

**MSA**

The Safety Company™



introducing MSA's new

# **FireHAWK<sup>®</sup> M7** **AIR MASK**



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# Designed to meet the new NFPA 2007-edition standard. Determined to exceed your safety equipment expectations!

*Through the NFPA, firefighters have strived to improve the durability and performance of SCBA and PASS devices.*

*To this end, the new NFPA 2007-edition standards for self-contained breathing apparatus and personal alert safety systems call for a PASS alarm that performs at 500° F, electronics that remain waterproof after six immersion cycles at 1½ meters depth and a 350° F heat exposure, and electronics that function after a rigorous 3-hour tumble test. They also raised the bar on voice communication capability, now requiring a minimum score of 85% at a 10-ft distance (allowing an electronic or mechanical system). (Previously this was 72% at 5 feet.)*

MSA's new **FireHawk M7 Air Mask** represents a true technological achievement in critical personal protection. As firefighters determined the safety requirements that would be needed to meet the new NFPA 1981 and 1982–2007-edition standards, MSA's engineering teams began designing the solutions.

The new FireHawk M7 Air Mask emerged with seven **life-safety** design components built on a **modular** Air Mask platform, developed to **exceed the new NFPA 2007** requirements and provide firefighters with the highest-quality SCBA currently available.

## 1. TAKING THE HEAT

Although MSA PASS alarms have performed in extreme temperatures for more than a decade, a top priority was to design an alarm that could **really take the heat!** The new M7 alarm (*patent pending*) was developed in cooperation with prominent university acoustic experts, resulting in an emitter that exceeds 95 decibels with solid performance at the NFPA 500F test! Once again, giving you that lifesaving edge in the face of danger.



## 2. VIRTUALLY "BULLET-PROOF" ELECTRONICS

Like an armor shield, the M7 HUD, Power Module, and Control Module are encased in a proprietary high-temperature impact-grade polymer, providing the highest possible protection against impact and water-ingress. Electronics enclosures are permanently sonically **welded** to a hermetic standard and use a high-pressure O-ring to ensure a consistent water-tight seal. The new M7 electronics are virtually **"bullet-proof"** against fire-ground hazards.



## 3. STRAIGHT-TALK COMMUNICATIONS

We've got you covered with communications, starting with a **high-performance mechanical speech diaphragm**, performing so well that it may likely serve as a stand-alone solution to meet the latest NFPA communications requirements! Backing the mechanical diaphragm is an **electronic amplifier** with an internal facepiece microphone for ultimate clarity, a digital signal processor to eliminate feedback even when shouting, three volume levels, and an auto-off feature after 20 minutes of no-use to save batteries. The new Air Mask speaks loud and clear when it comes to communications.





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#### 4. FIREGROUND MANAGEMENT

Firefighter accountability systems have never before been as practical, complete, and user-friendly as the MSA **M7 Accountability System**. It's based on the ICM® TxR Unit introduced in mid-2006, which has thousands of systems deployed in virtually every type of fire department, and they're performing phenomenally! It displays a full array of visual and audible information for up to 100 firefighters within a one-mile-line-of-site – exactly what incident commanders wanted. Record keeping is also made easy by downloading reports. This crown jewel is available only from MSA!



#### 5. EXTENDED PROTECTION

The new FireHawk M7 Air Mask is not your typical SCBA. Firefighters need to be prepared for the unexpected, and emergency egress from a 2nd-floor or higher can be impossible without the right safety equipment. That's why the new M7 Air Mask offers an NFPA-compliant integrated rappelling system, called the Rescue Belt, providing firefighters with one more lifesaving option in the face of danger.



"Above and beyond" protection is also provided with the CBRN FireHawk MMR. The CBRN FireHawk includes a positive-protection Tetraplex™ shield, to prevent contact between chemical warfare agents and the most vulnerable component of regulators, their thin elastomeric diaphragm. Other "air-wash" approaches may pass in laboratory conditions. The shield provides positive protection against all potential conditions.



External hazards are bad enough without having concerns of spreading illness among firefighters through shared-use SCBA. The Ultra Elite® facepiece protects you against user cross-contamination with MSA's inhalation check-valve: a "must have" in modern safety equipment.

#### 6. LIGHTWEIGHT AND EASY TO USE

Firefighters already have enough weight to carry and gear to maintain, so MSA engineers set out to lighten the load of components, reduce parts counts, **simplify maintenance**, maximize user comfort, and **modularize** the design.

The FireHawk M7 Air Mask has a lightweight polymer backplate, with quick-release harness straps, an error-proof cam-lock cylinder attachment, fast change-out electronic components, a large swiveling lumbar pad, and regulators that will fit in the palm of your hand (**less than 30 parts** for the MMR and 14 for the 1st stage). Our time-tested Ultra Elite facepiece has unbeatable comfort, visibility, communications, cross-contamination protection, fit, and seal.



#### 7. PLATFORM FOR THE FUTURE

The FireHawk M7 Air Mask is designed to accept **future technology upgrades**. Included in every M7 electronics ensemble is a 2.4GHz **personal wireless network**, a network that transmits and receives encrypted information over a short-range on a firefighter's body. This new wireless feature provides the capability to add on future technology that can provide additional information back to incident command through the FireHawk M7 Accountability System. Software can also be upgraded wirelessly in the field, through the M7 wireless network. You never have to worry about radio interference either – we have you covered with a thoroughly-tested RFI shield design that protects against all fireground radio signals. The new FireHawk M7 Air Mask provides you with the best technology today and positions you for well into the future.

# What's in this Air Mask?

One-way  
Inhalation  
Check Valve



M7 Control Module with  
accelerometer motion sensor,  
digital and mechanical  
pressure display time  
remaining, and thermal alarm

High-visibility  
reflective panels

Wide-view lens with Kevlar  
Speed-ON® Head Harness

Wireless M7 HUD with  
auto dim and buddy light

High-performance mechanical  
speaking diaphragm

FireHawk® MMR





M7 Carrier and Harness Assembly with side handles and carabiner attachment

Luminescent cylinder band

PR14™ First-Stage Regulator with only 14 internal parts

Optional chest strap

ExtendAire™ Emergency Breathing System

Parachute-style buckles

Stainless steel cylinder band with secure Cam-Lock System

Lumbar pad

Double-pull Kevlar waist belt

Quick-Fill® URC with Audi-Larm™

LED buddy lights

PASS Alarm Dual Sound Emitters



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# SPECIFICATIONS

- Weight with empty H-30 cylinder (including batteries) is 20 lbs-8 oz
- Battery life of electronics > 1 year with frequent use (standard alkaline cells)
- RFI shielding up to 50v/m radio signal load across an 80 MHz to 2.5 GHz range
- PASS heat alarm performance > 95 dB @ 500°F
- Water immersion protection – M7 electronics at 5 ft. depth for 1 hour
- Air delivery – manufactured to the NFPA standard 320 lpm rate; design qualified at twice NFPA rate (640 lpm) cyclic breathing
- Data-logging – most recent 25-hours-of-use information
- Electronic ID tagging (RFID) standard with M7 Accountability System
- Optional equipment: Rescue Belt rappelling system (50 ft. & 75 ft.), M7 Accountability System, Extend-Aire and Quick-Fill emergency breathing systems, Push-to-connect or Slide-to-connect regulator attachments, swiveling lumbar pad and chest-strap.
- Standard equipment includes: Facepiece cross-contamination check-valve, thermal alarm, time-remaining display, wireless programming and network, front & rear buddy lights, auto-dim HUD, large drag-carrying handles, stainless steel cylinder band with cam-lock system.

## ORDERING INFORMATION

## FireHAWK<sup>®</sup> M7 Air Mask

Air Mask Pressure	Carrier/Harness Assembly	Lumbar Pad/Rescue Belt	Cylinder	MMR Type	Emergency Breathing Support	Facepiece	Nosecup	Head Harness	Electronic Communications	Integrated Pass/Telemetry	Case
L 2216	A Single Pull without chest strap B Single Pull with chest strap C Double Pull without chest strap D Double Pull with chest strap	0 None 1 Swiveling Lumbar Pad A Rescue Belt - Standard, 50' B Rescue Belt - Mid-Size, 50' C Rescue Belt - Long, 50' D Rescue Belt - Standard, 75' E Rescue Belt - Mid-Size, 75' F Rescue Belt - Long, 75'	0 None 1 3AL Aluminum with air 2 Hoop Wrapped with air 3 30' Carbon with air 4 3AL Aluminum less air 5 Hoop Wrapped less air 6 30' Carbon less air	A CBRN Firehawk STC, threaded, B CBRN Firehawk STC, QC, C CBRN Firehawk PTC, threaded, D CBRN Firehawk PTC, QC,	0 None 1 Quick-Fill 2 ExtendAire 3 Quick-Fill and ExtendAire  M is not compatible with Quick-Fill	A None B Hycar Small C Hycar Medium D Hycar Large	0 None 1 Medium 2 Large	0 None 2 Speed-ON less neck strap 4 Speed-ON with neck strap	A None B Clear Command Ready with bracket C Clear Command Amp D Clear Command Amp/RI	A PASS with thermal alarm activated B PASS without thermal alarm activated C PASS, telemetry and thermal alarm D PASS, telemetry and without thermal alarm	0 None 1 Hard Case 2 Soft Case
M 3000	Options A & B can only be chosen if a rescue belt is selected.		0 None 1 30+ Carbon with air 2 30+ Carbon less air								
H 4500			0 None 1 30' Carbon with air 2 45' Carbon with air 3 45' Carbon low-profile with air 4 60' Carbon with air 5 30' Carbon less air 6 45' Carbon less air 7 45' Carbon low-profile less air 8 60' Carbon less air								
			If choosing a rescue belt, the carrier/harness assembly must be a single pull (options A or B).								

A-M7





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## ORDERING INFORMATION

### ***Carbon-Wrapped Cylinders***

A unique outerwrap made of lightweight, high-performance carbon fibers, which reduces cylinder weight by two to six pounds when compared to fiberglass-wrapped cylinders and as much as ten pounds when compared to aluminum cylinders. They are available in six models to accommodate a wide range of applications.



Cylinder Type (Cylinder & Valve)	NIOSH Service Rating Life	Pressure (psig)	Weight* (empty)	Part No.
L-30	30'	2216 psig	8 lbs. – 0 oz.	807586
L30+	30'	3000 psig	9 lbs. – 8 oz.	816115
H-30	30'	4500 psig	7 lbs. – 4 oz.	807587
H-45	45'	4500 psig	9 lbs. – 7 oz.	807570
H-45 Low-Profile	45'	4500 psig	9 lbs. – 10 oz.	10035644
H-60	60'	4500 psig	11 lbs. – 12 oz.	807588

*\*All weights shown are approximate figures.*

### ***Accountability System***

MSA's new M7 Accountability System revolutionizes fireground safety by combining the latest computer software with a high-performance radio module and the field-proven technology of MSA's ICM TxR Integrated PASS.

Accountability Base Station Kit <i>(includes software, antenna kit, USB cable and 8-24 volt power cable)</i>	10072240
M7 Control Module Reader / M7 ID tag writer	10083876
M7 ID tags	10083875
Antenna kit	10075756
USB cable	10063880
8-24 volt, power cable	10049410
Wall mount power cable <i>(not included in 10072240 kit)</i>	10047342



# ORDERING INFORMATION: FACEPIECE ASSEMBLIES FOR FIREHAWK M7 AIR MASKS

## Ultra Elite M7 Facepiece, Speed-ON Head Harness, Nosecup and M7 HUD Bracket

Firehawk STC			Firehawk PTC		
	Standard speaking diaphragm	ClearCommand ready		Standard speaking diaphragm	ClearCommand ready
Small	10084689	10084821	Small	10084690	10084822
Medium	10084823	10084825	Medium	10084824	10084826
Large	10084827	10084829	Large	10084828	10084830

### Spare / Replacement M7 HUD

M7 HUD
10083132

### APR Adapter

Firehawk STC	Firehawk PTC
10032511	10040052

### ClearCommand® Communications System for Ultra Elite® Facepieces

Amplifier Kit, complete with microphone	10024074
Replacement amplifier unit	10023056
Amplifier Radio Interface Kit, complete with microphone	10051290
Replacement Amplifier Radio Interface unit	10051289

### Emergency Breathing Accessories

Quick-Fill 3-foot emergency transfill hose in Kevlar pouch	485366
ExtendAire hose and pouch	812973
ExtendAire air-line hose kit	812958

### Rescue Belt

Rescue Belt, 50 foot Kevlar line, standard belt (56")	10052766
Rescue Belt, 50 foot Kevlar line, mid-size belt (66")	10071003
Rescue Belt, 50 foot Kevlar line, long belt (76")	10052767
Rescue Belt, 75 foot Kevlar line, standard belt (56")	10052768
Rescue Belt, 75 foot Kevlar line, mid-size belt (66")	10071004
Rescue Belt, 75 foot Kevlar line, long belt (76")	10052769

### RescueAire™ II Portable Air Supply System

Low-Pressure (2216 psig)	
RescueAire II, Firehawk STC MMR with L-30 Cylinder	10041196
RescueAire II, Firehawk PTC MMR with L-30 Cylinder	10041230
High-Pressure (4500 psig)	
RescueAire II, Firehawk STC MMR with H-60 Cylinder	10041195
RescueAire II, Firehawk PTC MMR with H-60 Cylinder	10041199



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

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**Corporate Headquarters**  
P.O. Box 426, Pittsburgh, PA 15230 USA  
Phone 412-967-3000  
[www.MSAFire.com](http://www.MSAFire.com)

**Fire Service Customer Service**  
Phone 1-877-MSA-FIRE  
Fax 1-800-967-0398

**MSA Canada**  
Phone 416-620-4225  
Fax 416-620-9697

**MSA Mexico**  
Phone 52-55 21 22 5770  
Fax 52-55 5359 4330

**MSA International**  
Phone 412-967-3354  
FAX 412-967-3451

**Offices and representatives worldwide**  
For further information:

**MSA**  
The Safety Company