash Harness	V-FORM® Arc Flash Harness	V-FORM® Welding Harness
Applications		
Welding • Working at Heights • Turnarounds & Plant Maintenance		
Features		
• MSA's innovative webbing blend allows for a softer and more flexible webbing that is ASTM-F887 rated • With no exposed metal*, the harness can withstand some of the most harsh and corrosive environments • Using a patented Racing Style connection allows for a close, comfortable harness fit—eliminating the need for bulky chest straps or cumbersome buckles • Pull-down adjustment allows you to quickly and easily get the right fit that lasts throughout the work day • Dedicated PFL attachment point • Horizontal leg straps <i>*Tongue-buckle leg strap configurations will have no exposed metal from the waist up</i>	• One of the lightest harnesses MSA has ever created • The patented racing style allows for a close, comfortable harness fit—eliminating the need for bulky chest straps or cumbersome buckles • Pull-down adjustment allows you to quickly and easily get the right fit that lasts throughout the work day • Variety of configurations available, including web loop D-Rings • Dedicated PFL attachment point	• Using a patented Racing Style connection allows for a close, comfortable harness fit—eliminating the need for bulky chest straps or cumbersome buckles • An athletic cut contours the harness to the body and improving upper torso movement on the job • Pull-down adjustment allows you to quickly and easily get the right fit that lasts throughout the work day. • MSA's Innovative webbing blend allows it to be one of the lightest welding harnesses MSA has ever created • Dedicated PFL attachment point • Horizontal leg straps
Approvals		
• ANSI Z359.11 • CSA Z259.10 • ASTM F887	• ANSI Z359.11 • CSA Z259.10 • ASTM F887	• ANSI Z359.11 • CSA Z259.10

V-FIT® Arc Flash Harness

V-FIT Arc Flash Harnesses												
Part Number	Size				D-Ring Configuration		Leg Straps		Padding	Standards		
	XSM	STD	XLG	SXL	Back	Back & Hips	Tongue-Buckle	Quick-Connect	Shoulder	ANSI	CSA	ASTM
10252164	■				■		■		■	■	■	■
10252101		■			■		■		■	■	■	■
10252165			■		■		■		■	■	■	■
10252166				■	■		■		■	■	■	■
10252167	■				■			■	■	■	■	■
10252168		■			■			■	■	■	■	■
10252169			■		■			■	■	■	■	■
10252170				■	■			■	■	■	■	■
10252201	■					■	■		■	■	■	■
10252202		■				■	■		■	■	■	■
10252203			■			■	■		■	■	■	■
10252204				■		■	■		■	■	■	■
10252205	■					■		■	■	■	■	■
10252206		■				■		■	■	■	■	■
10252207			■			■		■	■	■	■	■
10252208				■		■		■	■	■	■	■



V-FIT Arc Flash Harness with back D-ring



V-FIT Arc Flash Harness with back & hips D-rings

V-FORM® Arc Flash Harness

V-FORM Arc Flash Harnesses										
Part Number	Size				D-Ring Configuration			Leg Straps		Standards ANSI Z359.11, CSA Z259.10, ASTM F887
	XSM	STD	XLG	SXL	Back Steel	Back Loop	Back & Hip Loops	Tongue-Buckle	Quick-Connect	
10252231	■				■			■		■
10252034		■			■			■		■
10252209			■		■			■		■
10252210				■	■			■		■
10252211	■				■				■	■
10252212		■			■				■	■
10252213			■		■				■	■
10252214				■	■				■	■
10252215	■					■		■		■
10252216		■				■		■		■
10252217			■			■		■		■
10252218				■		■		■		■
10252219	■					■			■	■
10252220		■				■			■	■
10252221			■			■			■	■
10252222				■		■			■	■
10252223	■						■	■		■
10252224		■					■	■		■
10252225			■				■	■		■
10252226				■			■	■		■
10252227	■						■		■	■
10252228		■					■		■	■
10252229			■				■		■	■
10252230				■			■		■	■



V-FORM Arc Flash
Harness with
back steel D-ring



V-FORM Arc Flash
Harness with
back loop D-rings



V-FORM Arc Flash
Harness with
back & hip loop D-rings

V-FORM® Welding Harness

V-FORM Welding Harnesses										
Part Number	Size				D-Ring Configuration		Leg Straps		Padding	Standards
	XSM	STD	XLG	SXL	Back	Back & Hips	Tongue-Buckle	Quick-Connect	None	ANSI /CSA
10252232	■				■		■		■	■
10252106		■			■		■		■	■
10252234			■		■		■		■	■
10252235				■	■		■		■	■
10252236	■				■			■	■	■
10252237		■			■			■	■	■
10252238			■		■			■	■	■
10252239				■	■			■	■	■
10252240	■					■	■		■	■
10252241		■				■	■		■	■
10252242			■			■	■		■	■
10252243				■		■	■		■	■
10252244	■					■		■	■	■
10252245		■				■		■	■	■
10252246			■			■		■	■	■
10252247				■		■		■	■	■



V-FORM Welding Harness with back D-ring



V-FORM Welding Harness with back & hips D-rings

Harness Accessories

			
Product	Double D-Ring Extension	Single D-Ring Extension	D-Ring Extender
Part No.	10203182	10203183	505318
Features	• 1" nylon web • Sewn loop	• 1" nylon web • Sewn loop	• Nylon • 1 D-ring • 8" (back D-ring extension)

	 P/N 10063431 P/N 10063441
Product	Suspension Trauma Safety Step
Part No.	10063431 with carabiner 10063441 without carabiner
Features	• Suspension Trauma Safety Steps allows fallen worker to relieve pressure by inserting a foot into the step loops and then standing up in the harness to increase blood flow to the legs

		
Product	Lanyard Keepers	Tool Lanyard (includes small carabiner)
Part No.	10113240	10110670
Features	• Velcro	• Tool drop prevention

Lanyard Clip	SHW26	Lanyard Clip (Velcro key ring)
2-PIECE KEEPER	10031676	Plastic keeper prevents harness web slippage for better fit

		
Product	Universal Shoulder Pad	Universal Shoulder Pads
Part No.	10028444	10077489 1 set

MSA Tool Tethers

Designed to prevent falling objects, MSA's line of tool tethers makes product selection simpler by using color differentiation to identify the weight capacity of each tether. Additionally, the durable stainless steel hardware supports increased product life to maximize your investment. All MSA Tool Tethers meet ANSI/ISEA 121-2018.

			
Product	Tool Tether with <i>Carabiner and Adjustable Loop</i>	Tool Tether with <i>Carabiner and Detach Loop</i>	Tool Tether with <i>Detachable Loops</i>
Capacity	5 lb.	5 lb.	5 lb.
Part No.	10207284	10207289	10207314
Features	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)	Polyester webbing width: .8" (20 mm) Retracted length: 9.8" (25 cm)
			
Product	Tool Tether with <i>Carabiner and Adjustable Loop</i>	Tool Tether with <i>Carabiner and Loop</i>	Tool Tether with <i>Double Carabiner</i>
Capacity	10 lb.	10 lb.	10 lb.
Part No.	10207285	10207287	10207290
Features	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)
			
Product	Tool Tether with <i>Carabiner and Adjustable Loop</i>	Tool Tether with <i>Carabiner and Detach Loop</i>	Tool Tether with <i>Detachable Loops</i>
Capacity	15 lb.	15 lb.	15 lb.
Part No.	10207286	10207288	10207313
Features	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)	Polyester webbing width: .8" (20 mm) Retracted length: 9.8" (25 cm)
			
Product	Tool Tether with <i>Wrist Band</i>	Tool Tether with <i>Double Carabiner</i>	
Capacity	2 lb.	25 lb.	
Part No.	10089207	10207311	
Features	Polyester webbing width: .8" (20 mm) Retracted length: 9.8" (25 cm)	Polyester webbing width: .8" (20 mm) Retracted length: 35.4" (90 cm) Extended length: 47.2" (120 cm)	

Connecting Devices: Energy-Absorbing Lanyards

Choosing the right lanyard can be confusing with so many options!

The **V-SERIES line of lanyards** will help simplify product selection by using large identifiable icons on the side of the energy absorber, making it easy to find the right lanyard for the right application. On top of that, a simple naming convention based on the application will keep things simple. The lanyards are also lightweight and improve comfort through a small, compact energy absorber. The additional energy absorber cover* prolongs product life, by protecting the energy absorber and labeling inside.

**Standard lanyard does not have additional energy absorber cover.*



Stretch



Tie-Back



Utility



Welding



Anti-Corrosion



Leading Edge

V-SERIES® Standard Lanyards

The V-Series shock-absorbing lanyard line simplifies product selection by offering a concise line of standard lanyards that meet a wide range of customer needs. These lightweight safety lanyards not only limit force on the body in a fall, but also on the anchor location. The shock absorbing pouch includes a clear, durable protective cover on the labels to increase service life, and allow for easy inspection.

Capacity	ANSI Z 359.13: 130 lb.–310 lb. (59–140 kg) CSA Z259.11: 150 lb.–310 lb. (68–140 kg) CSA Z259.11 Light Weight: 110 lb.–230 lb. (50–105 kg)
Web Material	Polyester
SnapHook Material	Steel
Product Weight	2.35–5.73 lb.
Standards	ANSI Z359.13, CSA Z259.11–17, OSHA



Adjustable single-leg
with small snaphook



Adjustable twin-leg
with large snaphooks



Tie-back single-leg
with small snaphook



Tie-back twin-leg
with small snaphooks

V-SERIES® Standard Lanyards										
Part No.	Snaphooks	Type						Standards		
		Single-Leg	Twin-Leg	Tie-back	Adjustable	Fixed	Length	ANSI Z359.13	CSA Z259.11-17	CSA Z259.11-17 Lightweight Worker
10191755	SM	■			■		6'	■		
10191756	SM		■		■		6'	■		
10191757	LG	■			■		6'	■		
10191758	LG		■		■		6'	■		
10193124	SM	■				■	3'	■		
10193125	SM	■				■	4'	■		
10193128	SM	■		■			6'	■		
10193129	SM		■	■			6'	■		
10188100	SM	■			■		6'		■	
10188102	SM		■		■		6'		■	
10188103	LG	■			■		6'		■	
10188101	LG		■		■		6'		■	
10190397	SM	■			■		6'			■
10190399	SM		■		■		6'			■
10190398	LG	■			■		6'			■
10190400	LG		■		■		6'			■
10193126	SM	■				■	3'		■	
10193127	SM	■				■	4'		■	
10193130	SM	■		■			6'		■	
10193151	SM		■	■			6'		■	

Part No.	Snaphook	Type	Standards	
		Energy-Absorber with D-ring	ANSI Z359.13	CSA Z259.11-17
10193154	SM	■	■	
10193155	SM	■		■

Connecting Devices: Energy-Absorbing Lanyards

12FT Freefall and Heavy Worker Energy-Absorbing Lanyards

- For use in applications where tying-off at foot level is necessary
- Capacity: 130 lb.–310 lb. (12 ft FF)—ANSI / 310 lb.–400 lb. (6 ft FF)—OSHA



12FT freefall single-leg
with small snaphook



12FT freefall single-leg
with large snaphook



12FT freefall twin-leg
with small snaphook



12FT freefall twin-leg
with large snaphook

12FT Freefall and Heavy Worker Energy-Absorbing Lanyards							
Part No.	Type		Snaphooks		Length	Standards	
	Single-Leg Web	Twin-Leg Web	36C (small)	36CL (large)		ANSI Z359.13	OSHA
10211485	■		■		6'	■	■
10211486		■	■		6'	■	■
10211487	■			■	6'	■	■
10211488		■		■	6'	■	■



V-SERIES® Stretch Lanyards

The V-Series stretch shock absorbing lanyard line simplifies product selection by offering a concise line of lanyards that meet a wide range of customer needs. Reduce snag and trip hazards, and increase worker flexibility with the stretch style of webbing. Abrasion resistant cover for the energy absorber provides additional protection for increased service life. All stretch lanyards can be easily identified by the  icon on the energy absorber's cover.



Stretch single-leg
with small snaphook



Stretch twin-leg
with small snaphook



Stretch single-leg
with large snaphook



Stretch twin-leg
with large snaphook

V-SERIES® Stretch Lanyards						
Part No.	Type		Snaphooks		Length	Standards
	Single-Leg Web	Twin-Leg Web	36C (small)	36CL (large)		ANSI Z359.13
10193748	■		■		6'	■
10193553		■	■		6'	■
10193554	■			■	6'	■
10193555		■		■	6'	■

Connecting Devices: Energy-Absorbing Lanyards



V-SERIES® Tie-Back Lanyards

Our new line of V-Series Tie-Back Lanyards simplifies product selection by offering a concise line of standard lanyards that will meet a wide range of customer needs. All new lanyards shown below also meet the latest ANSI standard for tie-back lanyards: ANSI Z359.13. The tie-back shock-absorbing lanyard uses an FP5K carabiner which can be tied directly back to the lanyard. All tie-back lanyards can be easily identified by the  icon on the energy absorber's cover.



Tie-back single-leg



Tie-back twin-leg



36C Snaphook



36CL Snaphook



FP5K Snaphook

V-SERIES® Tie-Back Lanyards								
Part No.	Harness Connection	Anchorage Connection	Type		Length	Standards		
			Single-Leg	Twin-Leg		ANSI Z359.13	CSA Z259.11	OSHA
10193560	36C	FP5K	■		6'	■		■
10193941	36C	FP5K		■	6'	■		■
10193943	36C	FP5K	■		6'		■	
10193944	36C	FP5K		■	6'		■	



V-SERIES® Utility Energy-Absorbing Lanyards

The V-SERIES Utility Lanyards have a shock absorbing cover to support increased product life by protecting labels and shock absorber. Additionally, the easy to identify arc flash symbol  on the cover helps to make product selection simple.



Web single-leg with small snaphook



Web single-leg with large snaphook

V-SERIES® Utility Energy-Absorbing Lanyards								
Part No.	Type		Snaphooks		Length	Standards		
	Single-Leg	Twin-Leg	Harness Connection	Anchorage Connection		ANSI Z359.13	OSHA	CSA Z259.11-17
10199061	■		Hitch loop	36C	6'	■	■	
10199062		■	Hitch loop	(2) 36C	6'	■	■	
10199064		■	Hitch loop	(2) 36CL	6'	■	■	
10199057	■		Hitch loop	36C	6'			■
10199058		■	Hitch loop	(2) 36C	6'			■
10199060		■	Hitch loop	(2) 36CL	6'			■
10199058		■	Hitch loop	(2) 36C	6'			■

Connecting Devices: Energy-Absorbing Lanyards

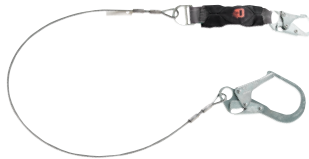


V-SERIES® Welding Energy-Absorbing Lanyards

Specially designed for high-heat applications, V-SERIES Welding Energy-Absorbing Lanyards feature a kevlar/nomex cover to support increased product life by protecting labels and energy absorber. Additionally, the easy to identify high-heat symbol  on the cover helps make product selection simple.



*Cable single-leg
with small snaphook*



*Cable single-leg
with large snaphook*



*Cable twin-leg
with small snaphooks*



*Web single-leg
with small snaphook*



*Web single-leg
with large snaphook*



*Web twin-leg
with small snaphooks*

V-SERIES® Welding Energy-Absorbing Lanyards										
Part No.	Type				Snaphooks		Length	Standards		
	Single-Leg Cable	Twin-Leg Cable	Single-Leg Web	Twin-Leg Web	Harness Connection	Anchorage Connection		ANSI Z359.13	OSHA	CSA Z 259.11-17
10199011	■				36C	36C	6'	■	■	
10199016	■				36C	36CL	6'	■	■	
10199013		■			36C	(2) 36C	6'	■	■	
10199053			■		36C	36C	6'	■	■	
10199055			■		36C	36CL	6'	■	■	
10199056				■	36C	(2) 36CL	6'	■	■	
10199012			■		36C	36C	6'			■
10199052				■	36C	(2) 36CL	6'			■

Connecting Devices: Energy-Absorbing Lanyards



V-SERIES® Anti-Corrosion Lanyards

The V-SERIES line of anti-corrosion safety lanyards uses a special urethane coating to resist stains, and wear and tear that are common when working in tough and dirty environments. The easy to identify anti-corrosion symbol  on the shock absorbing lanyard cover helps to make product selection simple.



Anti-corrosion single-leg w/small snaphook



Anti-corrosion single-leg w/large snaphook



Anti-corrosion twin-leg w/small snaphook



Anti-corrosion twin-leg w/large snaphook

V-SERIES® Anti-Corrosion Lanyards							
Part No.	Snaphooks	Snaphook Material	Type		Length	Standards	
			Single-Leg	Twin-Leg		ANSI Z359.3-2017	CSA Z259.11-17
10206832	SM	Steel	■		6'	■	
10206833	LG	Steel	■		6'	■	
10206834	SM	Stainless Steel	■		6'	■	
10206835	SM	Steel	■		6'		■
10206836	LG	Steel	■		6'		■
10206837	SM	Stainless Steel	■		6'		■
10207240	SM	Steel		■	6'	■	
10207251	LG	Steel		■	6'	■	
10207252	SM	Stainless Steel		■	6'	■	
10207253	SM	Steel		■	6'		■
10207254	LG	Steel		■	6'		■
10207255	SM	Stainless Steel		■	6'		■



V-SERIES® Leading Edge Safety Lanyards

The V-SERIES line of leading edge safety lanyards has been tested over a .005" radius steel edge—providing a shock-absorbing lanyard option for leading edge work. The easy to identify Leading Edge symbol  on the shock absorbing cover helps to make identifying lanyard type and application easier. Additionally, the swiveling snaphooks keep your lanyard lifeline from twisting as you work, so you can spend less time adjusting your PPE and more time focused on the job.



Anti-corrosion single-leg w/small snaphook



Anti-corrosion single-leg w/large snaphook



Anti-corrosion twin-leg w/small snaphook



Anti-corrosion twin-leg w/large snaphook

V-SERIES® Anti-Corrosion Lanyards						
Part No.	Snaphooks	Snaphook Material	Type		Standards	
			Single-Leg	Twin-Leg	ANSI Z359.3-2017	OSHA
10213785	LG Swivel	Aluminum	■		■	■
10213786	LG Swivel	Aluminum		■	■	■
10213787	SM	Aluminum	■		■	■
10213788	SM	Aluminum		■	■	■
10220700	SM Swivel	Steel	■		■	■
10220701	SM Swivel	Steel		■	■	■

V-SERIES® Restraint Lanyards

Restraint lanyards are primarily used for travel restriction (to restrain a worker from reaching a fall hazard) and work positioning (stabilizing a worker at an elevated location) applications. The V-SERIES line of restraint lanyards offers lengths ranging from 3-10 feet for a variety of applications. Restraint lanyards come in both fixed length and adjustable options.



Cable fixed length
with 36C snaphooks



Standard tieback
with FP5K snaphook



Standard adjustable length
with 36C snaphooks



Standard adjustable length
with 36L snaphook

V-SERIES® Restraint Lanyards										
Part No.	Type							Length	Standards	
	Standard	Cable	Welding	Tieback	Fixed	Adjustable	Hardware		ANSI Z359.13	OSHA
10199017		■			■		36C/36C	3'	■	■
10199018		■			■		36C/36C	5'	■	■
10199019		■			■		36C/36C	6'	■	■
10201353		■	■		■		36C/36C	6'	■	■
10201452				■		■	36C/FP5K	6'	■	■
10201453	■					■	36C/36C	10'	■	■
10201454	■					■	36C/36C	3'	■	■
10201455	■					■	36C/36CL	6'	■	■
10201456	■					■	36C/36C	6'	■	■
10201457	■					■	36C/36CL	8'	■	■

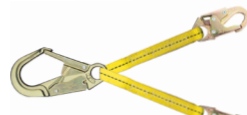
Work Positioning Assemblies



Rebar chain assembly



Rebar web assembly



Rebar web assembly



Sure-Grab Positioning Lanyard
(right-hand version)

Rebar Assemblies				
Part No.	Description	Standards		
		ANSI Z359.13	CSA Z259.11	OSHA
10108720	Rebar chain assembly, straight link, 36CS swivel snaphooks	■		■
10107326	Rebar chain assembly, 36CL snaphook with 2.5" (57mm) gate			■
10129553	Rebar web assembly, 18" legs, with sliding large snaphook			■
10203184	Rebar web assembly, 13" legs, with sliding large snaphook		■	■

Sure-Grab™ Positioning Lanyard

Connects to the user's harness or belt for travel restriction or work positioning applications. Features fast and easy length adjustment.

Sure-Grab™ Positioning Lanyard		
Part No.	Description	Standards
		OSHA
SNYR537DH306	Sure-Grab positioning lanyard, manual, closed body, c/w 5/8" x 6' blue, chrome locking swivel snaphook, right-handed version	■
SNYL537DH306	Sure-Grab positioning lanyard, manual, closed body, c/w 5/8" x 6' blue, chrome locking swivel snaphook, left-handed version	■

Connecting Devices: Self-Retracting Devices

V-TEC® Personal Fall Limiters (PFLs)

- Compact and lightweight
- Fall arrest and restraint for users up to 400 lb. (181 kg) including tools. Note that both ANSI and CSA allow 130–310 lb. (60–140 kg). For OSHA, we have tested and allow 100–400 lb. (45–180 kg).
- Highly durable polycarbonate clear casing allows for easy visual inspection of critical internal components
- Withstands temperatures ranging from -40° to +130°F (-40° to +54°C)
- Tested to these relevant standards: ANSI Z359.14-2021 Class 1; OSHA 1910.140; OSHA 1926.502
- **Assured safety:** optimized design utilizing durable lightweight materials to improve weight and comfort
- **Full range of motion:** fully rotating attachment point for complete flexibility—both 360° and 180°
- **Superior materials:** components manufactured from high-grade stainless steel and engineered plastics
- **Clear housing:** polycarbonate case houses SRL; transparency allows for easy visual inspection of critical internal components



Single-leg, Web



Twin-leg, Web



Single-leg tie-back, Web



Twin-leg tie-back, Web



Single-leg, Cable

AVAILABLE CONNECTORS

V-TEC PFL offers an aluminum top carabiner and a variety of available connectors.

Connectors								
AL36CL	AL36CLS	36C	ALTAKS Aluminum Triple Action Carabiner, Non-Indicator Swivel	ALTAK Aluminum Triple Action Carabiner	36CS Non-Indicator Swivel	36CL	FP5K Tie-back only	TLALTAK Twin-Link Aluminum Triple Action Carabiner

Connecting Devices: Self-Retracting Devices



V-TEC® Personal Fall Limiters (PFLs)

Part No.	Type			Line Length	Line Type		Anchorage Connection	Harness Connection	Standards		
	Single-leg	Twin-leg	Tie-back		Web	Cable			OSHA	ANSI	CSA
VTOHW-011-DA-A	■			6 ft. (1.8 m)	■		AL36CL	ALTAK	■	■	
VTOHW-011-DB-A	■			6 ft. (1.8 m)	■		36C	ALTAK	■	■	
VTOHW-011-DC-A	■			6 ft. (1.8 m)	■		ALTAKS	ALTAK	■	■	
VTOHW-011-DD-A	■			6 ft. (1.8 m)	■		ALTAK	ALTAK	■	■	
VTOHW-011-DE-A	■			6 ft. (1.8 m)	■		36CS	ALTAK	■	■	
VTOHW-011-DF-A	■			6 ft. (1.8 m)	■		36CL	ALTAK	■	■	
VTOHW-011-ZA-A	■			6 ft. (1.8 m)	■		AL36CL	None	■	■	
VTOHW-011-ZB-A	■			6 ft. (1.8 m)	■		36C	None	■	■	
VTOHW-011-ZC-A	■			6 ft. (1.8 m)	■		ALTAKS	None	■	■	
VTOHW-011-ZD-A	■			6 ft. (1.8 m)	■		ALTAK	None	■	■	
VTOHW-011-ZE-A	■			6 ft. (1.8 m)	■		36CS	None	■	■	
VTOHW-011-ZF-A	■			6 ft. (1.8 m)	■		36CL	None	■	■	
VTOHW-012-RA-A		■		6 ft. (1.8 m)	■		AL36CL	TLALTAK	■	■	
VTOHW-012-RB-A		■		6 ft. (1.8 m)	■		36C	TLALTAK	■	■	
VTOHW-012-RC-A		■		6 ft. (1.8 m)	■		ALTAKS	TLALTAK	■	■	
VTOHW-012-RD-A		■		6 ft. (1.8 m)	■		ALTAK	TLALTAK	■	■	
VTOHW-012-RE-A		■		6 ft. (1.8 m)	■		36CS	TLALTAK	■	■	
VTOHW-012-RF-A		■		6 ft. (1.8 m)	■		36CL	TLALTAK	■	■	
VTOHW-011-DJ-O-TB	■		■	6 ft. (1.8 m)	■		FP5K	ALTAK	■	■	
VTOHW-012-RJ-O-TB		■	■	6 ft. (1.8 m)	■		FP5K	TLALTAK	■	■	
VTOHG-031-DE-A	■			10 ft. (3 m)		■	36CS	ALTAK	■	■	
VTOHG-031-DM-A	■			10 ft. (3 m)		■	36CLS	ALTAK	■	■	
VTOHG-031-DC-A	■			10 ft. (3 m)		■	ALTAKS	ALTAK	■	■	
VTOHG-031-ZC-A	■			10 ft. (3 m)		■	ALTAKS	None	■	■	
VTOHG-031-ZE-A	■			10 ft. (3 m)		■	36CS	None	■	■	
VTOHG-031-ZM-A	■			10 ft. (3 m)		■	36CLS	None	■	■	
VTOHG-031-DE-C	■			10 ft. (3 m)		■	36CS	ALTAK			■
VTOHG-031-DM-C	■			10 ft. (3 m)		■	36CLS	ALTAK			■
VTOHG-031-DC-C	■			10 ft. (3 m)		■	ALTAKS	ALTAK			■
VTOHG-031-ZC-C	■			10 ft. (3 m)		■	ALTAKS	None			■
VTOHG-031-ZE-C	■			10 ft. (3 m)		■	36CS	None			■
VTOHG-031-ZM-C	■			10 ft. (3 m)		■	36CLS	None			■

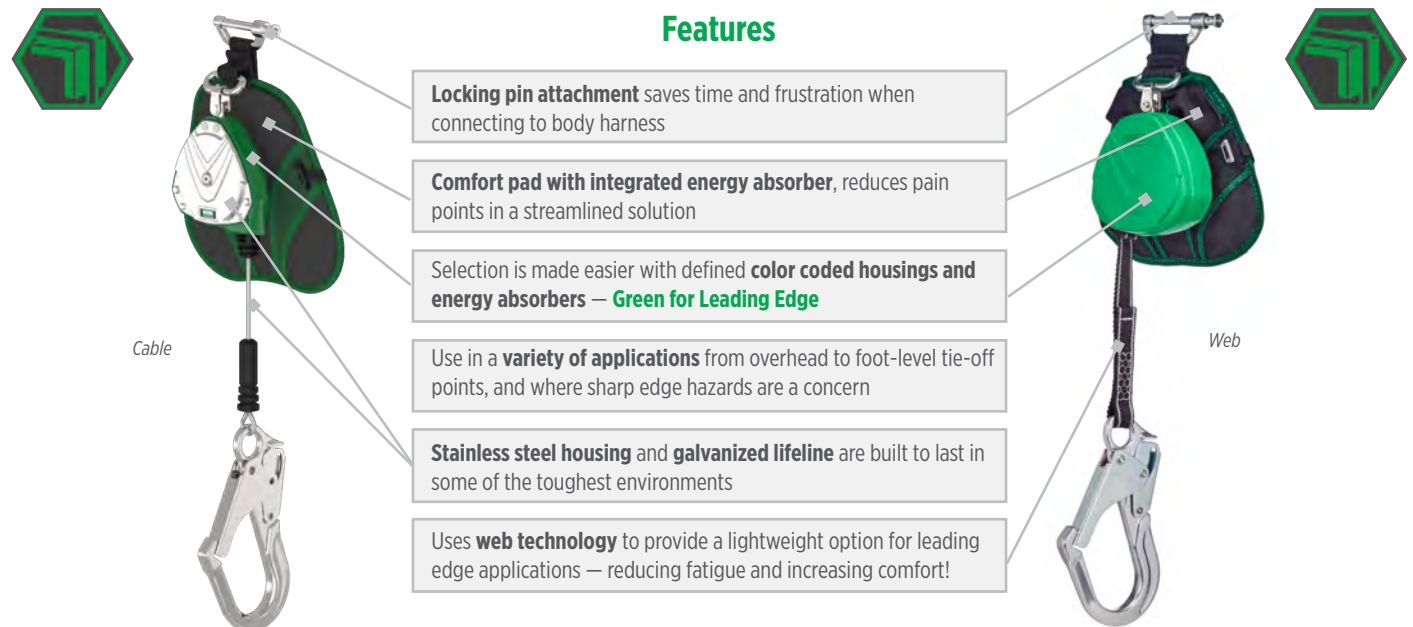
V-TEC Twin-Link Connector

Part No.	Description
63900-04	Twin-Link Connector for V-TEC PFL

Connecting Devices: Self-Retracting Devices

V-TEC EDGE® Personal Fall Limiters (PFLs)

Simplify product selection and **reduce worker fatigue** with this lightweight personal fall limiter for leading edge. The V-TEC EDGE Personal Fall Limiter is engineered for use in overhead and foot-level tie off points, and where leading edge hazards are a concern.



V-TEC EDGE Cable PFLs									
Part No.	Type		Line Length	Line Type	Anchorage Connection	Harness Connection	Standards		
	Single-leg	Twin-leg					ANSI	OSHA	CSA
VTLEG-021-PB-A	■		8 ft. (2.4 m)	Cable	36C snaphook	Locking Pin	■	■	
VTLEG-022-PB-A		■	8 ft. (2.4 m)	Cable	36C snaphooks	Locking Pin	■	■	
VTLEG-021-PF-A	■		8 ft. (2.4 m)	Cable	36CL snaphook	Locking Pin	■	■	
VTLEG-022-PF-A		■	8 ft. (2.4 m)	Cable	36CL snaphooks	Locking Pin	■	■	
VTLEG-021-PE-A	■		8 ft. (2.4 m)	Cable	36CS snaphook	Locking Pin	■	■	
VTLEG-022-PE-A		■	8 ft. (2.4 m)	Cable	36CS snaphooks	Locking Pin	■	■	
VTLEG-021-PA-A	■		8 ft. (2.4 m)	Cable	AL36CL snaphook	Locking Pin	■	■	
VTLEG-022-PA-A		■	8 ft. (2.4 m)	Cable	AL36CL snaphooks	Locking Pin	■	■	
VTLEG-021-PC-A	■		8 ft. (2.4 m)	Cable	aluminum triple action carabiner	Locking Pin	■	■	
VTLEG-022-PC-A		■	8 ft. (2.4 m)	Cable	aluminum triple action carabiner	Locking Pin	■	■	
VTLEG-021-PM-A	■		8 ft. (2.4 m)	Cable	36CLS snaphook	Locking Pin	■	■	
VTLEG-022-PM-A		■	8 ft. (2.4 m)	Cable	36CLS snaphooks	Locking Pin	■	■	
VTLEG-021-PB-C	■		8 ft. (2.4 m)	Cable	36C snaphook	Locking Pin			■
VTLEG-022-PB-C		■	8 ft. (2.4 m)	Cable	36C snaphooks	Locking Pin			■
VTLEG-021-PM-C	■		8 ft. (2.4 m)	Cable	36CLS snaphook	Locking Pin			■
VTLEG-022-PM-C		■	8 ft. (2.4 m)	Cable	36CLS snaphooks	Locking Pin			■
VTLEG-021-PE-C	■		8 ft. (2.4 m)	Cable	36CS snaphook	Locking Pin			■
VTLEG-022-PE-C		■	8 ft. (2.4 m)	Cable	36CS snaphooks	Locking Pin			■
VTLEG-021-PA-C	■		8 ft. (2.4 m)	Cable	AL36CL snaphook	Locking Pin			■
VTLEG-022-PA-C		■	8 ft. (2.4 m)	Cable	AL36CL snaphooks	Locking Pin			■
VTLEG-021-PC-C	■		8 ft. (2.4 m)	Cable	aluminum triple action carabiner	Locking Pin			■
VTLEG-022-PC-C		■	8 ft. (2.4 m)	Cable	aluminum triple action carabiner	Locking Pin			■

Connecting Devices: Self-Retracting Devices



V-TEC EDGE Web PFLs

Part No.	Type		Line Length	Line Type	Anchorage Connection	Harness Connection	Standards		
	Single-leg	Twin-leg					ANSI	OSHA	CSA
VTLEW-021-PB-A	■		8 ft. (2.4 m)	Web	36C snaphook	Locking Pin	■	■	
VTLEW-022-PB-A		■	8 ft. (2.4 m)	Web	36C snaphooks	Locking Pin	■	■	
VTLEW-021-PF-A	■		8 ft. (2.4 m)	Web	36CL snaphook	Locking Pin	■	■	
VTLEW-022-PF-A		■	8 ft. (2.4 m)	Web	36CL snaphooks	Locking Pin	■	■	
VTLEW-021-PE-A	■		8 ft. (2.4 m)	Web	36CS snaphook	Locking Pin	■	■	
VTLEW-022-PE-A		■	8 ft. (2.4 m)	Web	36CS snaphooks	Locking Pin	■	■	
VTLEW-021-PA-A	■		8 ft. (2.4 m)	Web	AL36CL snaphook	Locking Pin	■	■	
VTLEW-022-PA-A		■	8 ft. (2.4 m)	Web	AL36CL snaphooks	Locking Pin	■	■	
VTLEW-021-PC-A	■		8 ft. (2.4 m)	Web	aluminum triple action carabiner	Locking Pin	■	■	
VTLEW-022-PC-A		■	8 ft. (2.4 m)	Web	aluminum triple action carabiner	Locking Pin	■	■	
VTLEW-021-PJ-A	■		8 ft. (2.4 m)	Web	FP5K	Locking Pin	■	■	
VTLEW-022-PJ-A		■	8 ft. (2.4 m)	Web	FP5K	Locking Pin	■	■	
VTLEW-021-PM-A	■		8 ft. (2.4 m)	Web	36CLS snaphook	Locking Pin	■	■	
VTLEW-022-PM-A		■	8 ft. (2.4 m)	Web	36CLS snaphooks	Locking Pin	■	■	
VTLEW-021-PS-A	■		8 ft. (2.4 m)	Web	coated snaphook	Locking Pin	■	■	
VTLEW-022-PS-A		■	8 ft. (2.4 m)	Web	coated snaphook	Locking Pin	■	■	
VTLEW-021-PB-C	■		8 ft. (2.4 m)	Web	36C snaphook	Locking Pin			■
VTLEW-022-PB-C		■	8 ft. (2.4 m)	Web	36C snaphooks	Locking Pin			■
VTLEW-021-PF-C	■		8 ft. (2.4 m)	Web	36CL snaphook	Locking Pin			■
VTLEW-022-PF-C		■	8 ft. (2.4 m)	Web	36CL snaphooks	Locking Pin			■
VTLEW-021-PE-C	■		8 ft. (2.4 m)	Web	36CS snaphook	Locking Pin			■
VTLEW-022-PE-C		■	8 ft. (2.4 m)	Web	36CS snaphooks	Locking Pin			■
VTLEW-021-PA-C	■		8 ft. (2.4 m)	Web	AL36CL snaphook	Locking Pin			■
VTLEW-022-PA-C		■	8 ft. (2.4 m)	Web	AL36CL snaphooks	Locking Pin			■
VTLEW-021-PC-C	■		8 ft. (2.4 m)	Web	aluminum triple action carabiner	Locking Pin			■
VTLEW-022-PC-C		■	8 ft. (2.4 m)	Web	aluminum triple action carabiner	Locking Pin			■
VTLEW-021-PM-C	■		8 ft. (2.4 m)	Web	36CLS snaphook	Locking Pin			■
VTLEW-022-PM-C		■	8 ft. (2.4 m)	Web	36CLS snaphooks	Locking Pin			■

Connecting Devices: Self-Retracting Devices

V-SHOCK Leading Edge PFL



Color Coding & Iconography

Make product selection quick and easy



Green Housing
(Leading Edge)



Gray Housing
(Non-Leading Edge)



Leading Edge Icon



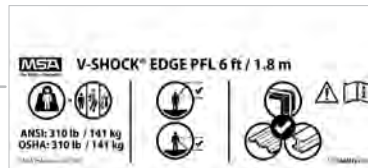
Non-Leading
Edge Icon

V-SHOCK Non-Leading Edge PFL



Dashboard Labels

Deliver critical information at a glance



Leading Edge Label



Non-Leading Edge Label

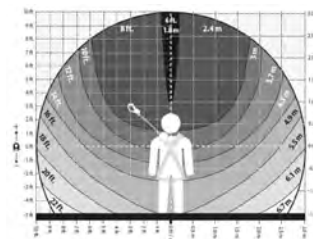
Clearance Charts

Designed for ease of understanding

Leading Edge Clearance Chart



Non-Leading Edge Clearance Chart



Connecting Devices: Self-Retracting Devices

V-SHOCK® Non-Leading Edge PFLs



Single-leg



Twin-leg



Single-leg Tie-back



Twin-leg Tie-back



V-SHOCK 6 ft. (1.8 m) Non-Leading Edge Web PFL — ANSI

Part Number	Type	Single/Twin	Snaphook
VSOHW-011-NB-A	V-SHOCK	Single	36C
VSOHW-011-NE-A	V-SHOCK	Single	36CS
VSOHW-011-NF-A	V-SHOCK	Single	36CL
VSOHW-011-NG-A	V-SHOCK	Single	AL36C
VSOHW-011-NA-A	V-SHOCK	Single	AL36CL
VSOHW-011-NH-A	V-SHOCK	Single	AL36CLS
VSOHW-011-NC-A	V-SHOCK	Single	ALTAKS
VSOHW-011-NJ-O-TB	V-SHOCK Tie-Back	Single	FP5K
VSOHW-012-QB-A	V-SHOCK	Twin	36C
VSOHW-012-QE-A	V-SHOCK	Twin	36CS
VSOHW-012-QF-A	V-SHOCK	Twin	36CL
VSOHW-012-QA-A	V-SHOCK	Twin	AL36CL
VSOHW-012-QH-A	V-SHOCK	Twin	AL36CLS
VSOHW-012-QC-A	V-SHOCK	Twin	ALTAKS
VSOHW-012-QJ-O-TB	V-SHOCK Tie-Back	Twin	FP5K



V-SHOCK 10 ft. (3 m) Non-Leading Edge Web PFL — ANSI

Part Number	Type	Single/Twin	Snaphook
VSOHW-031-NB-A	V-SHOCK	Single	36C
VSOHW-031-NE-A	V-SHOCK	Single	36CS
VSOHW-031-NF-A	V-SHOCK	Single	36CL
VSOHW-031-NG-A	V-SHOCK	Single	AL36C
VSOHW-031-NA-A	V-SHOCK	Single	AL36CL
VSOHW-031-NC-A	V-SHOCK	Single	ALTAKS
VSOHW-031-NJ-O-TB	V-SHOCK Tie-Back	Single	FP5K
VSOHW-032-QE-A	V-SHOCK	Twin	36CS
VSOHW-032-QF-A	V-SHOCK	Twin	36CL
VSOHW-032-QA-A	V-SHOCK	Twin	AL36CL
VSOHW-032-QH-A	V-SHOCK	Twin	AL36CLS
VSOHW-032-QJ-O-TB	V-SHOCK Tie-Back	Twin	FP5K



V-SHOCK 6 ft. (1.8 m) Non-Leading Edge Web PFL — CSA

Part Number	Type	Single/Twin	Snaphook
VSOHW-011-NA-C	V-SHOCK	Single	AL36CL-C
VSOHW-011-NB-C	V-SHOCK	Single	36C-C
VSOHW-011-NC-C	V-SHOCK	Single	ALTAKS-C
VSOHW-011-NE-C	V-SHOCK	Single	36CS-C
VSOHW-011-NH-C	V-SHOCK	Single	AL36CLS-C
VSOHW-011-NM-C	V-SHOCK	Single	36CLS-C
VSOHW-012-QA-C	V-SHOCK	Twin	AL36CL-C
VSOHW-012-QB-C	V-SHOCK	Twin	36C-C
VSOHW-012-QC-C	V-SHOCK	Twin	ALTAKS-C
VSOHW-012-QE-C	V-SHOCK	Twin	36CS-C
VSOHW-012-QH-C	V-SHOCK	Twin	AL36CLS-C
VSOHW-012-QM-C	V-SHOCK	Twin	36CLS-C



V-SHOCK 8 ft. (2.5 m) Non-Leading Edge Web PFL — CSA

Part Number	Type	Single/Twin	Snaphook
VSOHW-021-NA-C	V-SHOCK	Single	AL36CL-C
VSOHW-021-NB-C	V-SHOCK	Single	36C-C
VSOHW-021-NC-C	V-SHOCK	Single	ALTAKS-C
VSOHW-021-NE-C	V-SHOCK	Single	36CS-C
VSOHW-021-NG-C	V-SHOCK	Single	AL36C-C
VSOHW-021-NM-C	V-SHOCK	Single	36CLS-C
VSOHW-022-QA-C	V-SHOCK	Twin	AL36CL-C
VSOHW-022-QE-C	V-SHOCK	Twin	36CS-C
VSOHW-022-QH-C	V-SHOCK	Twin	AL36CLS-C
VSOHW-022-QM-C	V-SHOCK	Twin	36CLS-C

Connecting Devices: Self-Retracting Devices

V-SHOCK® Edge Leading Edge PFLs



Single-leg



Twin-leg



Single-leg Tie-back



Twin-leg Tie-back



V-SHOCK Edge 6 ft. (1.8 m) Leading Edge Web PFL — ANSI

Part Number	Type	Single/Twin	Snaphook
VSLEW-011-PB-A	V-SHOCK Edge	Single	36C
VSLEW-011-PE-A	V-SHOCK Edge	Single	36CS
VSLEW-011-PF-A	V-SHOCK Edge	Single	36CL
VSLEW-011-PA-A	V-SHOCK Edge	Single	AL36CL
VSLEW-011-PJ-A-TB	V-SHOCK Edge Tie-Back Edge	Single	FP5K
VSLEW-012-PB-A	V-SHOCK Edge	Twin	36C
VSLEW-012-PE-A	V-SHOCK Edge	Twin	36CS
VSLEW-012-PF-A	V-SHOCK Edge	Twin	36CL
VSLEW-012-PA-A	V-SHOCK Edge	Twin	AL36CL
VSLEW-012-PH-A	V-SHOCK Edge	Twin	AL36CLS
VSLEW-012-PC-A	V-SHOCK Edge	Twin	ALTAKS
VSLEW-012-PJ-A-TB	V-SHOCK Edge Tie-Back Edge	Twin	FP5K



V-SHOCK Edge 6 ft. (1.8 m) Leading Edge Web PFL — CSA

Part Number	Type	Single/Twin	Snaphook
VSLEW-011-PM-C	V-SHOCK Edge	Single	36CLS-C
VSLEW-011-PE-C	V-SHOCK Edge	Single	36CS-C
VSLEW-011-PA-C	V-SHOCK Edge	Single	AL36CL-C
VSLEW-012-PM-C	V-SHOCK Edge	Twin	36CLS-C
VSLEW-012-PE-C	V-SHOCK Edge	Twin	36CS-C
VSLEW-012-PA-C	V-SHOCK Edge	Twin	AL36CL-C
VSLEW-012-PH-C	V-SHOCK Edge	Twin	AL36CLS-C
VSLEW-012-PC-C	V-SHOCK Edge	Twin	ALTAKS-C



V-SHOCK Edge 8 ft. (2.5 m) Leading Edge Web PFL — CSA

Part Number	Type	Single/Twin	Snaphook
VSLEW-021-PA-C	V-SHOCK Edge	Single	AL36CL-C
VSLEW-021-PE-C	V-SHOCK Edge	Single	36CS-C
VSLEW-021-PM-C	V-SHOCK Edge	Single	36CLS-C
VSLEW-022-PE-C	V-SHOCK Edge	Twin	36CS-C
VSLEW-022-PA-C	V-SHOCK Edge	Twin	AL36CL-C
VSLEW-022-PH-C	V-SHOCK Edge	Twin	AL36CLS-C
VSLEW-022-PM-C	V-SHOCK Edge	Twin	36CLS-C



V-SHOCK Edge 10 ft. (3 m) Leading Edge Web PFL — ANSI

Part Number	Type	Single/Twin	Snaphook
VSLEW-031-PB-A	V-SHOCK Edge	Single	36C
VSLEW-031-PE-A	V-SHOCK Edge	Single	36CS
VSLEW-031-PF-A	V-SHOCK Edge	Single	36CL
VSLEW-031-PA-A	V-SHOCK Edge	Single	AL36CL
VSLEW-031-PJ-A-TB	V-SHOCK Edge Tie-Back Edge	Single	FP5K
VSLEW-032-PB-A	V-SHOCK Edge	Twin	36C
VSLEW-032-PE-A	V-SHOCK Edge	Twin	36CS
VSLEW-032-PF-A	V-SHOCK Edge	Twin	36CL
VSLEW-032-PA-A	V-SHOCK Edge	Twin	AL36CL
VSLEW-032-PH-A	V-SHOCK Edge	Twin	AL36CLS
VSLEW-032-PJ-A-TB	V-SHOCK Edge Tie-Back Edge	Twin	FP5K

Connecting Devices: Self-Retracting Devices

V-SHOCK® EDGE Leading Edge SRLs



V-SHOCK Edge Leading Edge Galvanized Steel Cable SRL — ANSI

Part Number	Type	Length	Snaphook
VSLEG-061-NE-A	V-SHOCK Edge	20 ft. (6 m)	36CS
VSLEG-101-NE-A	V-SHOCK Edge	30 ft. (10 m)	36CS
VSLEG-151-NE-A	V-SHOCK Edge	50 ft. (15 m)	36CS



V-SHOCK Edge Leading Edge Galvanized Steel Cable SRL — CSA

Part Number	Type	Length	Snaphook
VSLEG-061-NE-C	V-SHOCK Edge	20 ft. (6 m)	36CS-C
VSLEG-101-NE-C	V-SHOCK Edge	30 ft. (10 m)	36CS-C
VSLEG-151-NE-C	V-SHOCK Edge	50 ft. (15 m)	36CS-C

Snap Hooks & Top Connectors

Snaphooks	
	
36C	36CS
	
36CL	AL36C
	
AL36CL	AL36CLS
	
ALTAKS	FP5K
Top Connectors	
	
Carabiner	Twin Link Clip
	
Locking Pin Connector	

Performance Specifications

Standards & Capacity*	
ANSI Z359.14-2021	130-310 lb. (60-141 kg)
OSHA 1926.502	100-400 lb. (45-181 kg)
CSA Z259.2.2-17	130-310 lb. (60-141 kg)
MAXIMUM Arrest Forces**	
Peak	1,029 lb. (470 kg)
Average	800 lb. (366 kg)

* Both Non-Leading Edge and Lead Edge PFLs should only be utilized for overhead applications for weights between 310 lb. (141 kg) and 400 lb. (181 kg).

** For more information please refer to the Fall Clearance Charts included with your product.

Connecting Devices: Self-Retracting Devices

V-TEC® Self-Retracting Lanyards (SRLs)

With premium components and innovative engineering, the V-TEC SRL offers controlled cable retraction—preventing excessive lifeline retraction speed and protecting internal parts from damage.

- Clear outer casing for easy inspection
- Carry handle included
- Spring radial energy-absorbing technology requires zero calibration or adjustment
- Stainless steel/engineered plastics
- Retraction dampening features controls the cable speed to <3m/s
- Completely field serviceable



Part No.	Type		Length	Standards	
	Galvanized Cable	Stainless Steel Cable		ANSI	CSA
63206-00A	■		20 ft. (6 m)	■	
63306-00A		■	20 ft. (6 m)	■	
63206-00ACA	■		20 ft. (6 m)		■
63306-00ACA		■	20 ft. (6 m)		■
63210-00A	■		30 ft. (10 m)	■	
63310-00A		■	30 ft. (10 m)	■	
63310-00ACA		■	30 ft. (10 m)		■
63215-00A	■		50 ft. (15 m)	■	
63315-00A		■	50 ft. (15 m)	■	
63315-00ACA		■	50 ft. (15 m)		■
63330-00A	■		100 ft. (30 m)	■	
63230-00A		■	100 ft. (30 m)	■	
63330-00ACA	■		100 ft. (30 m)		■
63230-00ACA		■	100 ft. (30 m)		■

V-EDGE® Leading Edge Self-Retracting Lanyards (SRLs)

Specifically engineered and tested for use at foot-level tie-off, the V-EDGE SRL meets ANSI Z359.14-2014 Leading Edge requirements.

- *Simplified selection*—the V-EDGE PFL can be used in a variety of applications where sharp edge hazards are a concern.
- *Get to work faster*—Clear outer casing allows for quick visual inspection of internal components
- *Lower cost of ownership*—Integrated roll cage protects housing when used in foot-level tie off. Retraction dampening feature controls the life line speed, preventing unwanted damage and maximizing product life.
- *Reduce downtime*—Internal components like the cable and energy absorber can be replaced on site, reducing repair times.



Part No.	Line Length	Line Type	Anchorage Connection	Harness Connection	Standards		
					OSHA	ANSI	CSA
63406-00A	20 ft. (6 m)	Galvanized Cable	36CS Snaphook	Locking Pin	■	■	
63410-00A	30 ft. (10 m)	Galvanized Cable	36CS Snaphook	Locking Pin	■	■	
63415-00A	50 ft. (15 m)	Galvanized Cable	36CS Snaphook	Locking Pin	■	■	
63406-00ACA	20 ft. (6 m)	Galvanized Cable	36CS Snaphook	Locking Pin			■
63410-00ACA	30 ft. (10 m)	Galvanized Cable	36CS Snaphook	Locking Pin			■
63415-00ACA	50 ft. (15 m)	Galvanized Cable	36CS Snaphook	Locking Pin			■

Connecting Devices: Self-Retracting Devices

V-TEC® Arc Flash Personal Fall Limiters (PFLs)

- Optimized design utilizing lightweight materials to improve weight and comfort
- Selection is made easier with defined color coded housings and icons—Gray for overhead use only
- Additionally, labels use clear iconography to help deliver critical SRL information in a clear and easy to understand format
- Clearance charts have been designed to communicate fall clearance requirements in an intuitive format
- High-impact polycarbonate housing
- Clear housing for ease of inspection
- User capacity up to 310 lb. (ANSI), 400 lb. (OSHA)¹

¹ Please refer to clearance charts to determine proper connection point height.

² The V-TEC Arc Flash PFL has undergone arc exposure as stated within ASTM F887, where the PFL was exposed to an electrical arc of 40 cal/cm² and it did not exhibit any signs of melting, dripping, or ignition of any system component during or after testing. Following exposure, the V-TEC Arc Flash PFL was successfully tested to the appropriate industry standard ensuring reliability in the event of a fall.

Standards

- ANSI Z359.14-21,
- OSHA 29 CFR Part 1910.140 & 1926.502
- CSA Z259.2.2-17
- Tested in accordance with ASTM F887 arc exposure requirements²



Single-leg, web
with AL36CL snaphook



Twin-leg, web
with aluminum triple action
carabiner

Part No.	Description
VTOHW-021-DA-AF	V-TEC Overhead Web Arc Flash PFL, 6.5 ft. (2 m), single leg , aluminum triple action swivel carabiner, AL36CL large aluminum snaphook, ANSI Z359.14-21, OSHA
VTOHW-021-DD-AF	V-TEC Overhead Web Arc Flash PFL, 6.5 ft. (2 m), single leg , aluminum triple action swivel carabiner, aluminum triple action carabiner (top), ANSI Z359.14-21, OSHA
VTOHW-022-RA-AF	V-TEC Overhead Web Arc Flash PFL, 6.5 ft. (2 m), twin leg , aluminum triple action swivel carabiner, AL36CL large aluminum snaphook, ANSI Z359.14-21, OSHA
VTOHW-022-RD-AF	V-TEC Overhead Web Arc Flash PFL, 6.5 ft. (2 m), twin leg , aluminum triple action swivel carabiner, aluminum triple action carabiner (top), ANSI Z359.14-21, OSHA
VTOHW-021-DA-CF	V-TEC Overhead Web Arc Flash PFL, 6.5 ft. (2 m), single leg , aluminum triple action swivel carabiner, AL36CL large aluminum snaphook, CSA Z259.2.2-17
VTOHW-021-DD-CF	V-TEC Overhead Web Arc Flash PFL, 6.5 ft. (2 m), single leg , aluminum triple action swivel carabiner, aluminum triple action carabiner (top), CSA Z259.2.2-17
VTOHW-022-RD-CF	V-TEC Overhead Web Arc Flash PFL, 6.5 ft. (2 m), twin leg , aluminum triple action swivel carabiner, aluminum triple action carabiner (top), CSA Z259.2.2-17

V-TEC® io1

The MSA V-TEC io1 is a Fall Protection product specifically designed for lift work in warehouses and fulfillment centers. Its smart features help to improve worker safety and compliance when working at heights.

1. Real Time Compliance

The V-TEC io1's seat-belt alarm style system helps to improve safety compliance rates by continuing to sound, until workers are connected in the lift. It beeps upon waking up every time reminding workers to connect their PPE right away. Additionally, the flashing red lights engage multiple senses so that the user is made aware of their connection status.

2. Improved Efficiency

By reminding workers to connect to their lift, the V-TEC io1 helps to reduce turnover rates and training costs that may result from a lack of compliance and also allowing Safety Managers to focus on other tasks.



with 36CSN snaphook

Part No.	Description
10213902	V-TEC io1 PFL, 6 ft., 36CSN snaphook
10216248	V-TEC io1 PFL, 10 ft., 36CSN snaphook

Each V-TEC io1 comes with charging kit, and 1 RFID holder assembly for harness.

V-FORM/V-FORM+ Harnesses, and additional RFID holder assemblies must be ordered separately.

Part No.	Description
Replacement Parts	
10216578	RFID Holder Assembly, Spare Parts, 5
10216579	RFID Holder Assembly, Spare Parts, 50
10216580	Charging Kit, Replacement, V-TEC io1
10216611	Battery Pack, Portable, Replacement, io1

Part No.	Description
Replacement Parts	
10216612	Cable, USB, Right Angle Replacement, io1
10216613	Converter, Power, Replacement, io1
10216614	Cable, USB C to USB A, Replacement, io1

Connecting Devices: Self-Retracting Devices

Latchways® Sealed Self-Retracting Lanyards (SRL)

Latchways Sealed SRLs are specifically designed for use within harsh environments such as oil rigs, offshore wind farms and other offshore applications, enabling unhindered hands-free fall protection solutions. They are the world's first completely field-serviceable sealed SRLs.

- Ingress protection (IP69K)
- Meets and exceeds global industry standards
- 100% Full Contact locking mechanism
- ATEX-assessed
- Accelerated corrosion testing
- 310lbs. (140kg) user capacity
- Completely field-serviceable
- Constant Force technology frictionless energy-absorbing mechanism
- Suitable for use within high vibration environments
- Full training and recertification program



Part No.	Line Type	Length	Size L x W x D	Weight	Anchorage	Standards
62810-00US	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	30 ft (9 m)	10.62 x 9.5 x 7" (270 x 241 x 178 mm)	20.9 lbs (9.5 kg)	Forged/stainless steel snaphook	ANSI Z359.14
62816-00US	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	50 ft (15 m)	13 x 11 x 7.5" (330 x 279 x 191 mm)	26.5 lbs (12 kg)	Forged/stainless steel snaphook	ANSI Z359.14
62826-00US	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	85 ft (26 m)	13 x 13 x 7.88" (330 x 330 x 200 mm)	44.1 lbs (20 kg)	Forged/stainless steel snaphook	ANSI Z359.14
62841-00US	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	130 ft (40 m)	15 x 15 x 8.5" (381 x 381 x 216 mm)	57.3 lbs (26 kg)	Forged/stainless steel snaphook	ANSI Z359.14
62810-00CA	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	30 ft (9 m)	10.62 x 9.5 x 7" (270 x 241 x 178 mm)	20.9 lbs (9.5 kg)	Forged/stainless steel snaphook	CSA Z259.2.2
62816-00CA	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	50 ft (15 m)	13 x 11 x 7.5" (330 x 279 x 191 mm)	26.5 lbs (12 kg)	Forged/stainless steel snaphook	CSA Z259.2.2
62826-00CA	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	85 ft (26 m)	13 x 13 x 7.88" (330 x 330 x 200 mm)	44.1 lbs (20 kg)	Forged/stainless steel snaphook	CSA Z259.2.2
62841-00CA	Ø 0.188" (5 mm) stainless steel cable (7 x 19)	130 ft (40 m)	15 x 15 x 8.5" (381 x 381 x 216 mm)	57.3 lbs (26 kg)	Forged/stainless steel snaphook	CSA Z259.2.2

Carabiners

MSA offers many carabiners for most applications. All carabiners have minimum breaking strength of 5,000 lb.

• 9/16" (14 mm) gate opening • Auto-locking • Steel • ANSI Z, CSA	• 1" (25 mm) gate opening • Auto-locking with pin • Steel • ANSI Z, CSA	• 1" (25 mm) gate opening • Auto-locking • Aluminum	• 1.2" (32 mm) gate opening • Screw-lock • Steel • NFPA	• 1.2" (32 mm) gate opening • Screw-lock • Steel • NFPA	• 2.1" (53 mm) gate opening • Auto-locking with pin • Steel • ANSI Z, CSA
Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
10089205	10089207	SRCA883	SRCC642	SRCC641	10089209

Anchorage Connectors: Straps

- Minimum breaking strength of 5,000 lb.
- Compatible for use with MSA fall arrest and confined space entry/retrieval components.

		
Anchorage Connector Strap	Double D-ring Anchorage Connector Strap	Double D-ring Anchorage Connector Strap
• Standard 5-ft. length; custom lengths available • D-ring on one end, sewn hoop on other end	• Standard 5-ft. length; custom lengths available • Standard D-ring on one end, large D-ring on other end	• Standard lengths of 3-ft., 4-ft. and 6-ft. • Standard D-ring on one end, large D-ring on other end • Integral wear pad
Part No.	Part No.	Part No.
505282	10023490	SFP2267503 3-ft. strap
		SFP2267504 4-ft. strap
		SFP2267506 6-ft. strap

		
Thermatek Anchorage Connector Strap	PointGuard™ Anchorage Connector Straps	
• Kevlar webbing and stitching • Contrasting colors of webbing and stitching offer easier inspection • Includes replaceable wear pad to protect webbing from abrasion • Heat- and burn-resistant	Concrete Construction Model • Economical • 400 lbs. (182 kg) capacity • Standard length of 4-ft. • Includes protective sheath • With steel D-ring (also available without D-ring) • Meets all applicable OSHA regulations	Residential Construction Model • Economical • 400 lbs. (182 kg) capacity • Standard length of 3-ft. • With steel D-ring (also available without D-ring) • Meets all applicable OSHA regulations and ANSI Z359
Part No.	Part No.	Part No.
505282	10023490	SFP2267503 3-ft. strap
		SFP2267504 4-ft. strap
		SFP2267506 6-ft. strap

Anchorage Connectors: Slings

	
Anchorage Cable Sling	Suretyman™ Anchorage Sling
• Standard lengths of 4-ft. and 6-ft.; custom lengths available • Vinyl-coated • 1/4" galvanized cable	• 1" nylon tube webbing sewn into continuous loop • Available in 2-ft., 4-ft. and 6-ft. lengths • Can be hitched to anchorage point using various configurations
Part No.	Part No.
SFP3267504 4-ft. sling	SFP2267402 2-ft. sling
SFP2267506 6-ft. sling	SFP2267404 4-ft. sling
	SFP2267406 6-ft. sling

Anchorage Connectors: Extensions

	Part No.	Tie-Off Connection	Anchorage Connection	Length	Standards	
					ANSI Z359	OSHA
	10082683	O-ring	36C	12'	■	■
	10002182	O-ring	36C	10'	■	■
	10008492	O-ring	36C	8'	■	■
	10095264	O-ring	36C	6'	■	■
	505233	O-ring	36C	5'	■	■
Anchorage Connector Extensions	10001609	O-ring	36C	3'	■	■
- Vinyl-coated 1/4" galvanized cable	10087003	O-ring	FP5K	6'	■	■
	10073847	O-ring	FP5K	5'	■	■

Anchorage Connectors: Extensions

	10218481		10218482		10218483
MSA Cable Anchorage Connectors					
- Galvanized steel cable, black PVC-coated 1/4 in. (6.35 mm) diameter - Steel O-rings					
Part No.					
10218481	4 ft. (1.2 m) length, 0.9 lb. (0.4 kg)				
10218482	6 ft. (1.8 m) length, 1.0 lb. (0.5 kg)				
10218483	8 ft. (2.4 m) length, 1.3 lb. (0.6 kg)				

Anchorage Connectors: Concrete Applications

	
PointGuard™ Anchorage Connector Straps	Removable Concrete Anchor
Concrete Construction Model - Economical 400 lbs. (182 kg) capacity - Standard length of 4-ft. - Includes protective sheath - With steel D-ring (also available without D-ring) - Meets all applicable OSHA regulations	- Lightweight & removable - Must be drilled in a 3/4 inch diameter hole at least 3 1/2 inches deep - Stainless steel - Max. capacity: 5,000 lbs./22kN
Part No.	Part No.
10042794	10242704

Anchorage Connectors: Steel Beam and Rail Applications



Workman® FP Stryder™ Anchorage Connector

- Easy, single-hand installation
- Lightweight—only 4.5 lbs.!
- Versatile design: mount overhead or at worker's feet
- 400-lb. working capacity
- Low friction wear pads with Teflon enable effortless gliding along beam flange
- Integral load indicator alerts user if unit has been exposed to a fall
- Easy to use, push-button adjustment—no pins to lose!

Part No.	Description
10144431	Standard version
10144432	XL version



D-Plate Anchorage Connector

- Provides permanent anchorage point
- Bolts to beams or columns
- Also available with 8" x 8" backplate of black anodized aluminum, galvanized steel or stainless steel for attachment to concrete walls

Part No.
506632



Bolt D-ring with Hole

- Permanent anchorage connector
- Attaches to bottom of I-beam flange; user supplies bolt
- Designed for horizontal installation

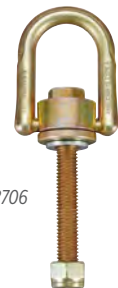
Part No.
10003213



10242705



10242707



10242706

Steel Swive Anchor

- Flips 180 degrees and rotates 360 degrees for a versatile anchorage point
- Available in several configurations
- Alloy steel
- Max. capacity: 5,000 lbs./22kN

Part No.	Description
10242705	Steel Swivel Anchor Base 5K
10242707	Steel Swivel Anchor & Puck Assembly 5K
10242706	Steel Swivel Anchor w/ Bolt 5K

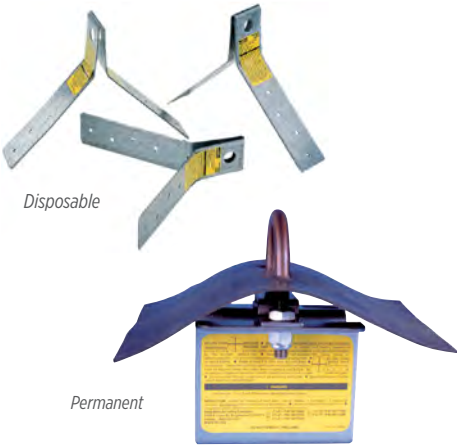


Rail Slider™

- Provides fall protection during horizontal movement on railway bridges
- Quick and easy installation
- For 80–136-lb. rail
- Other sizes available

Part No.
SFPRS6000

Anchorage Connectors: Roofing Applications



Disposable

Permanent

Roof Anchors

- All-steel construction
- Fits all pitches of roof trusses or rafters
- Easy to install without special tools

Part No.	Description
416068	Disposable
10016468	Permanent



Workman Reusable Roof Anchor

- Fits up to 12 x 12 roof pitch
- Fastens with screws or nails

Part No.
10102686



PointGuard Anchorage Connector Strap

Residential Construction Model

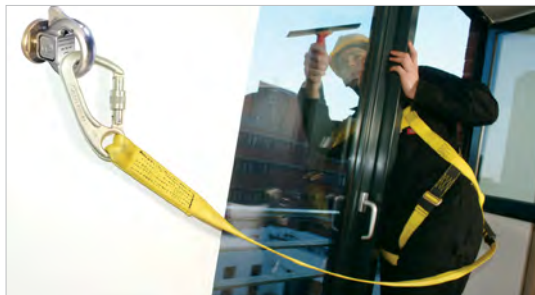
- Economical
- 400 lbs. (182 kg) capacity
- Standard length of 3 ft.
- Available with or without steel D-ring
- Meets all applicable OSHA regulations and ANSI Z359.1

Part No.	Description
10042792	Residential (with D-ring)

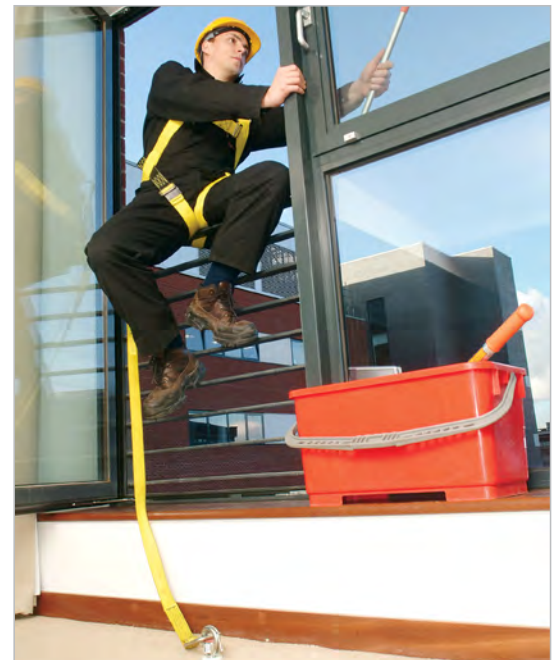
Anchorage Connectors: Window Washing Applications

Pushlock™ Fall Protection

When access from inside a building is needed to carry out external work such as window washing, Latchways PushLock delivers a stable, secure solution. With a range of sockets for fixing to brickwork, concrete and steelwork, it can be secured in walls, floors or ceilings. PushLock provides an internal fixed anchor to which workers can attach a lanyard and safety harness—allowing them to confidently take on the job.



- Eyebolt requires two-handed operation, making accidental removal impossible
- A variety of colors and finishes available including stainless steel, brass and a range of RAL colors
- Socket and eyebolt both statically tested to 2248 lbs (10 kN)
- Meets all relevant national and international standards



Rope Grabs and Vertical Lifelines

Rope Grabs are designed as a means of fall arrest between a worker wearing a compatible full-body harness and a suitable lifeline system. They are used to arrest the user in a fall from a working height and suspend the user until rescue can be affected.



Rope Grab with 30"
Sure-Stop Lanyard
P/N 415940



SureGrab Trailing
Rope Grab
P/N 10077718



Lifeline
(white)
P/N R512539



Lifeline
(blue with orange)
P/N SRP9200



Lifeline
(white with red and green)
P/N R512544

Rope Grabs, Trailing, 5/8"

Part No.	Length	Panic Grab	ANSI Z359.15	CSA Z259.2.5
415940	30"	■	■	
10077718	30"	■		■

Lifelines, 3-Strand, 5/8"

ANSI Z359.1	CSA Z259.2.5	Length				Base Rope Part No.
		25'	50'	75'	100'	
	■	R512539LLC025	R512539LLC050	R512539LLC075	R512539LLC100	R512539
■		415865	415869	415870	415871	R512539

Base Ropes

Base Ropes	Material	Elongation at 1800 lbs.	Minimum Breaking Strength	Color	Features
R512539	100% polyester	6.66%	7825 lbs.	white	Best UV resistance
R512544	co-polymer core / polyester outer	4.70%	9,450 lbs.	white w/red and green	Low elongation. No loss of strength when wet. Stores wet.
SRP9200	co-polymer core / polyester outer	5.25%	7530 lbs.	blue w/orange	Low elongation. No loss of strength when wet. Stores wet.

Custom Rope Lengths

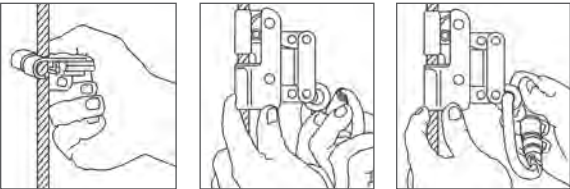
Overall Length	Up to 25'	25' – 50'	50' – 100'	over 100'
Increment	1'	5'	10'	25'

Ladder Climbing Equipment: Permanent

SureClimb™ Cable Systems

- Provide fall protection when climbing or descending ladders or vertical structures up to 300 feet
- Uses a stainless steel fall arrester
- Uses a 5/16" galvanized steel cable

Product	SureClimb Temporary Systems	
Part No.	SFPLS353050	50' (15 m), with integral shock absorber
	SFPLS353100	100' (30 m), with integral shock absorber
	SFPLS353200	200' (61 m), with integral shock absorber



SureClimb Slider can be attached and removed anywhere along the length of cable

SureClimb Extension Davit and Base Assembly

Part No.

10036032 Extension davit and base assembly

SureClimb Slider Fall Arrester

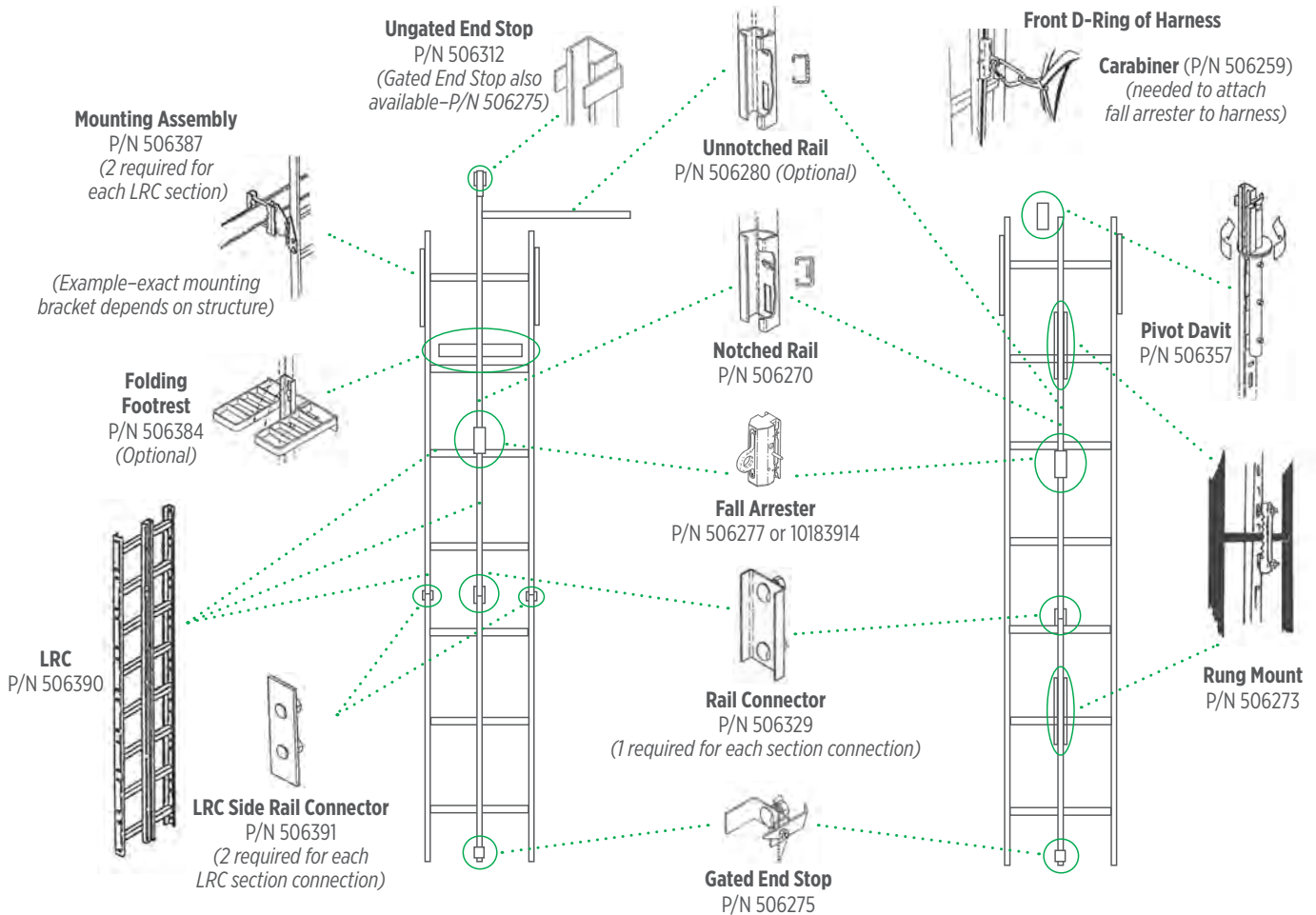
Part No.

10040010 SureClimb Slider w/ carabiner

Ladder Climbing Equipment: Permanent

Dyna-Glide® Climbing System

- Can be attached to almost any structure that is permissible to climb
- Limits total fall distance to inches
- Components for complete rescue systems
- Allows for vertical and horizontal mobility
- Galvanized or stainless steel for corrosion resistance
- Your choice of ladder/rail combination (LRC) or rail only
- Provides smooth travel—there's no binding of the fall arresters inside the rail
- Detachable, lightweight, stainless steel, and aluminum mechanism for hands-free ascent and descent
- Variety of accessories to enhance mobility and provide continuous protection, convenience, and comfort (if needed)



Product	SureClimb Permanent System	
Part No.	506270	Straight Notched Rail, galvanized, standard length 7' 4 3/8"
	506273	Rung Mount Assembly, galvanized
	506277	Fall arrester
	10183914	Fall arrester
	506312	Ungated top end stop, stainless steel
	506329	Rail connector, galvanized
	506388	Ladder/Rail Combination (LRC) standoff bracket, galvanized, standard length 7' 4 3/8"
	506389	LRC standoff bracket, bottom, galvanized
	506390	LRC, galvanized (CSA Part No. 10006461)
	506391	LRC side rail connector, galvanized

MSA Stanchion

Steel and Concrete

Features

MSA's steel stanchion allows you to construct your own temporary horizontal lifeline on steel or concrete substrate.

The system is lightweight and portable, and installation is made easier with the unique clamp design. When installing on a beam, only one location is needed for tightening and this can be done by hand—no need for additional wrenches.

Interchangeable stanchion posts enable systems for steel applications to be converted to concrete applications and vice versa to maximize your investment.

Specifications

Standard Base Fits 6 in.- to 18 in.-wide flange up to 2¼" thick

Large Base Fits 12 in.- to 36 in.-wide flange from 2¼" to 3¾" in.

Compatible with MSA Dyna-Line and Gravity HLLs

Material Zinc-plated steel

Weight 45–67 lb.

Install Type Temporary

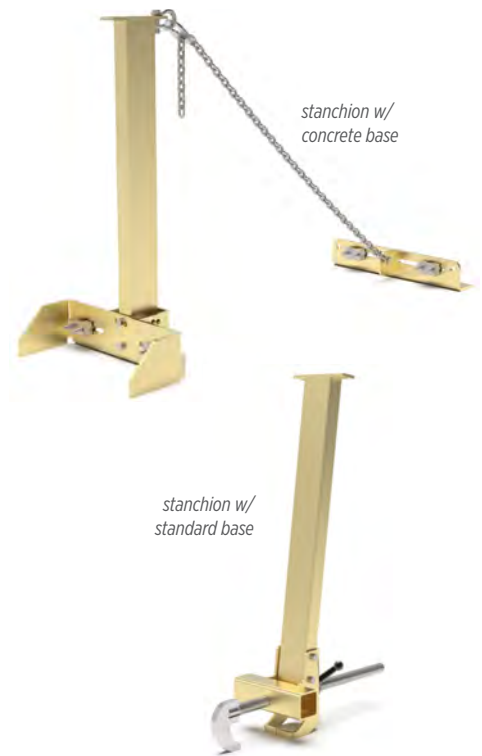
Lifeline Material Ordered separately

Applications Construction, OGP, General Industry, Transportation

Span Type Single span

Weight Capacity Refer to Temporary Horizontal Lifeline

Standards OSHA



Compatible MSA HLL Lengths and Configurations

Sure-Line Cable

- 40 ft. / 2-man
- 60 ft. / 1-man

Dyna-Line Rope (Red)

- 60 ft. / 2-man

Concrete Stanchion

- 60 ft. / 2-man—both Sure-Line and Dyna-Line

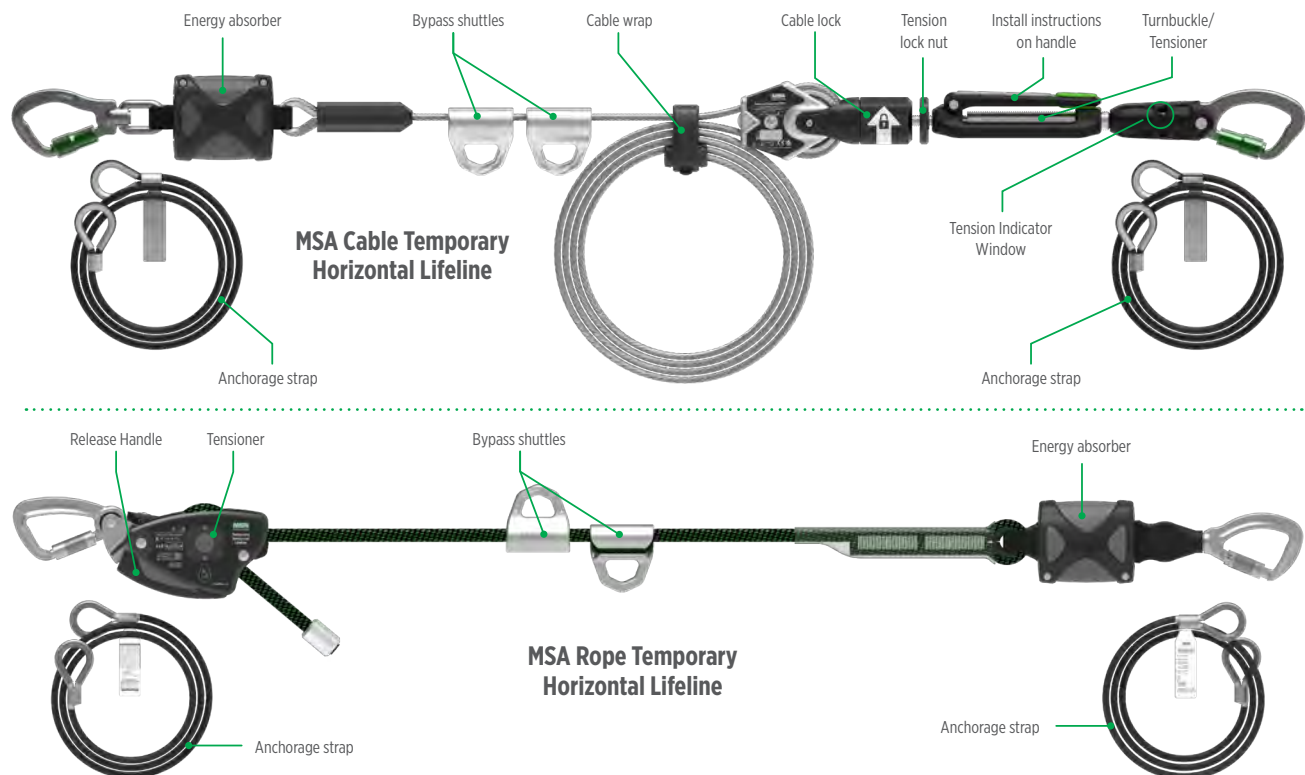
Part No.	Description	Beam Flange Width	Beam Flange Thickness	Weight	Product Dimensions (L x W x H)
10192211	Stanchion w/ standard base	6-18"	Up to 2¼"	45 lb.	670 mm x 300 mm x 1,072 mm
10192213	Replacement standard base, include hardware	6-18"	Up to 2¼"	15 lb.	254 mm x 300 mm x 240 mm
10192215	Replacement threaded rod, standard with wing nut, w/Belleville washer	6-18"	Up to 2¼"	10 lb.	670 mm x 32 mm x 138mm
10192216	Replacement threaded rod, large with wing nut	12-36"	2¼" to 3¾"	20 lb.	1,140 mm x 32 mm x 195 mm
10192217	Stanchion post	N/A	N/A	18 lb.	50 mm x 100 mm x 877 mm
10192223	Wing Nut	N/A	N/A	2 lb.	220 mm x 60 mm x 75 mm
10192224	Belleville Washer	N/A	N/A	0.15 lb.	70 mm x 70 mm x 5 mm

Horizontal Lifelines: Temporary

MSA Cable and Rope Temporary Horizontal Lifelines

The completely toolless installation of MSA's THLLs helps to save time and increase efficiency when setting up lifelines on the jobsite.

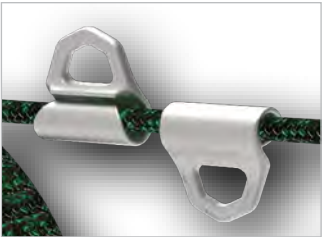
- Integrated locking and tensioning mechanism on the handle—eliminating the need for nuts, bolts and wrenches.
- Easy-to-read red and green visual indicators let the user know the system is locked, tensioned and ready for use.
- Lightweight, flexible cable helps make installation easy to complete by a single worker.
- Patented bypass shuttles help 2 users maintain 100% tie-off—increasing mobility without sacrificing safety.
- Locking and tensioning mechanisms are on the same side—no need to travel back and forth for set-up.



Part No.	Description
10219288	MSA Temporary Cable Horizontal Lifeline for 2 Workers, 60 ft. with bypass shuttles and anchorage straps
10219289	MSA Temporary Cable Horizontal Lifeline for 2 Workers, 60 ft. with bypass shuttles
10219290	MSA Temporary Cable Horizontal Lifeline for 2 Workers, 100 ft. with bypass shuttles
10219292	MSA Rope Temporary Horizontal Lifeline for 2 Workers, 60 ft. (18 m) with bypass shuttles and anchorage straps
10219293	MSA Rope Temporary Horizontal Lifeline for 2 Workers, 60 ft. (18 m) with bypass shuttles (<i>Anchorage straps not included</i>)
10219294	MSA Rope Temporary Horizontal Lifeline for 2 Workers, 100 ft. (30 m) with bypass shuttles (<i>Anchorage straps not included</i>)



Easy adjustment (shown on cable version)



Bypass (shown on rope version)

Watch our
installation
video here:



Rescue Equipment

MSA Latchways® Personal Rescue Device (PRD®)

PRD

- Consists of full-body harness and integral descender device that conforms to all required standards
- Patented components fit neatly into “backpack,” which zips onto harness
- Lightweight and unobtrusive
- Withstands harsh working environments
- Significantly reduces rescue time
- Lone worker use
- Self-activated
- Intuitive use
- Clear rescue plan
- Improves user safety

PRD with EVOTECH®
Harnesses



PRD Rescue Pole



PRD Rescue Pole

Designed to be used by a third party. Should the user be unable to conduct a self-rescue, the third party can activate the Latchways PRD's built-in secondary descent release mechanism. The overall length of the pole is 2.7 ft (0.8 m) when retracted and 11.1 ft (3.4 m) when extended.

PRD	Harness Type			Line Length	Standards		
Part No.	EVOTECH	STD	XLG		ANSI Z359	CSA Z259	OSHA
10176307	■	■		65 ft.	■	■	■
10176308	■		■	65 ft.	■	■	■

Part No.	Description
68099-00	PRD Rescue Pole

Rescue Equipment: Anthron Descent Device System

- Manually operated, controlled descent device used for suspended work positioning, self-evacuation, or rescue operations
- Cam assembly provides friction on rope to hold load or allow load to descend at controlled rate
- System consists of 7/16" (11 mm) rope, Anthron Descender and two carabiners
- Device can be installed/removed at any point on the rope
- Proper roping/rigging diagrams on side of Anthron Descender
- Working load of 440 lbs. (200 kg)
- System consists of a 7/16" (11 mm) rope, Anthron Descender, and 2 carabiners

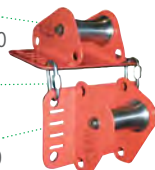
Anthron Descent Device System	
SDC726050	System includes: Anthron Descender, 2 carabiners, 50' 7/16" (11 mm) rope
SDC726100	System includes: Anthron Descender, 2 carabiners, 100' 7/16" (11 mm) rope
SDC726150	System includes: Anthron Descender, 2 carabiners, 150' 7/16" (11 mm) rope
SDSD25	Anthron Descender

Anthron systems and replacement ropes available in lengths of 25' increments from 50' up to 600'



Rescue Equipment

Rescue Equipment: Components and Rescue Ropes

RCD System Component Parts			
 Part No. SPPRL4000 Part No. SMI420560 Part No. SPPRL4000			
SuretyMan™ Edge Roller	SuretyMan Rescue Eight	SuretyMan Rigging Plates	SuretyMan Carabiner
Protects rope from sharp edges and reduces rope friction	For rope diameters from $\frac{7}{16}$ " (11 mm) to $\frac{5}{8}$ " (16 mm)	Stealth Rigging Plate: (left) anchor on point and wings will rotate toward load for straighter line of pull Stretcher Rigging Plate: (right) designed to unclutter and organize litter rigging points, reducing chance of error.	Developed for fire and rescue communities

Part No.	Description	Strength	Weight	Material
SPPRL4000	SuretyMan Edge Roller w/ rubber-covered 6" x 10" (15.3 cm x 24.4 cm) base, bottom/side plate attachment hole, slots in base plate for tube webbing	—	2.8 lbs. (1.3 kg)	Aluminum
SMI420560	Quick Link $\frac{5}{16}$ " (8 mm) for use with SuretyMan Edge Roller [two required]	—	—	Aluminum
SRSF5077	SuretyMan Rescue Eight	6,720 lb. (30 kN)	1.5 lbs. (675 g)	Aluminum
SRSPR5990	SuretyMan Stealth Rigging Plate, teal	11,000 lb. (48 kN)	.46 lbs. (250 g)	Aluminum
SRSPR5980	SuretyMan Stretcher Rigging Plate, teal	12,200 lb. (54 kN)	.74 lbs. (330 g)	Aluminum
SRCC641	Carabiner, 1.2" (32 mm) gate, manual locking, NFPA 1993-1994, Class G	12,364 lb. (55 kN)	11 oz. (311 g)	Zinc-plated carbon steel



Rescue Rope

Rope Bag #1



Rope Bag #2



Termination Plate

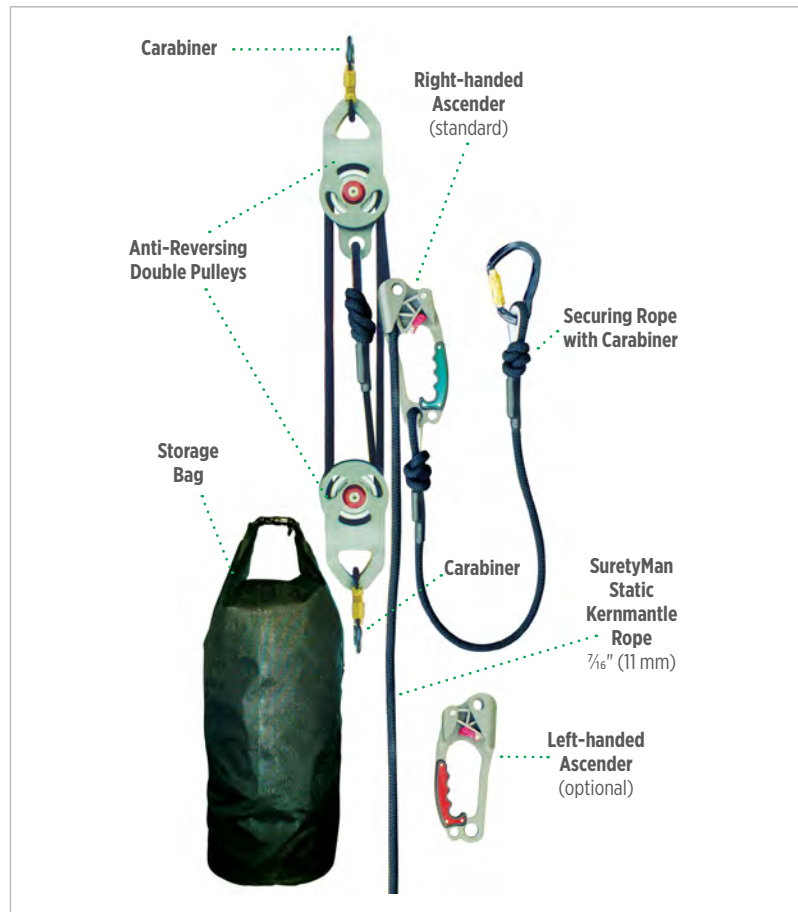
Part No.	FP Rescue Ropes
SRP508960050	$\frac{5}{8}$ " (16 mm), nylon, 11,400 lb. (5,171 kg), black, 50'
SRP530961050	$\frac{1}{2}$ " (12 mm) polyester, 9,100 lb. (4,128 kg), red, 50' (Meets NFPA requirements)
SRP504860SL050	$\frac{1}{2}$ " (12 mm), nylon, 9,100 lb. (4,128 kg), white/orange tracer, 50'
SRP504866SL050	$\frac{1}{2}$ " (12 mm), nylon, 9,000 lb. (4,083 kg), white/blue tracer, 50'
SRP504863SL050	$\frac{1}{2}$ " (12 mm), nylon, 9,000 lb. (4,083 kg), red/white tracer, 50'
SRP508760050	$\frac{7}{16}$ " (11 mm), nylon, 6,500 lb. (2,948 kg), black, 50'
SRP544000050	$\frac{7}{16}$ " (11 mm), nylon, 6,500 lb. (2,948 kg), olive, 50'
SRP510660SL050	$\frac{3}{8}$ " (10 mm), nylon, 5,000 lb. (2,269 kg), white/blue tracer, 50'
SRP500900	9 mm Accessory Cord, nylon. Use with $\frac{1}{2}$ "- $\frac{5}{8}$ " (1.3 cm-1.6 cm) main line, 3,600 lb. (1,632 kg)
SRP500860	8 mm Accessory Cord, nylon. Use with $\frac{1}{2}$ "- $\frac{5}{8}$ " (1.3 cm-1.6 cm) main line, black, 3,100 lb. (1,406 kg)
SRP500700050	7 mm Accessory Cord, nylon. Use with $\frac{3}{8}$ "- $\frac{1}{2}$ " (1 cm-1.3 cm) main line, red, 2,600 lb. (1,179 kg), 50'
SRP5020550050	5.5 mm Titan Cord, Spectra Core, nylon, 4,500 lb. (2,042 kg), 50'
SRP500500050	5 mm Accessory Cord, nylon, 1,275 lb. (578 kg), 50'

Part No.	Rope Bags
SRB430101	Rope Bag #1, orange, holds 120-ft. $\frac{1}{2}$ " (36.6 m 12 mm) rope
SRB430105	Rope Bag #1, black, holds 120-ft. $\frac{1}{2}$ " (36.6 m 12 mm) rope
SRB430201	Rope Bag #2, orange, holds 200-ft. $\frac{1}{2}$ " (60.1 m 12 mm) rope
SRB430205	Rope Bag #2, black, holds 200-ft. $\frac{1}{2}$ " (60.1 m 12 mm) rope
SRB430301	Rope Bag #3, orange, holds 300-ft. $\frac{1}{2}$ " (91.4 m 12 mm) rope
SRB430305	Rope Bag #3, black, holds 300-ft. $\frac{1}{2}$ " (91.4 m 12 mm) rope
SRB430601	Rope Bag #6, orange, holds 600-ft. $\frac{1}{2}$ " (182.8 m 12 mm) rope
SRB430605	Rope Bag #6, black, holds 600-ft. $\frac{1}{2}$ " (182.8 m 12 mm) rope

Part No.	Accessory
SRIW1000	Termination plate $\frac{5}{8}$ "

Rescue Equipment

SuretyMan™ Rescue Utility System



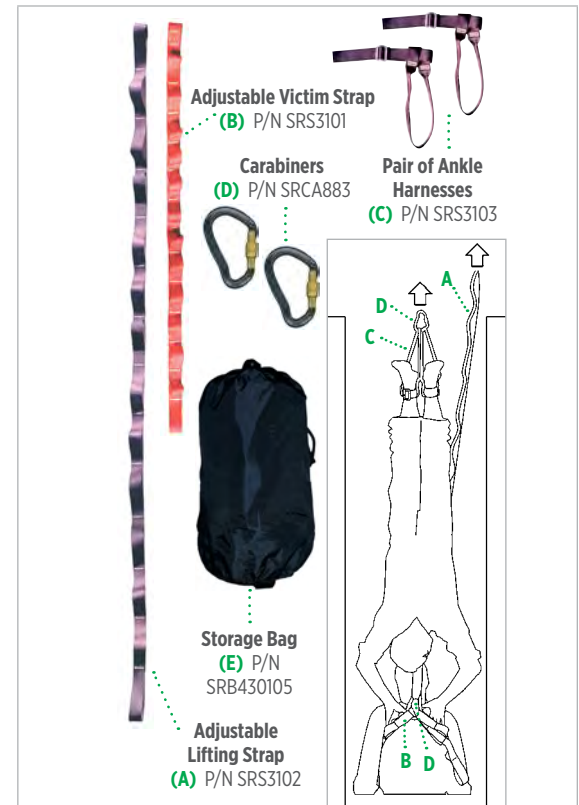
SuretyMan Rescue Utility System

- Primarily used for raising and lowering people or equipment in rescue/industrial work access/confined space applications
- Pulleys 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: standard system weight 17 pounds (7.7 kg)
- Rated capacity of 600 lbs. (272 kg) for personnel
- Standard rope length 200 ft. (66m) with maximum rope length 800 ft. (267m)

NOTE: Due to 4:1 mechanical advantage, user should order system with 4 times the rope necessary for the application. For example, a 50' application requires 200' of rope.

Part No.	Description	Length
SRS15200	SuretyMan Rescue Utility System	200' (61 m)
SRS15300	SuretyMan Rescue Utility System	300' (91.4 m)
SRS15400	SuretyMan Rescue Utility System	400' (122 m)
10093608	SuretyMan Rescue Utility System	500' (152.4 m)
10033360	SuretyMan Rescue Utility System	600' (183 m)
10101135	SuretyMan Rescue Utility System	800' (244 m)
10037101	Left-hand ascender with securing rope	
10035698	Right-hand ascender with securing rope	

Confined Space/Head First Extraction System



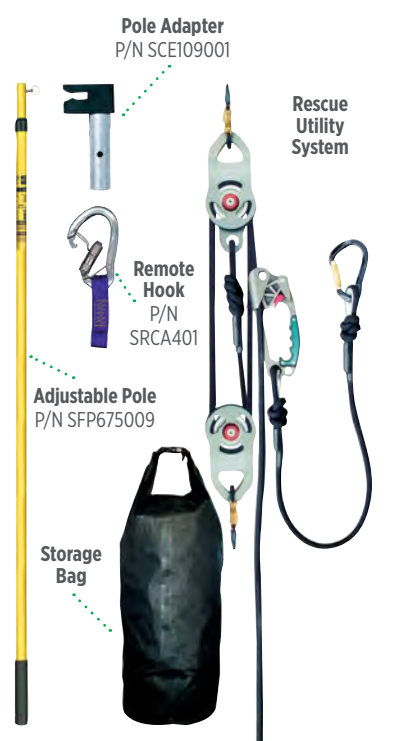
Confined Space/Head First Extraction System

- Specialized rescue product designed for extreme cases in which rescuer needs to be lowered head-first into confined space to perform rescue
- Allows rescuer to harness victim, and raise both victim and rescuer out of confined space
- Leaves both hands free for rescuer to assist in retrieval of victim
- Consists of adjustable lifting strap (A), adjustable victim strap (B), one pair of ankle harnesses (C), two carabiners (D), and storage bag (E)
- Can be used with any confined space retrieval equipment such as tripods and davits
- Strength: 5,000 lb. (22 kN)
- Weight approx: 2 lb. (0.9 kg)

Part No.	Description
SRS3100	Confined Space/ Head First Extraction System
SRS3103	Rescue anklets
507002	Rescue wristlets

Rescue Equipment

Fall Protection Rescue Kit



Pole Adapter
P/N SCE109001

Remote Hook
P/N SRCA401

Adjustable Pole
P/N SFP675009

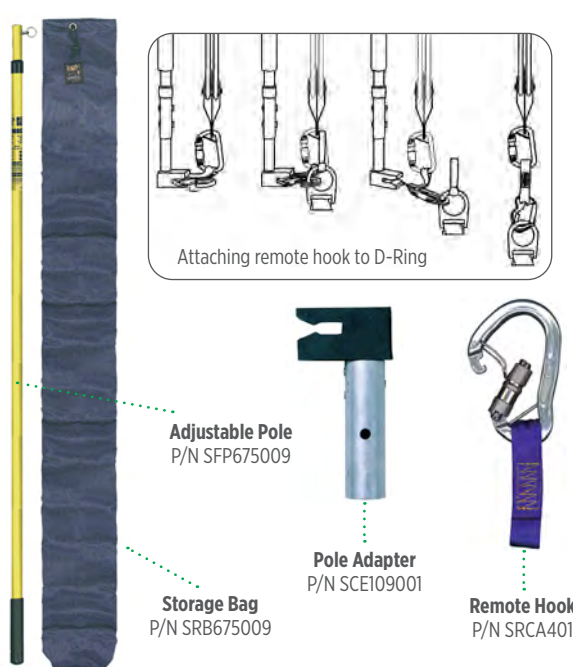
Storage Bag

Rescue Utility System

Product	FP Protection Rescue Kit
Features	• Out-of-the-bag rescue system • Remote hook and extension pole allow for remote attachment of rescue line to victim, while rescue utility system allows rescuer to raise or lower victim to safety • Kit should be used with back-up system (not included)

Part No.	Description
10030025	Fall Protection Rescue Kit

Rescue Pole/Remote Hook



Adjustable Pole
P/N SFP675009

Pole Adapter
P/N SCE109001

Remote Hook
P/N SRCA401

Storage Bag
P/N SRB675009

Attaching remote hook to D-Ring

Product	Rescue Pole/Remote Hook
Features	• Rescue tool for retrieval of worker suspended in fall arrest system or for remote rescue access • System includes adjustable fiberglass pole, pole adapter, and remote hook • Optional nylon storage bag

Part No.	Description
SFP675009	Adjustable pole, fiberglass, 6' (1.8 m) to 12' (3.6 m)
SFP675012	Adjustable pole, fiberglass, 8' (2.4 m) to 24' (7.3 m)
SRCA401	Remote hook, aluminum, with web sling
SCE109001	Pole adapter, aluminum/rubber
SCE109003	Pole adapter, 6' (1.8m), aluminum/rubber
SRB675009	Storage bag for SFP675009

General Accessories

Hands-Off™ Chisel Grip

- Keeps hands away from point of contact
- Ergonomically designed to match specific shape of human hand for comfortable and firm grip
- Permits faster, safer, more accurate work
- Easy adjustment to hold variety of chisels and stakes up to 1" diameter
- Vibration-absorbing handle
- Eases awkward hand positioning
- Economical
- Spark resistant

Part No.	10040018
Description	Hands-Off Chisel Grip



Ergonomic Tool Holders

- Holds wrenches, chisels, etc.
- Vibration-absorbing design
- Attach to broom handles and mops for better grip
- Eases awkward hand positioning

Part No.	Description
507005	Tool Holder, 18"
507006	Tool Holder, spark resistant, 18"



MSA Safety Training



MSA Virtual Led Training

As your trusted partner in safety training and awareness, MSA is offering Virtual Led Training (VLT) courses. Our VLT courses are conducted via Microsoft Teams with an MSA Training Instructor in the same manner as our current in-person training, and follow the same class format and content that would happen on-site. VLT gives you a real-time learning experience as if you were participating in an in-person session. Courses can be:

- Customized to the certifications you and your team members need
- Completed via video conference from any location
- Scheduled for the date and time that works best for you

The following is the current list of courses being offered in the VLT format:



COMPETENT USER LEVEL

- Comp User for Portable Instruments (4 hours)
- Comp User for Permanent Instruments
(TBD depending on number of instruments)
- Comp User for SCBA

FIRST (FIXED INSTRUMENT REPAIR & SERVICE TRAINING)

- FIRST-FGFD (Fixed Gas & Flame Detection) (TBD depending on number of instruments)
- FIRST-HVAC-R (Refrigerant) (TBD depending on number of instruments)

RITE CERTIFICATION (REPAIRING INSTRUMENTS TRAINING & EDUCATION)

- RITE (16 hours)

CARE CERTIFICATION (CERTIFIED AIRMASK REPAIR EDUCATION)

- CARE1.5 MSA Initial Certification (G1 not included) (12 hours)
- G1CARE-FIRE (NFPA G1 Only) (16 hours)
- G1CARE-IND (Industrial G1 Only) (12 hours)
- CARE2 Custom MSA SCBA Training (TBD depending on equipment needs)

CONFINED SPACE

- CSAWARE (Confined Space Awareness) (4 hours)

SAFETY AT HEIGHTS

- FPAWARE (Fall Protection Awareness) (4 hours)
- CPINSPECT (Competent Person for Equipment Inspection) (4 hours)
- CPHEIGHTS (Competent Person for Safety at Heights) (16 hours)
- APHEIGHTS (Authorized Person for Safety at Heights) (8 hours)
- TTCHPEIGHTS (Train-the-Trainer for CP Safety at Heights) (8 hours)
- CPSHRECERT (Recertification for CP Safety at Heights) (8 hours)

RECERTIFICATION

- RITE (8 hours)
- FIRST (TBD depending on number of instruments)
- CARE (8 hours)

For more information regarding these classes or scheduling please contact the Training Department at:

Phone: 1-866-347-6093

Email: training@MSAsafety.com



MSA In-Person Training Courses

Safety at Heights Training Courses

FALL PROTECTION AWARENESS (4 HRS)

- ABCs of fall protection
- Proper selection, pre-use inspection and care of fall protection equipment
- Proper donning and doffing of a harness
- Hazard recognition, evaluation and control
- Fall clearance calculations

COMPETENT PERSON FOR EQUIPMENT INSPECTION (4 HRS)

- Consensus standards
- Formal documentation requirements
- Formal inspection process
- Equipment cleaning and storage

AUTHORIZED PERSON FOR SAFETY AT HEIGHTS (8 HRS)

- Consensus standards
- Dynamics of a fall
- Fall hazard recognition and assessment
- Understanding impact forces
- Procedures for continuous Safety at Heights
- Selection, application and use of fall protection systems
- Calculating fall clearances

RESCUE PLANNING FOR SAFETY AT HEIGHTS (8 HRS)

- Risk assessment of fall hazards
- Planning and proper rescue procedures
- Hierarchy of rescue
- Selection of rescue equipment
- Rescue training and simulations

COMPETENT PERSON FOR SAFETY AT HEIGHTS (16 HRS)

- Authorized Person for Safety at Heights course
- Competent Person for Equipment Inspection course
- Rescue Planning for Safety at Heights course

SAFETY AT HEIGHTS TRAIN-THE-TRAINER (8 HRS)

MSA's Safety at Heights Train-the-Trainer course is designed to prepare employees that must train on safety at heights at your facility. The class provides the student the necessary skills to develop, deliver and evaluate students on basic safety at height knowledge and technical understanding.

This course permits training of authorized persons within your facility as part of a 4 to 8-hour class that is based on materials provided by the MSA instructor.

COMPETENT PERSON FOR SAFETY AT HEIGHTS REFRESHER (8 HRS)

See Competent Person for Safety at Heights course

COMPETENT PERSON FOR TEMPORARY HORIZONTAL LIFELINE INSTALLATION & INSPECTION (4 HRS)

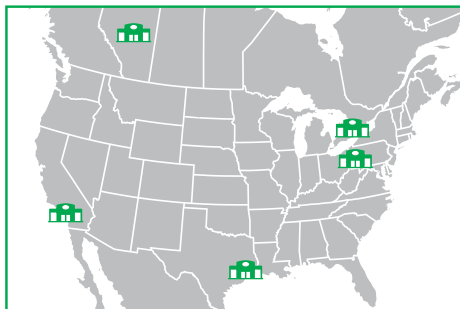
- Design statement, use and limitations
- Installation procedures
- Inspection criteria, including pass/fail & disposal
- Cleaning and storage

ON-SITE DOCUMENTED COMPETENT PERSON EQUIPMENT INSPECTION

Our experienced and trained team will come to your facility to perform a documented and thorough competent inspection of all your safety equipment and provide your organization with a detailed written report documenting the product, serial number, description, pass/fail and overall disposition.



MSA Fall Protection Demo Truck



MSA regularly provides open enrollment and private training courses at our Pittsburgh, Houston & Corona facilities, with schedules established annually based on demand and availability.

In Canada we offer Edmonton, and Toronto as potential training site locations based on the type of course requested.

We will also come to your facility, training your employees in their work environment; addressing the specific hazards they face on a regular basis.



MSA In-Person Training Courses

Confined Space Training Courses

CONFINED SPACE AWARENESS (8 HRS)

1-day Confined Space Awareness training course is designed for those individuals who are responsible for managing and overseeing employees working in confined space entry activities.

This course is recommended for facility managers, team leaders, supervisors and those individuals who will manage third-party contracted confined space entry operations at their facilities.

- Defining Confined Spaces
- Identify typical hazards and associated risks
- Explain roles, responsibilities and procedures for confined spaces operations

CONFINED SPACE ENTRY AND OPERATIONS: ENTRANT & ATTENDANT (8 HRS)

1-day training course designed to teach workers about the preparation, skills, equipment and procedures needed to protect themselves in confined spaces.

- Definitions and Examples: CS & PRCS
- Review of various confined space hazards
- Hazard mitigation and control procedures.

CONFINED SPACE ENTRY AND OPERATIONS: SUPERVISOR & PROGRAM MANAGER (16 HRS)

2-day comprehensive, in-depth training course designed for individuals who are responsible and/or identified to perform work in or around confined spaces. Our technical training incorporates information and skills required by all applicable regulatory bodies.

- Definitions and Examples: CS & PRCS
- Discussion on types of hazards that can turn a regular space into a "Permit-Space"
- Use of job safety controls for entry into potentially unsafe spaces
- Respiratory protection introduction
- Non-entry rescue
- Extensive hands-on practice with setting up entry / rescue gear, performing atmospheric testing, filling out permits, performing the roles of entrant, attendant and supervisor

CONFINED SPACE ENTRY RESCUE: LEVEL I—TRIPOD, DAVIT, & HORIZONTAL SYSTEMS (8 HRS)

**Prerequisite is MSA's 2-day Confined Space Entry and Operations Course*

1-day training course designed for previously trained entrants, attendants, and supervisors who additionally serve as confined space entrants rescuers. It is a good fit for employees who work in scenarios where non-entry rescue does not cover all potential rescue situations and those who will serve on an "in-house" rescue team at their organization

- Focus on "kit systems" that do not require tying of knots to construct
- Basics of mechanical advantage — 2:1 systems
- Horizontal Rescue and Vertical Rescue

CONFINED SPACE ENTRY RESCUE: LEVEL II—BASIC ROPE & RIGGING (8 HRS)

**Prerequisite is MSA's 2-day Confined Space Entry and Operations Course*

1-day training course designed for previously trained entrants, attendants, and supervisors who additionally serve as confined space entrants rescuers. It is a good fit for employees who work in scenarios where non-entry rescue does not cover all potential rescue situations and a traditional "kit" system (tripods & davits) will not work.

- Rope theory basics and knots
- Rescue anchorages
- Hardware - Pulleys & Carabiners
- Rescue Knots / Hitches per application
- Patient packaging
- Rescue scenario

CONFINED SPACE TRAIN-THE-TRAINER (8 HRS)

**Prerequisite is MSA's 2-day Confined Space Entry and Operations Course*

MSA's Confined Space Train-the-Trainer course is designed to prepare employees who must lead select confined space courses and material at your facility. The class provides the necessary skills to develop, deliver and evaluate students on basic confined space knowledge and technical understanding.

This course permits training of entrants and attendants within your facility as part of a 4 to 8-hour class that is based on materials provided by the instructor.

Mechanical Equipment Repair Instruction & Testing (M.E.R.I.T.)

M.E.R.I.T. COMPREHENSIVE

Provides attendees inspection and repair capability for the full line of MSA Fall Protection products.

Products Included: Confined Space Kit (Winch, Rescuer & Tripod) / V-Tec / V-Edge / V-Shock / Sealed SRL

- Theory of operation for MSA Fall Arrest equipment
- Disassembly and inspection process of each device
- Reassembly and functional test of each device
- Testing procedure
- Quality assurance inspection

M.E.R.I.T. CUSTOM

Provides attendees inspection and repair training on specific models by request.

- Theory of operation for MSA Fall Arrest equipment
- Disassembly and inspection process of each selected device
- Reassembly and functional test of each selected device
- Testing Procedure
- Quality assurance inspection

M.E.R.I.T. RECERTIFICATION

For technicians who are currently trained and require a recertification on M.E.R.I.T. Comprehensive or Custom training.



MSA In-Person Training Courses

C.A.R.E. Training Courses

C.A.R.E. TRAINING

C.A.R.E. is an acronym for Certified Airmask Repair Education. MSA Self-Contained-Breathing-Apparatus (SCBA) maintenance course is specifically designed and developed to address MSA SCBA repair and maintenance.

- Explain theory of operation for MSA SCBA
- Identify key sub-assemblies of the MSA SCBA
- Demonstrate disassembly and inspection process
- Demonstrate reassembly and functional tests
- Perform overhaul of complete SCBA system
- Demonstrate first and second stage regulator and primary alarm adjustments
- Make adjustments, flow test and troubleshooting using Posi3 USB Test Bench.

C.A.R.E training courses are model specific and are designed for individuals who are identified as qualified by their employer and are employed by an MSA Authorized Repair Center.

C.A.R.E. Course Offerings:

- MSA G1 Industrial SCBA
- MSA G1 NFPA SCBA
- MSA Industrial SCBA (Non-G1)
- MSA FireHawk SCBA (Non-G1)
- MSA Custom SCBA Training
- MSA Comprehensive SCBA Training (Includes G1)
- C.A.R.E. Recertification

R.I.T.E. Training Courses

R.I.T.E. CERTIFICATION

R.I.T.E. is an acronym for Repairing Instruments Training & Education. This program is MSA's certified maintenance and repair training program for Portable Instruments. It is designed for MSA Channel Partners or large end user owners who need to be able to repair and maintain MSA portable instruments and related equipment.

- Theory of operation for MSA Portable instruments
- Disassembly, re-assembly and configuration process
- Calibration and functional test procedures
- Upgrade procedures
- Performing troubleshooting and diagnostic procedures

R.I.T.E. RECERTIFICATION

This Recertification training course is designed for technicians who require R.I.T.E. recertification for repairing, inspecting and testing MSA portable instruments.

Hazardous Material Training Courses

HAZARDOUS MATERIAL TRAINING (24 HRS)

3-day in-depth training course designed for individuals that will respond to an ammonia release and engages an incident action plan that involves moving into IDLH over 300PPM. This course meets OSHA 192.120(q)(6)(iii) and establishes that a Hazardous Materials Technician is an individual who responds to releases or potential releases for the purpose of stopping the release.

- Participants will focus on identifying hazards, risks, and threats
- Evaluate incidents
- Determine the appropriate level of personal protective equipment (PPE)
- Understand their operational limitations
- Follow the established Emergency Response Plan
- Trainees will conduct pre-use equipment inspections
- Practice proper donning and doffing of PPE
- Take part in active role-playing exercises.

HAZARDOUS WASTE OPERATIONS & EMERGENCY RESPONSE (HAZWOPER) TRAINING (40 HRS)

40-Hour EPA Tier 2 Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) in-depth training course that features hands-on, scenario-based simulations that reinforce practical skills and real-world emergency response application. The course culminates with a dynamic, time-sensitive emergency scenario that will allow participants to apply containment, control and decision-making skills while recognizing readiness requirements and operational limits.

- Participants will learn to identify hazards, risks, and threats
- Evaluate incidents
- Determine the appropriate level of personal protective equipment (PPE)
- Understand their operational limitations
- Follow the established Emergency Response Plan
- Trainees will conduct pre-use equipment inspections
- Practice proper donning and doffing of PPE
- Take part in active role-playing exercises.

**Contact us at 866.347.6093, training@msasafety.com,
or visit our website www.msasafety.com**

MSA Written Hazard Assessment Evaluation and Report

The OSH Act of 1970 created the Occupational Safety and Health Administration (OSHA) within the U.S. Department of Labor in response to soaring trends of workplace injuries, illnesses, and deaths. Since that time, its mission has been to “ensure a safe and healthy workplace for every working man and woman in the Nation,” dictating what is permissible and what is not when it comes to workplace safety.

MSA’s skilled safety professionals can assist you or your customer by providing insight in to specific hazards or overall site hazard assessments. These individuals will work with you and your employees to review fall protection or confined space hazards—helping employers comply with OSHA requirements.



Fall Protection Audit

Site Survey

Site walkthrough and audit will consist of:

- As many days onsite as necessary to thoroughly evaluate, photograph, and understand your site’s hazards.
- MSA Safety Professional will work with employees to understand the work taking place in each hazardous area in order to make recommendations for safe work/access.

Fall Hazard Survey (FHS) Findings

■ Fall Protection Theory

The survey will open with a small review of **fall protection theory**, including:

- OSHA law/ANSI best practices
- Fall protection roles
- Hierarchy of controls
- Anchors
- Bodywear
- Connecting devices

■ A Fall Protection Report

- Description of the **hazard** with pictures
- Description of the **work to be performed** at or near the hazard
- Explanation of the **fall or threat**
- **Recommendations**
- **Hierarchy of controls** explanation

■ Appendices

Various appendices are provided to discuss **controls to common work at height hazards**, including work on roofs, in aerial lifts, and climbing fixed ladders.

- Topics related to the specific worksite



Confined Space Audit

A Confined Space report will include:

Site Survey

Site walkthrough and audit will consist of:

- As many days onsite as necessary to thoroughly evaluate, photograph, and understand your site’s hazards.
- MSA Safety Professional will work with employees to understand the work taking place in each hazardous area in order to make recommendations for safe work/access.

Survey Report

■ Identification of each space visited

■ Photographs of spaces visited

■ Designation of spaces as:

- Non-confined space
- Non-permit confined space
- Permit-required confined space (PRCs)

■ Justification for designation where ambiguity exists

■ Suggestions on entry/retrieval equipment where vertical entry exists

Program Writing

Based on the facility survey, MSA will assist the customer in writing a customized confined space program for its site.



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