HOOKT

NEWPRO CONTINUOUS BELAY SYSTEM

MOUNTING, USAGE AND SERVICE INSTRUCTIONS

EN 795 TYPE C

Compatibility with the following standards:
CODE OSHA 1910.140(C)(11-22)
CEN TS 16415:2013
ANSI Z359
CSA Z259

NP_1125

HOOKT secures more than 900 sites with
innovative and unprecedented solutions for safety at height


CE0082
VERTICAL TREK INNOVATIONS
bravo
1.5 t

HOOKT

FIGURES

+900
SITES EQUIPPED

47
COUNTRIES

HEIGHT ACCESS SAFEST INNOVATIONS

CONTENT

1. INTRODUCTION

The NEWPRO lifeline is a flexible horizontal belay system, designed and manufactured by Vert Voltige Innovation.

It adapts to all types of angles and easily crosses curves, inside or protruding angles. It also fits all types of surfaces.

The NEWPRO continuous lifeline can be used for fixed or temporary installation.

The user inserts his OCHO PRO + hook at the entrance to the lifeline. He moves by passing through intermediate anchors which are intended to support the cable and take up the strengh values.
In event of a fall, the hook on slides slightly on the wire, thus minimizing the risk of a swinging effect for the operator.

The NEWPRO lifeline is also designed to create multiple spans and paths using the X-MATRIX bifurcation crosses.

IMPORTANT
The NEWPRO lifeline is a proximity lifeline, that is to say it must be installed in such a way that the operator can manually maneuver its mobile aanchor device (hook) to cross the intermediate anchors .

The NEWPRO horizontal anchoring system has been tested by the ISO 17025 accredited laboratory Quintin Certifications and complies with the EN 795: 2012 regulation and the TS16415: 2013 type C technical specifications.
Other applicable standards: for use in North America and Canada, refer to the local, provincial, and federal requirements in effect for the sector in which the fall protection device is used (OSHA, ANSI, CSA, etc.).

According to the European standard TS16415:2013, the NEWPRO lifeline is approved for use by up to 5 users simultaneously. It has a maximum span of 15 meters. For use in North America and Canada, refer to the applicable standards in effect.

The NEWPRO lifeline is to be used with a stainless steel 10mm wire of 7x19 strands and with a breaking value of 53.1kN.

The NEWPRO lifeline must be installed with a maximum angle 15° from the horizontal.
A hybridization of the lifeline (section 7) beyond the standard can however be implemented in order to push this angle up to 40°.

It must be used exclusively for fall protection, in accordance with the instructions in this manual.

The NEWPRO lifeline aims to control the risk of people falling by minimizing stress on the structure.
Therefore, it is essential, for the safety of installation and use of the equipment, and for its effectiveness, to read this manual, and to scrupulously follow its instructions before and during the installation and use of the lifeline.

The installer of the system is fully responsible for its assembly. The manufacturer and distributor decline all responsibility in the event of incorrect assembly that does not comply with the instructions in this manual.
The manufacturer and/or distributor will provide, upon customer request, all necessary technical information regarding the product, the assembly method, the inspection process and the certificate of conformity of any system.

The installed system must be inspected once a year by a competent person.

COMMENT

The system used to arrest a fall must be subjected to a detailed inspection by a competent and qualified technician.

The user must be equipped with a means to limit the maximum dynamic forces exerted on the user when arresting a fall, to a maximum value of 6 kN.

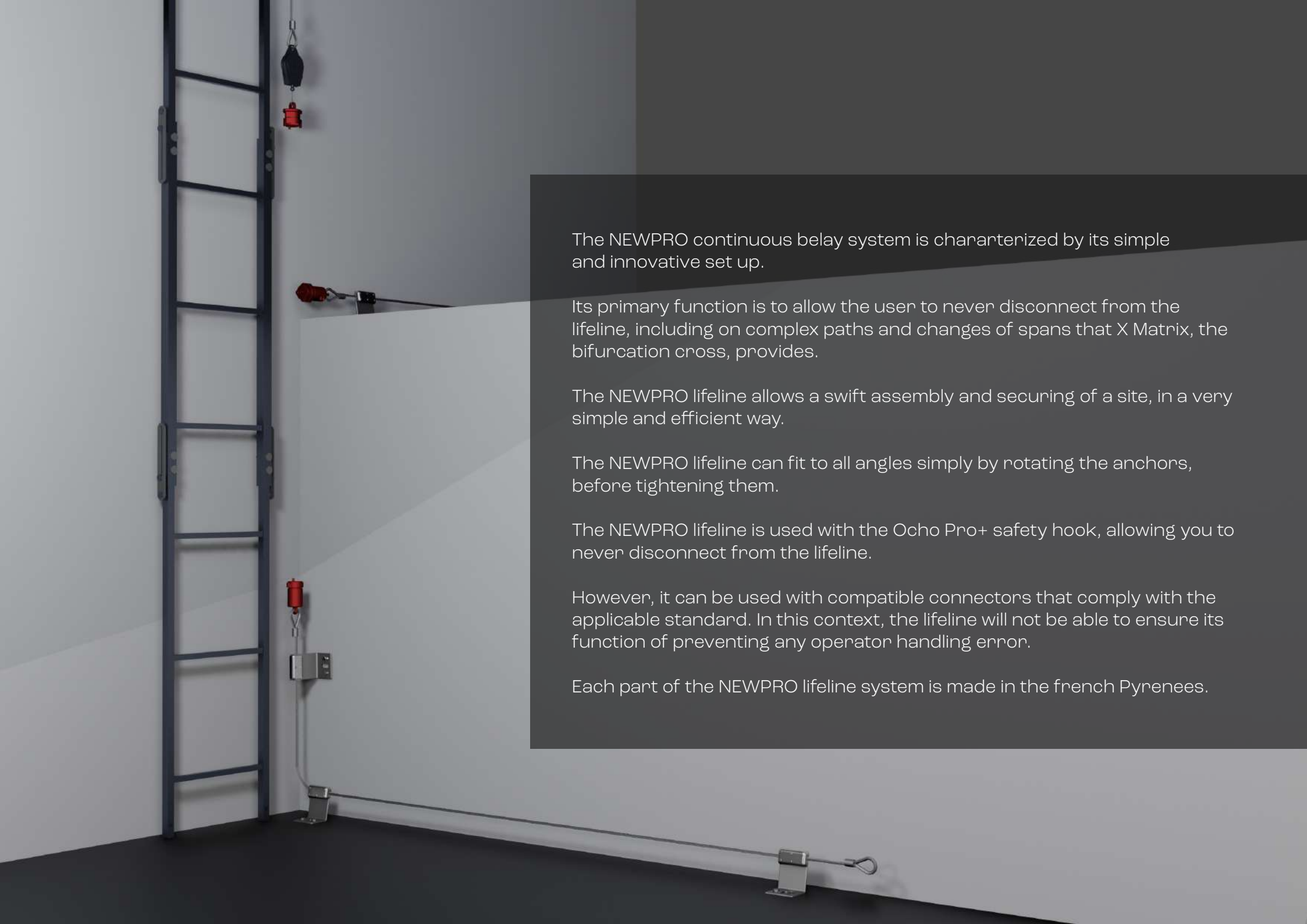
Set up on the O2 Arena roof, London - January 2020.

2. LIFELINE SPECIFICITIES

Applications
The NEWPRO lifeline system fits to every configuration :
- Factories.
- Roofs.
- Scaffolding.
- Complex hydroelectric pathways.

It resists the most difficult environments thanks to a plurality of absorbers and anchors.

This redundancy is, on the one hand, safe
in the event of breakage of an anchor point, and on the other hand it does not return all the strength between two points, unlike conventional lifelines with energy absorbers only at the ends.



The NEWPRO continuous belay system is chararterized by its simple and innovative set up.

Its primary function is to allow the user to never disconnect from the lifeline, including on complex paths and changes of spans that X Matrix, the bifurcation cross, provides.

The NEWPRO lifeline allows a swift assembly and securing of a site, in a very simple and efficient way.

The NEWPRO lifeline can fit to all angles simply by rotating the anchors, before tightening them.

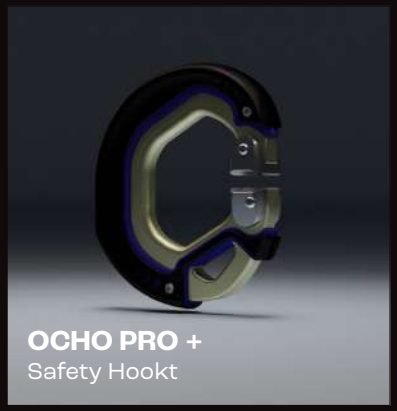
The NEWPRO lifeline is used with the Ocho Pro+ safety hook, allowing you to never disconnect from the lifeline.

However, it can be used with compatible connectors that comply with the applicable standard. In this context, the lifeline will not be able to ensure its function of preventing any operator handling error.

Each part of the NEWPRO lifeline system is made in the french Pyrenees.

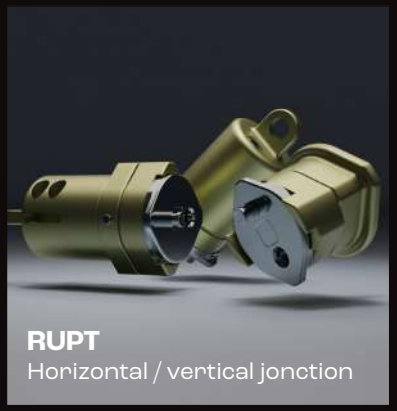

HOOKT

3. PART SHOWCASE

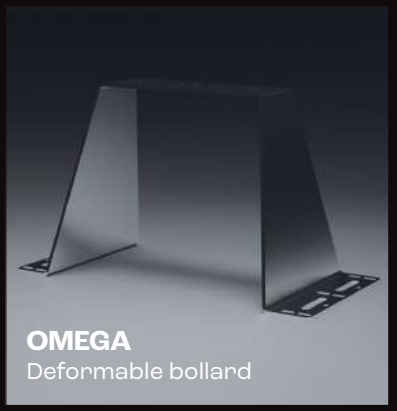


OCHO PRO +
Safety Hookt

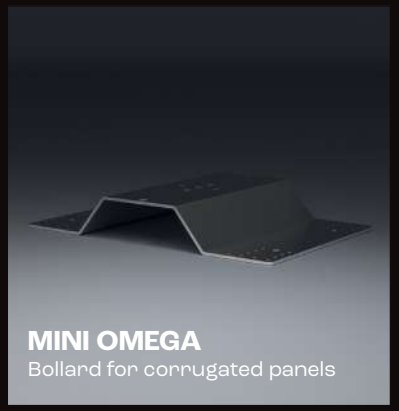
X-MATRIX
Multidirection cross



RUPT
Horizontal / vertical jonction

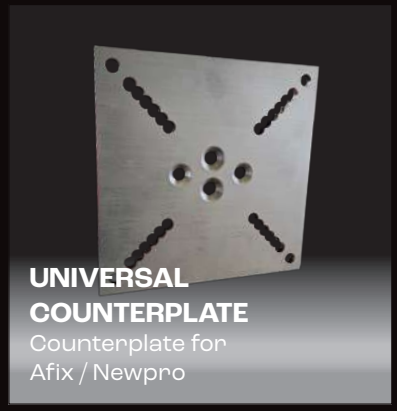


OMEGA
Deformable bollard



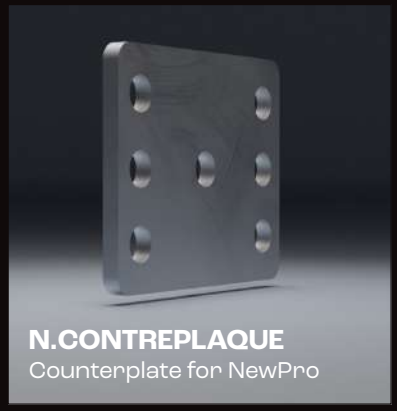
MINI OMEGA
Bollard for corrugated panels

STAINLESS POSTS
Rigid posts in stainless steel



UNIVERSAL COUNTERPLATE
Counterplate for Afix / Newpro

PACK NEWPRO 80
Energy absorber



N.CONTREPLAQUE
Counterplate for NewPro

A.FIX
Ancchor for wall

3.1 - NEWPRO 80°: a multi-purpose anchor

Consisting of a stainless steel plate and a ready-to-install matrix.

The matrix is specially designed to allow the cable to be orientated on either side.

It is versatile and can be used as a lifeline entry/exit as well as an intermediate point.

The energy absorbed per slip offers some very low figures.

The cable slag is La flèche de câble minimal. Work under tension.

Fits to all surfaces.

Double energy absorption

Slipping: an exclusive interior profile limits stress on the structure.

Deformation: once maximum slip is reached, the plate continues the absorption work by deforming..

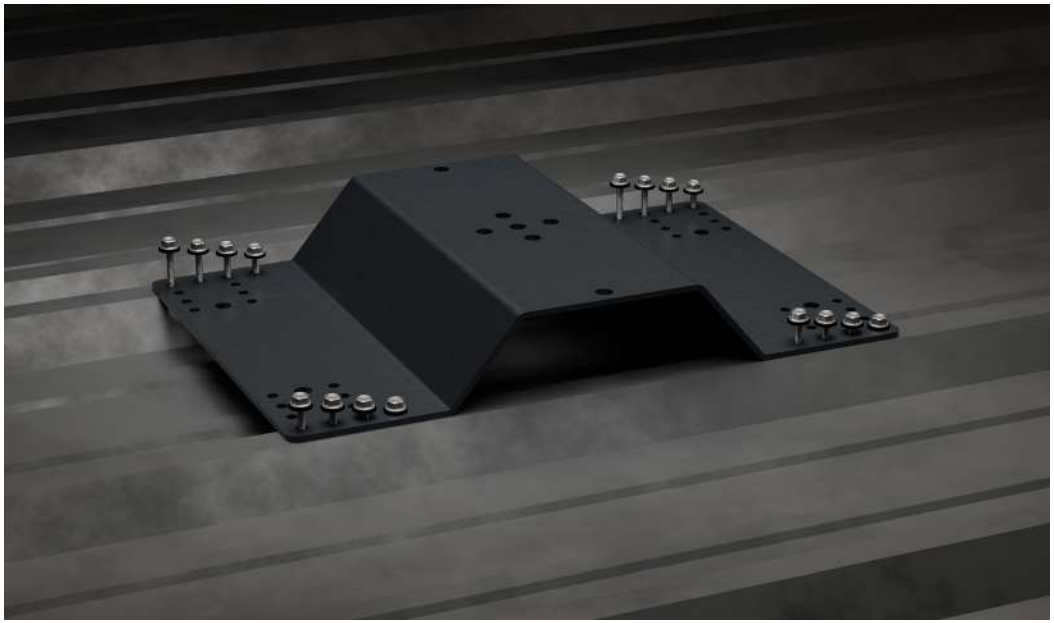
3.2 - OMEGA

Omega is a deformable bollard allowing energy to be absorded on each span in addition to the NEWPRO pack.

Economical, it adapts to all configurations.

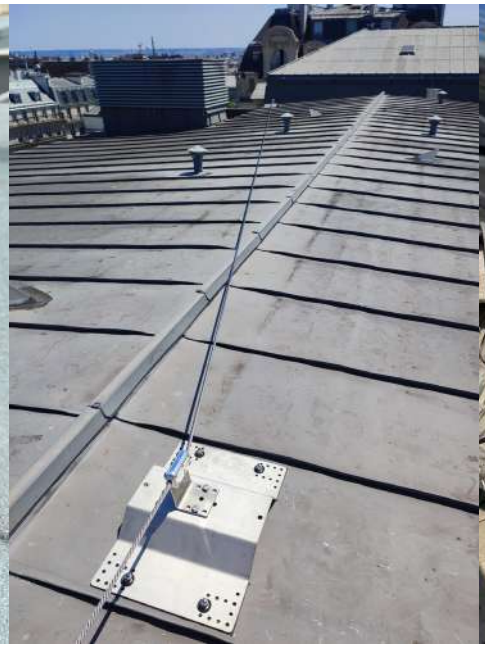
Equipped with several fixing points allowing installation on numerous supports.

Its height of 30 cm coupled with the
15 cm NEWPRO pack allows the lifeline to be positioned at a comfortable height for the operator.



3.3 - MINI OMEGA

Mini Omega is specially designed for corrugated steel panels.
It is standardized for pitches of 333mm, 250mm and 200mm with a minimum gauge thickness 0.6mm.
Fixing with self-drilling screws,
rivets or tilting anchors.
7 cm height.

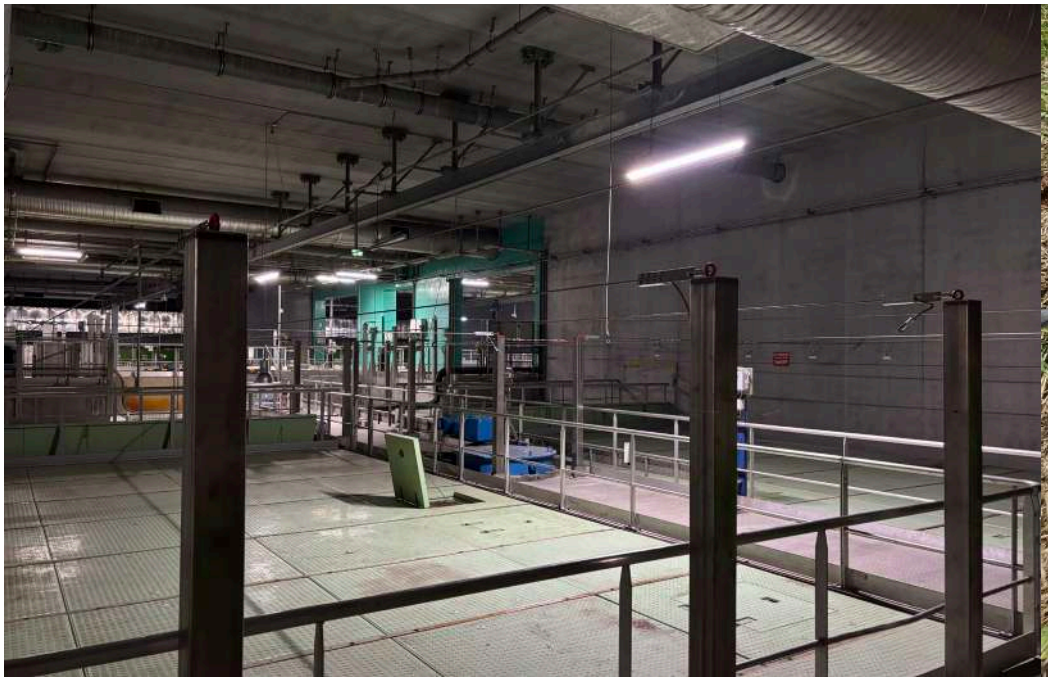


Compatibility with the following standards:

A complete set of posts and bollards is available according to your needs:
- Square stainless-steel bollard,
- Surface-mounted square bollards,
- Ground bollard.

(The height of the square bollards is available upon request.)

All rigid square bollards have a minimum breaking strength of 20 kN.



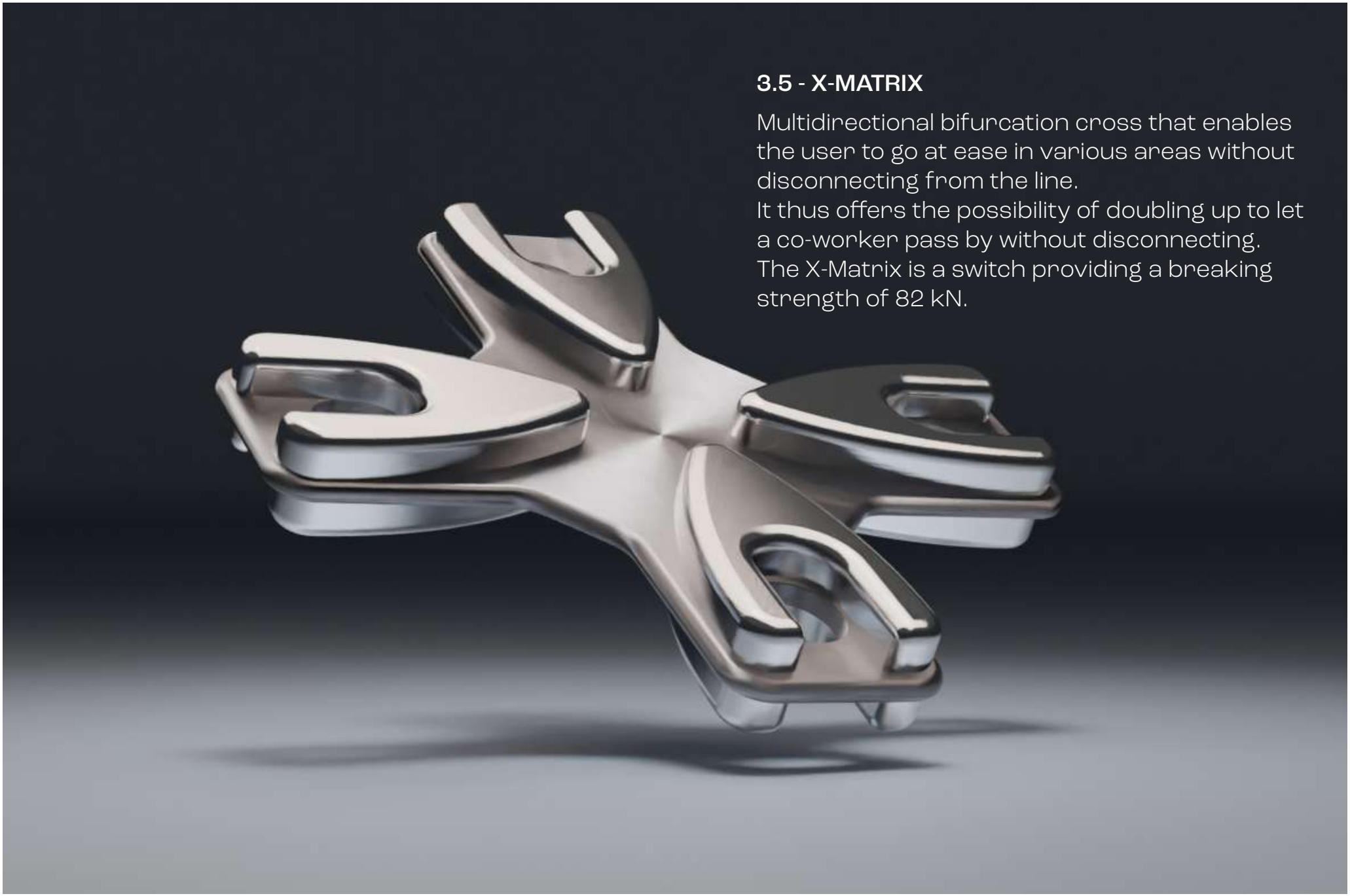
3.4 - RUPT

Horizontal and vertical junction piece allowing all movements to be unified while limiting handling errors.

Without any possible disconnection of the lifeline, operators are always safe.

The system is made of three parts :

An entry and exit devices as well as an intermediate part to be connected to a fall arrest system.



3.5 - X-MATRIX

Multidirectional bifurcation cross that enables the user to go at ease in various areas without disconnecting from the line.
It thus offers the possibility of doubling up to let a co-worker pass by without disconnecting.
The X-Matrix is a switch providing a breaking strength of 82 kN.

3.7 - OCHO PRO +

Unique safety hook with automatic closing in the event of a fall in rotation or a damaged cable.
All wear components are interchangeable.
Its geometry is adapted to the passage of butt joints and other technical parts.
It offers strength of 30 kN.

The Ocho Pro+ hook has an interchangeable V wear.
It is specially designed for intensive use.

3.8 - A.FIX

A.Fix is a multi-support anchor device allowing the connection of various elements as well as the closure of the lifeline.

3.9 - COUNTERPLATES

Several backing plates are available to allow mounting on a wide variety of supports.

4. REGULATIONS AND ASSOCIATED EQUIPMENTS

The lifeline meets the requirements of EN 795: 2012 regulations and technical specification TS16415: 2013 type C.

In accordance with the EN 363 standard, compatible products are:
– An anchoring device (EN 795).
– A connector (EN 362).
– A fall arrest lanyard (EN 355).
– A fall arrest harness with dorsal attachment point or sternal (EN 361).

The NEWPRO lifeline must be used with the Ocho Pro + hook, allowing you to never disconnect from the lifeline. However, a conventional system can be used and must be connected to the lifeline using EN 362 carabiners placed on the cable. It is then recommended to use an
EN 355 twin leg lanyard equipped with 2 EN 362 carabiners. Each time you pass the entry/exit or intermediate anchors, care must be taken to detach only one carabiner at a time.
A first carabiner is first passed to the other side of the anchor and connected to the cable, before detaching the other to pass the anchor. It is essential to always have at least one carabiner on the lifeline.

The NEWPRO lifeline must only be used with equipment (harness, lanyard, etc.) bearing the CE marking and used in accordance with the manufacturer's recommendations.

The fall arrest harness is the only gripping device authorized for use in a fall arrest system.

Other applicable standards: for use in North America and Canada, refer to the local, provincial, and federal requirements in effect for the sector in which the fall protection device is used (OSHA, ANSI, CSA, etc.). The components and subsystems must be compatible with each other and comply with local requirements. The Newpro lifeline must be used only with components and subsystems approved by the manufacturer.

5. GENERAL MOUNTING INSTRUCTIONS

5.1 - OPERATING MODES

Before any assembly, it is imperative to scrupulously follow the instructions in this manual. The mounting rules differ depending on the type of support.

Rigid support mounting rules:

(according to EN795 and TS16415 standards – Europe)

❏ Up to 5 users.
❏ Slopes less than 15° (except in case of hybridization - section 7).
❏ When an angle greater than 40° is positioned on the line it is mandatory to install 2 anchors.
❏ Maximum spans of 15 m.
❏ Minimum length 3 m (no maximum length)
❏ Connection to the lifeline with Ocho Pro + hook. Possibility to use a twin legged lanyard with carabiners.

Other applicable standards: for use in North America and Canada, refer to the local, provincial, and federal requirements in effect for the sector in which the fall protection device is used (OSHA, ANSI, CSA, etc.).

Generalities

In case of storage before installation, the components must be stored in a clean and dry place. Likewise during transport, the components must be protected from any crushing or shock.
Anchoring devices must be installed in such a way that they can be removed from the structure, without damagingany part, thus allowing its reuse.

Position the lifeline so that it is visible to the operator of the fall arrest device.
The lifeline can be placed on a vertical, horizontal or inclined support. The inclination of the cable must be less than 40°.

All components have been tested by an inspection office and meet the requirements of the BS EN-795-C 2012 regulation.
The installation of the NEWPRO lifeline will be carried out professionally and in accordance with the recommendations of the manufacturer of the fixing elements.
The intermediate and end components will be fixed to their support using 12 mm diameter stainless steel screws offering a minimum shear breaking load of 2000 daN.

The maximum strength likely to be transmitted by the anchoring devices is defined by the strength and cable sag tables in section 5.3 of this manual.
In the case of fastening to steel or wood, a competent person must verify through calculation that the design and installation data comply with the standards in effect in the area of use (that the support can withstand twice the load indicated in Table Section 5.3 for use in Europe, or the maximum load certified by a local engineer for use in North America and Canada).
For concrete or stone, anchoring must be done either with through rods or chemical anchors. The quality of the installation must then be tested by a pull-out test at 500 daN for 15 seconds.

This test must be carried out by a competent person before the anchors are installed. Performing this test with the lifeline components in place would cause deformation of the anchor.For wood, it is mandatory to use through rods or counterplates.
If fixing in other materials, the installer must verify the suitability of the structural materials either by a calculation note or by a testing methodology.

If specific interfaces must be designed, the installer must have them dimensioned by a competent person. These interfaces must be properly treated against corrosion.
Any modification to the equipment or any addition to the equipment cannot be made without the prior written consent of the installer, any repair must be carried out in accordance with the operating procedures of Vert Voltige Innovation.
A sign indicating the presence of anchors in the secure area must be placed near the anchors or at access points to the area. This panel must be completed after assembly and after each periodic inspection. It also serves as an identification sheet.

5.1.1 - Set up of the lifeline

NEWPRO lifelines are assembled with the following material:
- A 19 mm and 17 mm torque wrench.
- A 13 mm wrench for matrix.
- A size 4 Allen key.
- An impact wrench.
- A crimper with Aluminum sleeves.
- A cable tensioner.
- A cable cutter or portable grinder.
- A meter to measure cable tension.
- High strength threadlocker glue for all M8, M10 and M12 bolts and screws.

The installation of NEWPRO lifeline is carried out by the following operations:

1. Installation of structural anchors
2. Setting up the packs (if necessary)
3. Fixing and tensioning the cable in the matrix.

This implementation is fully detailed in section 6 of this manual.

5.1.2 - RUPT Installation

This 3-piece kit allows you to couple a horizontal and vertical lifeline without ever disconnecting.

RUPT consists of 3 parts: 1 entry part, 1 intermediate part and 1 exit part

When coupling between a horizontal and vertical lifeline, the RUPT is positioned according to the foolowing method..
A crimped loop is made after the entry/exit point of the matrix while leaving 20 cm of slack

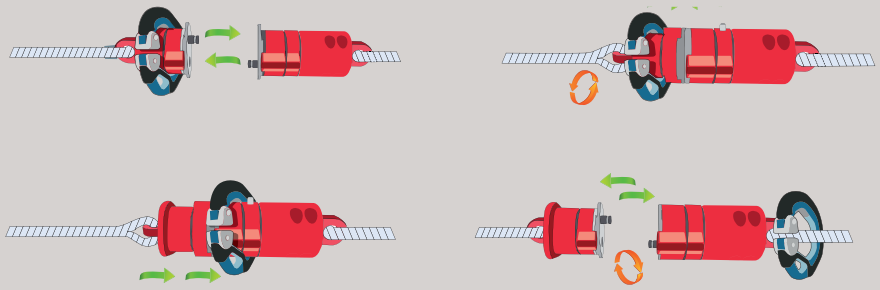
The entry part is positioned, using a 10 mm stainless steel quick link, in this loop.

The intermediate piece is connected with a 10 mm stainless steel quick link, to any interface allowing security during vertical ascent (retractable fall arrester, trolley, etc.)..

Note : the fall arrest system must be directly connected to the harness at the sternal or dorsal points noted A or A/2 in accordance with the manufacturers instructions. It is prohibited to connect the hook directly to the RUPT only by the lanyard.

At the end of the ascent, the exit piece is positioned identically to the entry piece. This piece allows you to start again on a horizontal lifeline. The outlet part is characterized by its push pin located in the middle of the body.

Usage of RUPT with Ocho Pro + hook



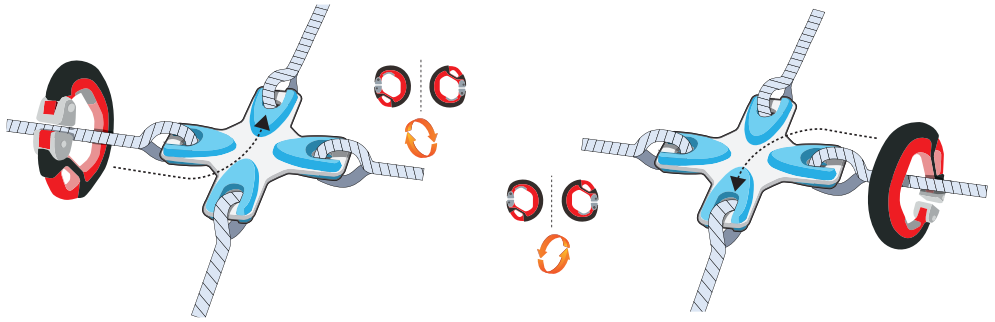
5.1.3 - X-Matrix installation

The X-Matrix bifurcation crosses are used in the middle of a span to split the cable into 4 sections.
The use of a crimper is mandatory.
Identify the installation area for the X.Matrix cross.

Once the installation area has been chosen, insert the stainless steel thimble into X-Matrix and sheath the cable with crimping pliers.
X.Matrix bifurcation cross must be positioned between 2 anchors.

On a three-lane system, it is possible to block one exit out of four using a stop.

Usage of the Ocho Pro + hook with X-MATRIX



5.2 - COMPATIBILITY DEPENDING ON SUPPORT AND FIXING METHOD

USAGE	SUPPORT TYPE					FIXING WAY				
	CONCRETE	CORRUGATED METAL PANEL	POLE Ø < 60mm	GLUED LAMINATED WOOD	PLATEFORM	HORIZONTAL	VERTICAL	SLOPE 15° À 30°	SLOPE 30° À 40°	OVERHEAD
OMEGA	●	-	-	-	●	●	-	●	●	-
MINI OMEGA	●	●	-	-	●	●	-	●	●	-
A.FIX	●	-	-	-	●	●	●	●	●	-
ANCHOR NEWPRO	●	-	●	-	●	●	●	●	●	●
UNIVERSAL COUNTERPLATE	●		●	●	●	●	●			●

FIXING						
	CONCRETE	CORRUGATED METAL PANEL	POLE Ø < 60mm	GLUED LAMINATED WOOD	PLATEFORM	ZINC ROOF
OMEGA	4 Stainless steel studs 12 mm (min length 120) + chemical seal.	-	-	-	4 Stainless steel M12 bolts + washers. A counterplate is necessary if the support is to weak	4 toggle bolts Ø10mm
MINI OMEGA	-	16 RIVETS OR 16 SELF-DRILLING SCREWS 6.30 X 38 WITH WATERPROOF WASHERS. SEALING STRIP.	-	-	4 STAINLESS STEEL M12 BOLTS + WASHERS. A COUNTERPLATE IS NECESSARY IF THE SUPPORT IS TO WEAK	4 toggle bolts Ø10mm
A.FIX	2 Stainless steel studs 12 mm (min length 120) + washers.	-	-	-	2 STAINLESS STEEL M12 BOLTS + WASHERS.	
ANCHOR NEWPRO	2 Stainless steel studs 10mm or 12mm (12mm if intermediate)(min length 120) + washers.	-	4 STAINLESS STEEL M10 OR M12 BOLTS + WASHERS + COUNTERPLATE.	-	2 STAINLESS STEEL M10 OR M12 BOLTS + WASHERS. A COUNTERPLATE IS NECESSARY IF THE SUPPORT IS TO WEAK.	
UNIVERSAL COUNTERPLATE	4 Stainless steel studs M12 + Fixation par boulon tête fraisée M12		CLAMPING WITH A BACKING PLATE OR WITH CLAMPING BRACKETS			

NEWPRO CONFIGURATION WITH TURNS: IN CASE OF TURNS GREATER THAN 40°, THE STRUCTURAL ANCHORS SHOULD BE DOUBLED.

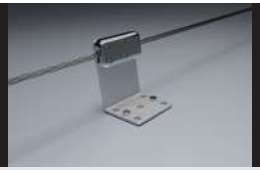
5.3 - STRENGTH VALUES ON STRUCTURES

The NEWPRO system assembly is equivalent to having only single-spans.

Each bay is equipped with an energy absorber not affecting other spans.

The tables below show the maximum forces transmitted to the structure during a user's fall, depending on the type of anchor installed, according to the European standards EN795 and TS16415.

For use in North America and Canada, these values must be certified by a local engineer.

Pack NewPro 80 (EN795 et TS16415) 	X1	X5
Small span (3 to 8 metres)		
Max strength (en daN)	960	1300
Max cable sag (en daN)	490	600
Large span (8 to 15 metres)		
Max Strength (daN)	1370	1450
Max cable sag (daN)	1300	2100
Turns or entry / exit		
Max strength (daN)	820	

Omega (EN795 et TS16415) 	X1	X5
Small span (3 to 8 metres)		
Max strength (daN)	700	1300
Max cable sag (daN)	490	600
Large span (8 to 15 mètres)		
Max strength (daN)	830	1400
Max cable sag (daN)	560	1800
Turns or entry / exit		
Max strength (daN)	820	

Mini Omega (EN795 et TS16415) 	X1	X5
Small span (3 to 8 metres)		
Max strength (daN)	100	1200
Max cable sag (daN)	450	550
Large span (8 to 15 mètres)		
Max strength (daN)	1250	1360
Max cable sag (daN)	1400	2100
Turns or entry / exit		
Max strength (daN)	990	


2 PARTS CBS & X-MATRIX

5.4 - PACK MATRIX

The assembly of the Newpro system can be completed with the matrix pack.

This part allows mounting on post or wall when the angle is greater than 90° and the installation of 2 Newpro is not possible.

A loop of 20 cm of slack must be positioned behind the matrix pack.

A TE70 pack must be positioned at the end of this pack (without crimping).

It helps stop cable slippage and set maximum sag based on the number of users.


PACK MATRIX

This set up has similar values of slippage and cable sag to the NEWPRO pack.

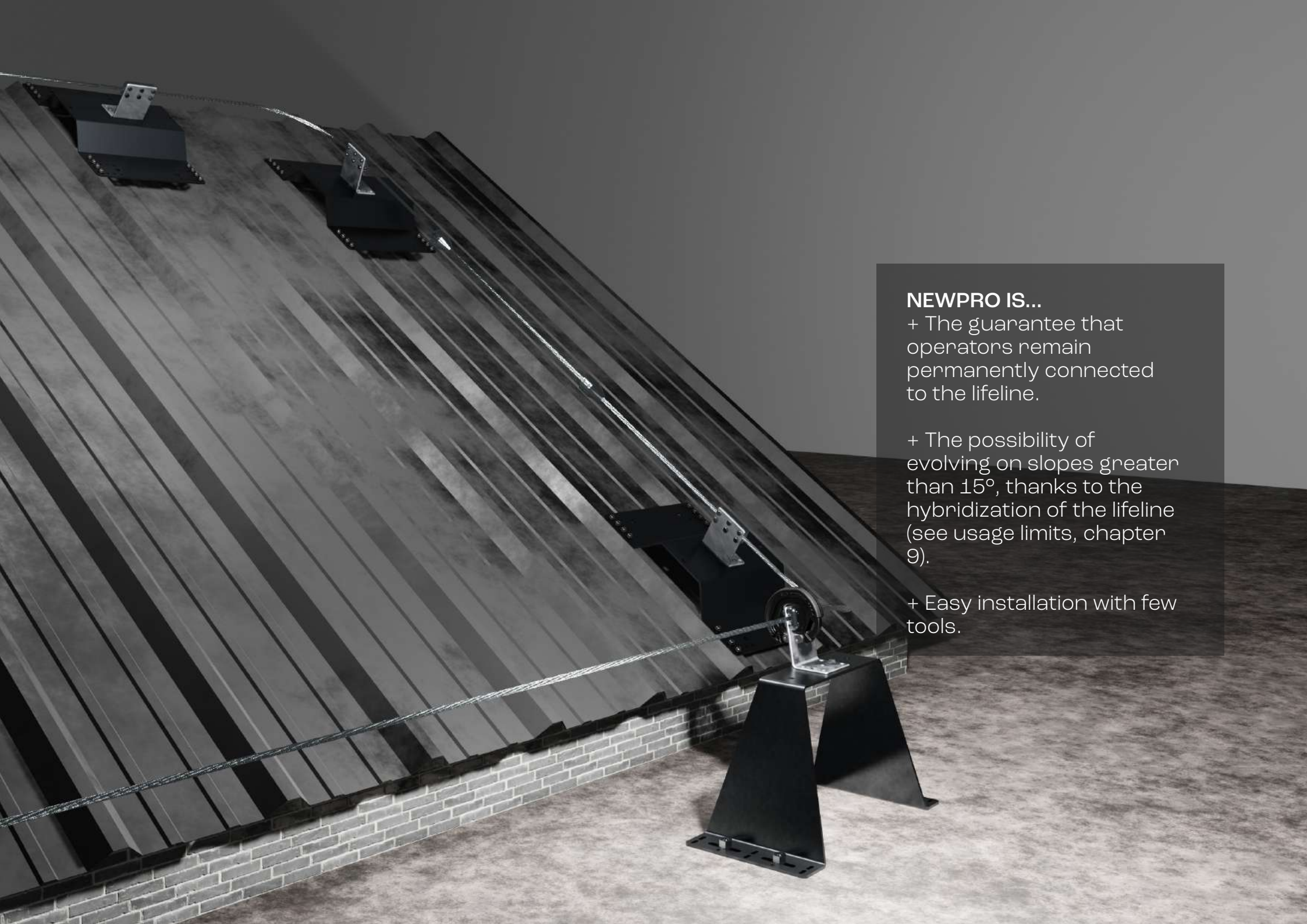
EXEMPLE OF
INSTALLATION OF
MATRIX PACK

6. MOUNTING NEWPRO LIFELINE

The new professional range offers versatility
combining ease of installation
and an unrivaled level of safety.

It both can be installed temporarily and
permanently, with single or multiple spans.

It can be used by up to 5 users simultaneously.



NEWPRO IS...
+ The guarantee that operators remain permanently connected to the lifeline.

+ The possibility of evolving on slopes greater than 15°, thanks to the hybridization of the lifeline (see usage limits, chapter 9).

+ Easy installation with few tools.

SETUP OF THE ANCHORS AND THE LIFELINE

Proper implementation of the system is very important for safety and usage.

IMPORTANT ! En cas de virage supérieur à 40°, le doublage des ancres structurelles est nécessaire.

Installation of the NEWPRO packs (figures 6.1, 6.2, 6.3, 6.4 et 6.5)

Setting up NEWPRO packs is extremely simple. It is carried out in the same way regardless of its mounting support (wall, floor, post, etc.).

It consists of first installing the stainless steel plate using the side holes provided for this purpose, either on an anchor or by drilling the support.

The recommended fixing methods are described in the table in section 5.2.
If the NEWPRO pack is installed as an intermediate anchor, it can only be fixed on one point (central drilling of the plate).
If installed on Omega or Mini Omega, it will be necessary to fix the matrix with 2 M12 x 30 stainless steel bolts + washers.
The cable is then placed between the stainless steel plate and the aluminum matrix. Screws are tightened to the limit with high strength threadlocker.

The lifeline cable is tensioned between 0.5 and 0.8kN maximum, either by arm strength or using a tensioning device. The tension can be checked using a dynamometer.
In certain cases (installation on posts, etc.), the installation of a counterplate is necessary.

Installation of OMEGA

The implementation of Omega depends on the structure and quality of the support.
The direction of installation must be carried out so that the legs of the bollard are perpendicular to the lifeline (figure 6.6).

Figure 6.1

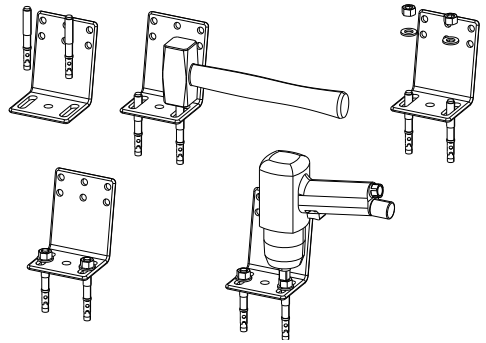


Figure 6.2

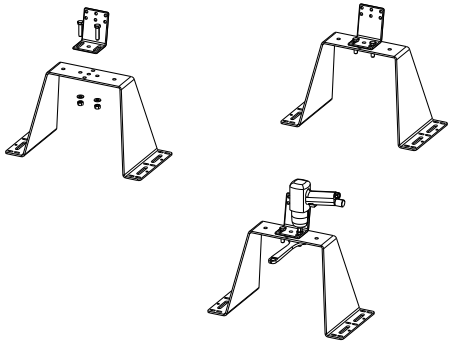


Figure 6.3

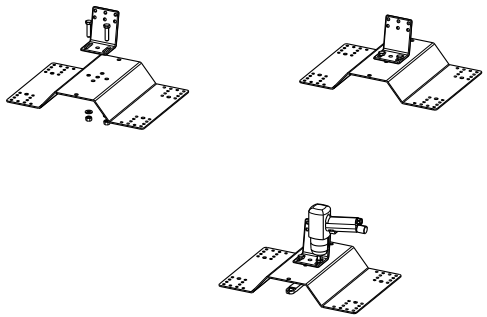


Figure 6.4

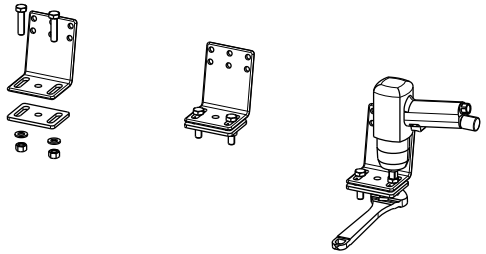
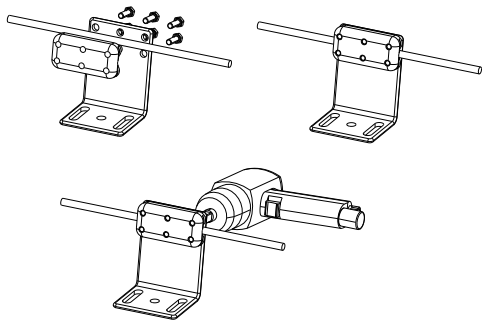
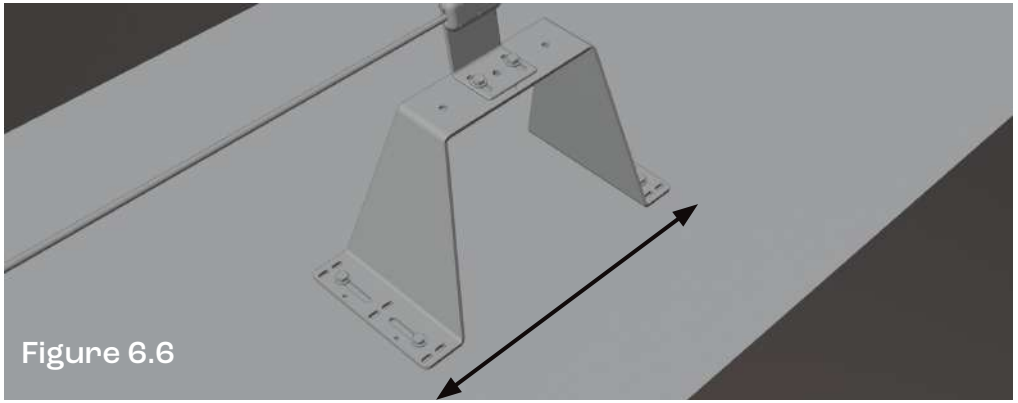


Figure 6.5





Installation on concrete (cf figure 6.7)

Installation on concrete floors is carried out with 4 stainless steel bolts (anchoring studs) of Ø 10mm or 12mm and a minimum length of 120mm chemically sealed in the support.

Cleaning of the drilling holes is necessary for the seal to set properly.

The studs must be positioned to accommodate the oblongs of the bollard.

A washer must be placed between the post and the tightening nut.

Once the post is in place, the nuts must be tightened according to the manufacturer's recommendations.

Installation on counterplates (cf figure 6.8)

Installation on a metal platform can be carried out in 2 different ways. If the thickness of the support allows it, the bollard can be fixed using 4 M10 or M12 stainless steel bolts with washers on each side of the support.

The drilling holes on the metal platform must be cleaned and free of any traces of iron filings to avoid rust.

Installing a counterplate is necessary if the support is too weak.

The bolts must be positioned to accommodate the oblongs of the bollard.

Once the bollard is in place, the nuts must be tightened according to the manufacturer's recommendations.

figure 6.7 (concrete)

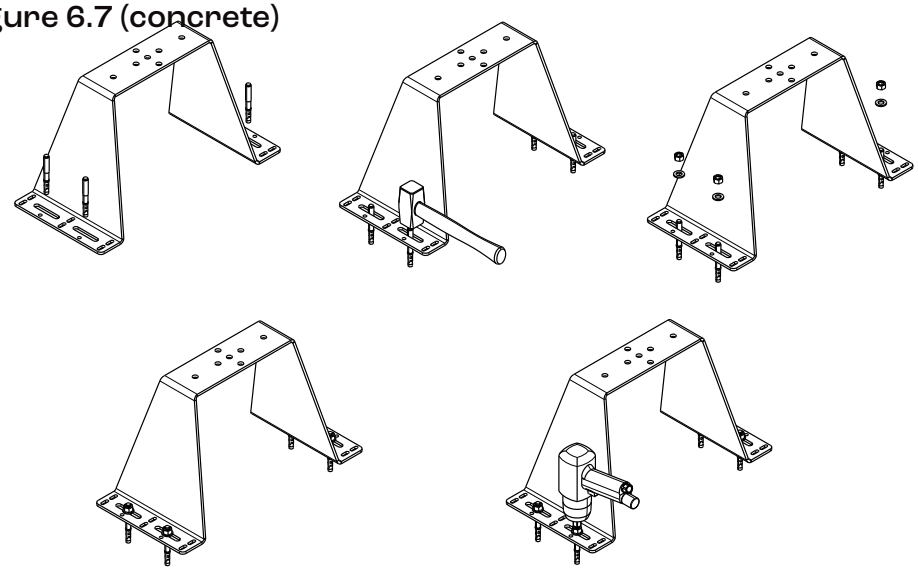
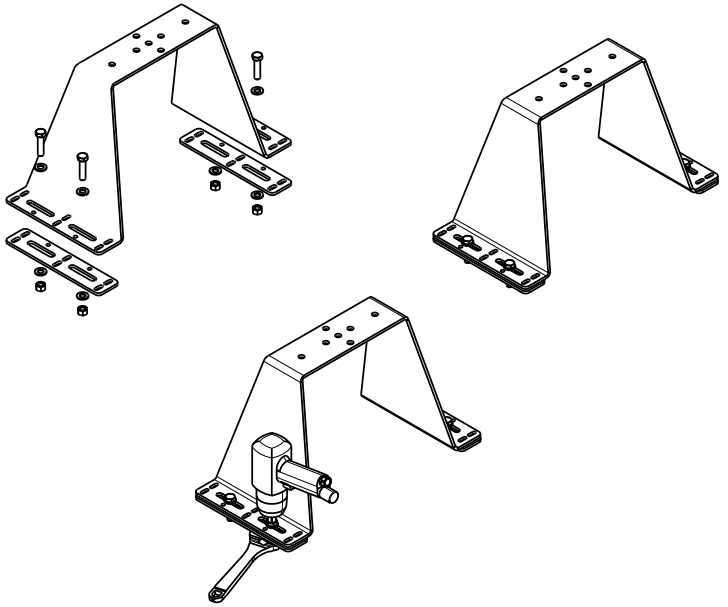


figure 6.8 (counterplates)



Installation of MINI OMEGA
The installation of the MINI OMEGA is similar to that of the OMEGA.

Installation on concrete (figure 6.9)
Installation on concrete floor is carried out with 4 stainless steel bolts (anchor studs) of Ø 12mm and a minimum length of 120mm chemically sealed in the support. Cleaning the drill holes is necessary for the seal to set properly
The studs must be positioned so as to fit into the 4 holes in the post provided for this purpose.
A washer should be placed between the post and the clamping nut.
Once the bollard is in place, the nuts should be tightened according to the manufacturer's recommendations.
Installation on corrugated steel or zinc roof panels
Installation on corrugated roof panels is carried out using 16 rivets or 16 self-drilling screws 6.30 x 38.
Cleaning of the drilling holes is necessary to avoid any corrosion of the panels. The minimum thickness of the corrugated panels must be at least 0.6 mm. If installed on a zinc roof panels, fixing is carried out with 4 tilting anchors of Ø 12mm. The thickness of the roof battens must be
at least 12 mm.

Installation on platforms (figure 6.10)
The mini Omega is installed in the same way as the OMEGA.
The holes reserved for fixing are identical to installation on concrete floors.

Installation of A.FIX (figure 6.11)
Place the A.Fix anchor on the wall or floor using 2 chemical fixings M12, offering a minimum shear breaking strength of 20 Kn.
In case of installation on a metal platform, the A.Fix can be fixed using 4 M12 stainless steel bolts with washers on each side of the support.
Drill holes on the metal platform will need to be cleaned and free from all traces of iron filings to avoid rust.

Figure 6.9

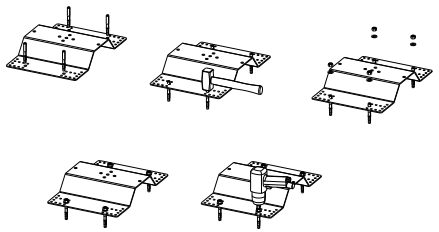


Figure 6.10

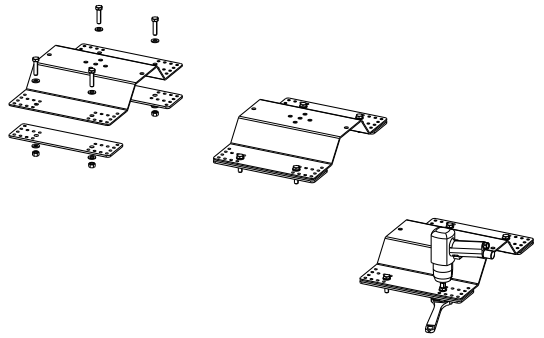
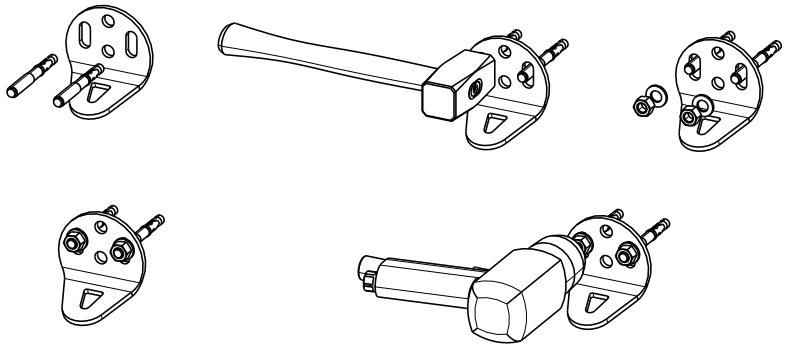


Figure 6.11



INSTALLING THE CABLE ON THE LIFELINE

Each point must have a NEWPRO pack.
Place the stainless steel plates on the bollard of your choice or directly on the support, with M12 fixings, high strength threadlocking and supplied washers, tightening to the stop. You get the desired angle of the lifeline by simply rotating the plates.

Position the 7*19 10mm stainless steel cable and the matrix.

The cable is positioned in the housing provided inside the matrix. In the event of an angle greater than 40°, a doubling of the structural anchors is necessary (figure 6.12).

The lifeline cable must be tensioned between 0.5kN and 0.8kN maximum, either by arm strength or using a tensioning device. The tension can be checked using a dynamometer.

Proceed with tightening with the following instructions:
The matrix points are tightened to the stop, with the M10 stainless steel screws provided + high strength threadlocking.

– The cable must exceed 20 cm from the NEWPRO packs at the ends of the lifeline. It must be crimped with a loop. This loop should allow the hook to be inserted freely (figure 6.13).

— Make an indelible mark on the cable when it comes out of the NEWPRO pack. This mark will act as an indicator in the event of a fall and cable slipping.

CLOSURE OF THE LIFELINE

In certain cases it is sometimes necessary to close the lifeline at one end (access passages at the end of the roof, identical entry and exit points, etc.).
The line can be closed using a cable loop connected to an M12 eyebolt fixed to a bollard (figure 6.14), or to an A.FIX.


Figure 6.12


Figure 6.13


Figure 6.14

Lifeline terminations..

Leave 50 cm of cable after the New Pro or Matrix pack to allow the creation of a loop (fig. 6.12).
Once the loop is created, crimp it with a suitable ferrule or insert an EndPack (fig. 6.13).

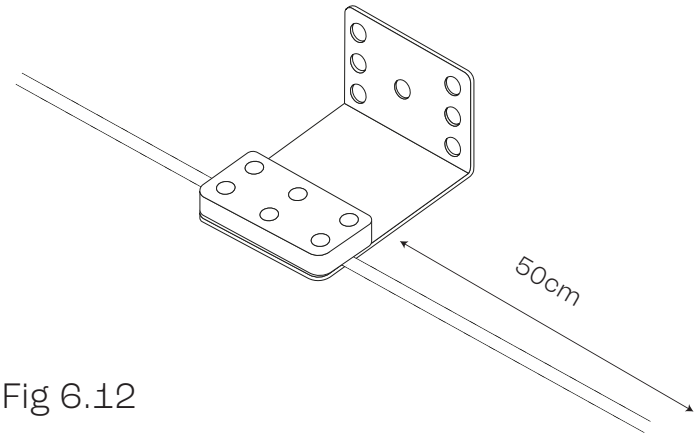


Fig 6.12

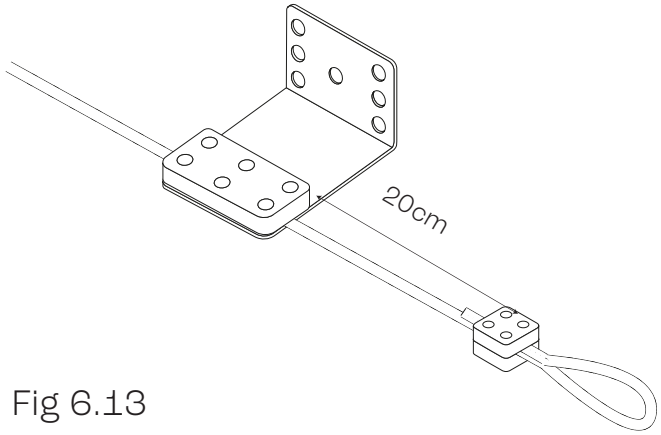


Fig 6.13

Tighten the EndPack using 4 M12 screws to 70 Nm, with a high-strength threadlocker.

7. HYBRIDIZATION OF THE LIFELINE

Thanks to the X-CONE, a hybridization of the lifeline can be carried out, making it possible to create slopes between 15° and 40°.
Although this hybridization exceeds the EN 795C regulation (not allowing slopes greater than 15°), the system tests were carried, out according to the specifications established by Vert Voltige Innovation, by the ISO 17025 accredited laboratory Quintin Certifications and amply proven by releasing weights of 100 kg, well beyond our assembly requirements.

7.1 - X-CONE

The X-CONE make it possible to secure slopes greater than 15°.

The range of use is: one X-CONE every meter for a slope ranging from 15 to 30°.

Every 50 cm for a slope between 30 and 40°.


VERTICAL TREK INNOVATIONS

7.2 - Installation des X-CONE

They attach to the lifeline cable using their 4 M5 SHC head screws tightened as much as possible.

The tip of the cone should point down the slope.

Place an X-Cone every meter for a slope of 15 to 30°
and every 50 cm for a slope of 30 to 40°

9. USAGE LIMITS

- ❏ In the event of an operator falling, the significant sagging of the cable acts as a fall indicator.
- ❏ The NEWPRO lifeline is exclusively intended for attaching a personal protection system against falls from height and not for lifting equipment.
- ❏ For safety reasons, it is essential to check the clearance under the user before each use, so that in the event of a fall, there is no risk of collision with the ground or any other obstacle.
- ❏ For any specific application, do not hesitate to contact Vert Voltige Innovation.
- ❏ The durability of the belay system is directly linked to the quality of the support. As such, compliance may only be established if its constituent parts are free from any manufacturing defects and if its performance has not dropped as a result of use (aging, excess loads, chemical attacks, adverse weather, etc.).
- ❏ For user safety, if the product is re-sold in a country other than the first country in which it was sold, the seller must provide a version of the instruction manual and instructions on maintenance, regular checks and guidelines relating to repairs in the language of the country in which the product is to be used.
- ❏ No modifications or additions may be made to the equipment without prior written approval from the manufacturer. Furthermore, all repairs must be carried out in accordance with the manufacturer's operating methods.
- ❏ Only competent individuals who have been given the appropriate training may use the NEWPRO system.
- ❏ Users must be in good health, be in possessio of all of their faculties and must not go against any medical advice.
- ❏ It is recommended that you do not use type C anchor devices combined with automatic recall fall arrest systems (EN 360) or guided fall arrest systems which feature a flexible belay support (EN 353-2) if these have not been subject to tests together.
- ❏ Both the hook and the lifeline should be kept away from any sharp edges
- ❏ The hook and the lifeline should not be exposed to chemicals or subjected to electrical conductivity, cuts or abrasion.
- ❏ The hook and lifeline must not be used if it is freezing, in stormy weather or in adverse weather conditions (wind, storm).
- ❏ The equipment must not be used for any purposes other than those it was designed for.
- ❏ A safety plan must be put in place for any incidents that may occur during work.
- ❏ In the event of a rescue operation on the lifeline, deformation under load must be factored in. See the guidelines in section 4.3 - Strength values on structurest
- ❏ For fall arrest systems, for safety reasons, both the device and the anchoring point must always be correctly positioned, and given work must ensure that the risk of falls (and the height of falls) is kept to a minimum.
- ❏ The lifeline must be immediately put out of order:
  - If there is a doubt about safety,
  - If it was used to stop a fall.

  It must not be used again until a competent person has authorized its reuse in writing.

10. INSPECTION AND MAINTENANCE

MAINTENANCE

❏ The safety line requires no special maintenance.

❏ Lifeline components should be cleaned with soap and water. No chemicals should be used.

INSTALLATION CHECK UP

❏ An assembly check must be carried out as described in appendix 12.3 - Assembly check sheet.

❏ An information and control panel must be installed and completed for each lifeline. This panel lists the main safety instructions, the date of installation, the type of equipment and the date of the last check carried out. This panel is shown in appendix 12.1 - Information and control panel.

❏ A lifeline identification sheet with details of all the parts must be drawn up in accordance with the model in appendix 12.5 - Identification sheet.

CHECK UP BEFORE EACH USE

❏ Before each use, the lifeline must be checked to ensure that it is in good apparent condition (no deformation or corrosion, correctly tightened, etc.). This check consists of analysing the general good condition of the lifeline components (checking the tension of the cable, entry/exit posts and anchors, cable, intermediate posts and anchors, movable anchors).

❏ Each component must be checked before use. The safety function of one component may affect or interfere with the safety function of another.

❏ If a component is damaged, the lifeline must no longer be used. It must be condemned and defective components must be replaced after the structure has been inspected.

PERIODIC CHECK UP

❏ It is compulsory to carry out an annual check of the entire NEWPRO lifeline in accordance with the instructions in appendix 12.4 - Annual check sheet.

❏ The annual inspection must be carried out by a competent person, in strict compliance with the periodic inspection procedures in this manual.

❏ User safety is linked to maintaining the efficiency and strength of the equipment.

❏ The life of the device is unlimited. However, periodic checks and inspections following a fall may result in some components being scrapped.

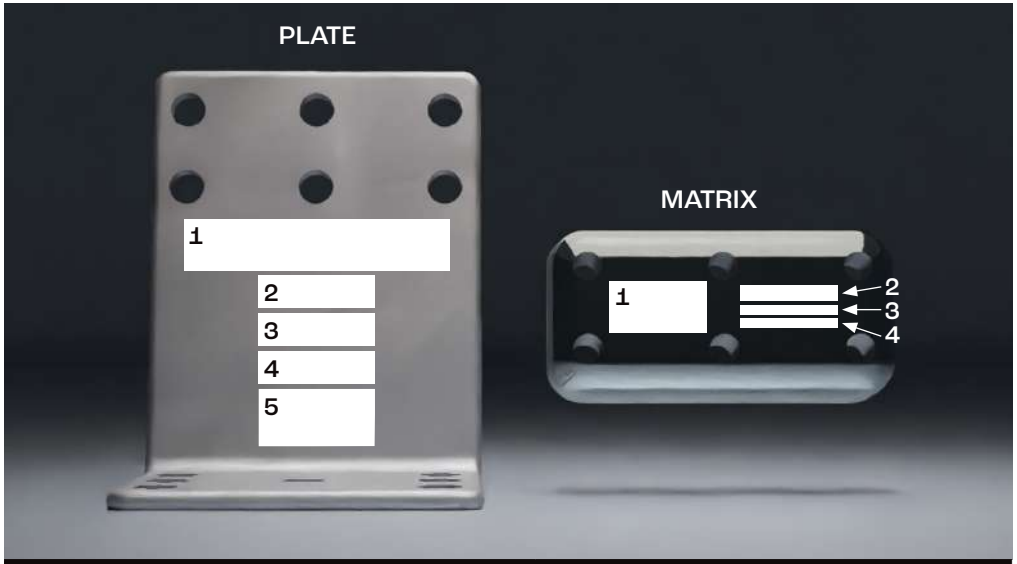
❏ If you suspect a fall, check the 2 indicators in the groove of the die for wear.

❏ After each check, the sign (provided in appendix 12.1) must be marked in the area provided for this purpose.

11. TRACEABILITY AND IMPRINT

Imprints on each components garantee full traceability of the NEWPRO system.

IMPRINTS MEANINGS ON NEWPRO PACK

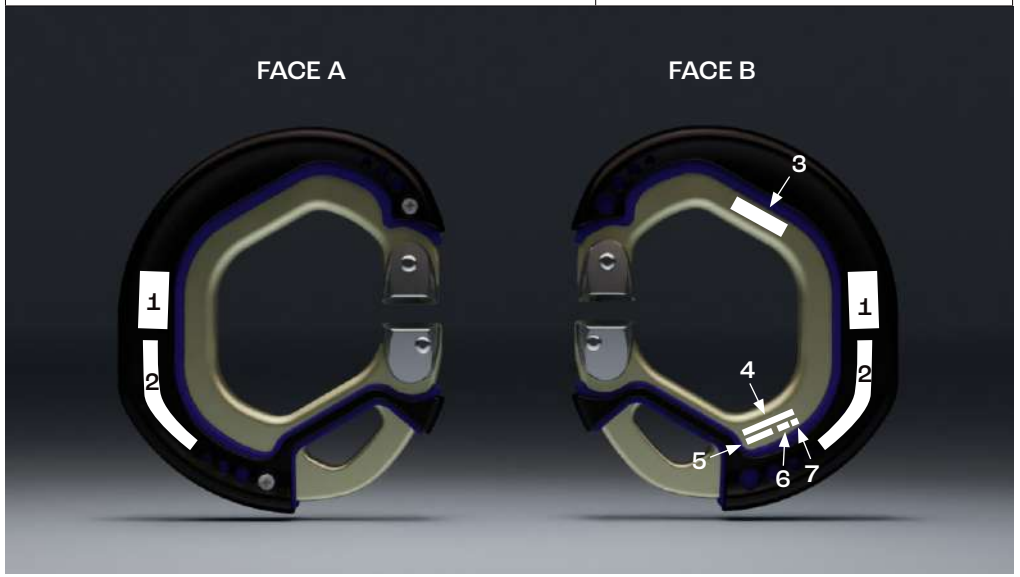


IMPRINT ON STAINLESS STEEL PLATE	
1. Item ID	INOX NEWPRO
2. Batch Number	XX NNNNN
3. Manufacturer trademark	Vertical Trek Innovations
4. Compliancy and type	EN 795 : 2012 Type C - TS 16415 : 2013
5. « Read instruction for use » logo	

IMPRINT ON MATRIX	
1. Manufacturer logo	HOOKT
2. Item ID	MAC NEWPRO
3. Wire cable diameter	Wire rope Ø 10 mm
4. Batch Number	XX NNNNN

IMPRINTS MEANINGS ON OCHO PRO + HOOK (MOBILE ANCHOR DEVICE)

FACE A	
1. Hook logo	
2. Manufacturer name	Vert Voltige Innovation
FACE B	
1. Hook logo	
2. Manufacturer trademark	Vertical Trek Innovations
3. Item ID	OCHO PRO +
4. Unique ID number	MMAA-XXXX
5. Compliancy and type	EN 795 : 2012 Type C
6. « Read instruction for use » logo	
6. Number of users	X 1



12.APPENDICES

The documents showcased hereafter are available upon request: contact@go-hookt.com

12.1 - SIGNAGE

A sign (right) must be positioned at the entrance to the lifeline.
It can be glued or fixed using self-drilling screws or rivets.
It provides the necessary information to users, including the number of people per lifeline, the date of the last check and the recommended PPE.

It is the identity card of the lifeline. To be informed:
❏ The name of the installer,
❏ The max users number,
❏ The length of the lifeline,
❏ The installation date,
❏ The kind of PPE recommended by the installer,
❏ The installation and inspection dates.

12.2 - WARRANTY AND WARRANTY LIMIT

NEWPRO lifeline components are guaranteed against any manufacturing defect. The warranty extends to the replacement of parts deemed defective. This warranty is applicable for 5 years.
The warranty does not apply:
- Support materials,
- Parts damaged following a qualification test or use of the line outside specifications,
- Assembly.

All parts are treated against corrosion and UV rays.

NEWPRO by HOOKT

Continuous single-cable lifeline on post, wall or floor. EN 795 Type C compliant.

1 – Strictly follow the recommendations for use specified in the mounting, usage and service instructions.
2 – Make a visual check of apparent good condition before use.
3 – Check the clearance required under the user before use.
4 – Use appropriate and standardized equipment (harness, lanyard, etc.).
5 – Do not use if the last inspection was more than 12 months ago.
6 - In the event of a fall, do not use it any longer and get the entire installation inspected by a competent person.

Date of commissioning	**Max users**	**Installer**
_____	_____	_____

Lifeline length
_____

Recommended PPE
Ocho Pro hook + with lanyard and harness EN 365. Wearing helmet mandatory.

INSPECTIONS DATE	**NAMES AND SIGNATURES**
__ __ __ __ __ __ __	__ __ __ __ __ __ __
__ __ __ __ __ __ __	__ __ __ __ __ __ __
__ __ __ __ __ __ __	__ __ __ __ __ __ __
__ __ __ __ __ __ __	__ __ __ __ __ __ __
__ __ __ __ __ __ __	__ __ __ __ __ __ __

Manufacturer : Vert Voltige Innovation
4 Rue Joseph Szydlowski - 64100 Bayonne
Tel. 05 59 52 40 48 - Email : contact@go-hookt.com
www.go-hookt.com

12.3 - MOUNTING CHECK LIST

In order to guarantee the correct installation of the NEWPRO lifeline, the installer must complete the mounting check list, an example of which is given below.

NEWPRO by HOOKT

MOUNTING CHECK LIST

Lifeline Number # _____ Date of commissioning _____ Installer _____

CHECK LIST	YES	NO	NOTES
Structural anchors: Chemical sealed anchors have been tested to the extractor (500daN for 15s)			
NEWPRO packs have been tighten to the stop			
Each anchor (entry/exit) has a loop with 20 cm of cable in reserve.			
The cable is in good condition: no crush, untwist or cut wires.			
The tension of the lifeline is correct.			
Threadlocker was put on the screws.			
Crimping elements include 4 crimps (X.Matrix).			
Control and information signs are completed and installed at the entrance to the lifeline (in accordance with Appendix 12.1)			

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12.4 - ANNUAL INSPECTION SHEET

It is mandatory to carry out an annual inspection of the entire NEWPRO lifeline by following the instructions in the annual inspection sheet below.

NEWPRO by HOOKT

ANNUAL INSPECTION SHEET

Lifeline Number # _____ Date of commissioning _____ Controller _____

CHECK LIST	YES	NO	NOTES
The structural anchors are well fixed (checking the tightness) and in good condition (no rust,deformation...)			
NEWPRO packs are well fixed (tighten to the stop) and in good condition (no rust, deformation...)			
Each anchor (entry/exit) has a loop with 20 cm of cable in reserve.			
The cable is in good condition: no crush, untwist or cut wires			
The cable is in good condition: no crush, untwist or cut wires			
The imprints on all parts are legible.			
X.Matrix elements have 4 crimps in good condition.			
No fall occurred on the lifeline.			
The PPE annual inspection sheet is up to date.			
The information and control sign is well installed, completed and legible.			

Manufacturer : Vert Voltige Innovation
4 Rue Joseph Szydlowski - 64100 Bayonne Tel. 05 59 52 40 48
Email : contact@go-hookt.com www.go-hookt.com

12.5 - IDENTIFICATION SHEET

An identification sheet for the lifeline with details of all the parts must be produced following the model below.

NEWPRO by HOOKT

IDENTIFICATION SHEET

Place of installation of the lifeline (name and contact details) :

_____

_____

Installer (name and contact details) :

_____

_____

Lifeline Number #	Manufacture date	Equipment purchase date	Date of commissioning
_____	_____	_____	_____
_____	_____	_____	_____

Configuration diagram with name of installed components:

This diagram must be affixed to the location where the lifeline is installed, so that it is accessible to everyone.

Date :

Name and signature of the competent person

Manufacturer : Vert Voltige Innovation
4 Rue Joseph Szydlowski - 64100 Bayonne - Tel. 05 59 52 40 48

NOTES

HOOKT

+ A team of highly qualified professionals.

+ More than 700 sites equipped with Parks, Via Ferrata and professional sites.

+ A network of around ten distributors worldwide.

+ An advisory and support role in carrying out projects.

+ Constantly evolving research and development.

+ A company on a human scale.

OUR COMMITMENT

Our company and its contributors are fully mobilized on one point:

Save lives by guaranteeing zero accidents

Our observation is clear, not giving the operator the choice to make a handling error linked to stress, exhaustion or lack of discernment, is in our eyes the only valid option.

Most of the construction sites we have worked on have experienced accidents.

Following our visit, these work areas are now secure.
The only possible disconnection is to remove the harness.

Welcome in the air.

ENTRUST US WITH THE SECURITY OF YOUR NEXT PROJECT

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HOOKT

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