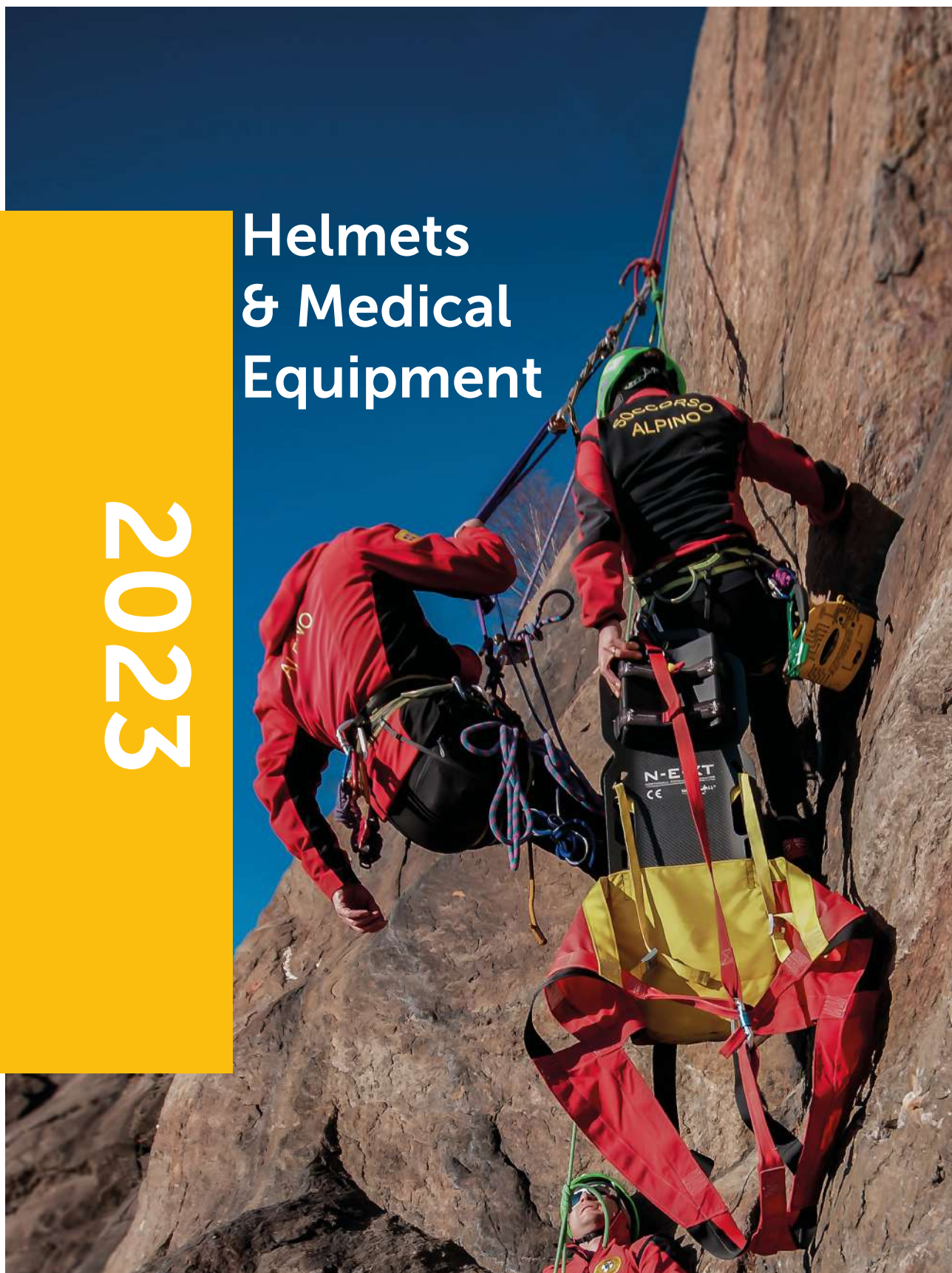


2023

# Helmets & Medical Equipment





# Contents

Company	01 - 06
Products	07 - 16
Helmets	17 - 34
Medical Equipment	35 - 60
Containment	61 - 66

WE SPEND OUR TIME  
JUST SAVING *LIVES*

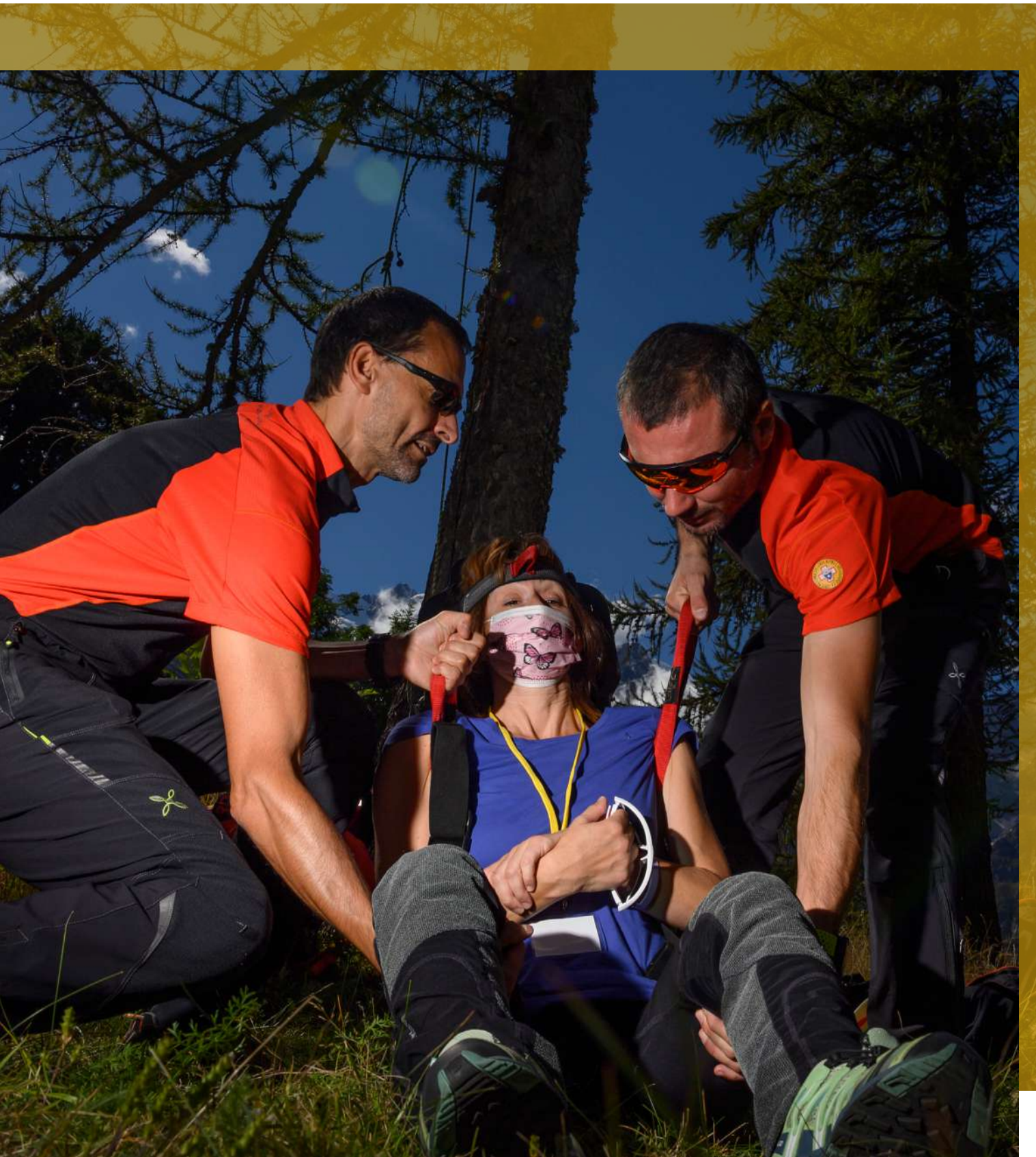


# 01

## Company

**Northwall srl** was born as the result of a 30-year experience in rescue operations and biomechanics alongside professional experience in design and composite materials manufacture, medical devices and aircraft.





We work and test our products with experts to reach the maximum quality and functionality possible.

Northwall was born in Emilia Romagna, between the provinces of Parma and Reggio Emilia (in the Apennines valleys).

Our products are inspired by nature and created by men who love their work and who focus on quality every day.

The ideas of Northwall are realized through a network of artisans who excel in their field for ability, experience and passion.

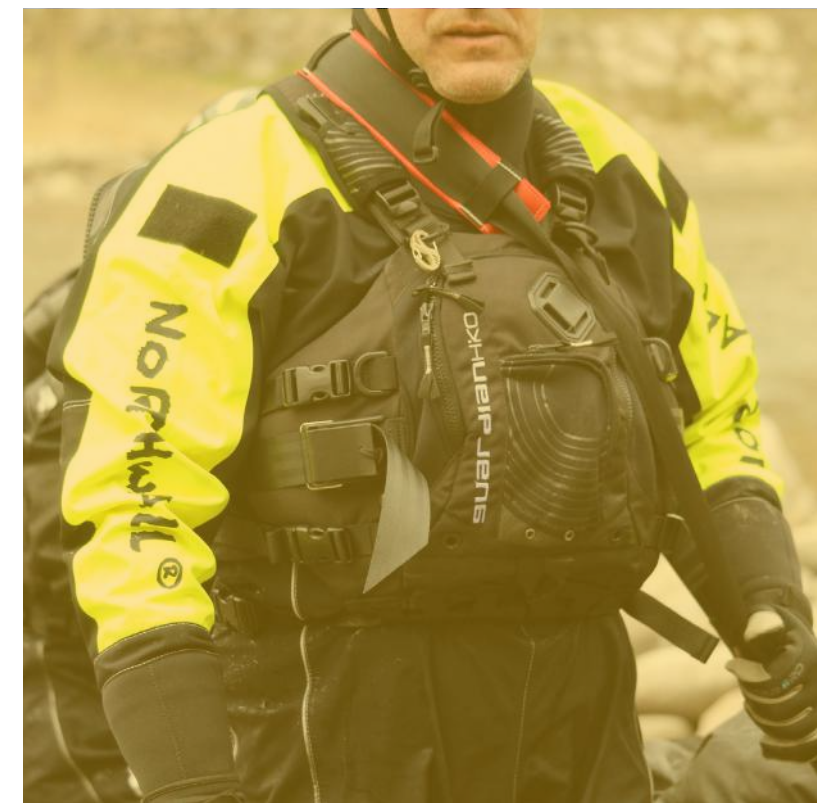
From prototypes we come to the building of a production process that is able to ensure the highest possible quality facing the world market.

Northwall technicians and staff are expert rescuers, paramedics and doctors who work in various emergency fields always looking for the best devices used by professionals around the world.

**Northwall is committed to help professional crews to solve their most difficult operations, protect them, help them to communicate and save lives!**



Professional Helicopter Rescue Crew Helmets, used by many worldwide services





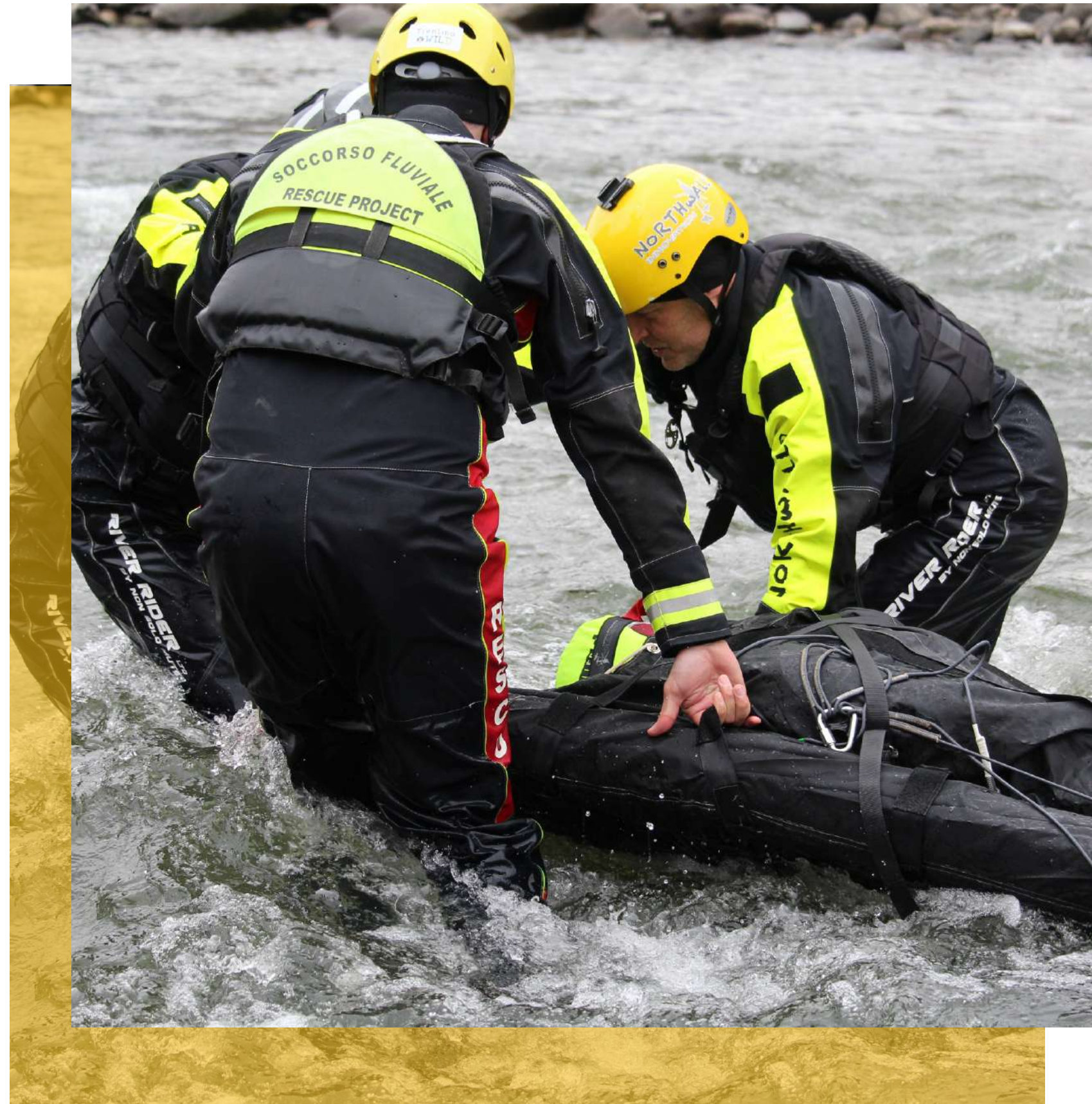
## Our Story

The typical pragmatism efficiency derived from field experiences in pre hospital rescue ignite the fire of a strong R&D effort. Northwall grows with the passionate collaboration of the best composite materials, aerospace and security professionals.

These characteristics results in Northwall first product, a new helmet dedicated to pilots and helicopter rescue crew members, military and civilian, which consider comfort and security milestones to perform work at their best.

Here starts the adventure of Northwall: realization of innovative devices, combining the operating procedures with the best and most advanced technology available.

Northwall prides itself on the title of "Innovation Company", creating and innovating products throughout a technological know-how acquired in an over 30 years experience.





# 02

## Products

**Northwall**'s purpose is to make every rescue operation, even complex ones, in hostile or inaccessible environments, safer and more effective. These special tasks are what equipment and helmets are designed for.

# Helmets

With a cutting-edge design, the LMT series helmets were built to guarantee the best protection features, while also ensuring **lightweight** and compact dimensions. The guards are reduced to a minimum thickness which ensure the best possible **ergonomics**. This peculiarities allows an extended use: the amount of stress on the cervical spine and the resulting pathologies are decreased.

In case of impact the transfer of residual energy to the skull and brain of the user is minimal, this thanks to the use of **special materials**.

Northwall Innovation helmets are designed in compliance with European and international standards for flight helmets, incorporating specific characteristics related to safety and climbing helmets.



● Pilot pag 19

**Pilots**

Helmet designed for pilots and flight crews. They require optimal head protection and noise reduction during flight operations.

**LMT UME Pilot** pag 25



● Medic pag 21

**Medical crew**

Helmet adopted by airborne medical crew members. They must protect them in flight as on the ground.

**LMT UME Medic** pag 27



● Tech pag 23

**Technical crew**

Helmet engineered for technical/tactical crews. They need protection from side impacts.







Medical crew can wear an “helicopter grade” helmet during all the dangerous phases of the ops keeping clear comms between the crew.



Alaskan Police aerial squadron wearing LMT Pilot helmet.

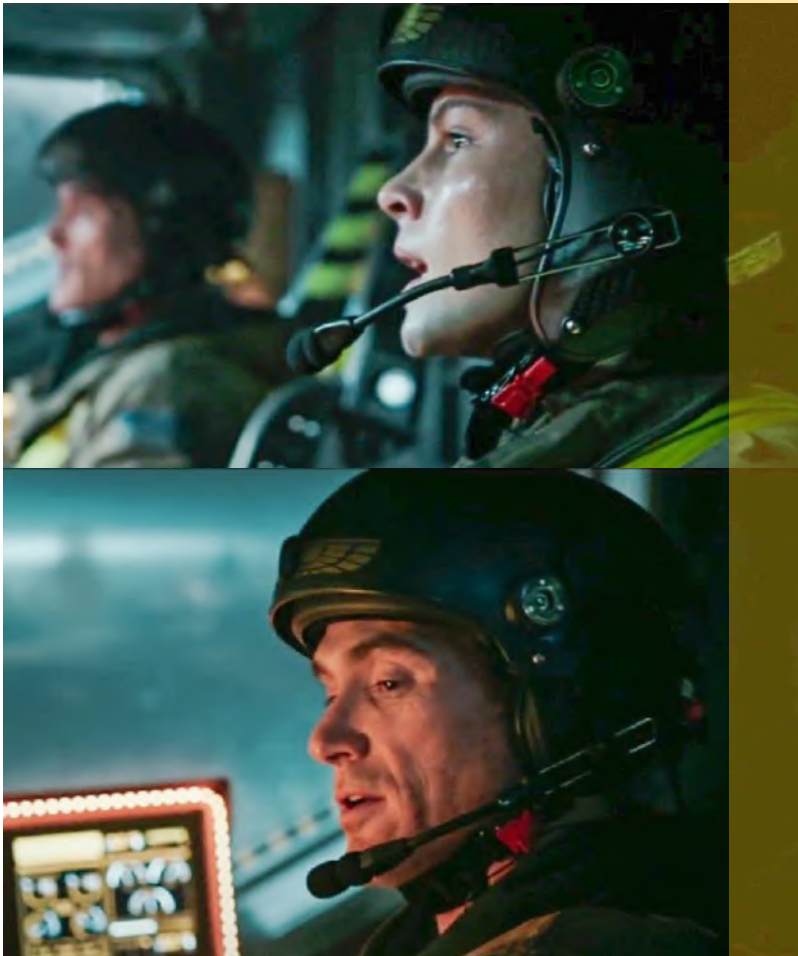


Customization plays an important role in Northwall’s production process.

Helmets created for **Alien: Covenant** by Ridley Scott (2017).



Helicopter rescue technician during real operational scenario wearing LMT Medic.



All the features allow the continued use of helmets in all operating conditions, becoming an equipment required for your important work.



# Medical Equipment

30 years on field experience leads Northwall to design medical products following the most recent **clinical guidelines**, and feature some of the most innovative research on ergonomics and functionality.



## N-E-X-T

Emergency spine immobilization device. Can be used in extrication in many environments using a set of accessories.

[pag 35](#)



## Pneuspine

Long spinal board. Easily storable.

[pag 41](#)



## Stila

Composite Long Board designed to immobilize a trauma patient.

[pag 45](#)



## Human Cargo Bag

Certified human cargo bag. It allows lifting patients with hoists, fixed lines or rope operations.

[pag 51](#)



## Stila Twin

Divisible/foldable spine board in composite material, designed to immobilize a trauma patient.

[pag 49](#)



## Trail Bag

Basic bag that allows carrying Pneuspine or Stila along pathways and trails.

[pag 55](#)





Northwall Medical Devices are designed to “solve special problems” during the most complicated rescue ops in complex environment.



Northwall’s aim is to create multipurpose devices that can help rescuers to be effective in cross-environmental scenarios.



Skidboard and Stila have been designed together with Dorna for fast patient evacuation in racetracks.



Northwall team is always on field to train customers on the use of rescue devices, sharing latest guidelines both from medical and rescue side.



Training with Human Cargo Bag on rope operation with Italian Alpine rescue Soccorso Alpino.



# 03

## Helmets

Tested on field and in world's different scenarios, Northwall's helmets are dedicated to protect and help operators.

Real operational background laid the foundation to **helmets** with unique features addressed to pilots, technicians and rescue personnel.

LMT helmets provide the greatest possible protection thanks to innovative materials and solutions.



# Pilot

## Features

The LMT Pilot helmet is designed for flight crew members of civilian or military helicopters. They operate mainly on board and require head protection during certain flight phases.

The particular shape and construction materials have made possible to minimize the weight and size of the helmet without giving up on security features required for flight helmets. The reduced size and weight allows extended wear avoiding altering pilots' sense of balance.

## Balanced

The helmet is designed to keep perfect balance even with the application of modern NGV system.

## Airflow System

Thanks to the design and to the internal shape the air flows through the visor compartment and the occipital area. This allows your skin to breathe and the visors are kept unfogged.

## Weight

- 750 g (size S/M without comms)
- 880 g (size L/XL without comms)

## Available sizes

- S/M: from 52 to 57 cm
- L/XL: from 58 to 64 cm

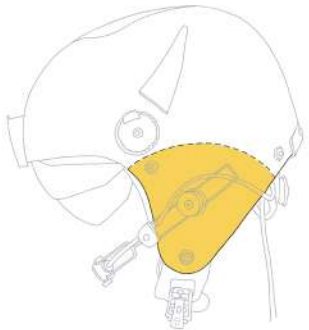
## The technical standards

Assuming that LMT helmets expressly fall under paragraphs 1 and 4 of Annex I of the European Directive 89/686, integrated with the changes made by Dir. 93/95 and Dir. 93/68, and are not required for helmets dedicated to rotorcraft crews nor compliance with technical standards. However, Northwall has chosen to pursue compliance with European Directives for PPE and compliance with the EU Directive.

The European airborne helmet technical standards are, in unrestrictive terms, EN 966:2006 "Helmets for airborne sports", which the LMT-Pilot helmets are compliant with. The LMT helmets were then subjected, depending on their additional intended use, although not required, to comply with technical standard tests concerning specific application areas, such as:

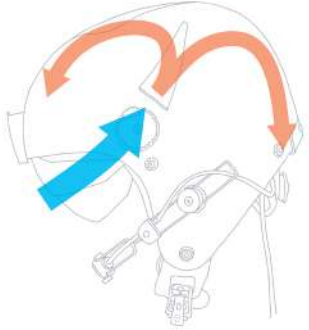
- EN 397:2000 for helmet uses in working areas where head protection is required, such as construction sites or areas that can be exposed to falling objects; typical helmet use for the crew of a medical helicopter rescue service.
- EN 12492:2000 for helmet uses in mountain environments, allowing operators onboard a helicopter to be able to access areas at risk of falling from heights with the same helmet used in helicopters.
- EN 14052:2005 high performance safety helmet
- EN 443:2008 (cl.4.3) Penetration resistance required for firefighter helmets
- ANSI Z90.1 U.S. Motor Sport Helmets

Given the impossibility of having the helmets simultaneously conform to all the categories provided by worldwide standards, also considering certain opposing characteristics, compliance refers to the tests reported for the specific use of each LMT helmet series model arising from the analysis of the specific risks to which the user is mainly exposed.



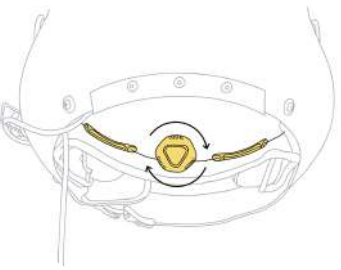
## Side Protection

The shell design gives maximum side protection covering jaw area with impact protective material.



## Airflow

The passive ventilation system avoids visors fogging caused by temperatures change and gives a refreshing effect when flying in warm conditions.



## BOA System

Boa makes it easy to dial in the perfect fit, bringing you closer to your equipment for improved comfort and usability.



## Integrated comms

The Pilot helmet has integrated communication system that can be upgraded with many accessories.

## Collapsible knob

The visor knob is designed to be collapsible in case of impact, to avoid any anchor point that could swivel your neck.

# Medic

## Features

The LMT Medic helmet is designed for a medical or crew members use, for those who needs to operate also on the ground.

The special shape grants the removal of one or both earcups allowing the use of tools like stethoscope. It ensures contact with the ground crew or any patient during rescue operations, while maintaining the security features required for flight helmets or on the operational scenarios.

## Weight

- 690 g (size S/M without comms)
- 880 g (size L/XL without comms)

## Available sizes

- S/M: from 52 to 57 cm
- L/XL: from 58 to 64 cm

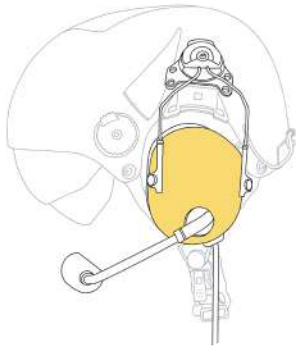
## The technical standards

Assuming that LMT helmets expressly fall under paragraphs 1 and 4 of Annex I of the European Directive 89/686, integrated with the changes made by Dir. 93/95 and Dir. 93/68, and are not required for helmets dedicated to rotorcraft crews nor compliance with technical standards. However, Northwall has chosen to pursue compliance with European Directives for PPE and compliance with the EU Directive.

The European airborne helmet technical standards are, in unrestrictive terms, EN 966:2006 "Helmets for airborne sports", which the LMT-Pilot helmets are compliant with. The LMT helmets were then subjected, depending on their additional intended use, although not required, to comply with technical standard tests concerning specific application areas, such as:

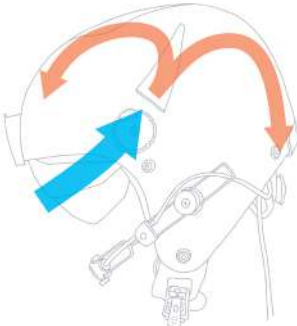
- EN 397:2000 for helmet uses in working areas where head protection is required, such as construction sites or areas that can be exposed to falling objects; typical helmet use for the crew of a medical helicopter rescue service.
- EN 12492:2000 for helmet uses in mountain environments, allowing operators onboard a helicopter to be able to access areas at risk of falling from heights with the same helmet used in helicopters.
- EN 14052:2005 high performance safety helmet
- EN 443:2008 (cl.4.3) Penetration resistance required for firefighter helmets
- ANSI Z90.1 U.S. Motor Sport Helmets

Given the impossibility of having the helmets simultaneously conform to all the categories provided by worldwide standards, also considering certain opposing characteristics, compliance refers to the tests reported for the specific use of each LMT helmet series model arising from the analysis of the specific risks to which the user is mainly exposed.



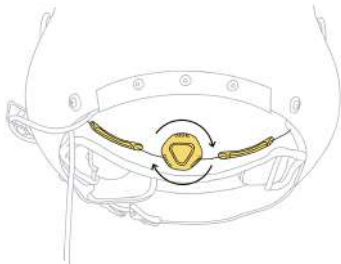
### Side Protection

The helmet ensures side protection thanks to special dedicated ear cups.



### Airflow

The passive ventilation system avoids visors fogging caused by temperatures change and gives a refreshing effect when flying in warm conditions.



### BOA System

Boa makes it easy to dial in the perfect fit, bringing you closer to your equipment for improved comfort and usability.

### Airflow System

Thanks to the design and to the internal shape the air flows through the visor compartment and the occipital area. This allows your skin to breathe and the visors are kept unfogged.



### Movable and removable headset

The Medic helmet allows to move one or both earcups at the upper side of the shell to help hear in a ground scenario.



### Collapsible knob

The visor knob is designed to be collapsible in case of impact, to avoid any anchor point that could swivel your neck.

### BOA System

The BOA System has three fundamental components: a rotor that allows micro adjustments, light and super strong laces and low friction lace guides. The configuration is engineered to optimize fit and adaptability.





# Tech

## Features

The LMT Tech helmet is designed for technical/tactical crew members who must operate on the ground.

The particular shape allows to operate with tactical headphones for environmental listening, ensuring protection from side impacts (characteristics required for flight helmets).

## Weight

- 700 g (size S/M without comms)
- 890 g (size L/XL without comms)

## Available sizes

- S/M: from 52 to 57 cm
- L/XL: from 58 to 64 cm

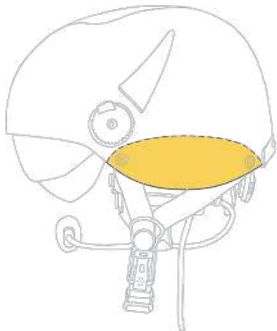
## The technical standards

Assuming that LMT helmets expressly fall under paragraphs 1 and 4 of Annex I of the European Directive 89/686, integrated with the changes made by Dir. 93/95 and Dir. 93/68, and are not required for helmets dedicated to rotorcraft crews nor compliance with technical standards. However, Northwall has chosen to pursue compliance with European Directives for PPE and compliance with the EU Directive.

The European airborne helmet technical standards are, in unrestrictive terms, EN 966:2006 "Helmets for airborne sports", which the LMT-Pilot helmets are compliant with. The LMT helmets were then subjected, depending on their additional intended use, although not required, to comply with technical standard tests concerning specific application areas, such as:

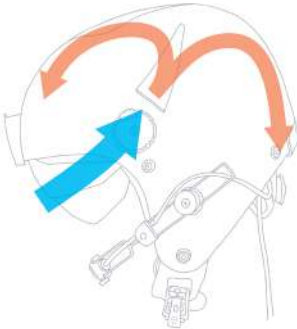
- EN 397:2000 for helmet uses in working areas where head protection is required, such as construction sites or areas that can be exposed to falling objects; typical helmet use for the crew of a medical helicopter rescue service.
- EN 12492:2000 for helmet uses in mountain environments, allowing operators onboard a helicopter to be able to access areas at risk of falling from heights with the same helmet used in helicopters.
- EN 14052:2005 high performance safety helmet
- EN 443:2008 (cl.4.3) Penetration resistance required for firefighter helmets
- ANSI Z90.1 U.S. Motor Sport Helmets

Given the impossibility of having the helmets simultaneously conform to all the categories provided by worldwide standards, also considering certain opposing characteristics, compliance refers to the tests reported for the specific use of each LMT helmet series model arising from the analysis of the specific risks to which the user is mainly exposed.



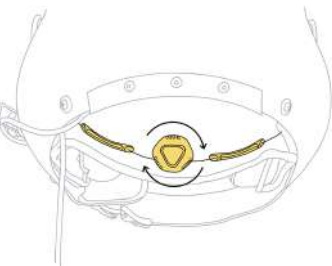
## Side Protection

The helmet is designed to keep the protection against side impact even with earcups removed.



## Airflow

The passive ventilation system avoids visors fogging caused by temperatures change and gives a refreshing effect when flying in warm conditions.



## BOA System

Boa makes it easy to dial in the perfect fit, bringing you closer to your equipment for improved comfort and usability.

## Airflow System

Thanks to the design and to the internal shape the air flows through the visor compartment and the occipital area. This allows your skin to breathe and the visors are kept unfogged.



## BOA System

The BOA System has three fundamental components: a rotor that allows micro adjustments, light and super strong laces and low friction lace guides. The configuration is engineered to optimize fit and adaptability.

## Leather High Comfort Integrated Headset

## Collapsible knob

The visor knob is designed to be collapsible in case of impact, to avoid any anchor point that could swivel your neck.

# TR - Technical Rescue



The new TR (Technical Rescue) helmet is designed for all operators of rescue services who face risk situations. Designed to be combined with communication systems or hearing protectors of different kinds depending on the conditions of use, various accessories applicable to the front system such as: cameras, thermal or night visors, lights and many others.

The low weight, the high impact and flame protection capacity together with the perfect balance allows you to carry the LMT-TR helmet during operations for as long as necessary. Different types of interiors, washable, with different thickness and with BOA system, allow a perfect adjustment of the position of the helmet on the head, suitable for different rescue activities or techniques, limiting operational fatigue.

Weight: 750 g

Available sizes:

XS/S: from 52 to 55 cm

M/L: from 56 to 59 cm

XL/XXL: from 60 to 64 cm

## Technical standards

Helmet: EN 16471:2014, EN 16473:2014

Strap: EN966:2012

Visors: EN166:2004



## Features

### 1 Composite shell

Lightweight, high impact and penetration resistance.

### 3 Adaptable to different audio systems

Headphones are easy to install, mobile and removable, including water resistant versions.

### Balanced

In balance on the rotation centre of the cervical spine, limits operational fatigue.

### 4 Boa System

Micrometric adjustment of the interior that allows you to adapt the helmet to each operator in an optimized way.

### 2 Integrated mount

Standard Military front docking system for various accessories: NVG, Thermal Viewer, cameras and many more.

### 5 Integrated visors

Inserted in the impact resistant shell and protected from scratches.

### Ventilated

The LMT-TR allows you to ventilate the interior and the visor compartment, to avoid excessive heat and avoid fogging.

### Customizable colors

You can choose the color and different customizations of the helmet.





# LMT UME Pilot



The Helmet is designed for flight crew members of civilian or military helicopters.

The particular shape and construction materials have made possible to minimize size and weight always ensuring the highest safety standards.

Weight: 880 g (Large shell without comms)

Available Sizes: XS-S-M-L-XL from 52 to 64 cm

### Technical Standards

Shock Absorption Tests: EN966:2006 - ANSI Z90.1

Penetration Resistant Tests: EN966:2012, EN443:2008, EN12492:2012

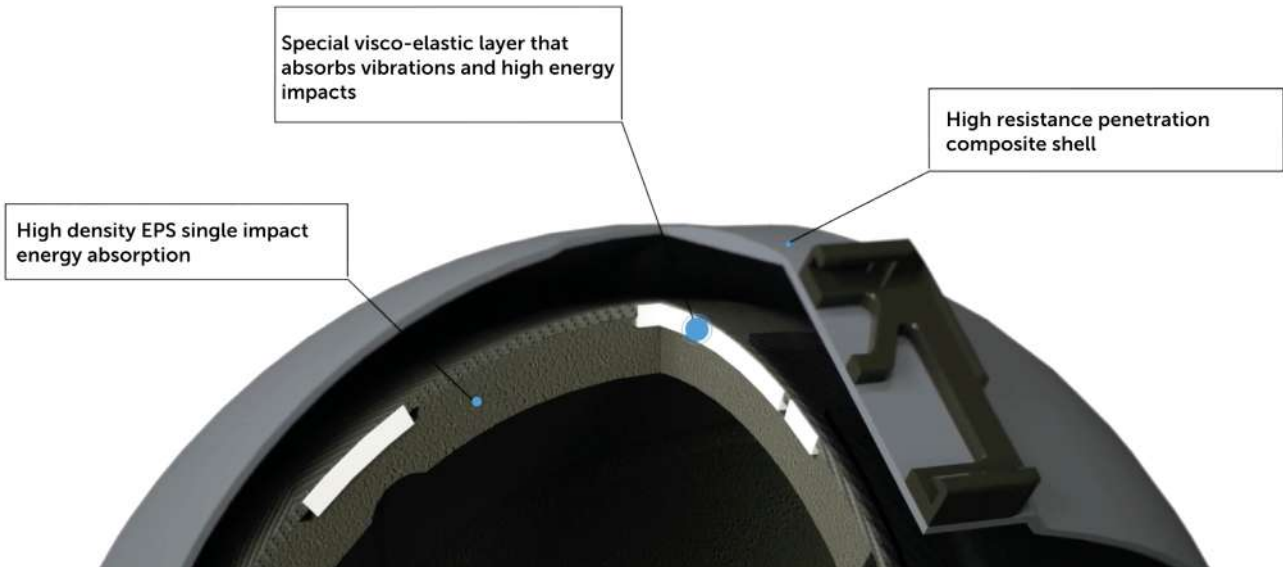
Validation of Screens Qualities: meet&exceed EN166:2004, MIL-DTL-87174/A

Acoustic Isulation: 23dB @ 1000 Hz

Pulling Off Resistance: EN966:2006

Retention System Resistance: EN966:2012

## Special Layered Protection



**Dual Visor**

Dual Visor hidden in the shell, avoid any scratch.



**Helmet Balance**

The perfect helmet balance grants no neck fatigue and less stress for Pilots in all flight phases.



**BOA System**

Made of a micro - adjustable dial, super strong and lightweight. The configuration is engineered to optimize fit and adaptability.



**Helmet Mount**

The new Shroud system is able to fit a variety of accessories including NVG, thermal visors, cameras, and many others.



**Airflow System**

The special air duct system ensure quick visor unfogging thanks to the internal air circulation.



**Custom Color**

Provide us the color RAL code and we'll paint for you.



**Enhanced Ergonomy**

Extended wearability thanks to a super-comfortable inner liner and adaptability to each user's head.



**Communication System**

LMT UME Pilot helmet communication system can be customized according to users specific needs both for military and civilian.



# LMT UME Medic



The Helmet is designed for medical and crew members. Lightweight and comfortable, perfect partner in every operation.

The unique mix of materials ensure the highest energy absorption and dissipation.

Weight: 880 g (Large shell without comms)

Available Sizes: XS-S-M-L-XL from 52 to 64 cm

### Technical Standards

Shock Absorption Tests: EN966:2006 - ANSI Z90.1

Penetration Resistant Tests: EN966:2012, EN443:2008, EN12492:2012

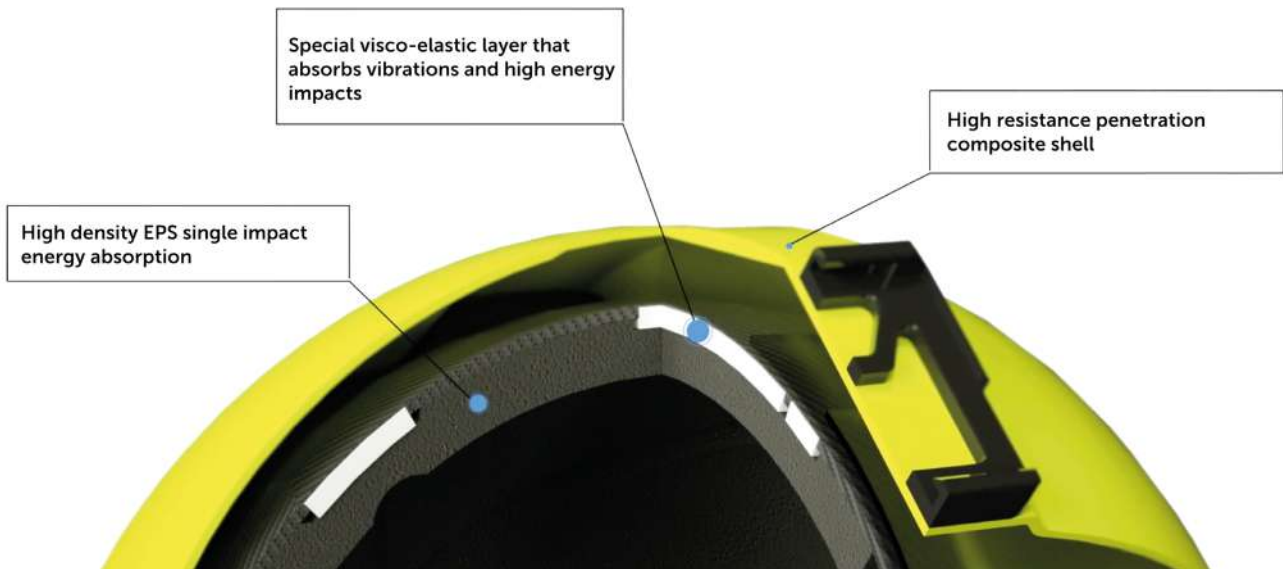
Validation of Screens Qualities: meet&exceed EN166:2004, MIL-DTL-87174/A

Acoustic Isulation: 23dB @ 1000 Hz

Pulling Off Resistance: EN966:2006

Retention System Resistance: EN966:2012

## Special Layered Protection



**Dual Visor**

Dual Visor hidden in the shell, avoid any scratch.



**Helmet Balance**

The perfect helmet balance grants no neck fatigue and less stress for Pilots in all flight phases.



**BOA System**

Made of a micro - adjustable dial, super strong and lightweight. The configuration is engineered to optimize fit and adaptability.



**Helmet Mount**

The new Shroud system is able to fit a variety of accessories including NVG, thermal visors, cameras, and many others.



**Airflow System**

The special air duct system ensure quick visor unfogging thanks to the internal air circulation.



**Custom Color**

Provide us the color RAL code and we'll paint for you.



**Removable Headset**

Perfect for keep constant contact with ground operators. The special shape grants to move or remove one or both earcups allowing the use of medical tools.



**Full Flex-Boom**

Usage flexibility and easy adjustment



# Accessories

Our helmets can be equipped with various accessories to meet the operation requirements.

- Pilot

Tech

Medic



wire boom  
+ low impedance mic



wire boom  
+ electret mic



flex-wire boom



Northwall Faceshield protects the jaw area from rotor wash, flying debris, windblast and impacts of small objects. Compatible with LMT Pilot installed flex or wire boom. Clear see-through polycarbonate. Provides fragmentation protection up to 550 feet per second (fps).



Mount systems are perfect to install further accessories (such as NVG, thermal visors, cameras, etc.) on the helmets, in order to improve performances.



- Booms
- Flexboom
- 
- Flex-wire boom

- Microphones
- PA7X
- M7A
- M7DC
- Umecobra
- M101
- M87

- Face Shield
- Clear Face Shield
- Black Face Shield

- Mounts
- Four pin quick disconnect mount
- Tactical Shroud

# Accessories

Our helmets can be equipped with various accessories to meet the operation requirements.

- Pilot
- Tech
- Medic



## Inner Visor

- Clear
- Orange

## Outer Visor

- Dark
- Green Iridium Mirrored
- Silver Mirrored

## Comms

- Wireless Radio system (APPI)



# 04

## Medical Equipment

Northwall's **medical devices** derives from a strong R&D effort in addition to partnership with professionals, experts.

# N-E-XT

Emergency spine immobilization device that can be used in extrication or in combination with human external cargo harnesses for hoist or rope operations.

N-E-XT allows "extrication" maneuvers in confined spaces, ensuring quick immobilization of the patient's spine in a neutral position.

N-E-XT can be configured in different ways and with different patient retention systems, allowing its use as a "Utility Emergency Board". Its small size, weight characteristics and immobilization capacity in every environment and situation make the versatility of N-E-XT "Xclusive".

In combination with the self-adjustable "rescue triangle" harness, it is very easy and quick to operate in every environment with gloves or heavy clothing.

## Specifications

- length: 90 cm
- width: 30 cm
- thickness: 3 cm
- weight: 1,5 kg (complete: 2,6 kg)

## Tested

Class I Medical Device. Complies with EU Regulation 2017/745.

Ischial belt with handles for the patient that allows the conscious patient to manage any compression points and keep a safe position during extrication.



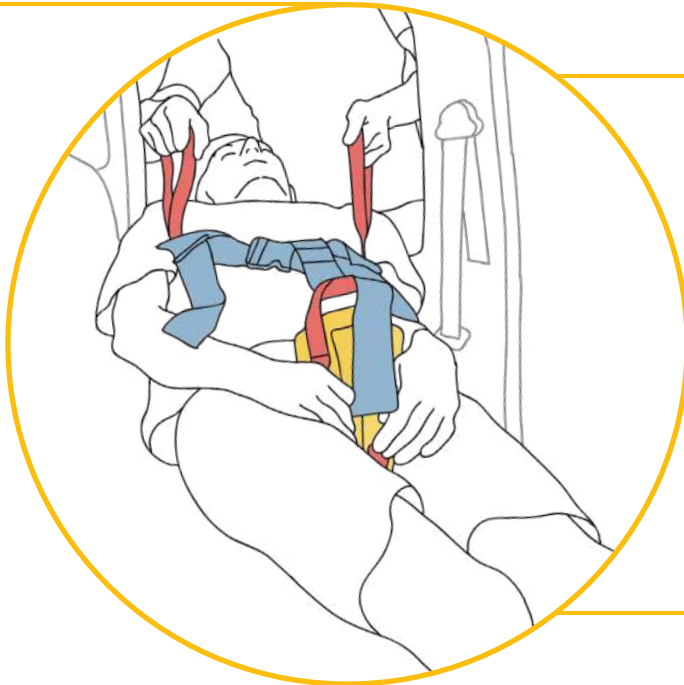
The handles are padded with special materials and prevent direct compressions to the patient and operator.



It allows to be inserted behind the patient in every situation and to protect patient's spine.



The Quick Head Immobilizer system with pre-calibrated elastics allows to operate safely with the certainty of not generating compressions and harmful movements.



**Fastest extrication**  
One maneuver, the quickest and most efficient way to eliminate errors and optimize time and training.

**Hard splinting board**  
The carbon support surface allows the patient to slide on any surface in safety.

**Handles for patient**  
The anchors points to the patient guarantee a safety operation on it and not on the support according to the published biomechanical analysis.





# N-E-XT - Accessories

## Tyrah

Self-adjustable "rescue triangle" harness.

Through the application of the dedicated Tyrah evacuation triangle, N-E-XT guarantees the immobilization and the support of the spine during the **rope maneuvers** or the **hoist ops recoveries**.

**Technical Data**

- weight: 760 g
- width: 114 cm
- height: 116 cm
- working load: 20 kg to 150 kg

**Certifications**

EN 1498 - B CE 0511 EC - TC no. 2012  
- 3530 EC Directive EC 89/696 / EEC



Tyrah allows the lifting of the patient with winch or rope maneuvers.



The dedicated recovery system with rope or winch maneuver ensures the best position of the patient during handling and avoids problems related to compartment syndromes.

# N-E-XT - Accessories

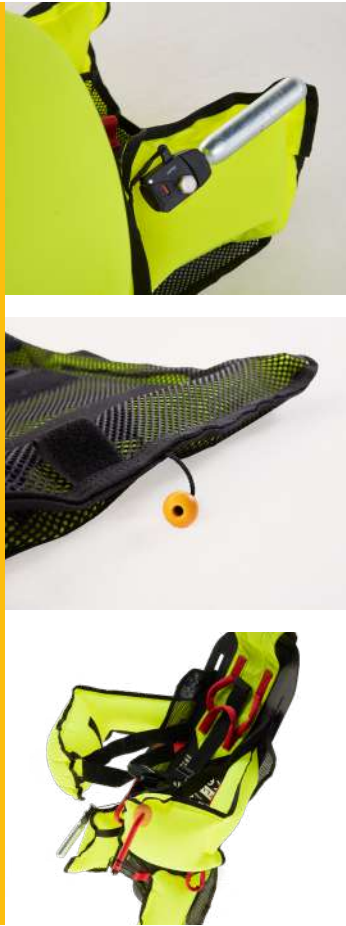
## Fluitans

Floating spine immobilization device.

Fluitans allows the use of N-E-XT board as a rescue extricator in **water environments**, allowing the rescue and recovery of endangered or wounded people with rope or winch maneuvers (together with Tyrah rescue triangle).

**Technical Data**

- weight: 97 g without cylinder (33 g CO2 cylinder weight = 136 g)
- length: 70 cm
- width: 37 cm
- maximum thickness (folded): 3,6 cm
- buoyancy: 150N (complies with EN ISO 12402-3 and EN 396)



Fluitans is quickly inflatable with a standard CO2 cartridge. Inflation come by pulling a trigger on the side of the patient's head.



Particularly useful for rescue with boats or jetskis, it guarantee the floatation in water even to unconscious patients. The configuration of the device ensures that the head is constantly kept out of the water, allows to avoid the roll-over and protect the patient's airways.



# N-E-XT - Accessories - Bags

## Transport Bag

The NEXT system can be transported with the hoistable bag or with the transport bag.



length: 95 cm  
height: 39 cm

## Hoistable Bag



length: 44,5 cm  
height: 98 cm

# N-E-XT - Accessories

## SAR - TFA

Device for buoyancy aid.

SAR-TFA is the **floating aid kit** to be used in combination with the TYRAH AR and the N-E-XT for the recovery of an injured patient in the **aquatic environment** also by lifting (Tyrah AR).

**Technical Data**

weight: 700 g  
width: 120 cm  
buoyancy aid: 50 N

**Material used**

Floating structure: PL + PVC Foam  
Belts: Nylon 6.6



The SAR-TFA allows floating aid (50N) and prevents the patient's head from lean down. Through the special evacuation triangle (Tyrah AR) on which the kit is installed, an immobilized patient can be transported using the N-E-XT, lifting it.



The SAR-TFA was created to help the floating and recovery of patients from aquatic or generally inaccessible environments, guaranteeing all the handling precautions typically applied to traumatized patients.



# Pneuspine

## Long spinal board.

The Pneuspine is a support device for trauma patients, compatible with "basket" stretchers or hoistable soft devices that, together with the Pneuspine, can immobilize the patient in neutral alignment and / or allow a high buoyancy in the aquatic environment.

Ideal for rescue in rough environments or for search and rescue teams that can move a light and compact object, which allows a useful immobilization stiffness of patients up to 150 kg. (331 lb)

The inflating air or inert gas mixture is possible with different devices, more or less rapid, with the cylinder or with a pump / compressor.

## Specifications

- length: 186 cm
- width: 44.5 cm  
20x50 cm rolled
- thickness: 10 cm
- weight: 3 kg

## Tested

Registered with the Ministry of Health as a Class I Medical Device. Complies with Regulation (EU)2017/745

max test pressure : 4000 hPa (58 psi)  
standard safety pressure: 700 hPa (10 psi).

Pneuspine head immobilization system allows to fix the patient's rachis limiting the risks of rotation and errors of the operators.

The surface of the stretcher allows to keep the patient in position thanks to the grip of the surface even in wet conditions.

Quick and compact belting system ideal for rescue in any environment and on any kind of stretcher, allows the operator to fasten in seconds any size of trauma or non trauma patient.

When it is deflated it has a small size, weighs less than 4 kg and is easy to carry anywhere.



- Inflatable spine board**  
Allows you to bring a compact and lightweight system to the field that provides excellent spinal support for the trauma patient.
- Thermal and mechanical insulation**  
The thickness and the construction of the table allows to thermally isolate the immobilized patient and limits the transmission of the vibrations.
- Floating**  
The structure and the volume of the board allows a floatation useful to keep the patient totally out of the water and, with a special accessory, it allows the stabilization.





# Pneuspine - Accessories

## Inflation systems

Different inflation systems for different uses, from the manual aluminum pump for the operations, to the single-use nitrogen bottle, up to the plastic pump for training.



**Manual Pump**  
(included with the purchase)

Plastic quick manual pump. Limited effort.  
Capacity 2500 cm<sup>3</sup>  
Pressure 1 Bar (15 PSI)



**Nitrogen Cylinder + pouch**  
Single use nitrogen cylinder.

Capacity 1 L  
Pressure 110 Bar (1600 PSI)



**Manual Pump**  
Aluminum quick manual pump.

Capacity 1000 cm<sup>3</sup>  
Pressure 1 Bar (15 PSI)





# Stila

## Composite Long Board.

Compostite Long Board designed to immobilize a trauma patient. The special shape and the reduced edge thickness (7 mm) allows to load the trauma patient minimizing the stresses in many rescue environments.

The STILA system consists of:

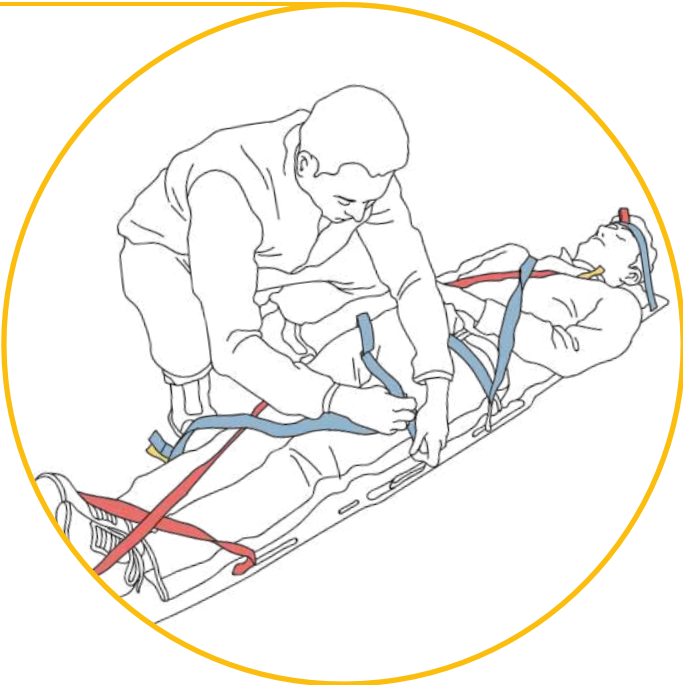
- Composite Long Board
- Quick Evac Belts (QEVC)
- Northwall Quick Head Immobilizer (Q-Head) or Helmet Immobilizer

## Specifications

length: 186 cm  
width: 44 cm  
thickness: 1,5 cm  
weight: 4 kg

## Tested

Registered with the Ministry of Health as a Class I Medical Device. Complies with Regulation (EU) 2017/745.  
  
Spinal board in compliance with EN 1865-1: 2015. Compatible with high magnetism environments (MRI).



The Stila represents a new generation of immobilization and transport surface for trauma patients that allows to keep the spine alignment in many situations.



The concave surface allows you to easily maintain the patient alignment even during transport.



The compatibility with the Q-Evac Belts restraint system allows the easy adaptation of the immobilisation at the patient's condition.



The new Q-HI head immobilizer system allows to immobilize the cervical spine correctly, avoiding any adjustments.



The new Q-Evac belting system allows to have the immobilization belts always installed on the board.





# Stila - Accessories

## SRP

Patient Retention System.

SRP allows the use of the same board as a recovery stretcher (basket), exploiting the concavity and the structure of the carbon board.

**Technical Data**

- maximum length (with extended handles): 218 cm
- maximum width (with extended handles): 87 cm
- weight: 2,6 kg
- maximum load: 160 kg



The system is the harness of the patient and allows the suspension in horizontal or vertical by a rope system or winch through a system of handles for loading and transport.

# Stila - Accessories

## Debris Shield

Protective shield.

Shield designed to protect patients from debris during rescue operations in **confined spaces**.

**Technical Data**

- width: 35 cm
- thickness: 0,3 cm
- weight: 264 g



The Debris Shield come from a dedicated system to evacuate operators from industrial furnaces. It is possible to customize the board with owner logo under resin (like SACMI).



# Stila Twin

**Divisible/foldable spine board in composite material.**

The mechanism and composition of Stila Twin allows the stretcher to drastically reduce its size while maintaining the same properties and mechanical resistance.

The conformation and folding method of the Stila Twin allows it to contain all the accessories that make it "ready to use".

Made up of two asymmetrical pieces joined by a titanium interlocking and screwing mechanism.

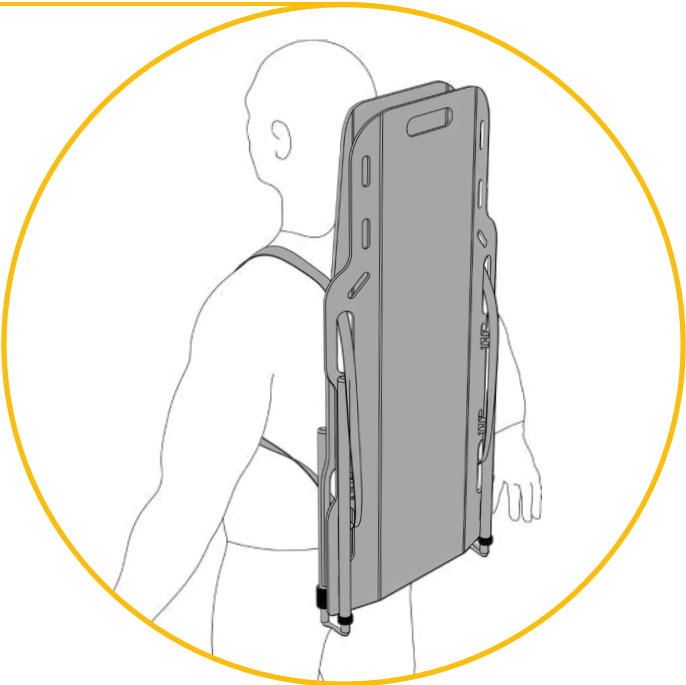
The joining frame is placed at the sides under the stretcher so as to ensure support for Stila Twin, from full closure to 180° opening, and to support the patient and comply with current technical regulations.

**Tested**

Registered with the Ministry of Health as a Class I Medical Device. Complies with Regulation (EU) 2017/745.

**Specifications**

- working length: 186 cm
- width: 44 cm
- thickness: 0,4 cm
- height of the patient surface from the ground: 1,9 cm
- folded length: 100 cm
- folded thickness: 9 cm
- weight: 6,5 kg
- load capacity (EN 1865-1:2015): 180 kg



The **Stila** represents a new generation of immobilization and transport surface for trauma patients that allows to keep the spine alignment in many situations.



Pillow kit complete with elastics and head/helmet retainer.



Belt kit for rapid immobilization of the patient on the table.



Titanium interlocking and screwing mechanism.



Horizontal/vertical Patient Restraint System for rope or winch operations.





# Human Cargo Bag

## Bag for lifting medical equipment.

Human Cargo certified Bag allows patient lifting with hoist, fix line or rope operations.

The system allows to lift and protect immobilized patients on the lightest cargo bag ever.

With all the benefits of the PNEUSPINE or STILA long board, the Northwall HCB can be the right solution for backcountry rescue ops, medevac, on rope operations, helicopter rescue operations etc.

## Specifications of packed kit

length: 54 cm

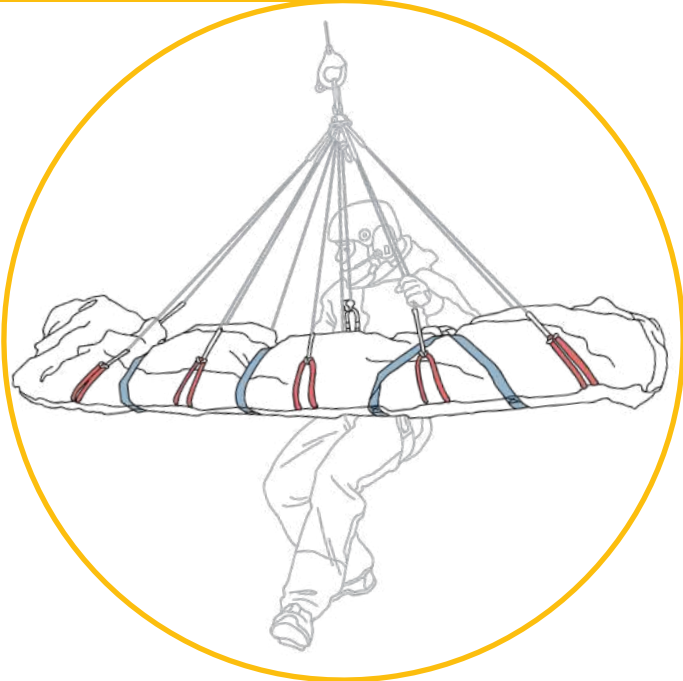
radius: 27 cm

weight: 3 kg

## Tested

Tested following the European Community Directive 93/42 and 2007/47 as "Medical Device Accessory".

Complies with all EN1865 Medical Devices.



**High protection**  
HEMS carrying bag for the horizontal transport of injured patients.

Protective bag to fully enclose the patient, manufactured from high strength, water- and wind resistant, perlon PES fibre.



The design of the belts on the bottom allows perfect distribution of the load during lifting maneuvers.



Through a special opening it is possible to manage the inflation/deflation of the Pneuspine to which it is combined.



The whole system can be rolled up on itself and transported into a light and compact kit including also the inflatable spine board and the whole immobilization system.





# Human Cargo Bag - Accessories

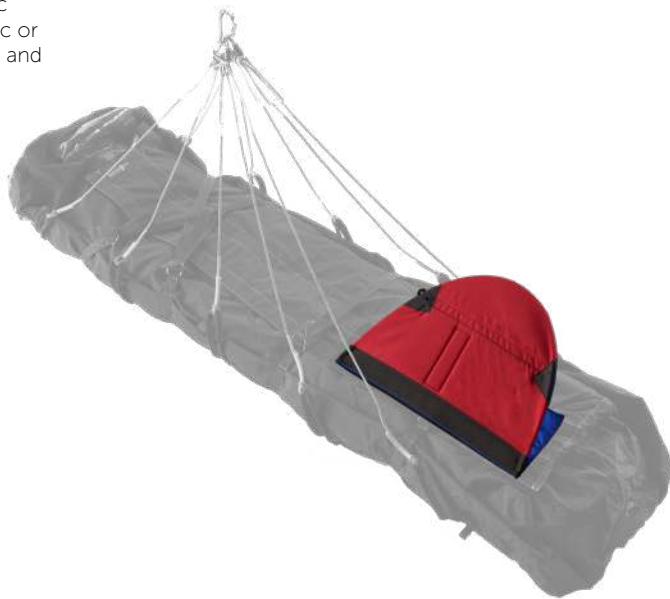
## Rotation Brake System

Aerodynamic system to avoid rotational movement.

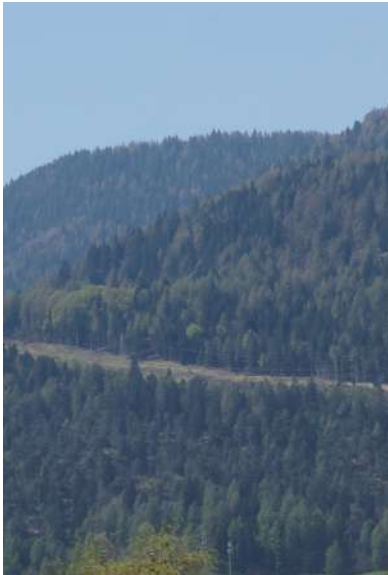
High - effective aerodynamic system to avoid or stop rotational movement of a rescue bag in downwash on a hoist cable or fixed rope. Absolutely easy and logic operator control without any electronic or mechanic components. No assistance and no lines from the ground anymore.

**Technical Data**

- height: 350 mm
- width: 500 mm
- weight: 0,30 kg



The RBS is attached to the rescue bag with a large Velcro area and a security belt. If not in use, it simply sits flat on the top of the bag. To put into operation simply pull up with one hand.





# Trail Bag

## Rollable carry system

Basic Bag that allows to carry the patient on the Pneuspine or Stila along pathways using dedicated carry handles or dedicated shoulder belts.

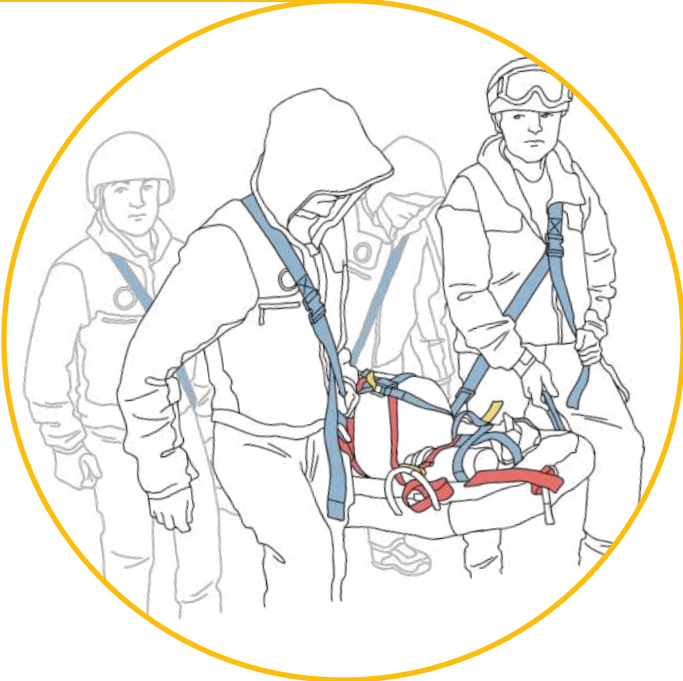
With all the benefits of the Pneuspine long board, the Northwall Trail Bag can be the right solution for backcountry rescue ops, MedEvac or escape operations.

## Specifications of packed kit

- length: 54 cm
- radius (rolled up): 17 cm
- weight: 2,5 kg

## Tested

Tested following the European Community Directive 93/42 and 2007/47 as "Medical Device Accessory".



The Trail Bag allows you to carry the transport on the shoulder, by hand or by sliding.

The Trail Bag guarantees the safe transport of the patient and immobilization device through an integrated system of safety belts.



Through a special opening it is possible to manage the inflation / deflation of the Pneuspine to which it is combined.



Bottom with sewn diagonal-belt weight bearing system made from rotting-free, high strength 45mm PES belt provides even weight distribution for perfectly horizontal bedding of the injured.



It performs the functions of recovery and transport stretcher and can be easily carried in a backpack.





# IFAK - Individual First Aid Kit



### Portable Medical Kit for First Aid

The Kit is designed to be able to practice life-saving maneuvers in the event of a traumatic event; inside it contains all and only the tools needed to carry out emergency procedures effectively and quickly.

The kit can be supplemented and modified with devices to suit the user's needs and requirements.

IFAK comes with a quick opening bag and Velcro attachment and platform for backpack or belt (Molle System).

It is compact and easy to carry on a daily basis so that it can be available when needed.

### Technical Data

height: 19,5 cm  
width: 14 cm  
depht: 8 cm  
weight: 600 g

### Kit Composition

- Technical scissors (A)
- Nitrile gloves (B)
- Isothermal blanket (C)
- Compressed gauze for internal hemostatic tamponade (D)
- Compression bandage (E)
- Mounth-to-mouth breathing mask (F)
- 2 Valve dressings for pneumothorax (G)
- Tourniquet (H)
- Bag to hold all components (I)



A



C



E



F



G



H

# 05

## Containment



# Capsuls

CAPSULS™ is a portable, versatile and economical patient isolation unit (PIU).

The system includes a flexible and pressurizable housing with both positive and negative pressure.

Positive pressure isolates and protects the patient (immunodepressed) during transport operations, mitigating the risks of exposure to infectious agents and/ or contaminants.

Negative pressure isolates the contaminated patient, minimizing the possibility of contamination of the operator and environments during transport operations.

The 2004CN-PUR8C model has a unidirectional filtered air recirculation system for patient life support, as well as having special features that allow the patient to stabilize through the use of medical equipment.

CAPSULS™ is covered by a patent (registered trademark of ISOVAC LLC) (Containment and Protection System Using Life Support).

### Specifications

length: 198 cm

width: 61 cm

weight: 14 kg

thickness: 46 cm

### Technical standards

Registered with the Ministry of Health as a Class I Medical Device. Compliant with Regulation (EU) 2017/745.

### Customization

This medical device can be customized by printing your logo during the processing process.



# Capsuls STC

### Portable, cost-effective containment system for contaminated or immunocompromised patients.

CAPSULS™ is a portable patient isolation unit (PIU) that prevents cross-contamination (biological and radiological) between the patient and the external environment. This unit includes features that allow medical intervention to the patient via medical equipment.

CAPSULS™ is intended for use in:

- Transport and isolation of patients on aircraft, ambulances, ships and any vehicle capable of safely transferring a patient on a standard stretcher.
- Temporary isolation with or without transport of patients within hospitals or other medical facilities.
- Diagnostic imaging under contained conditions.

CAPSULS™ is a Class II medical device in the USA and Class I in Europe.

### Specifications

length: 198 cm

width: 61 cm

weight: 14 kg

thickness: 46 cm

### Technical standards

Registered with the Ministry of Health as a Class I Medical Device. Compliant with Regulation (EU) 2017/745.

### Customization

This medical device can be customized by printing your logo during the processing process.



# CBAG™

## Contaminated Human Remains Pouch (CHRP)

CBAG™ is a flexible, 3-dimensional, man-portable Contaminated Human Remains Pouch.

Its superior Iso-Shell™ barrier technology system provides unsurpassed protection against chemical, biological and radiological particulate (CBR) cross contamination from the remains to personnel, equipment, facilities, and transport assets. The standard color is safety orange.

Intended uses for CBAG™ include the following:

- Stand-alone transport of contaminated human remains and/or contaminated equipment and field gear via hand carry, within land vehicles, and onboard ships and aircraft.
- Temporary storage and isolation of contaminated human remains awaiting decontamination or interment.
- Temporary direct burial of contaminated human remains pending permanent interment.
- Permanent burial of contaminated human remains within a conventional casket.
- Temporary storage and isolation of contaminated animal remains awaiting disposition.
- Protection of uncontaminated equipment during transport through a contaminated zone.



# ORCA

## Operational Rescue Containment Apparatus

The ORCA-2016CN Containment Unit is a portable patient isolation unit (PIU) designed to prevent chemical and particulate (biological and radiological) cross-contamination between a patient and the external environment during evacuation and transport activities. It has been optimized for use in marine environments and for lifting operations employing the Stokes Stretcher. The use of the ORCA-2016CN allows for the safe transport of contaminated patients who have been medically stabilized, while protecting the crew of ships and hulls, air crews, passengers, ancillary service providers and transport vehicles.

The ORCA™ clinical unit is intended for:

- Isolated transport of medically stabilized patients on aircraft, ambulances, ships or any vehicle capable of safely transporting a patient on a Stokes or NATO standard stretcher.
- Use with Stokes stretcher to lift and evacuate patients from ships or other marine platforms with rotary wing aircraft.
- Temporary isolation with or without transport of patients within hospitals or other medical facilities.

## Specifications

length: 206 cm  
width: 66 cm  
weight: 9.5 kg  
thickness: 51 cm

## Technical standards

Tested according to EU Directive 93/42 and 2007/47 EN 1789:2007+A2:2014









For any further information visit our website,  
download our catalog and feel free to get in  
touch with us!

**Northwall s.r.l.**

Via Varisco, 7/1  
42020 Albinea (RE)  
Italy

VAT IT02663560346

+39 0522 798998

[info@northwall.it](mailto:info@northwall.it)

[www.northwall.it](http://www.northwall.it)