

**New**



## **Modular SCBA System for Emergency Service Applications**

**[ For each fire service the optimal solution ]**

**MSA**

# MSA SCBA System

Around the world, fire service personnel rely on MSA SCBA systems for their breathing protection. Their trust and our continued commitment to create sophisticated personal protective equipment of the highest standards has made MSA a leading supplier of SCBA systems worldwide. Your SCBA system can also be combined with MSA fire helmets, chemical protective suits and monitoring systems that work together for synergised safety and efficiency.

## [ Time tested, application approved ]

The use of SCBAs in the emergency service are wide ranging and our customers demand versatility in their equipment. That's why MSA breathing apparatus systems are completely customisable to meet every application and budget. With our easy-to-use configurator, available as a CD or online, you build your SCBA system exactly the way you need it. Based on decades of experience, we also offer three SCBA presets [AirGo pro, AirMaXX & eXXtreme] – configured systems for the most common applications.

## [ Make sense technology ]

Over the last several years MSA has created something of a revolution with the *alpha* series of sophisticated safety equipment. All *alpha* components focus on significantly increasing efficiency, safety and capability while maintaining an overall sense of design simplicity and ease of use.

## [ Built to last ]

All MSA premium components are designed for long life and low maintenance. They offer exceptional value through reduced total cost of ownership. MSA SCBA components are EN 137: 2006 approved and meet the tough class 2 requirements to withstand high temperatures, flames and rough handling. All components are also intrinsically safe and ATEX approved for zone 0 environments.

## [ Easy to use ]

The MSA SCBA system, like all of our equipment, is always designed for easy use in challenging job conditions. For example all adjustments on our SCBAs can be made with work gloves on.

## [ Service friendly ]

With facilities in 140 countries and continuous personnel training, our service-friendly products are backed by friendly MSA service to keep shop time to a minimum.



# The all-purpose workhorse

## Preset: AirGo pro

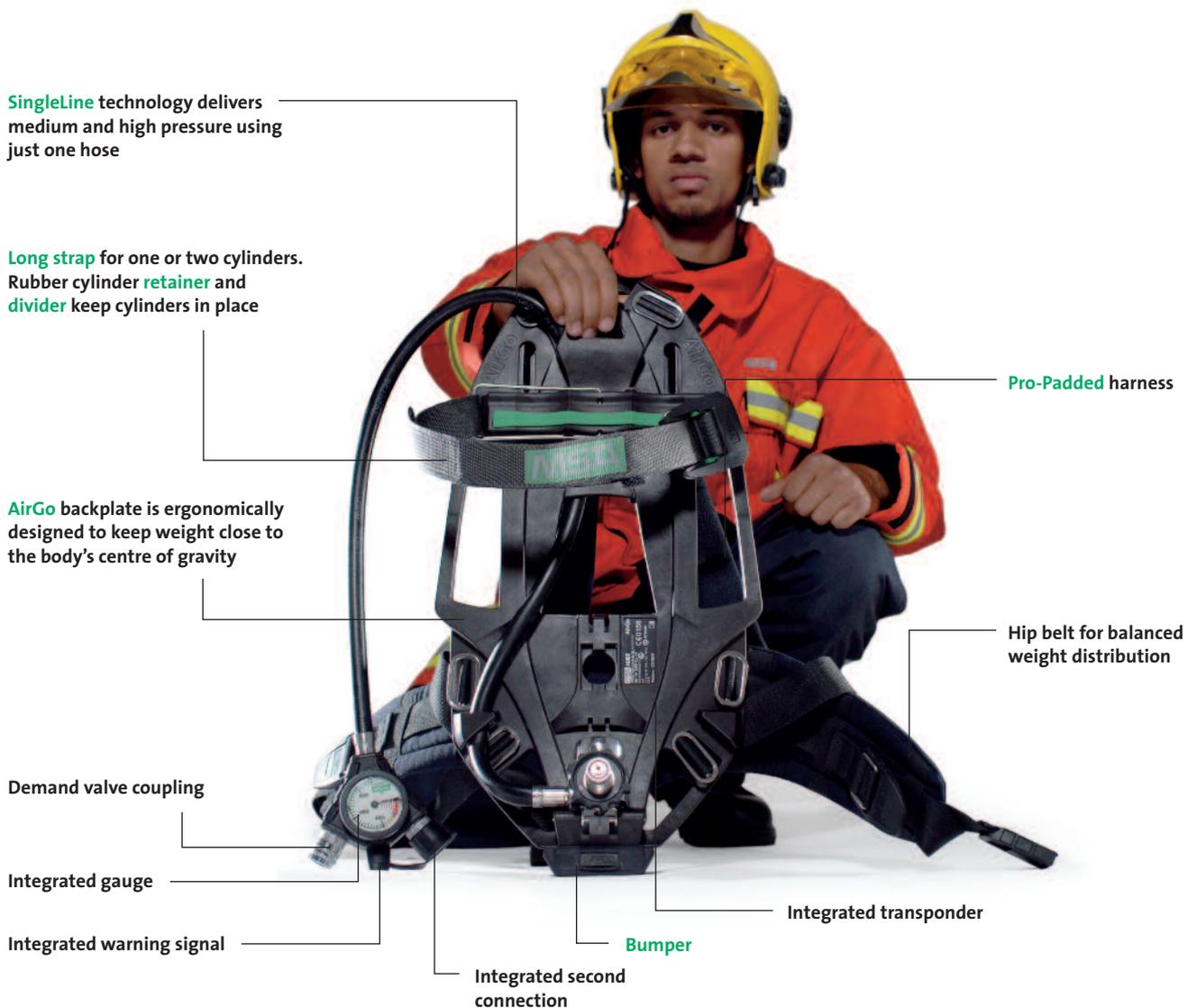
When you are looking for a heavy duty carrier for a wide range of firefighting, first response or rescue operations, the AirGo pro is ready for deployment. Its rugged reliability, flexibility and great value make it a popular choice for professional, volunteer, military and industrial brigades. Weight is distributed evenly and kept close to your body to reduce stress and fatigue.

The *alpha* SingleLine pneumatic system integrates warning signal, second connection and gauge in an easily accessible

manifold at your chest. The optional *alpha* Personal Network offers extended electronic and telemetric monitoring and communication capability.

Fire service personnel around the world who are looking for high quality, solid reliability and comfort use AirGo pro for their respiratory protection.

For fast ordering: 10086571.



SingleLine technology delivers medium and high pressure using just one hose

Long strap for one or two cylinders. Rubber cylinder retainer and divider keep cylinders in place

Integrated gauge

Demand valve coupling

Integrated warning signal

Integrated second connection

AirMaXX backplate adjusts to three sizes

MaXX-Premium harness with S-shaped shoulder straps

Swivelling hip belt for improved ergonomics

Bumper

Integrated transponder

## For those who demand the best Preset: AirMaXX

For high-frequency and extended SCBA wear, maximum user comfort translates directly into increased performance and good health. The AirMaXX SCBA preset combines premium ergonomic features with advanced technology to provide the best experience in SCBA wearability available today.

The ergonomically designed and optimally balanced AirMaXX backplate is adjustable to fit all body sizes. This works in conjunction with the premium S-swing shoulder pads and swivelling hip belt to distribute weight evenly while increasing freedom of movement. Stress and fatigue are reduced as you perform your job without restrictions.

The AirMaXX stays with you even when you are turned upside down.

The *alpha* SingleLine pneumatic system integrates warning signal, second connection and gauge in an easily accessible manifold at your shoulder. The optional *alpha* Personal Network offers further electronic and telemetric monitoring and communication capability.

If you are using your SCBA frequently, for long periods at a time or simply go for the best in class AirMaXX is the system of choice.

For fast ordering: 10060803.

# BACKPLATE

## AirMaXX®

The premium AirMaXX back plate can be adjusted to three different lengths in order to perfectly balance on hips without losing control. The gauge is always at the ideal position on the chest. The sturdy patented construction can be adjusted while wearing gloves.

The AirMaXX comes standard with a long strap for two cylinders, rubber cylinder retainer with patented sliding studs, divider and bumper. The patented swivel hip belt is another sophisticated feature of this high-end back plate.

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As an alternative to the SCBA presets you can configure your system by picking components according to your needs.

## HARNESS



### pro [Padded]

Generously padded shoulder straps and hip belt ergonomically distribute SCBA load while providing lasting comfort. Extra secure fasteners are quickly donned and doffed. The hip strap is adjusted simply by pulling towards the front. The Nomex® blend material provides extra durability.



### eXXtreme [Tough]

This harness provides the same comfort as the MaXX harness and is especially suitable for repeated extreme demands in training situations, such as flashover exercises. It is made from non-flammable aramid fibres and lines are protected with insulating PreOx tunnels. Buckles are chromium-plated for heat reflection.

Both MSA back plates feature heat resistant glass fibre reinforced polyamid materials. The design ensures close-fitting hoses for easy donning and safe usage. An integrated transponder ensures easy inventory management.

## AirGo

The solid AirGo back plate provides high flexibility. The anthropomorphic design is engineered to balance weight throughout the body's skeletal structure to prevent stress points during extended wear. The hoses are well guided for easy donning and snag-free operation. The AirGo back plate comes with the widest set of options available.



### Bumper for additional robustness:

- enhanced protection for SCBA system

### Long strap, divider & rubber retainer for 2 cylinders:

- ensures the separation and tight fit of 2 cylinders
- for one or two cylinders from 4 to 6.9 liters
- divider tilts back if not needed
- patented quick-release buckle for fast and safe tightening



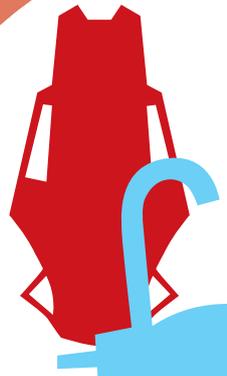
### AirGo Options

#### Swivelling hip belt for high flexibility:

- is sufficiently elastic to allow extensive freedom of movement
- swivel range is limited and the padded stop adds to the feeling of safety

# Configure your individual SCBA system

## These pages give you an overview.



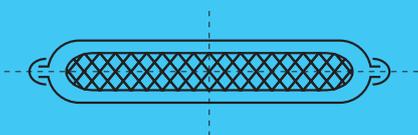
All MSA harnesses feature flame resistant and machine washable fabrics. The lengths of shoulder and hip strap are adjustable. Plastic buckles prevent finger burn.

## MaXX [Premium]

Our high performance harness provides optimum comfort and supports long-term health while reducing stress and fatigue. Attached shoulder strap design prevents slippage. Hip belt is easily adjusted simply by pulling forward. Extra secure fasteners allow quick donning.



S-swing shoulder straps ensure unobstructed arm movements.



Sandwich construction of high quality Protex® shell and synthetic padding material provides long term comfort and extreme durability.



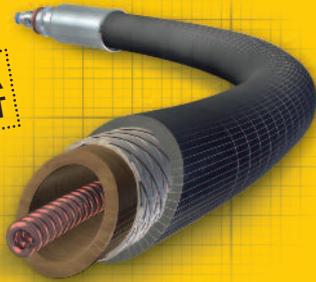
Swivelling hip belt balances weight between upper and lower body structures. Padded stop and limited swivel range adds to the feeling of safety.

# PNEUMATICS

## alpha SingleLine

Probably the question everyone asks when they first see an *alpha* SingleLine SCBA is “Where are all the hoses?” The patented system supplies demand valve, second connection, gauge and signal line into one single visible hose. MSA engineers have used a combination of advanced material science, clever design and novel technology to revolutionise SCBA pneumatics.

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Lung governed demand valve connection

Pressure indication

Warning signal

Coupling for second connection



### Hose-in-hose

At the heart of the *alpha* SingleLine is the patented hose-in-hose technology. The high pressure line runs inside the medium pressure line, which also acts as a protective casing.

### The SingleLine pneumatic advantage:

- increased durability
- lighter
- less maintenance
- lower cost-of-ownership

# ELECTRONICS

MSA electronic components are ATEX T4 approved.

## alphaMITTER

### Optional transmitter for SingleLine pneumatics:

- Sends air pressure info to *alphaSCOUT* every second
- Integrated into the backplate
- Wireless USB signal exchange creates a defined network around the user
- More *alpha* Personal Network details on page 11



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## ICU

### Optional alarm system for classic pneumatics with mechanical and digital gauge, continually monitors and displays:

- Pressure
- Motion
- Temperature
- Remaining service time
- Battery status

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Data for up to 30 incidents can be read out and processed through MSA software. A key for improved accountability and maintenance friendliness is available.



The MSA first stage pressure reducer is state-of-the-art. Its robust and simple construction means that it is lightweight and requires only minimum maintenance.



#### SingleLine Options:

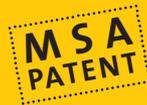
With the QuickFill adapter cylinders can be charged while wearing the apparatus. Filling the cylinder takes only 45 seconds.



Third medium pressure connection with nipple or coupling for rescue or air line applications. Mounted on hip belt.



*alphaCLICK* rapid cylinder exchange adapter. For details please see page 10.



## Classic

The MSA Classic pneumatic system uses individual lines for each function. One medium pressure line to supply the demand valve, a high pressure line with gauge come as standard. Signal line, second connection and integrated control unit [ICU] are optional.

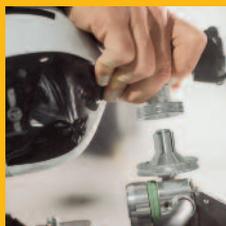


#### Classic Options:

**S:** Brings low pressure warning signal line close to the ear.



**Z:** Second connection for rescue work.



*alphaCLICK* rapid cylinder exchange adapter. For details please see page 10.

# When 100% are not enough

## Preset: eXXtreme

Frequent exposure to flames and heat from recurring hard training takes an especially hard toll on equipment. The eXXtreme preset utilizes special materials to reduce maintenance and cost of ownership of critical components that would otherwise require frequent replacement in such extreme applications.

The harness is made from extra heavy duty and non-flammable aramid fibres. The air line is protected from fire and heat by insulating tunnels on the

shoulder pads. To facilitate the frequent cylinder exchange typical for trainings, the eXXtreme preset is equipped with the *alphaCLICK* [for details please see page 10]. All other features such as adjustable AirMaXX back plate and *alpha* components are identical to the AirMaXX preset. Trainers and others who work in repeated high-heat and flame circumstances choose eXXtreme.

For fast ordering: 10069671.



# Rapid cylinder exchange

## *alphaCLICK*

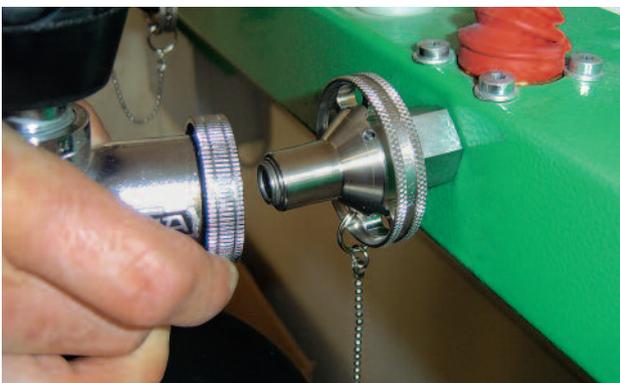
With the revolutionary patented *alphaCLICK* coupling, you can say goodbye to cumbersome threading. Simply click the cylinder onto the your SCBA pressure reducer and you're done. The *alphaCLICK* lets you change cylinders at up to ten times the speed of threading while improving on safety.



### [ One click safety and efficiency ]

Several systems are in place to ensure absolute safety and reliability. In fact, the *alphaCLICK* offers some safety advantages over threaded connections.

First, the *alphaCLICK* adapter can only be disconnected when there is no pressure. Then it requires a two-step disconnection sequence. A spring-loaded release ring must first be turned 20 degrees. Then the cylinder is free to be disengaged by simply pushing the ring back.



### [ Features at a glance ]

- lets you change cylinders at ten times the speed of threading
- fits on all 200 bar or 300 bar standard threaded cylinder valves
- safety release: a two-step disconnection sequence
- flow restrictor avoids uncontrolled air flow
- fits on all AirGo, AirMaXX and BD 96 SCBA backplates

An especially valuable safety feature of the *alphaCLICK* is the flow restrictor which automatically engages when the cylinder is not connected. Should the cylinder valve accidentally be turned, the restricted air flow prevents the cylinder from getting dangerously out of control. The *alphaCLICK* also has a built-in dirt guard, which keeps air clean and ensures smooth functioning.

### [ Economic ]

Several upgrade kits are available to retrofit existing MSA pressure reducers or complete SingleLine pneumatics.

### [ Upgrade ]

But the best part of the *alphaCLICK* is that it fits on all 200 bar or 300 bar standard threaded cylinders [EN 144-2], protecting your legacy investment. *alpha* is always a first when it comes to cost efficiency.

### [ Filling Panels ]

Existing MSA filling panels can be retrofitted with *alphaCLICK* couplings. Sets for 200 bar or 300 bar contain coupling, blind plug, bushings and seals. Complete filling panels for compressors with *alphaCLICK* connectors in various versions are available on request.

### [ Test Gauge ]

The *alphaCLICK* test gauge makes checking cylinder pressure in your storage a matter of seconds.



The *alphaCLICK* rapid cylinder exchange adapter is especially appreciated on the filling panel in the workshop

# Monitoring *alpha* Personal Network

The *alpha* Personal Network is a set of modular communication and measuring components. They can be combined in a number of configurations to create a wide range of monitoring, alarm and telemetric capabilities.

At the core of this system is a wireless personal monitoring and signal device called the *alphaSCOUT*. Since the fully disengaged *alphaSCOUT* is not connected to a specific SCBA, the number of units needed by an organisation can be reduced by up to 75%.

The *alphaSCOUT* receives SCBA air pressure data from the *alphaMITTER* transmitter – located on the SCBA back plate – every second. The *alphaSCOUT* then calculates remaining service time. *alphaSCOUT* can be personalized by the *alphaTAG* identification tag, with e.g. name, team or vehicle. Various special functions can also be activated by the *alphaTAG*: Companion, Repeater, Beeper and Hibernation [Sleep] functions.



Ultra Elite mask with integrated *alphaHUD*



*alphaBASE* standard plus PC



*xplore* TABLET PC with *alphaBASE* battery-powered



*alphaMITTER* short range transmitter

## [ Radio-based SCBA Monitoring ]

*alphaSCOUT* can be enhanced with telemetric capability in order to send and receive powerful long-range signals. This allows incident personnel data to be continuously monitored by incident command through the base station. The MSA monitoring software runs automatically without operator intervention. Complete incident data is also automatically logged and analysed. An evacuation message can be sent to incident teams or the entire crew.

## [ Base Station ]

For the base station you can choose between two receivers. *alphaBASE* is the standard receiver which works in combination with any PC. An external aerial with magnetic foot can be used for vehicle mounted applications. A battery-powered version of the *alphaBASE* can be attached to the *xplore* TABLET PC to form a completely mobile base station for SCBA monitoring.

## [ Heads-Up Display ]

The *alphaHUD* provides additional or alternative hands free monitoring. Information is provided by a pattern of LED lights at the lower periphery of your field of vision inside the mask. Depending on the setup, *alphaHUD* can provide pressure, gas and evacuation signals.

For further details, please ask for the MSA *alpha* Personal Network brochure.

# Demand Valves

## AutoMaXX®

Sensitive response to individual user's breathing while withstanding toughest conditions: the AutoMaXX defines the state-of-the-art in demand valves. Plus the virtually maintenance-free valve core results in low cost-of-ownership.

The unique housing form of the AutoMaXX ensures that it cannot get entangled and provides extra protection against blows.

### [ Easy wear ]

The AutoMaXX's swivel action on the facepiece and the medium pressure line provide maximum freedom of movement and comfort. You simply turn the hose connector until it is out of your way.

The lung governed demand valve is easily activated with the first breath and operates very quietly. The AS version automatically shuts down positive pressure when removed from the mask.

### [ Easy care ]

The AutoMaXX protective cap is easily removed to permit inspection of the diaphragm. The valve assembly does not require repeated lubrication. No significant maintenance beyond a general overhaul is ever needed.

### [ Options ]

The AutoMaXX is available in the following versions:

- N:** normal pressure with standard round thread,
- AE:** positive pressure with M 45 x 3 thread,
- AS:** positive pressure with MaXX plug connector,
- AS-C:** combination of the AE and the AS.

Moreover you have the choice of the following options:

- G:** rubber medium pressure line for industrial applications,
- B:** by-pass valve provides an adjustable, constant air stream,
- Short:** shorter medium pressure line [recommended in combination with SingleLine technology].



AutoMaXX-N



AutoMaXX-AE



AutoMaXX-AS



AutoMaXX-AS-C



AutoMaXX-AS-B

## LA 96

Composed of special materials, the LA 96 series of lung governed demand valves are especially remarkable for their small profile and light weight. Servo-controlled air delivery is supplied through a pivoting and extremely flexible medium pressure line, providing increased safety and comfort.

### [ Options ]

The LA 96 is available in the following versions:

- N:** normal pressure with standard round thread,
- AE:** positive pressure with M 45 x 3 thread,
- AS:** plug-in connection.

For even more versatility you can choose:

- Short:** shorter medium pressure line [recommended in combination with SingleLine technology].



LA 96-N



LA 96-AE



LA 96-AS

# Masks

## Ultra Elite

The Ultra Elite full-face mask was developed with the future in mind. Its ergonomic design, state-of-the-art technology and attention to detail make it the ideal choice for professionals who need frequent and/or long term breathing protection for concentration-demanding tasks.

The ergonomic Ultra Elite is distinguished by its undistorted field of vision, exemplary wearing comfort and excellent speech transmission.

The Ultra Elite is available in over 40 different versions with a broad range of accessories to suit your application. For long duration applications the versions with faceblank, nose cup and harness of yellow silicone are optimal. Silicone is particularly skin tolerable and ozone and UV radiation resistant. For more information please see our leaflet ID 05-418.2.

## 3S

With over 5 million units sold, the 3S is the most successful full-face mask design the world over. Offering high comfort, and proven safety, the 3S is a classic which professionals have come to depend on.

The 3S is available in over 50 versions for virtually all applications. The 3S face blank is also available in yellow silicone, which does not irritate the skin and is particularly resistant to ageing. Some versions of the MSA 3S are also available in small size. For more information please see our leaflet ID 05-405.2.



Ultra Elite-PS-MaXX with AutoMaXX-AS



Ultra Elite-H-PS-MaXX with AutoMaXX-AS



3S-PS-MaXX with AutoMaXX-AS

## Mask-Helmet Combinations



Ultra Elite-H-PF-F1  
[with MSA GALLET helmet]



3S-H-PS-MaXX F1  
[with MSA GALLET helmet]

Both the Ultra Elite and the 3S are available as mask-helmet combinations. Special adjustable rubber straps secure the mask directly to the outside of the helmet quickly and securely, eliminating the need to remove the helmet. The mask can just as easily be removed from the helmet when respiratory protection is no longer needed. For more information, please refer to leaflet ID 05-432.2.

# Accessories

## Cylinders

MSA offers both steel and composite compressed-air cylinders to meet your requirements. Steel cylinders are available in both 4 litre/200 bar and 6 litre/300 bar sizes. Composite cylinders are 50% lighter than traditional steel construction. They are available in either 6, 6.8 or 6.9 litre sizes with 300 bar maximum pressure.



## Carrying case

The rugged and lightweight carrying case holds your SCBA system, up to two cylinders, a demand valve and a mask. It is particularly ideal for transporting equipment for servicing or when travelling.

### Features:

- rollers for comfortable transportation
- accommodates any BA set with up to two cylinders
- nests provide rattle-free storage
- rollers for best manoeuvrability
- sturdy casing



## RespiHood

The RespiHood is designed for rescuing people from hazardous areas. It is placed over the head and the neck-band is then tightened slightly. Air is supplied through the SCBA's second connection. The RespiHood folds up and is stored in a compact, watertight pouch for easy carrying.

RespiHoods large anti-fog coated visor provides a wide field of vision and therefore helps prevent panic.





