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## Life critical personal protection systems

Avon Protection plc is an innovative technology group, which designs and produces life critical personal protection systems to maximise the performance and capabilities of our customers, with leading positions in the global respiratory and head protection markets for the world's militaries and first responders.









HEAD PROTECTION

#### **MARKETS**



MILITARY



**BRANDS** 









Avon Protection, part of the Avon Protection plc group of brands, designs and manufactures life-critical protection systems for the world's militaries and first responders. With a portfolio that includes chemical, biological, radiological, nuclear (CBRN) respiratory products and other breath assist solutions, Avon Protection's mission is to relentlessly advance the future of protection by enhancing the performance, efficiency and capability of those who risk their lives to save others.

As an innovative capability provider, we understand the unique requirements of the modern warfighter and tactical operator. This depth of specialization and understanding has ensured products are designed to protect our users in the most extreme of environments.

We have been supplying protection solutions to the UK Ministry of Defence and other allies since the 1920's and are a primary supplier of integrated protective equipment to NATO and the United States Department of Defense Army, Navy, Marines, Air Force and Special Operations Forces.

Our solutions are at the frontline of numerous national defense and tactical deployment strategies. Leveraging our military pedigree, we have brought the first responder market field proven protection solutions that meet the complex needs of the tactical operator. Evolving protection capability to meet the operational needs of the tactical operator has meant we are the market leader among Law Enforcement and SWAT users around the world.







### FMI2<sup>™</sup>



#### The mostly widely adopted respirator in the world.

The FM12 mask, initially developed for NATO operations, has become the most widely adopted respirator across the world by numerous military and law enforcement organisations.

#### COMMUNICATION

- Speech Horn for clear direct communication.
- Secondary Speech Transmitter (SST) to connect communications equipment.

#### **FILTRATION**

- Side mounted filter mount.
- Left or right mounting for tactical specialists.
- 40mm standard NATO thread.

#### **HYDRATION**

- High flow fail safe drinking device.
- Connection to hydration systems.

#### **USER COMFORT**

- 6 buckle fit allows for excellent seal.
- Quick donning and doffing.
- Available in 3 sizes.

### PC50<sup>™</sup>



#### Designed for the lowest cost of ownership.

The PC50 is based on the widely deployed 50 Series masks and is designed and approved as a NON-CBRN respiratory device, providing protection in dangerous and contaminated environments, against solid and liquid respirable particles, gases, vapours and splashes of liquid chemicals.

#### AIR MANAGEMENT

- Low inhalation resistance.
- Heat build-up minimized.
- Low-re-breathed carbon dioxide.

#### COMMUNICATION

- External communications systems can be attached to the mask.
- Standard communication port.

#### **USER COMFORT**

- 3 face piece sizes for improved fit.
- Chlorobutyl rubber and silicone blend mask.
- Six point, easy to adjust head harness.

- Unique polyurethane visor is highly flexible plus scratch and impact resistant.
- Fully optically correct.
- Panoramic visor design gives maximum field of vision and wearer recognition.

### HMKI5O<sup>™</sup>



#### A combination of two cutting edge products designed to the highest standard.

The HMK150 is a revolutionary helmet mask combination system specifically designed for CBRN and riot control. We have teamed with Schuberth to provide flawless integration of our HM50 respirator to the Schuberth P100N Helmet. Based on the widely deployed 50 Series mask platform, the HM system brings the pedigree of a mask proven for use in the harshest environments.

#### **DUAL WEAR MODES**

- Provides complete head and respiratory protection.
- Respirator can be donned without removing the helmet.

#### SCHUBERTH P100N HELMET

- 3 different shell sizes.
- Flame-retardant lining.
- EPS inner shell for optimized shock absorption properties.

#### **USER COMFORT**

- 3 face piece sizes for improved fit.
- Chlorobutyl rubber and silicone blend mask.
- Reflex seal with low profile brow for helmet compatibility.

- Unique polyurethane visor is highly flexible plus scratch and impact resistant.
- Fully optically correct.
- Panoramic visor design gives maximum field of vision and wearer recognition.

### **C50**<sup>TM</sup>



#### Building on the success of the M50 mask.

The C50 protective mask is based on the M50, officially known as the Joint Service General Purpose Mask which was developed for the U.S. DOD. It shares key technologies, providing maximum operational flexibility to counter multiple threat scenarios, including CBRN agents, Toxic Industrial Chemicals (TICs), and Toxic Industrial Materials (TIMs).

#### AIR MANAGEMENT

- Low inhalation resistance and excellent de-mist properties.
- Heat build-up minimized.
- Low-re-breathed carbon dioxide.

#### COMMUNICATION

- Front mounted exhale valve allows clear direct communication.
- For enhanced communication an optional VPU is available.
- External communications systems can be attached to mask.

#### **USER COMFORT**

- 3 face piece sizes for improved fit.
- Chlorobutyl rubber and silicone blend mask.
- Reflex seal with low profile brow for helmet compatibility.

- Unique polyurethane visor is highly flexible plus scratch and impact resistant.
- Fully optically correct.
- Panoramic visor design gives maximum field of vision and wearer recognition.

### FM50<sup>™</sup>



#### Over 3.5 million 50 series respirators issued.

Developed with the U.S. DOD, the FM50 is the next generation of CBRN full face masks. Specifically designed to meet the latest military mask requirements, the FM50 delivers the lowest profile CBRN twin filter system on the market.

#### COMMUNICATION

- Electronic Communication Port (ECP) allows a Voice Projection Unit to be safely connected in a CBRN environment to an internal microphone.
- Additional communication systems can be attached via this ECP using an appropriate lead.

#### FILTRATION

- Twin filter design significantly reduces breathing resistance and improves weight distribution.
- Bayonet fit provides quick and efficient filter attachment.
- Filters can be replaced without breaking the protective seal through self-sealing valves.

#### **USER COMFORT**

- Available in 3 sizes.
- Chlorobutyl rubber and silicone blend giving the mask a high degree of flexibility and comfort for extended use.
- Reflex seal with low profile brow for helmet compatibility.
- Extended chin flap for CBRN garment compatibility.
- High flow fail safe drinking device enables connection to a canteen or bladder type system.

- Unique polyurethane visor is highly flexible plus scratch and impact resistant.
- Fully optically correct.
- Panoramic visor design gives maximum field of vision and wearer recognition.

### **FM53**<sup>™</sup>



#### When the user needs to adapt to ever changing operational conditions.

The 'first to market' combination respirator, developed to meet the technically advanced needs of global special forces, the FM53 delivers positive pressure SCBA, PAPR and negative pressure capability. All of these capabilities are available from one mask platform without the need to change components.

#### COMMUNICATION

- Electronic pass-through for external radio use.
- Electronic Communication Port (ECP) allows a Voice Projection Unit (VPU) to be safely connected in a CBRN environment to an internal microphone.

#### INTEGRATION

- Mask integrates with NFPA Class 2 and 3 suits.
- Reduced buckle size for suit/helmet integration.
- Extended chin flap for CBRN garment compatibility.

#### MULTIPLE MODES

- Functions as both a negative and positive pressure mask.
- VREU lever for easy switching between negative and positive pressure modes.

#### **USER COMFORT**

- Available in 4 sizes.
- Interchangeable silicone nosecups for custom fit.
- Low profile design for superior weapons integration.
- Unique polyurethane visor is highly flexible plus scratch and impact resistant.

### **FM54**<sup>™</sup>



### Built on the proven pedigree of the FM53, the FM54 is our most elite mask.

Building on the proven pedigree of the FM53, the FM54 delivers enhanced flame hardening, coupled with improved passive speech performance, the FM54 provides Specialist Operators maximum level of protection to the face, eyes and respiratory tract from CBRN, Riot Agents, TICS and Toxic Industrial Materials while maintaining extreme user flexibility.

#### COMMUNICATION

- Electronic Communication Port (ECP) allows a Voice Projection Unit (VPU) to be safely connected in a CBRN environment to an internal microphone.
- Additional communication systems can be attached via this ECP using an appropriate lead.

#### **USER COMFORT**

- Available in 4 sizes.
- Chlorobutyl rubber and silicone blend giving the mask a high degree of flexibility and comfort for extended use.
- Reflex seal with low profile brow for helmet compatibility.
- Extended chin flap for CBRN garment compatibility.
- High flow fail safe drinking device enables connection to a canteen or bladder type system.

- Unique polyurethane visor is highly flexible plus scratch and impact resistant.
- Fully optically correct.
- Panoramic visor design gives maximum field of vision and wearer recognition.

### RESPIRATOR ACCESSORIES

#### FILTERS



MILCF50



CSCF50



FM61



GPCF50



CTCF50 and CTCF50e



FM61EU

#### CBRN FILTERS

#### FILTER COVERS / CONVERTERS



CBRNCF50



CBRNCF50e



CBRNCF50 CE



Dust/Decon Filter Covers



Filter Mount Converters

### RESPIRATOR ACCESSORIES

#### VISION



Clear Outsert Assembly



Sunlight Outsert Assembly



BlueBlocker Outsert Assembly



Laser Outsert Assembly



Shade 5 Cutting Outsert Assembly



Mirrored Outsert Assembly

#### COMMUNICATIONS



FM53/FM54 Voice Projection Unit with Digital Microphone Assembly



C50/FM50 Voice Projection Unit with Dynamic Mic and Microphone Assembly



Vision Correction



with E-Mic

#### CARRIERS HYDRATION SYSTEMS



Multi-Cam Carriers



Mask Carrier



Universal Carrier



Individual Equipment Carrier



Water Canteen



CBR50i 3L Reservoir





## The first adaptable powered air system

AvonAir is revolutionising the CBRN environment, delivering user configurable modules, adaptable protection factor, increased time on task, reduced physiological burden and lowest cost of ownership, through the systems lifetime. AvonAir is built around four flexible and adaptable modules; EZAir, MP-PAPR and CS-PAPR. Common to the range is the intelligent EZAir blower motor, which automatically adjusts its flow rate, depending on the number of available filters and the system configuration.

This patented design delivers maximum operational flexibility through interchangeable components, allowing for rapid selection between breath assist, powered air and self-contained breathing apparatus as the mission dictates. In addition to adaptable protection factors, the AvonAir range also delivers a number of benefits to the wearer including a cooling effect form the powered air, compatibility with our high flow hydration system and a wide range of carriage options, to ensure that the user is able to optimally distribute AvonAir, depending on mission loads. Included within the AvonAir patented design is our unique hose management technology, delivering outstanding levels of comfort, unrestrained movement and crushproof hosing to maintain operator agility, superior weapons sighting, integration of mask worn communications systems and compatibility with the widest range of helmet and body armour options including EOD, riot control and tactical vests and helmets.

AvonAir places the user at the core, delivering a substantially smaller, lighter and quieter scalable protection system, that is ergonomically adaptable to meet the needs of the operator and the mission.

### AUON **EZAIP®**



#### The smallest and lightest breath assist.

Avon EZAir® is the newest generation of single filter airflow system, substantially smaller and lighter than traditional powered air units. Avon EZAir® also provides the adaptable smart motor for all configurations of the AvonAir range.

#### CONTROL SYSTEMS

- Automatic flow control adjusts to filter type.
- Low flow and battery alarms alert.
- Dual speed function automatically increases flow rate.

#### INTEGRATION

- Integrated MOLLE panel and belt options.
- S-Shape hose with crush proof technology delivers superior integration.

#### MATERIAL TECHNOLOGIES

- One size lightweight and flexible hose.
- Crush proof hose with dual wall construction.
- Military pedigree plastics used for superior resistance.

#### OPERATIONAL FLEXIBILITY

- Battery life up to 8 hours.
- Constant flow rate through filter reduces inhalation resistance.
- Hot swap battery for rapid exchange.
- Multiple mounting options.

## AVON MP.PAPN



#### The world's first scalable and flexible powered air unit.

A departure from traditional rigid plastic construction systems, the MP-PAPR is the world's first flexible powered air unit, constructed from the same field proven chlorobutyl rubber, as used for the 50 series mask range.

#### CONTROL SYSTEMS

- Automatic flow control adjusts to filter type.
- Low flow and battery alarms alert.
- Dual speed function automatically increases flow rate.

#### INTEGRATION

- Ergonomically back mounted carrier system with integrated hydration option.
- Integrated MOLLE panel and belt options.
- S-Shape hose with crush proof technology delivers superior integration.

#### MATERIAL TECHNOLOGIES

- One size lightweight and flexible hose.
- Crush proof hose with dual wall construction.
- Military pedigree plastics used for superior resistance.

#### OPERATIONAL FLEXIBILITY

- Battery life >8 hrs running at a flow rate of 120lpm.
- Constant flow rate through filter reduces inhalation resistance.
- Hot swap battery for rapid exchange.
- Increased protection factor up to 5 times more than APR.

### AUON CS-PAPP<sup>TM</sup>



#### Adapt the protection to meet the threat in seconds.

The combination system is the newest generation of modular CBRN PAPR. Designed for use with Combination Unit Respirators (CURs) the CS-PAPR enables the user to select the level of protection dependent on the threat, providing increased duration on target and safer operation.

#### **AUTO FILTER COVERS**

- Quick fit onto existing MP-PAPR filter mount.
- Pneumatically operated by the combination hose.
- Indicator for status updates.
- Integrated rubber impact bumper.

#### COMBINATION HOSE

- Press and turn rotary selector prevents accidental actuation.
- PAPR automatically powered up/down when selector rotated.
- Ability for user to switch modes in one simple action.
- 'Fail-Safe' pneumatic operation of hose.

#### INTEGRATION

- Optional carrier module allows wearer to rapidly remove SCBA portion.
- Crush resistant 'S-Shape' hose with low profile hose end.

#### OPERATIONAL FLEXIBILITY

- Re-configurable to work as Avon EZAir or MP-PAPR.
- Quick connect interface delivers 'Dry-Decon' filter option.
- Short duration escape cylinders integrate with CS-PAPR.



### **ST50**<sup>™</sup>



### The total respiratory protection system for correctional facilities.

The ST50 SCBA was developed as a result of extensive field research, evaluation and voice of the customer. The lightweight ST50 is a NIOSH approved, positive pressure, simple to operate, competitively priced self-contained breathing apparatus specifically designed to meet the unique and demanding requirements of Correctional facilities and Plant security.

#### FIELD PROVEN FACE MASK

- Field proven PC50+ face piece.
- Provides high performance.
- Extreme wearer comfort.
- Unobstructed vision and excellent communication.
- Excellent helmet to mask integration.

#### COMPACT DEMAND VALVE

- 1st breath activation for 'instant on'.
- Rugged, compact design delivers high flow rates.
- Screw-on design allows for DIN 40 thread filters.

#### **USER COMFORT**

- Ergonomically designed backframe for comfort.
- Adjustable harness allows for quick donning and doffing.
- Low profile and lightweight backframe.

#### GAUGE AND WHISTLE

- Gauge located on shoulder straps for easy access.
- Illuminated gauge for low-light environments.
- Whistle designed for high noise environments.

### **ST53**<sup>™</sup>



#### The most advanced flexible multi-mode CBRN respiratory solution.

The ST53 combines the FM53 mask technology with a lightweight, scalable, tactical SCBA set. The system can be combined with AvonAir to deliver adaptable protection factor through positive pressure, powered air and negative pressure modes from a single unit.

#### COMPACT DEMAND VALVE

- 1st breath activated for 'instant on'.
- Rugged, compact design delivers high flow rates.
- Screw-on-design allows for DIN 40 thread filters.

#### GAUGE AND WHISTLE

- Located on shoulder straps for easy access.
- Positioned for high noise environments and easy gauge reading.
- Illuminated gauge for low-light situations.

#### STEALTH DESIGN

- Black low profile design.
- Lightweight compared to traditional SCBA units.
- Silent operation for critical missions.

#### **USER COMFORT**

- Ergonomically contoured backframe for comfort.
- Adjustable harness allows for quick donning/doffing.
- Padded shoulder straps for comfort.
- Low profile backframe.
- Cylinder sizes available.

### ST53<sup>SD™</sup>



### The world's smallest, most compact CBRN hardened demand valve.

Developed for high activity, dynamic operations, the ST53SD is the most advanced, lightweight CBRN respiratory solution on the market. It enables a fast response to changing operational conditions in one complete modular system for short-term tactical operations.

#### COMPACT DEMAND VALVE

- 1st breath activated for 'instant on'.
- Rugged, compact design delivers high flow rates.
- Screw-on-design allows for DIN 40 thread.

#### GAUGE AND WHISTLE

Option of either a remote whistle and pressure gauge or a single pressure gauge attached directly to the regulator body.

#### STEALTH APPEARANCE

- Black low profile design.
- Silent operation for critical missions.

#### **USER COMFORT**

- 1 or 2 litre cylinder options.
- Excellent integration with other personal equipment.

### **ST54**<sup>™</sup>



#### Enhanced multi-mission tactical operator SCBA.

Optimised for use by the most demanding of tactical operators, the state-of-the-art ST54 Tactical Operator SCBA is the base to a multi-mission respiratory protection system which provides for operational flexibility to the operator and mission commanders in the field coupled with exceptional comfort and durability.

#### **USER COMFORT**

- The most comfortable tactical SCBA set we've ever made.
- Broad padded shoulder straps.
- Ergonomic back frame.

#### DURABILITY

- High quality, quick release Cobra® buckles.
- Two piece composite back frame.
- Non locking black painted brass cylinder valve.

#### USABILITY

- Low profile black, tactical design (stealth).
- Easy access chest mounted pressure gauge.
- Ability to silence alarms for critical missions.

#### COMPACT DEMAND VALVE

- Worlds smallest, most compact chemically hardened demand valve.
- Can mount either side of respirator for class leading integration with tactical gear and weapons.





#### **CH15 VIDEO**

Scan this QR code to watch the CH15 video.

## **ESCAPE HOODS**

NHI5™

CHI5™

### NHI5<sup>™</sup>



### The smallest and most compact CBRN certified escape hood on the market.

The NH15 CBRN escape hood is the smallest and most compact CBRN escape hood on the market, approved to carry NIOSH and CE marking. Its low cost makes it ideal for military, first responders, security and protection teams seeking immediate or emergency respiratory protection in a CBRN scenario.

#### COMPACT

- Low profile filters to reduce snagging.
- Streamlined design.

#### COST OF OWNERSHIP

- No fit test requirements.
- No replaceable parts.
- No maintenance or inspections.

#### FIT AND COMFORT

- Close fit filters.
- Self-adjusting harness.
- 3 sizes.

#### SEE AND BE SEEN

- Clear range of vision.
- Reflective label.

| CBRN | TIC | со |
|------|-----|----|
| /    | ✓   |    |

### CHI5<sup>™</sup>



#### The smallest and most compact CBRN certified escape hood on the market.

The CH15 escape hood is a revolutionary, ultra-thin, single size respiratory escape device that provides a minimum of 15 minutes of respiratory, vision and facial protection against CBRN threats.

#### COMPACT

- Low profile filters to reduce snagging.
- Streamlined design.



#### COST OF OWNERSHIP

- No fit test requirements.
- No replaceable parts.
- No maintenance or inspections.

#### FIT AND COMFORT

- Close fit filters.
- Self-adjusting harness.
- One size fits all.
- Don in less than 30 seconds.

#### SEE AND BE SEEN

- Clear range of vision.
- Reflective label.

| CBRN | TIC |
|------|-----|
| /    | /   |



# EXOSKIN<sup>TM</sup> CBRN BOOTS & GLOVES

EX●SKIN"-B1

EXOSKIN"-G1

# EXOSKIN"-G1



# EXOSKIN™-G1 tactile CBRN gloves

The EXOSKIN™-G1 CBRN gloves have been designed to meet the changing operational requirements of the modern warfighter and tactical operator. With a new system approach to CBRN gloves, we offer a range of liners to meet the mission profile. Utilising our material science capability and extensive knowledge of military and first responder CBRN requirements, the EXOSKIN™-G1 gloves offer improved comfort and operational flexibility without compromising on the protection.

## SMART TOUCH SCREEN COMPATIBILITY

- Conductive finger tips.
- Traditional CBRN gloves limit operational capability. EXOSKIN™-G1 allow for handling of touch screen devices in the field.
- Improved operational flexibility without compromise on protection.

#### PROVEN RUBBER TECHNOLOGY

- Utilising Avon Protection's material science capabilities.
- Extensive knowledge of military and first responder CBRN requirements.
- 15 year shelf life.

# ULTIMATE PROTECTION

- High protection against CWAs and TICs.
- Impermeable to biological agents.
- $\quad\blacksquare\quad$  Full integration with protective suit ensembles, including JLIST and MkIVA.

# OPTIMIZED DESIGN

- Textured for added grip in wet conditions.
- Easy to decontaminate.
- Ambidextrous.
- High dexterity.

## HEAT MANAGEMENT LINER OPTIONS

Varied Liner solutions are available.

# EXOSKIN"-B1



# EXOSKIN™-B1 high traction CBRN overboots

With an extensive knowledge of military and first responder CBRN requirements, the Exoskin™-B1 CBRN boots have been designed to meet the unique requirements of the modern warfighter and tactical operator. Recognizing traditional CBRN overboots limit operational capability, our design has been optimized to improve mission flexibility without compromising on the protection.

#### RUGGEDIZED STRAPS

- Ruggedized quick release straps allow for faster donning and doffing.
- Easy to use and alter when wearing full CBRN protection.
- Fully adjustable.

## OPTIMIZED TACTICAL GRIP

- Designed for the most demanding of environments.
- Optimized to meet the unique requirements of tactical operators.
- Tactical grip improves user manoeuvrability.

## MAXIMUM PROTECTION

- High protection against CWAs and TICs.
- Impermeable to biological agents.
- 100% leak tested.
- Full integration with protective suit ensembles, including JLIST and MkIVA.

# **CBRN EXPERTS**

- Operating Temperature: -35°C to 55°C
- Mustard / Nerve Gas Resistance: > 24 hours
- Tested by accredited laboratories.
- Extended Wear: 45 days
- Storage Life: 15 years

# AMBIDEXTROUS FITMENT

- Ambidextrous design ensures optimum fitment in demanding situations.
- Improved donning efficiency.





MCM100 VIDEO

Scan this QR code to watch the MCM100 video.

# UNDERWATER SYSTEMS

**MCMIOO™** 

XBS™

CORE UNDERSUIT

PRODUCT

# MCMI00<sup>™</sup>



# Greater than 4 hours duration at extreme work rates and depths.

The MCM100 is a configurable platform to meet multiple military Underwater Breathing Apparatus (UBA) requirements. It is a fully closed circuit, electronically controlled, mixed gas rebreather CE tested to 100m, suitable for a large range of military or tactical diving disciplines such as Mine Countermeasure (MCM), Explosive Ordnance Disposal (EOD) shallow or deep, Mine Investigation and Exploitation (MIE) and Special Operations Forces (SOF).

#### ADVANCED FLECTRONICS

- Multiple redundant electronics and rechargeable batteries.
- Advanced digital oxygen sensors with voting logic and 'bad sensor' removal.
- Moisture tolerant carbon dioxide sensor.
- Data acquisition facility with Bluetooth capability.
- Backlit colour handset with automated pre-dive and command based alarms.

## **FASY BREATHING**

- Extremely low work of breathing (WOB).
- High-performance open circuit Bailout valve (BOV) as standard.
- Automatic diluent gas addition valve.
- Manual diluent and oxygen gas bypass valves.

# OPERATIONAL FLEXIBILITY

- High pressure composite cylinders as standard.
- Water tolerant breathing circuit and water removal systems.
- Three carbon dioxide absorbent cartridge options.
- Reduced mission set up time.

# STEALTH TECHNOLOGY

- A discreet LED Heads up Display (HUD) indicating equipment status.
- Low magnetic signature and low noise.

# XB5<sup>TM</sup>



# External Breathing System (XBS) supporting extended military diving operations across a range of depth/time profiles.

The XBS is specifically designed to provide additional off-board open circuit bailout for divers operating the MCM100 rebreather, delivering improved functionality through the use of a quick disconnect system and enhancing diver safety at depth.

## SIMPLE OPERATION

- Change over valve to switch between gases without having to disconnect.
- Quick disconnect system for rapid low-pressure connection with the MCM100's open circuit bailout-out valve mouthpiece system.
- Unique Quick Connect/Disconnect coupling that allows the diver to easily connect to the XBS system with minimal force, no matter what depth the diver is at.

# OPERATIONAL FLEXIBILITY

- Option to have two different gas mixtures to aid decompression and improve diver safety.
- Optional low pressure ports for additional second stage regulators.
- Cylinders can be configured for oxygen, air or mixed gas use.

## TACTILE & ROBUST DESIGN

- Low profile matte black military finish case and high performance, robust marine grade stainless steel frame.
- Robust flight case for transport and storage.
- Large tactile valve handle for use in cold temperatures and reduced visibility.

# HIGH PRESSURE CYLINDERS

- Large independent twin 10 litre, high-pressure cylinders for extended duration.
- Individual cylinder high pressure contents gauges.
- Pressure relief valves for automatic and manual venting of gas from depth.

# CORE UNDERSUIT

Our Core Intelligent Undersuit is a heated undersuit designed specifically to combat non-freezing cold injuries for air, land and sea, and in turn, protects a diver's operational effectiveness. Powered by a 7-volt battery, the undersuit is unique in its capability to provide controlled heating to the diver, regulating the user's body temperature across the undersuits major autonomous heating zones (torso, hands and feet) at all times. Compatible with both wet and drysuit diving systems or for use as a surface under-garment (small boat work etc.), Core Intelligent's capability is the result of close collaboration with key military users and our partnership with market leading industry manufacturer Santi.



Undersuit, Glove and Sock sizes:

XXL

# SYSTEM FEATURES

- The unique combination of a 7-volt battery and over-current protection in the Core Intelligent Undersuit removes the risk of the overheating.
- Thermistors actively control the heating of individual panels based on diver skin and panel temperature.
- The system temperature setpoints are:

Torso =  $39^{\circ}\text{C} + /- 1^{\circ}\text{C}$ Glove =  $19^{\circ}$ C +/-  $1^{\circ}$ C  $Sock = 27^{\circ}C + / - 1^{\circ}C$ 

- Specifically designed panels reduce the risk of overlapping and compression of the heating elements.
- Detachable gloves and integrated socks for optimum fitting. (Socks can be separated from the main garment to allow for repair/resizing).
- Detachable heating panels reduce burden of maintenance.
- Approx. 2 hour battery endurance (if constantly heating all zones).
- Super flexible, low profile, cable system.
- MIL STD 810G compliant transport/storage case available (sold separately).
- Proven wet-connector technology suitable for long-duration deep diving.
- Compatible with both wetsuits or drysuits (via the in-built custom drysuit port).

## PERFORMANCE

- The Core Intelligent Undersuit has undergone rigorous internal testing and field trials.
- Batteries certified to UN 38.3 / Configured with 7-volt battery.
- Weight: 4.27kg (9.410lbs) includes all connectors and penetrators, and battery.
- Operating Temperature:  $Air = -2^{\circ}C$  to  $48.8^{\circ}C$  ( $28^{\circ}F$  to  $120^{\circ}F$ ). Water =  $-2^{\circ}$ C to 21°C (28°F to 70°F).



# BA3A<sup>TM</sup>



# Integrated and configurable helmet that offers and >30% weight reduction in comparison to the traditional ACH.

The complete ballistic helmet solution for military users; the F70 ballistic helmet features exceptional performance and a lightweight (UHMWPE) ballistic shell in comparison to traditional ACH solutions. Understanding the requirements of these specialist users, the shell design allows for integration for multiple helmet mounted accessories including an ergonomically designed visor and mandible can be seamlessly attached to provide additional protection.

#### SHELL DESIGN

- Unique shell design maximizes protection area and reduces weight.
- Lightweight = 1.89 lbs. Mid-Cut & 1.72 lbs. High Cut \*Size L.
- Enhanced ballistic integrity with No Thru-Hole design.

# BALLISTIC PERFORMANCE

- One of the best protection-to-weight helmet solutions on the market.
- Tested to:

NIJ Threat Level: NIJ 0101.01 w/ NIJ 0.108.01 Level III-A Threats Fragmentation Testing: NATO STANAG 2920; 17 gr .22 caliber FSP  $\geq$  840 m/s (2755 ft/s)

**Blunt Impact Testing:** ACH Blunt Impact Requirement

## CONFIGURATION OPTIONS

- Standard with NVG shroud & rails.
- Ability to attach a visor and mandible.
- Team Wendy cutting edge retention and suspension systems.

## BALLISTIC VISOR AND MANDIBLE

- Seamless integration, with easy, one-hand attachment and removal tool.
- Visor is coated to resist fogging and scratching.

# LIIO COMBAT II™



# BLACK GREEN BROWN

# Leading retention and suspension systems provide blunt impact protection, stability and comfort.

Designed to meet the requirements of the modern warfighter, the L110 ballistic helmet provides protection in high threat environments against certain rifle threats, blast and blunt impacts. The L110 provides the maximum protection to accomplish any mission in confidence.

## HELMET DESIGN

- Geometry is similar to the U.S. Army Advanced Combat Helmet (ACH).
- Manufactured with Ultra-High Molecular Weight Polyethylene (UHMWPE).

# **BALLISTIC PERFORMANCE**

- Special Threat Rifle Tested.
- Tested to:

NIJ Threat Level: NIJ 0101.01 w/ NIJ 0.108.01 Level III-A Threats
Fragmentation Testing: NATO STANAG 2920; 17 gr .22 caliber FSP V50
≥ 1000 m/s (3280 ft/s)

**Blunt Impact Testing:** ACH Blunt Impact Requirement **Special Threat Rifle Tested:** 7.62x51mm NATO M80 Ball V0 = 2200 ft

# CONFIGURABLE PLATFORM

- Standard helmet includes shell, suspension, retention.
- Ability to add NVG shroud and exterior loop set.
- Team Wendy cutting edge retention and suspension options.
- Custom configurations available.

TAN

# **F90**<sup>TM</sup>



# >15% lighter than Advanced Combat Helmet (ACH).

The F90 is our first combined commercial helmet for first responders and rest of the world militaries. The F90 helmet combines the Ceradyne helmet shell forming capabilities and Team Wendy's liner and retention capabilities.

# BALLISTIC PERFORMANCE

- One of the highest 17 gr V50 rated helmets on the market.
- Tested to:

NIJ Threat Level: NIJ 0106.01 w/ NIJ 0.108.01 Level III-A Threats
Fragmentation Testing: NATO STANAG 2920; 17 gr .22 caliber FSP V50
≥ 800 m/s (2625 ft/s)

**Blunt Impact Testing:** ACH Blunt Impact Requirement **BFD Testing:** ≤ 25.4 mm at any location when tested in accordance to ACH Gen II PD

# **EQUIPMENT INTEGRATION**

- Multiple accessory attachment points.
- Innovative No Thru-Hole construction for mounting the NVG shroud, retention system and rails for enhanced ballistic integrity.

# PREMIUM COMFORT

- Ultra-High Molecular Weight Polyethylene Material.
- Multiple Team Wendy suspension and retention systems available; designed specifically for the F90 shell.
- Leveraging Team Wendy technology.

# MULITPLE CONFIGURATIONS

Available in Full-Cut, Mid-Cut and High-Cut configurations for maximum versatility to match any mission.

Founded in 1997, Team Wendy, part of the Avon Protection plc group of brands, is dedicated to providing exceptional head protection systems designed from the inside out for those who risk their lives every day.

Our Cleveland-based company places a strong focus on the prevention of traumatic brain injury (TBI) in honor of our namesake Wendy Moore, who died tragically from a TBI following a ski accident.

In Wendy's name, we are steadfast in our pursuit of improving head protection research, design and development, bringing more choice, better technology and reliable customer service to the industry.





# EXFIL® BALLISTIC SL



# **Colours:**



MULTICAM®

RANGER GREEN

The EXFIL® Ballistic SL features a lightweight composite shell providing a 15% weight reduction over the original EXFIL® Ballistic while offering the same unique EXFIL® shell geometry for optimal fit.

## PERFORMANCE STANDARDS

- Ballistic Performance: NIJ Level III-A (according to NIJ STD 0106.01/0108.01)
- Fragment Performance: 17gr V50 ≥ 731 m/s (2400 ft/s)
- Backface Deformation: 9mm FMJ RN @ 365 m/s (1195 ft/s), BFD < 25.4 mm all locations
- Exceeds ACH Blunt Impact requirement per AR/PD10-02, 16Dec'13

# **USER COMFORT**

- Includes 16 customizable comfort pads in two thicknesses
- Complete system weight of 1.01 kg (2.22 lbs)
- Available in two sizes: Size 1 (M/L) and Size 2 (XL)

#### LINER AND RETENTION SYSTEMS

- Three-piece Zorbium® foam impact liner with removable center pad to accommodate overhead communications systems
- Boltless CAM FIT™ Retention with BOA® Fit System for optimized stability and fit
- Left eye dominant (LED) retention available

- EXFIL® Rail 3.0 is 25% lighter than the EXFIL® Rail 2.0 and allows integration of EXFIL® Ballistic Visor and EXFIL® Face Shield
- Wilcox® SL shroud provides full NVG mounting capabilities and lanyard compatibility
- Includes two Magpul® M-LOK® Picatinny-style rails, mounting hardware and shock cord kit

# EXFIL® BALLISTIC



# **Colours:**





# The EXFIL® Ballistic features a hybrid composite shell for increased strength with a unique geometry for optimal fit.

# PERFORMANCE STANDARDS

- Ballistic Performance: NIJ Level III-A (according to NIJ STD 0106.01/0108.01)
- Fragment Performance: 17gr V50 ≥ 731 m/s (2400 ft/s)
- Backface Deformation: 9mm FMJ RN @ 425 m/s (1400 ft/s), BFD < 25.4 mm all locations
- Exceeds ACH Blunt Impact requirement per AR/PD10-02, 16Dec'13

## **USER COMFORT**

- Includes 16 customizable comfort pads in two thicknesses
- Complete system weight of 1.18 kg (2.6 lbs)
- Available in two sizes: Size 1 (M/L) and Size 2 (XL)

# LINER AND RETENTION SYSTEMS

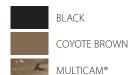
- Three-piece Zorbium® foam impact liner with removable center pad to accommodate overhead communications systems
- Boltless CAM FIT<sup>™</sup> Retention with BOA® Fit System for optimized stability and fit
- Left eye dominant (LED) retention available

- Available with EXFIL® Rail 2.0 or EXFIL® Rail 3.0. The EXFIL® Rail 2.0 accessory mounting system is compatible with most EXFIL® accessories and features T-slots for custom mounting. The EXFIL® Rail 3.0 accessory mounting system is compatible with all EXFIL® accessories, including the EXFIL® Ballistic Visor and the EXFIL® Face Shield.
- Wilcox®Wshroud provides full NVG mounting capabilities and lanyard compatibility
- Includes two Magpul® MOE® Picatinny-style rails, mounting hardware and shock cord kit

# EXFIL® CARBON



# **Colours:**



# The EXFIL® Carbon shell is made of high-strength, lightweight carbon fiber.

#### PERFORMANCE STANDARDS

- BS EN 1385:2012 (Whitewater)
- Exceeds ACH Blunt Impact requirement per AR/PD10-02, 16Dec'13

# **USER COMFORT**

- Includes eight customizable comfort pads in various shapes
- Complete system weight of 0.75 kg (1.66 lbs)
- Available in two sizes: Size 1 (M/L) and Size 2 (XL)

# LINER AND RETENTION SYSTEMS

- Three-piece Zorbium® foam impact liner with removable center pad to accommodate overhead communications systems
- CAM FIT™ Retention with BOA® Fit System and Cam Lock sliders for optimized stability and fit
- Cam Lock sliders for one-handed adjustment

- Available with choice of EXFIL® Rail 2.0 or EXFIL® Rail 3.0
- Wilcox®Wshroud provides full NVG mounting capabilities and lanyard compatibility
- Includes two Magpul® MOE® Picatinny-style rails, mounting hardware and shock cord kit

# EXFIL® LTP



# **Colours:**



The EXFIL® LTP (Lightweight, Tactical, Polymer) bump helmet provides impact protection for maritime environments and a stable, comfortable platform for mounting night vision and other accessories.

## PERFORMANCE STANDARDS

■ BS EN 1385:2012 (Whitewater)

# **USER COMFORT**

- Includes six customizable comfort pads in various shapes
- Complete system weight of 0.72 kg (1.59 lbs)
- Available in two sizes: Size 1 (M/L) and Size 2 (XL)

# LINER AND RETENTION SYSTEMS

- Three-piece Zorbium® foam impact liner
- CAM FIT<sup>™</sup> Retention with BOA® Fit System and Cam Lock sliders for optimized stability and fit
- Cam Lock sliders for one-handed adjustment

- Available with choice of EXFIL® Rail 2.0 or EXFIL® Rail 3.0
- Integrated NVG shroud insert made from machined 6061 aluminum with type III anodizing
- Includes two Magpul® MOE® Picatinny-style rails, mounting hardware and shock cord kit

# SAR TACTICAL™



# **Colours:**



The SAR Tactical™ is the first purpose-built search and rescue helmet to provide tactical accessory mounting capabilities while meeting key industrial and mountaineering performance standards.

# PERFORMANCE STANDARDS

- BS EN 1385:2012 (Whitewater)
- BS EN 12492:2012 (Mountaineering)
- ACH Blunt Impact requirement per AR/PD10-02, 16Dec′13
- Meets additional off-crown impact requirements of BS EN 14052:2012 European standard for high performance industrial helmets

# **USER COMFORT**

- Includes three Zorbium® foam comfort pads in two thicknesses
- Comes standard with two vent covers to prevent objects and debris from entering the crown vents
- Complete system weight of 0.72 kg (1.59 lbs)

## LINER AND RETENTION SYSTEMS

- Expanded polystyrene impact liner
- Integrated BOA® Fit System for optimized stability and fit with onehanded quick release
- MIL-DTL-32067 sheepskin chin cup and Cam Lock sliders for onehanded adjustment and secure fit

- Side accessory rails compatible with various EXFIL® accessories
- Integrated NVG shroud insert made from machined 6061 aluminum with type III anodizing

# SAR BACKCOUNTRY™



# **Colours:**



The SAR Backcountry™ is the first purpose-built search and rescue helmet to provide tactical accessory mounting capabilities while meeting key industrial and mountaineering performance standards.

## PERFORMANCE STANDARDS

- BS EN 1385:2012 (Whitewater)
- BS EN 12492:2012 (Mountaineering)
- ACH Blunt Impact requirement per AR/PD10-02, 16Dec'13
- Meets additional off-crown impact requirements of BS EN 14052:2012 European standard for high performance industrial helmets

#### USER COMFORT

- Includes three Zorbium® foam comfort pads in two thicknesses
- Comes standard with two vent covers to prevent objects and debris from entering the crown vents
- Complete system weight of 0.63 kg (1.39 lbs) without accessory rails and 0.72 kg (1.59 lbs) with accessory rails

#### LINER AND RETENTION SYSTEMS

- Expanded polystyrene impact liner
- Sport-style under the chin retention system with a Fidlock® magnetic buckle provides a secure fit and easy one-handed operation
- BOA® Fit System dials in precise fit adjustment while providing single-handed quick release

- Available with accessory rails compatible with various EXFIL® accessories at additional cost
- Glass-reinforced polycarbonate shroud designed to mount lights and cameras

# M-216™ TACTICAL



# **Colours:**



# The M-216™ Tactical is a purpose-built, scalable ski helmet that provides mounting capabilities not previously available to rescue operators in any ski- or snow-rated helmet.

# PERFORMANCE STANDARDS

- ASTM F2040-18 (Recreational Snow Sports)
- BS EN 1077:2007 Class B (Alpine Skiing and Snowboarding)

# **USER COMFORT**

- 14 total vents: Eight crown (adjustable), two front (passive open), four rear (fixed open) for maximum cooling during high exertion rescues
- Hybrid shell design: ABS/PC copolymer hard front shell provides reinforcement for mounted accessories while in-mold PC rear shell reduces weight
- Complete system weight of 0.58 kg (1.27 lbs)
- Available in three sizes: Small/Medium, Large and X-Large

## LINER AND RETENTION SYSTEMS

- Lightweight EPS impact liner with removable and washable comfort liner
- Removable ear cups specifically designed to be comfortable while using in-ear communication systems with a pocket for drop-in audio device compatibility
- Sport-style under the chin retention system with a Fidlock® magnetic buckle provides a secure fit and easy one-handed operation
- BOA® Fit System dials in precise fit adjustment while providing single-handed quick release

- Integrated machined aluminum (6061) shroud insert with type III hard anodizing compatible with all standard issue NVG mounts.
- Side accessory rails compatible with various EXFIL® accessories
- Glass-reinforced polycarbonate shroud designed to mount headlamps and cameras
- Integrated goggle strap retention
- Above-goggle vent channels draw air through the helmet to the rear exhaust ports to reduce goggle fogging
- Open area on the crown allows for mounting of cameras and beacon lights, including the MOHOC® military-optimized camera and beacon lights
- Includes choice of Princeton Tec® Switch MPLS or Princeton Tec® Switch Rail task light that mounts directly onto the font section of the helmet rail

# M-216™ BACKCOUNTRY



# **Colours:**



The M-216™ Backcountry is a purpose-built, scalable ski helmet that provides mounting capabilities not previously available to rescue operators in any ski- or snow-rated helmet.

## PERFORMANCE STANDARDS

- ASTM F2040-18 (Recreational Snow Sports)
- BS EN 1077:2007 Class B (Alpine Skiing and Snowboarding)

# **USER COMFORT**

- 14 total vents: Eight crown (adjustable), two front (passive open), four rear (fixed open) for maximum cooling during high exertion rescues
- Hybrid shell design: ABS/PC copolymer hard front shell provides reinforcement for mounted accessories while in-mold PC rear shell reduces weight
- Complete system weight of 0.58 kg (1.27 lbs)
- Available in three sizes: Small/Medium, Large and X-Large

## LINER AND RETENTION SYSTEMS

- Lightweight EPS impact liner with removable and washable comfort liner
- Removable ear cups specifically designed to be comfortable while using in-ear communication systems with a pocket for drop-in audio device compatibility
- Sport-style under the chin retention system with a Fidlock® magnetic buckle provides a secure fit and easy one-handed operation
- BOA® Fit System dials in precise fit adjustment while providing singlehanded quick release

- Side accessory rails compatible with various EXFIL® accessories
- Glass-reinforced polycarbonate shroud designed to mount headlamps and cameras
- Integrated goggle strap retention
- Above-goggle vent channels draw air through the helmet to the rear exhaust ports to reduce goggle fogging
- Open area on the crown allows for mounting of cameras and beacon lights, including the MOHOC® military-optimized camera and beacon lights
- Includes choice of Princeton Tec® Switch MPLS or Princeton Tec® Switch Rail task light that mounts directly onto the font section of the helmet rail

# M-216™ SKI HELMET



# **Colours:**



The M-216™ Ski Helmet is an advanced headborne system for professional adventurers that incorporates modularity and scalability for broad performance capabilities.

## PERFORMANCE STANDARDS

- ASTM F2040-18 (Recreational Snow Sports)
- BS EN 1077:2007 Class B (Alpine Skiing and Snowboarding)

# **USER COMFORT**

- 14 total vents: Eight crown (adjustable), two front (passive open), four rear (fixed open) for maximum cooling during high exertion rescues
- Hybrid shell design: ABS/PC copolymer hard front shell provides reinforcement for mounted accessories while in-mold PC rear shell reduces weight
- Complete system weight of 0.53 kg (1.17 lbs)
- Available in three sizes: Small/Medium, Large and X-Large

## LINER AND RETENTION SYSTEMS

- Lightweight EPS impact liner with removable and washable comfort liner
- Removable ear cups specifically designed to be comfortable while using in-ear communication systems with a pocket for drop-in audio device compatibility
- Sport-style under the chin retention system with a Fidlock® magnetic buckle provides a secure fit and easy one-handed operation
- BOA® Fit System dials in precise fit adjustment while providing singlehanded quick release

- Glass-reinforced polycarbonate shroud designed to mount headlamps and cameras
- Integrated goggle strap retention
- Above-goggle vent channels draw air through the helmet to the rear exhaust ports to reduce goggle fogging
- Open area on the crown allows for mounting of cameras and beacon lights, including the MOHOC® military-optimized camera



# HELMET ACCESSORIES

# FACE SHIELDS & VISORS



EXFIL® Face Shield



EXFIL® Ballistic Visor

# MANDIBLES



EXFIL® Ballistic Mandible



EXFIL® All-Terrain Mandible

# BALLISTIC EAR COVERS





EXFIL® Ballistic Ear Covers

# HELMET COVERS

# COMMUNICATIONS ADAPTERS

# COUNTERWEIGHTS



EXFIL® Helmet Covers





EXFIL® Peltor™ Quick Release Adapters





EXFIL® Counterweight Kit

# AFTERMARKET SYSTEMS

# SUSPENSION SYSTEMS



















Zorbium® Action Pad (ZAP™) 7-Pad NSN Liner System

EPIC Air® Liner System

Cloudline® System

EXFIL® Maritime Liner System

# RETENTION SYSTEMS

# OTHER PRODUCTS











CAM FIT™ H-Back Retention











Team Wendy® Radio Rig

