



# TECHNICAL FILE

ALTI LIGNE



Distributed by

# Horizontal cable system

## ALTILIGNE

### PRODUCT ADVANTAGES

The Altiligne horizontal cable system is a flexible personal fall protection solution. The system is versatile and can be used at the feet, on the front, in the overhead and also remotely thanks to its dedicated runners.

#### Versatility

Various possibilities of use (remote, at the feet, in front, in overhead, ...)  
Can be installed on all types of structures & roofs

#### Lifespan

Made of stainless steel for excellent corrosion resistance

#### Design

Careful finishes for perfect integration with architectural constraints

#### Ease of use

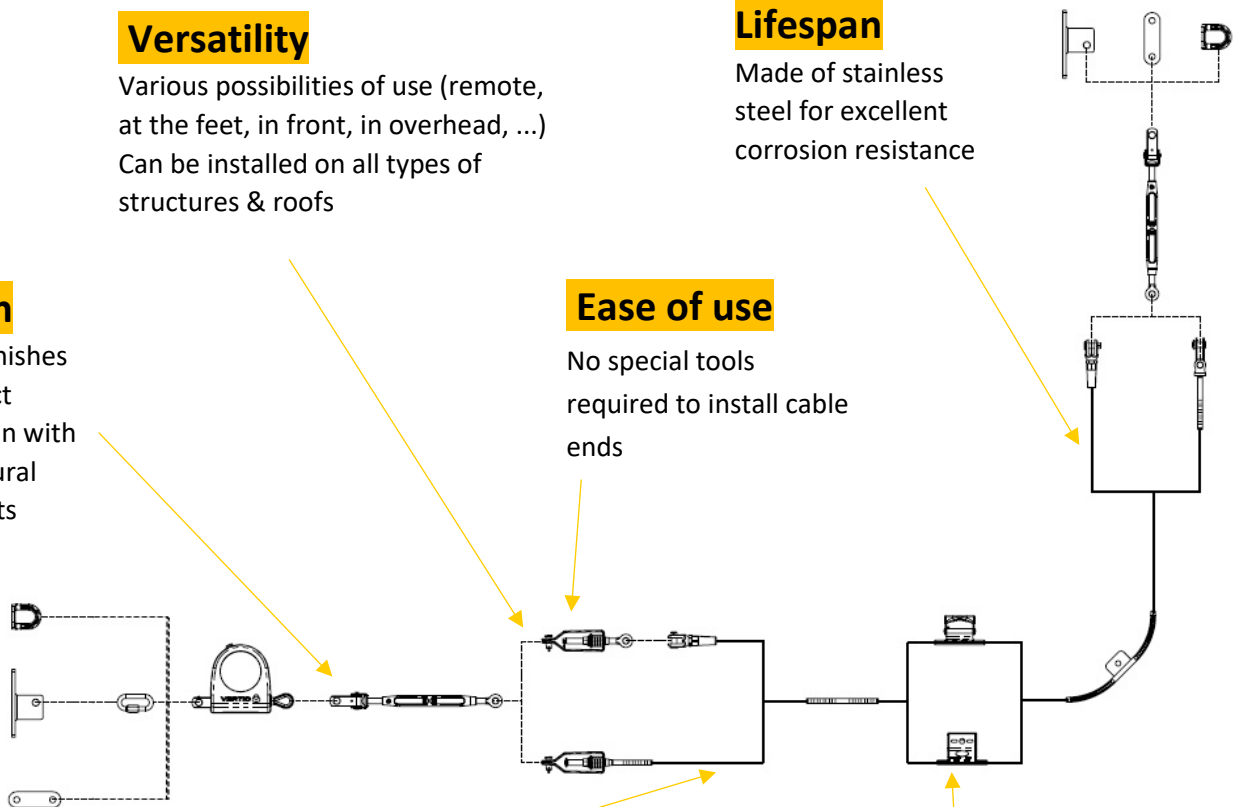
No special tools required to install cable ends

#### User-friendly

Its dedicated runner allows connection to any point on the cable and freedom movement

#### Installation-friendly

Distance between supports certified at 15 metres





**Distributed by**

## Horizontal cable system

### ALTILIGNE

#### PRESENTATION

The Altiligne system is an horizontal flexible system dedicated to secure all types of movements, whether it is installed on the floor, in façade or in an overhead position. It can be used at a distance from the system thanks to its dedicated runners.

- implementation and use instructions
- information and training of users
- periodic verifications
- weather conditions.

#### TECHNICAL CHARACTERISTICS

- Material properties wire: stainless steel 316 18/12
- Runner material properties: stainless steel 316L

#### CONFORMITY

- EN 795 C : 2012
- TS 16415 : 2013



- **Certificate of compliance issued by:**  
QUINTIN CERTIFICATIONS  
1031 route de Saint Ange  
38 760 VARCES ALLIERES ET RISSET

As a reminder, extract from recommendation R430 - INRS/CNAMTS :

For buildings to be constructed of any kind, the technical provisions intended to facilitate the prevention of falls from height during subsequent work on the building must be provided for at the design stage.

The reason of technical impossibility cannot therefore be accepted, as it is now up to the client to modify his project so that no situation remains that cannot be properly resolved, at least, by the implementation of collective protection.

#### CONFORMITY

It is only when it is technically impossible to implement collective protection that recourse to individual means of protection against falls from height can be considered (Labour Code R4323-61).

Personal protective equipment can also be used as a complement to collective protection. Indeed, the use of this type of protection requires organisational restrictions, such as

- the definition, layout and choice of the type of equipment (lifeline, anchorage point, etc.),
- working with at least two people,
- definition of an emergency response plan,



Distributed by



Accreditation n° 1-6779  
Scope available on  
www.Cofrac.fr



**QUINTIN CERTIFICATIONS**  
1031 route de Saint Ange  
38760 VARGES ALLIERES  
ET RISSET - France  
Tél. +33.(0)7 66 29 39 28  
[q.quintin.consult@gmail.com](mailto:q.quintin.consult@gmail.com)  
[www.quintincertifications.com](http://www.quintincertifications.com)

## CERTIFICATE OF CONFORMITY N°RQC2019-044/A

### 1. APPLICANT

Applicant: Mr Alexandre DALLALIBERA  
Manufacturer : VERTIC – 691 chemin de Pré Fontaine – 38190 BERNIN – France

### 2. EQUIPMENT

Type of equipment : **Anchor device type C – EN 795 : 2012\* and TS 16415 :2013\***  
Trademark : **VERTIC**  
Reference : **ALTILIGNE**

### 3. DESCRIPTION

main characteristics	Components	References
<ul style="list-style-type: none"> <li>Use only on horizontal floor and vertical wall support, on REEX® and ALTIFIX® post and in overhead position</li> <li>Use in single and multi-span</li> <li>Span : minimum 2 m maximum 15 m</li> <li>Number of users : 5 people</li> <li>Use mobile anchor CMS3 and CMS3KR only for overhead position</li> <li>Turn :at 90° max</li> <li>Energy absorber at only one extremity</li> <li>No entry exit part</li> <li>No non-metallic parts without proof of durability</li> <li>Cable not fixed in anchors</li> <li>Using with EN 360 et EN353-2: no system tested with lifeline</li> <li>Maximum use angle: 15°</li> </ul>	<ul style="list-style-type: none"> <li>Stainless steel wire rope 7x7 ø 8mm</li> <li>Manual end</li> <li>Crimping end</li> <li>Manual tension indicator</li> <li>Crimping tension indicator</li> <li>Tensioner</li> <li>Energy absorber</li> <li>Quick link</li> <li>End ring</li> <li>End plate</li> <li>End bracket</li> <li>Fixed intermediate support</li> <li>Mobile intermediate support</li> <li>Corner piece</li> <li>Crimp cable sleeve</li> <li>ALTIFIX® post</li> <li>REEX® post with and without reinforcement kit, maximum height 400 mm.</li> </ul>	<ul style="list-style-type: none"> <li>C18</li> <li>EC</li> <li>ES-2</li> <li>BATSL250</li> <li>BATSL350</li> <li>TSL4</li> <li>ABS55</li> <li>A001</li> <li>PEX-AFX</li> <li>PEX</li> <li>T</li> <li>IFR90</li> <li>IMR</li> <li>ANGFLEX</li> <li>MA02C8</li> </ul>

(full description and results in the conformity report n°RQC2019-044-1).

### 4. TECHNICAL REFERENTIAL

The anchor device type C has been evaluated according to the relevant requirement of the standard EN 795 : 2012\* "Personal fall protection equipment – Anchor devices" and the technical specification TS 16415 :2013\* "Personal fall protection equipment – Anchor devices – Recommendations for anchor devices for use by more than one person simultaneously".

### 5. CONDITION OF USE

This anchor device type C is not considered as personal protective equipment against falls from a height. It is intended to be used, in combination with other components, as personal protective equipment against falls from a height.

### 6. CONCLUSION

The Anchor device Type C, reference **ALTILIGNE**, presented by **VERTIC** and described in the conformity report RQC2019-044-1, conforms to the requirements of European standard EN 795:2012\* and Technical Specification TS 16415:2013\*.

05/03/2020

The head of QUINTIN CERTIFICATIONS  
Guillaume QUINTIN

Only the tests that fall within the COFRAC accreditation scope are marked with \*. QUINTIN CERTIFICATIONS does not allow partial reproduction of this document and reproduction of the Cofrac logo. The full reproduction of this document is the only one allowed.

Cette attestation d'une page ne constitue pas le justificatif prévu par le code de la consommation ( article L-115-27 ) par lequel un organisme distinct du fabricant atteste à des fins commerciales qu'un produit est conforme à des caractéristiques dans un référentiel déposé auprès de l'autorité administrative  
QUINTIN CERTIFICATIONS – 1031 route de Saint Ange – 38760 VARGES ALLIERES ET RISSET – France TEL +33.(0) 7 66 29 39 28 – Email : [q.quintin.consult@gmail.com](mailto:q.quintin.consult@gmail.com)  
SARL au capital de 10 000 € - SREN 848 919 676 - TVA intracommunautaire FR81848 919 676

QC-151-V1- Attestation de conformité Cofrac GB/RQC2019-044 A GB/ 05/03/2020 11:05



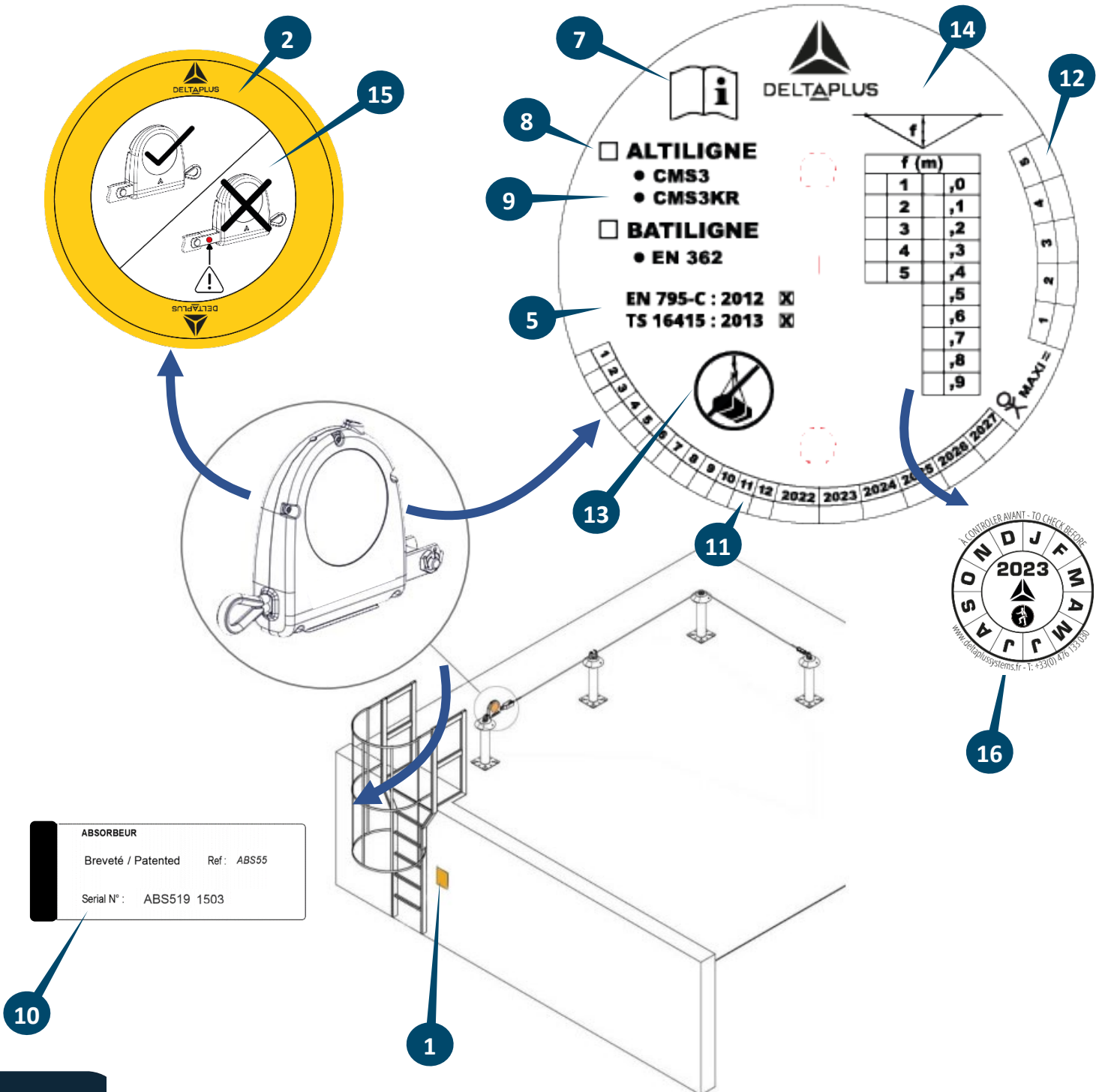


Distributed by

# Horizontal cable system

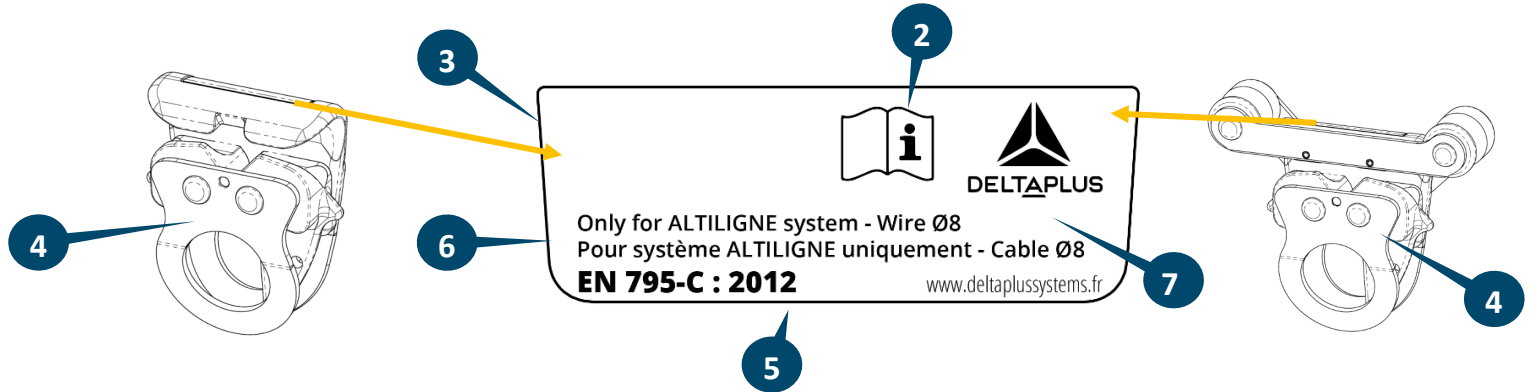
## ALTILIGNE

### MARKING & SIGN





Distributed by



	FR	EN	ES	DE	IT	PT	RO
1	Port EPI obligatoire	Wearing mandatory PPE	Uso obligatorio de PPE	Obligatorischer EPI-Port	Porta EPI obbligatoria	Porta obrigatória do EPI	Purtarea EPI obligatorie
2	Nom du fabriquant	Manufacturer's name	Nombre del fabricante	Name des Herstellers	Nome del produttore	Nome do fabricante	Numele producătorului
3	Référence du point d'ancrage mobile	Mobile Anchor Point Reference	Referencia de punto de anclaje móvil	Mobile Ankerpunktreferenz	Riferimento mobile del punto di ancoraggio	Referência de ponto de ancoragem móvel	Referința punctului de ancorare mobil
4	Numéro de série du point d'ancrage mobile	Serial number of the mobile anchor point	Número de serie del punto de anclaje móvil	Seriennummer des mobilen Ankerpunktes	Numero di serie del punto di ancoraggio mobile	Número de série do ponto de ancoragem móvel	Numărul seriei punctului de ancorare mobil
5	Norme auquel l'équipement est conforme	Standard to which the product conforms	Norma a la que se ajusta el producto	Standard, dem das Gerät entspricht	Standard a cui l'apparecchiatura è conforme	Padrão ao qual o equipamento está em conformidade	Normativul cu care echipamentul este conform
6	Référence du support d'assurance compatible	Reference of the belay support compatible	Referencia del soporte de aseguramiento compatible	Referenz der Sicherungstütze kompatibel	Riferimento del supporto di assicurazione compatibile	Referência do suporte belay compatível	Referința suportului de asigurare compatibil
7	Pictogramme invitant à lire la notice	Pictogram inviting to read the instructions	Pictograma que invita a leer las instrucciones.	Piktogramm, das zum Lesen der Anweisungen einlädt	Pittogramma che invita a leggere le istruzioni	Pictograma convidando para ler as instruções	Pictograma ce vă invită să citiți instrucțiunile
8	Référence du support d'assurance	Reference of the belay support	Referencia del soporte de aseguramiento	Referenz der Sicherungsunterstützung	Riferimento del supporto di assicurazione	Referência do suporte de segurança	Referința suportului de asigurare
9	Référence des points d'ancrage mobile compatible	Compatible Mobile Anchor Point Reference	Referencia de punto de anclaje móvil compatible	Kompatible mobile Ankerpunktreferenz	Riferimento punto di ancoraggio mobile compatibile	Referência de ponto de ancoragem móvel compatível	Referința punctelor de ancorare mobile compatibile
10	Numéro de série du support d'assurance	Serial number of the belay support	Número de serie del soporte de aseguramiento	Seriennummer der Sicherungshalterung	Numero di serie del supporto dell'assicurazione	Número de série do suporte de segurança	Numărul seriei suportului de asigurare
11	Date de première mise en service	Date of first commissioning	Fecha de primera puesta en servicio.	Datum der ersten Inbetriebnahme	Data della prima messa in servizio	Data do primeiro comissionamento	Data primei puneri în funcțiune
12	Nombre maximum de personnes autorisées à se connecter simultanément	Maximum number of people allowed to connect simultaneously	Número máximo de personas permitidas para conectarse simultáneamente	Maximale Anzahl von Personen, die gleichzeitig eine Verbindung herstellen dürfen	Numero massimo di persone che possono connettersi contemporaneamente	Número máximo de pessoas com permissão para se conectar simultaneamente	Numărul maxim de persoane autorizate să se conecteze simultan
13	Pictogramme ne pas utiliser pour le levage	Pictogram not to be used for lifting	Pictograma no debe usarse para levantar	Das Piktogramm darf nicht zum Heben verwendet werden	Pittogramma da non utilizzare per il sollevamento	Pictograma a não ser utilizado para elevação	Pictograma ce vă recomandă să nu utilizați sistemul pentru ridicare
14	Flèche maximal de l'installation en cas de chute	Maximum deflection of the installation in the event of a fall	Desviación máxima de la instalación en caso de caída.	Maximale Durchbiegung der Anlage im Falle eines Sturzes	Massima flessione dell'installazione in caso di caduta	Deflexão máxima da instalação em caso de queda	Deformare maximă a instalației în cazul unei căderi
15	Pictogramme ne pas utiliser si le témoin de chute est visible	Pictogram do not use if the fall indicator is visible	El pictograma no se usa si el indicador de caída es visible	Piktogramm nicht verwenden, wenn die Fallanzeige sichtbar ist	Il pittogramma non viene utilizzato se l'indicatore di caduta è visibile	O pictograma não é usado se o indicador de queda estiver visível	Pictograma ce vă recomandă să nu utilizați sistemul dacă este vizibil indicatorul de cădere
16	Date de l'inspection périodique	Date of periodic inspection	Fecha de inspección periódica	Datum der periodischen Überprüfung	Data dell'ispezione periodica	Data da inspeção periódica	Data inspecției periodice



**Distributed by**

# Horizontal cable system

## ALTILIGNE

### OPERATING PRINCIPLE

La ligne de vie ALTILIGNE a été conçue et certifiée pour être utilisée avec le chariot réf. CMS3 ou CMS3KR.

Le chariot est ouvrant, il peut s'installer en tout point du câble.

A - Présenter le chariot afin qu'il passe aisément les supports intermédiaires et les angles

B - Mise en place du chariot, actionner les cames l'une après l'autre afin de pouvoir rentrer le câble dans le chariot.

C - Connection de la liaison antichute à l'aide d'un connecteur conforme à la norme EN 362.

D - Une fois connecté au câble, le chariot circule librement le long du support dans les 2 directions. Le passage des pièces intermédiaires et des angles se fait sans décrochage

The ALTILIGNE lifeline has been designed and certified to be used with the trolley ref. CMS3 or CMS3KR.

The trolley is opening, it can be installed at any point of the cable.

A - Present the trolley so that it easily passes the intermediate supports and the angles

B - Positioning of the carriage, activate the cams one after the other so that the cable can be brought into the carriage.

C - Connection of the fall protection link using a connector conforming to standard EN 362.

D - Once connected to the cable, the carriage moves freely along the support in 2 directions. The passage of intermediate parts and angles is done without stalling

La línea de vida ALTILIGNE ha sido diseñada y certificada para usarse con el carrito ref. CMS3 o CMS3KR.

El carro se está abriendo, se puede instalar en cualquier punto del cable.

A - Presente el carro para que pase fácilmente los soportes intermedios y los ángulos

B - Posicionamiento del carro, active las levas una tras otra para que el cable pueda introducirse en el carro.

C - Conexión del enlace de protección contra caídas utilizando un conector conforme a la norma EN 362.

D - Una vez conectado al cable, el carro se mueve libremente a lo largo del soporte en 2 direcciones. El paso de partes intermedias y ángulos se realiza sin estancamiento.

Die ALTILIGNE-Rettungsleine wurde für die Verwendung mit dem Trolley-Ref entwickelt und zertifiziert. CMS3 oder CMS3KR.

Der Wagen öffnet sich und kann an jeder Stelle des Kabels installiert werden.

A - Stellen Sie den Wagen so auf, dass er leicht an den Zwischenstützen und den Winkeln vorbeikommt

B - Positionieren des Wagens, aktivieren Sie die Nocken nacheinander, damit das Kabel in den Wagen gebracht werden kann.

C - Anschluss des Absturzsicherungsglieds mit einem Stecker gemäß der Norm EN 362.

D - Sobald der Wagen an das Kabel angeschlossen ist, bewegt er sich frei in zwei Richtungen entlang des Trägers. Das Passieren von Zwischenteilen und Winkeln erfolgt ohne Abwürgen



Distributed by

## Horizontal cable system

### ALTILIGNE

La linea di vita ALTILIGNE è stata progettata e certificata per essere utilizzata con il carrello rif. CMS3 o CMS3KR. Il carrello si sta aprendo, può essere installato in qualsiasi punto del cavo.

A - Presentare il carrello in modo che passi facilmente i supporti intermedi e gli angoli

B - Posizionamento del carrello, attivare le camme una dopo l'altra in modo che il cavo possa essere portato nel carrello.

C - Collegamento del collegamento di protezione anticaduta mediante un connettore conforme alla norma EN 362.

D - Una volta collegato al cavo, il carrello si muove liberamente lungo il supporto in 2 direzioni. Il passaggio di parti e angoli intermedi avviene senza stallo

A linha de vida da ALTILIGNE foi projetada e certificada para ser usada com o carrinho ref. CMS3 ou CMS3KR.

O carrinho está abrindo, pode ser instalado em qualquer ponto do cabo.

A - Apresente o carrinho para que ele passe facilmente pelos suportes intermediários e pelos ângulos

B - Posicionamento do carro, ative as cames uma após a outra para que o cabo possa ser introduzido no carro.

C - Conexão do elo de proteção contra quedas usando um conector em conformidade com a norma EN 362.

D - Uma vez conectado ao cabo, o carro se move livremente ao longo do suporte em 2 direções. A passagem de partes e ângulos intermediários é feita sem parar

Linia vieții ALTILIGNE a fost concepută și certificată pentru a fi utilizată cu căruciorul de culisare referință CMS3 sau CMS3KR.

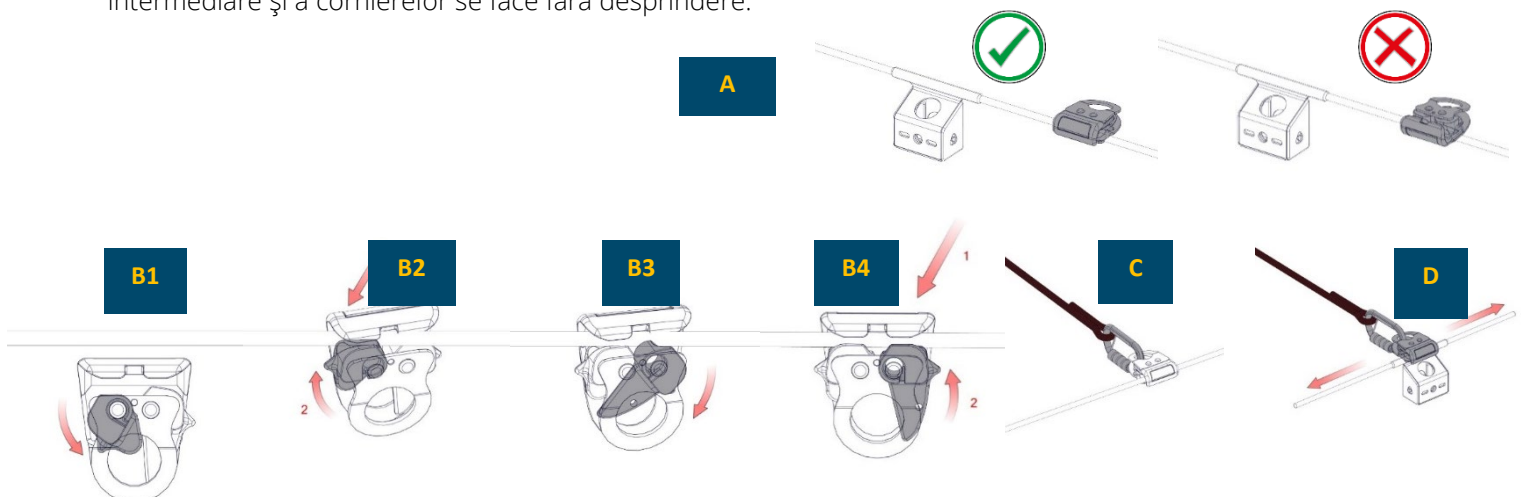
Căruciorul de culisare se poate deschide, fiind posibil să fie instalat în orice punct al cablului.

A - Prezentați căruciorul de culisare astfel încât să treacă cu ușurință prin suporturile intermediare și corniere

B - Amplasarea căruciorului de culisare, acționați camele una după alta pentru a putea introduce cablul în căruciorul de culisare.

C - Conectați carabiniera echipamentului de lucru la înălțime anticădere utilizând un conector în conformitate cu normativul EN 362.

D - După ce s-a conectat la cablu, căruciorul circulă liber de-a lungul suportului în cele 2 direcții. Trecerea pieselor intermediare și a cornierelor se face fără desprindere.







Distributed by

# Horizontal cable system

## ALTILIGNE

### INFORMATION

This manual is intended for users of the Altiligne lifeline. It must be read and understood by each person before using the product. In case of doubt, a problem of comprehension, or if a problem arises that is not covered in this document, please contact your Delta Plus Systems representative or Delta Plus Systems 's technical department directly. This manual must always be available and accessible to the user. It is essential for the safety of the user, if the product is resold outside of the first country of destination, that the dealer provides the user manual, maintenance instructions, instructions for periodic inspection and repair instructions, written in the language of the country of use of the product. Working at heights is dangerous and may result in accidents, serious injury or death. Practicing and learning the techniques of using the appropriate equipment is your responsibility. Before using the product, you must therefore read and understand all the information contained in the user manual. Failure to follow any one of these warnings may result in serious or fatal injury. For safety reasons, the user must be in good health and not be under the influence of medication, alcohol or drugs. Workers using personal protective equipment must be properly trained and competent.

### INSTALLATION

It is essential for safety reasons that the Altiligne fall protection cable system is always correctly positioned and that work is carried out in such a way as to minimise the risk of falls and the height of fall. It is also important to check the required clearance under the user at the workplace so that in the event of a fall there is no collision with the ground or other obstacles in the path of the fall. The anchorage must therefore be installed taking into account all these safety parameters. The product must be installed by installers approved or trained by Delta Plus Systems. Installers must ensure that the support materials in which the structural anchorage devices are fixed are suitable.

Delta Plus Systems cannot be held responsible for the incorrect installation of an Altiligne fall protection cable system.

The values for minimum structural strength and system deflection are given in Delta Plus Systems's calculation note. Failing this, the lifeline support must be able to withstand 20kN in tension or shear depending on the installation orientation and a deflection of 4.5 Metres must be taken into account. The installer must make sure that the values correspond to the resistance of the structure and the available air draught. If necessary, the installer may have to reduce the fixing pitch or limit the number of users in order to guarantee their safety in the event of a fall.

The system consists of a Ø8 stainless steel cable with a resistance > 3500daN.

A schematic plan should be affixed to the building so that it is visible to all. Declarations made by the responsible installer should also be signed by the installer and certify at least that the anchoring device:

- Has been installed in accordance with the manufacturer's installation instructions



Distributed by

## Horizontal cable system

### ALTILIGNE

- Is in accordance with the plan
- Has been attached to the specified support
- Has been fixed as specified (e.g. number of bolts, correct materials, correct position/location)
- Lanyards according to EN 354 in combination with an energy absorber EN 355
- Fall arrest connection according to EN 353-2 / EN 360 standards

Where several anchor points are to be photographed for identification purposes, it is recommended that the anchor devices are marked with numbers and that this numbering is incorporated into the anchor inspection records and the ground plan of the installation area.

If the anchor marking is not accessible after installation, additional marking in the vicinity of the anchor is recommended.

### PRESCRIPTIONS OF USE & TECHNICAL DESCRIPTION

The ALTILIGNE lifeline is an horizontal fall protection cable system certified to EN 795: 2012 and CEN/TS 16415: 2013.

This system is intended to stop the fall of one or more workers and must not be used to lift loads or as a work holding system.

Up to 5 people can use the system simultaneously. Please note that this number may have to be reduced depending on the on-site configuration, refer to the nameplate on the absorber (marking mark 9). Furthermore, each user must have his own mobile trolley.

The system must be used in combination with a PPE set that complies with and is compatible with the on-site configuration, they must not be damaged so as not to affect the safety function of the system.

Only use a safety harness that complies with EN 361 and one of the connections recommended on the warning sign:

- Connector in accordance with EN362

The user must be equipped with a means of limiting the maximum dynamic forces exerted on the user when stopping a fall to a maximum value of 6 kN. An incompatible link may lead to accidental detachment, breakage or affect the safety function of other equipment. At height, your life depends on the equipment used. Any doubt about the safety of the device must be reported to the manufacturer and the person responsible for the installation. After a fall or in case of doubt, do not use the runner or the installation until it has been checked and brought into conformity by a competent person authorised by the manufacturer.

The stopping distance of the fall arrest link used must be compatible with the air draught available on site. If an adjustable link is used, the operator must ensure that the length is optimised in order to limit the height of any fall and reduce the risk of pendulum movement.

In case of use with a fall arrester with automatic return (EN360) or a fall arrester (EN353-2) there may be a danger for the user if the fall arrester has not been tested with the system. Contact Delta Plus Systems to ensure product compatibility.

**To find out the maximum number of people allowed on the system and the maximum deflection in case of a fall, please refer to the safety sign on the absorber.**



Distributed by

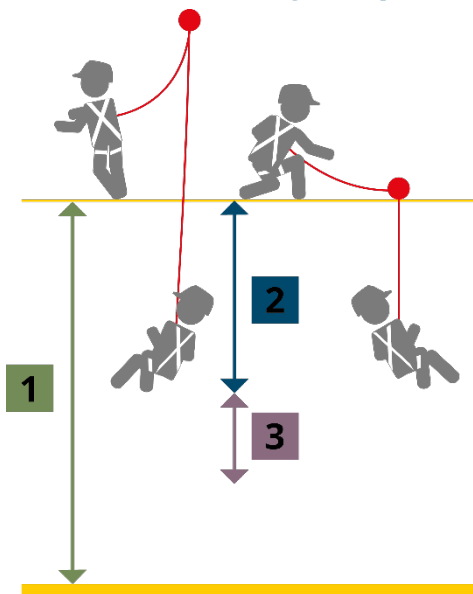
## Horizontal cable system

### ALTILOGNE

Fall clearance calculation:

$$\begin{aligned}
 & \text{Lifeline sag } F \\
 & + \text{Lanyard length } LL \\
 & + \text{Absorber deployment } DLAbs \\
 & + \text{User's sizes } T (\approx 1,80\text{m}) \\
 & - \text{Height of the lifeline installation } H \\
 & + \text{Minimum safety distance } 1\text{m}
 \end{aligned}$$

**= Minimum height required**



#### LÉGENDE

- 1** Fall Clearance Available (F.C.A.)
- 2** Lanyard length + extension of the energy absorber + user's size
- 3** Safety distance (1m)

Fall protection systems composed of stainless steel components should not be installed in highly corrosive atmospheres (e.g. above a swimming pool) due to the risk of invisible stress corrosion cracking, unless specific control measures are implemented or compatibility is established.

#### IMPORTANT - PREVENTION BEFORE USE

Carry out a regular review of the complete equipment using the identification and verification sheets corresponding to your products.

At height, your life depends on the equipment used. Any doubt about the safety of the device must be reported to the manufacturer and the person in charge of the installation.

A fall arrest harness conforming to EN 361 is the only body gripping device that is allowed to be used in a fall arrest system. A harness must be adapted to the size, correctly adjusted and fitted to the user's height. The fall arrest harness must be adjusted correctly to fit snugly and should not be used if it is loose. If the harness loosens during use, it should be readjusted properly from a safe location.

The durability of the holder should be checked according to use.

The product should not be used beyond its limits, or in any other unintended situation. Before use, a rescue plan must be put in place to deal with any emergencies that may arise during work. Consideration should of course be given before and during use to ensuring that any such rescue is carried out safely and effectively. In a rescue situation, the fall protection system shall provide sufficient strength to enable rescue operations to be carried out.



Distributed by

## Horizontal cable system

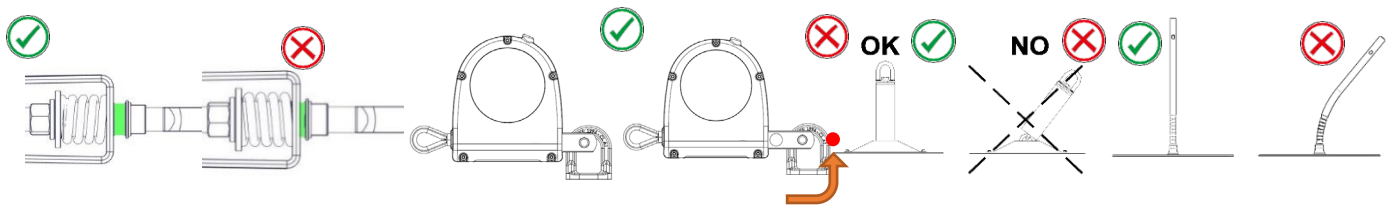
### ALTILIGNE

Using a fall arrest system requires to check the free space (F.C.A.) under the user before and during use, in order to avoid collision with the ground or an obstacle during the fall.

Before using the system make sure that it is in good condition:

- The runner must open and close without any hard points, it must be able to slide

- freely on the cable,
- the lifeline tension indicator must be fully visible,
- the absorber or and the bollards must not be deformed.
- Please also ensure that all the markings are present and legible.



A danger may arise while using several pieces of equipment in which the safety function of one piece of equipment may be affected by the safety function of the other.

Use only Delta Plus Systems parts to ensure compatibility of parts when assembling the system.

### CONTROL - CHECKPOINTS

Check that the instructions for use of the lifeline are displayed on the dedicated sign.

Check that the fall arrest system you have at your disposal complies with and is compatible with those recommended for the use of the Altiligne lifeline.

The anchorage device is marked with the date of the next or last inspection. Check that the periodic checks and maintenance of the lifeline are up to date.

Perform a visual and functional check of the entire lifeline. Use the identification and verification sheets of the Altiligne system to perform these checks.

After a fall, do not use the lifeline again until it has been checked and brought into conformity by a competent person authorised by the manufacturer.



Distributed by

# Horizontal cable system

## ALTLIGNE

### LIFESPAN - DISPOSAL

For Delta Plus Systems textile products, the maximum life span is 10 years from the date of manufacture. For metal products, there is no limit. For Delta Plus Systems plastic products: disposal after 10 years, except for the ABS55 reference, as long as an annual inspection is carried out.

WARNING, an exceptional event may lead you to scrap a product after a single use (type and intensity of use, environment of use: aggressive environments, marine environment, sharp edges, extreme temperatures, chemical products, etc.).

A product must be discarded when:

- ▶ It is more than 10 years old and is made of plastic or textile
- ▶ It has suffered a significant fall (or effort)
- ▶ The result of product checks is not satisfying
- ▶ You have a doubt about its reliability
- ▶ You do not know its complete history of use
- ▶ Its use is obsolete (legislative, normative, technical evolution or incompatibility with other equipment, etc)

Destroy these products to avoid future use.

### SYSTEM WARRANTY

The products are guaranteed against any material or manufacturing defect for a period of 10 years from the date of delivery for metal parts, the guarantee is 2 years for other parts (textile, plastic, electrical and electronic components, etc.). Interventions under the guarantee shall not have the effect of extending the duration of the guarantee.

The presentation of the paid invoice will be strictly required when the warranty is invoked.

Under this warranty, the only obligation incumbent on Delta Plus Systems shall be the free replacement or the repair of the product or of the element recognized as defective by its services. In order to benefit from the warranty, any product must be submitted to the after-sales service of Delta Plus Systems, whose agreement is essential for any replacement. The possible costs of shipping and/or replacement on site are to be paid by the buyer.

### MAINTENANCE AND OVERHAUL

Any modification or addition to the equipment without the prior written consent of the manufacturer is prohibited.

Any repairs to system components must be carried out in accordance with Delta Plus Systems's procedures. If in doubt about the condition of the product, replace it with an original Delta Plus Systems part.

Soiled product should be washed and rinsed with clean water and dried, away from direct heat sources. It must not be brought into contact with corrosive or aggressive materials, nor stored at extreme temperatures. All chemicals and solvents can alter the resistance of the system components. If there is a risk of contact with these products, please give us the exact name of the chemical components and we will answer you after an appropriate study.

It is mandatory to check the condition of PPE at least every 12 months by an authorised and competent person in strict compliance with Delta Plus Systems's operating procedures. These periodic and regular examinations are necessary because the safety of the user is bound up with the maintenance of the efficiency and resistance of the equipment.





## Horizontal cable system

### **ALTILIGNE**

The inspection and the results must be recorded in writing in a maintenance booklet using the identification and inspection form provided by Delta Plus Systems.

Delta Plus Systems also assists you in the verification, control and maintenance of your permanent fall arrest and PPE systems. You can also ensure that your teams are well trained in the use of these fall arrest solutions as well as in the basic concepts required to work safely at heights, by offering them complete and customised training courses conducted by our training centre.



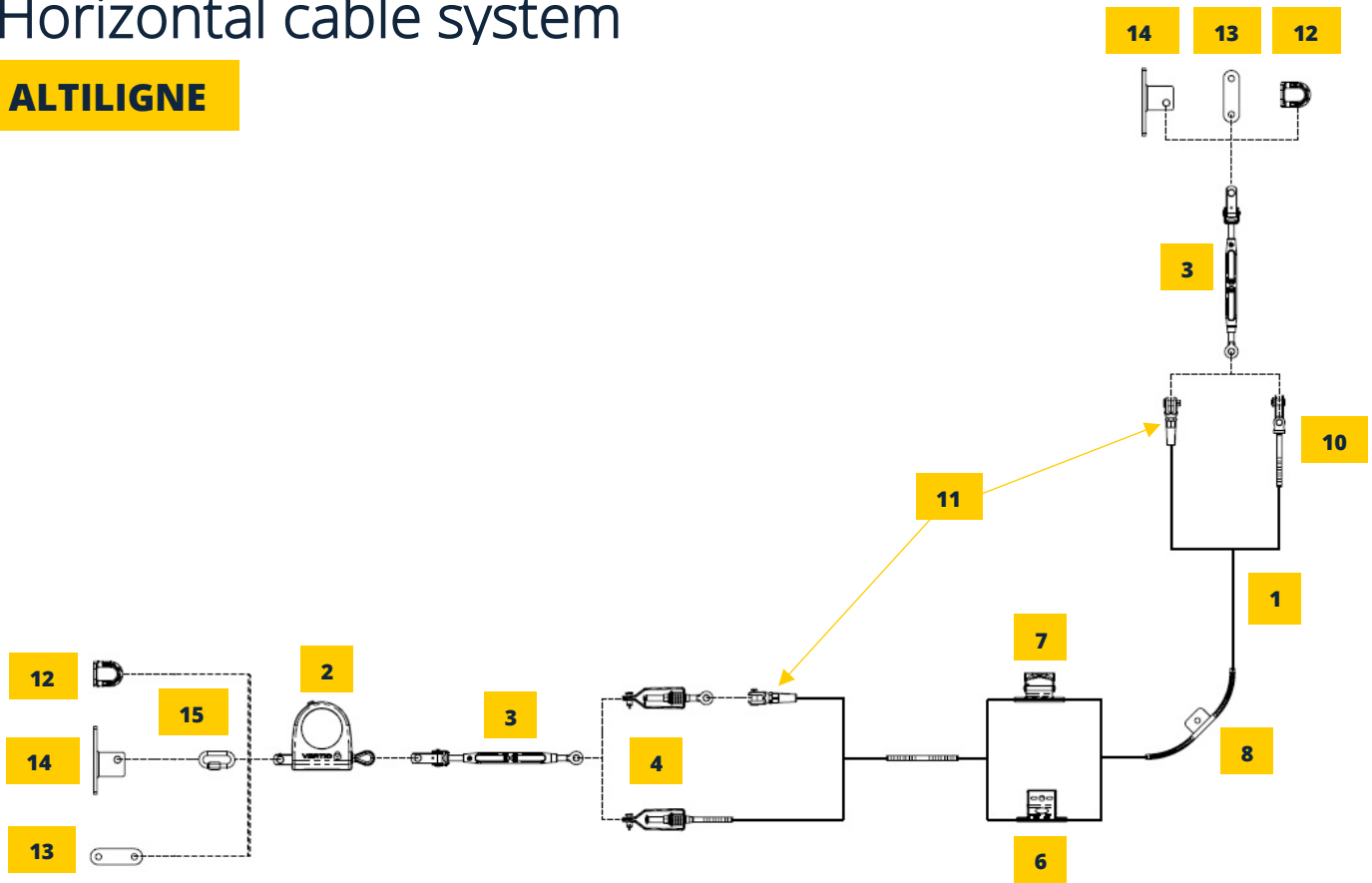
Delta Plus Training - 691, Chemin  
des Fontaines - Cidex 8F - 38190  
BERNIN - France



Distributed by

## Horizontal cable system

**ALTILOGNE**



### GENERAL NOMENCLATURE



**1**

#### Wire

WVC18

Stainless steel, ø8mm, 7x7  
Bolduc incorporated for better traceability



**2**

#### Absorber energy

WVABS55

Available in metal shell version (reinforced absorber WVABS55M)



**3**

#### Manual tensionner

WVTSL4

Allows the tension of the lifeline without special tools



**4**

#### Manual / Crimped tensioner

WVBATSL250 / BATSL350

Allows the tension of the lifeline. Tension indicator included.



**5**

#### Crimp sleeve

WVMAC02C8

Used to adjust the tension. Tension indicator included.



**6**

#### Fix intermediate bracket

WVIFR90

Allows the carriage to move without unhooking

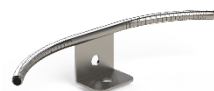


**7**

#### Mobile intermediate bracket

WVIMR

Allows the carriage to move without unhooking



**8**

#### Flexible angle bracket

WVANGFLEX

Allows the carriage to move without unhooking

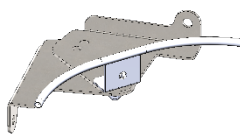









Distributed by

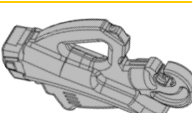
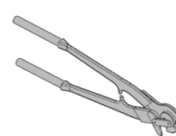
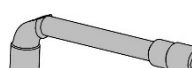
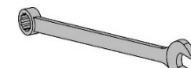
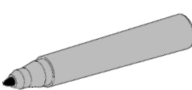

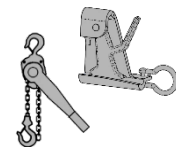

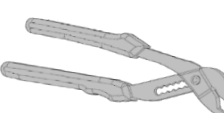
## Horizontal cable system

**ALTILIGNE**

### GENERAL NOMENCLATURE

 <p><b>9</b></p> <p>Flexible angle bracket for facade WVANGFLEXSA</p>	 <p><b>10</b></p> <p>Crimping tip with end-bracket WVES2 Extremity part of the lifeline with the cable crimped at points.</p>	 <p><b>11</b></p> <p>Manual extremity bracket WVEC Installed manually at the end of the cable</p>	 <p><b>12</b></p> <p>End bracket WVPEXAFX Both extremity part of the lifeline and anchor point</p>
 <p><b>13</b></p> <p>Anchor ring WVPEX Extremity support</p>	 <p><b>14</b></p> <p>T bracket WVT Extremity support. Installation on concrete, steel or beam (fixing not included)</p>	 <p><b>15</b></p> <p>Fast link WVA0001 Allows the connection between the absorber and the T-piece (optional)</p>	 <p><b>16</b></p> <p>Safety sign WVPS Allows system identification &amp; monitoring</p>

### TOOLS & OPERATORS REQUIRED

 <p><b>1</b></p> <p><b>SERT01</b></p>	 <p><b>2</b></p>	 <p><b>3</b></p> <p><b>19</b></p>	 <p><b>4</b></p> <p><b>17-19-24 &gt; (x2)</b></p>
 <p><b>5</b></p>	 <p><b>6</b></p>	 <p><b>7</b></p> <p><b>TEND01</b></p>	 <p><b>8</b></p> <p><b>x2</b></p>
 <p><b>9</b></p>			



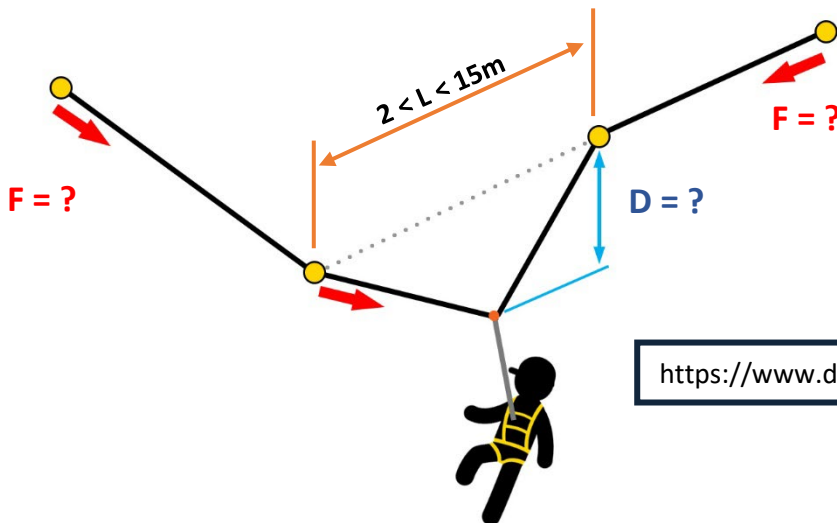
Distributed by

## Horizontal cable system

### ALTILIGNE

#### PRE-REQUISITES

		ABS55	TSL4
	$0 < n \leq 2$	1	1
	$3 < n \leq 5$	2	2
	$0 < L < 100 \text{ M}$	1	1
	$100 < L < 250 \text{ M}$	2	2



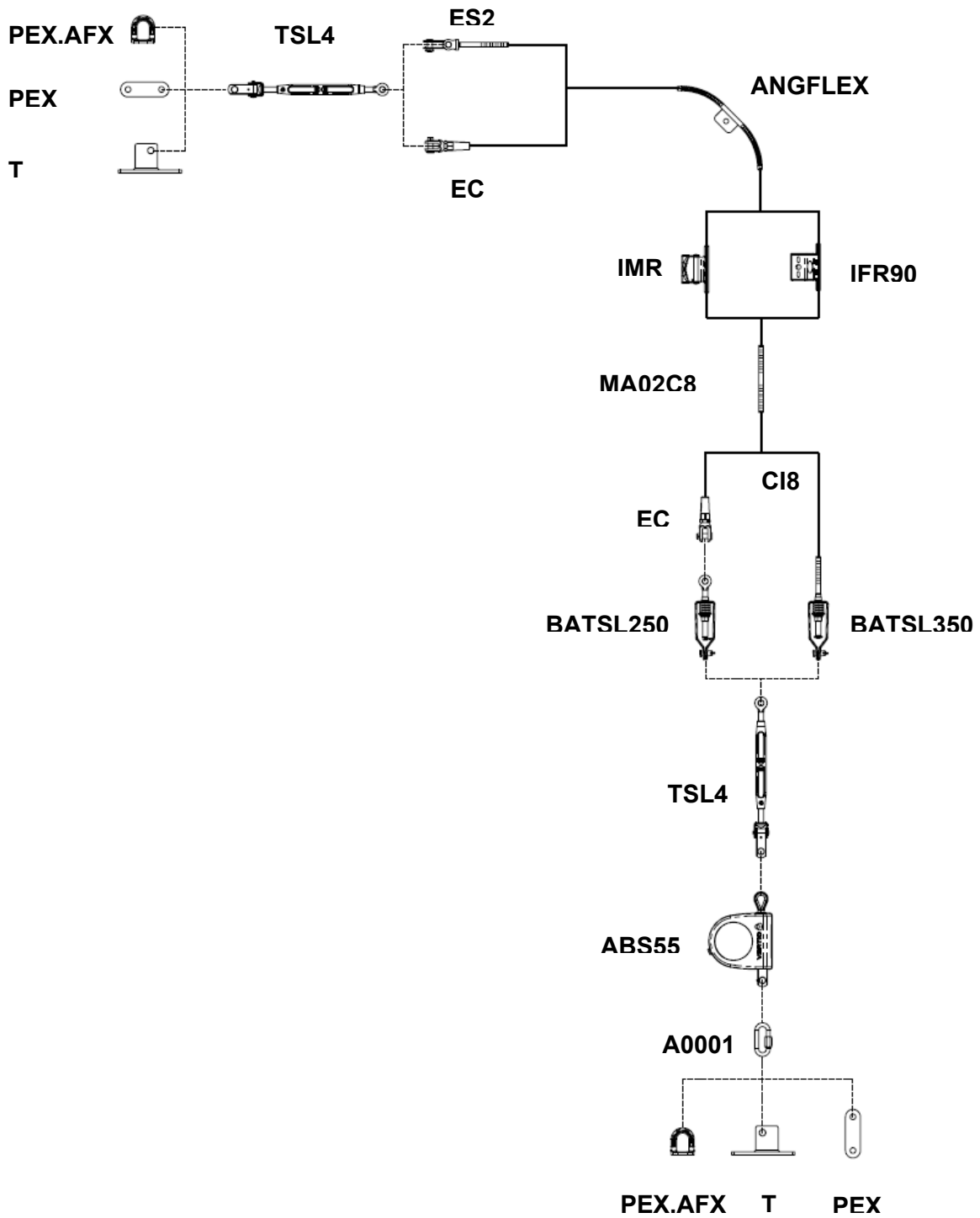
<https://www.deltaplusystems.fr/note-de-calcul/fr-en/>



Distributed by

## Horizontal cable system

### ALTILIGNE



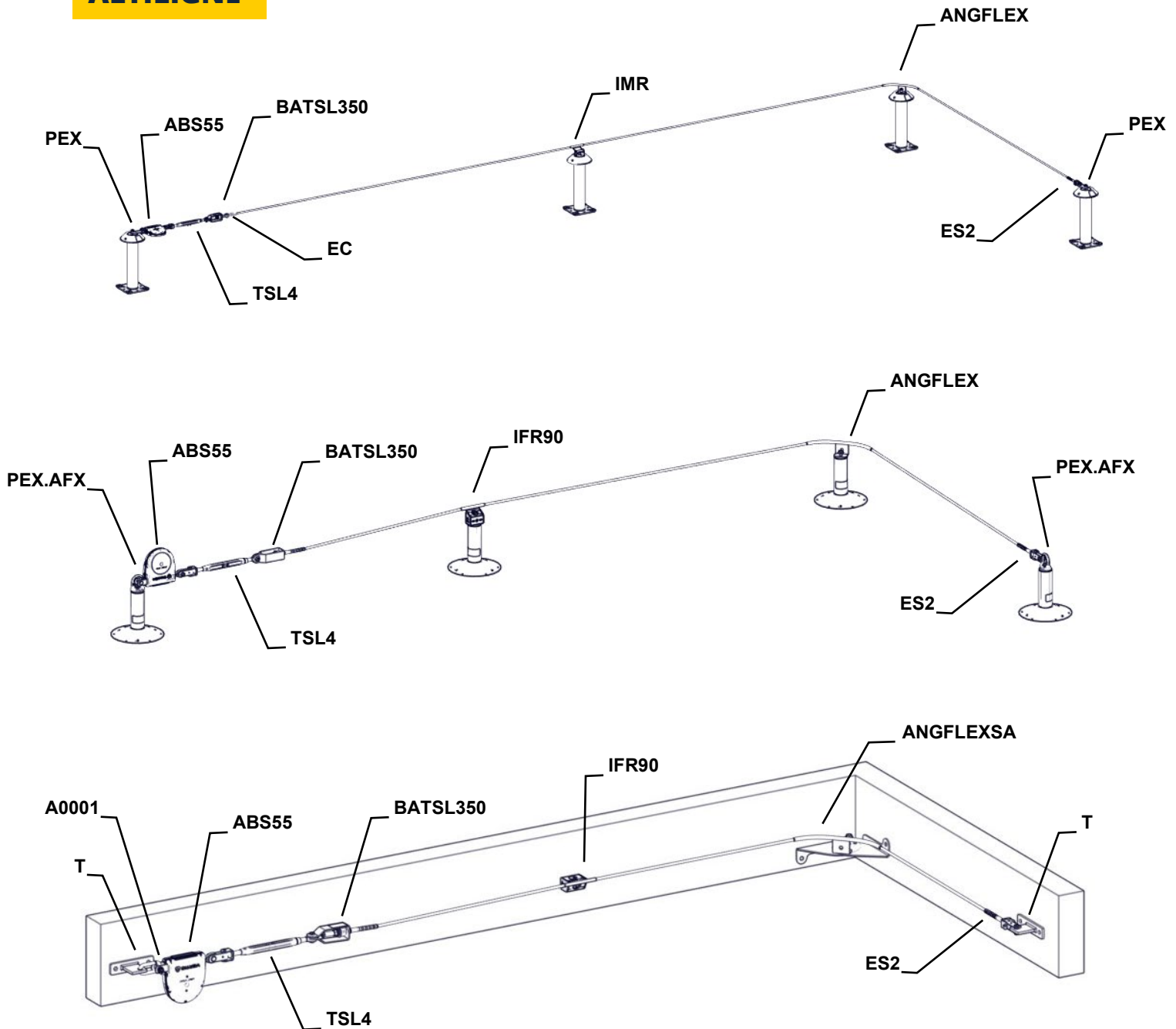




Distributed by

## Horizontal cable system

**ALTILOGNE**





Distributed by

## Horizontal cable system

**ALTILIGNE**

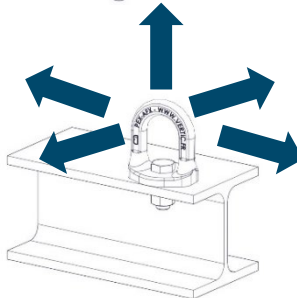
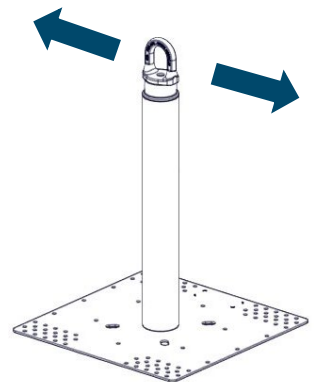
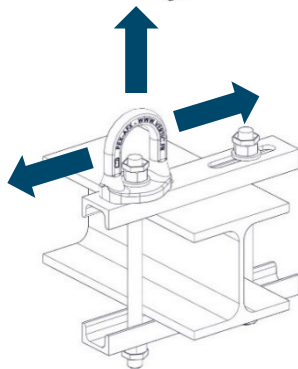
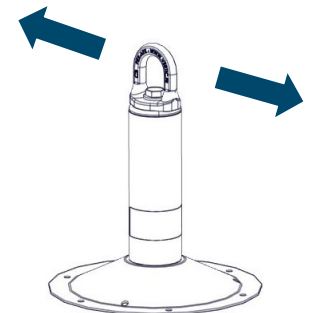
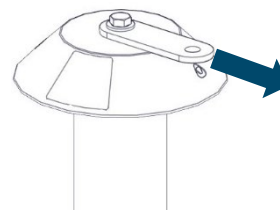
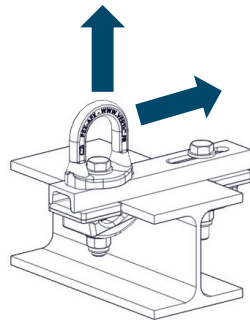
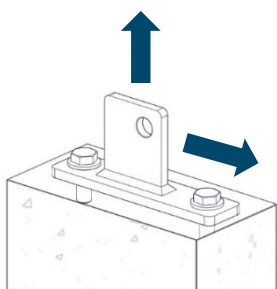
### HELP WITH THE CHOICE OF END BRACKETS

Béton  
Concrete  
Hormigón  
Beton  
Beton  
Calcestruzzo  
Concreto

Charpente  
Beam  
Viga  
Straal  
Träger  
Trave  
Viga

Potelet rigide  
Rigid post  
Poste rigido  
Stijve paal  
Starre Pfosten  
Palo rigido  
Poste rígido

Potelet flexible  
Flexible post  
Poste flexible  
Flexibele paal  
Fleibel Pfosten  
Palo flessibile  
Poste flexível





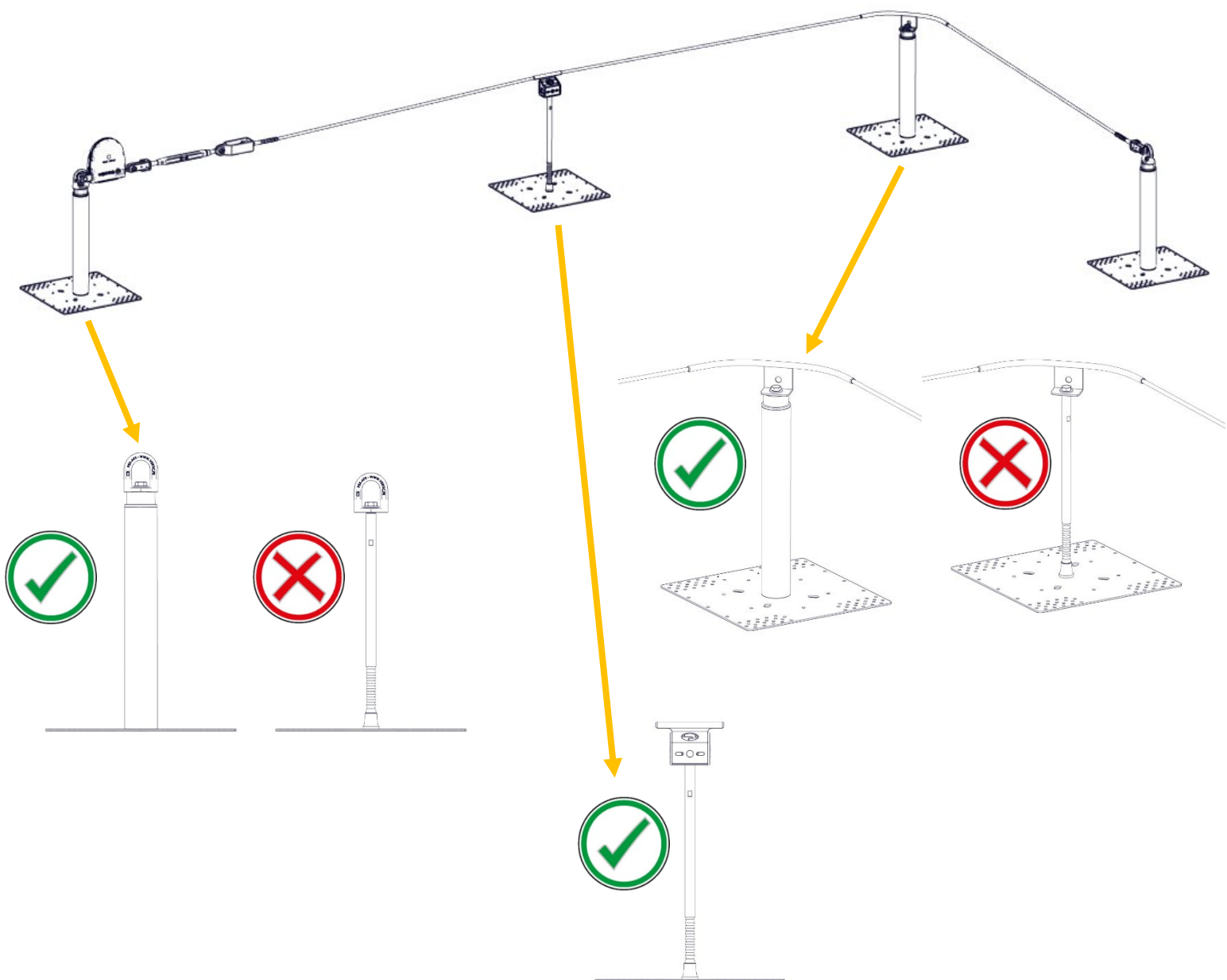
Distributed by

## Horizontal cable system

**ALTILIGNE**

### SPECIAL PRECAUTIONS FOR REEX POSTS

Use reinforced posts at the ends and corners of the lifeline angles





Distributed by

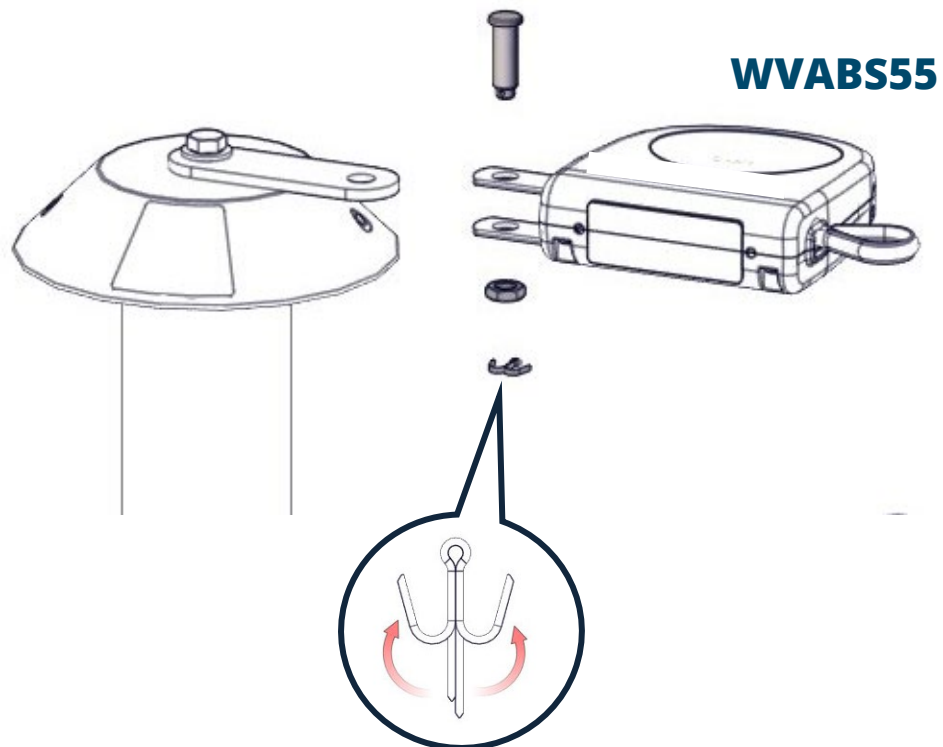
## Horizontal cable system

**ALTILIGNE**

**1**



**2**



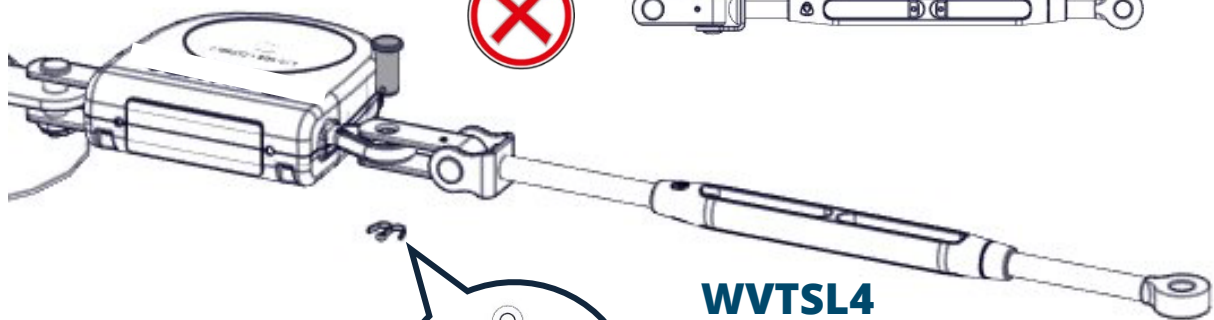


Distributed by

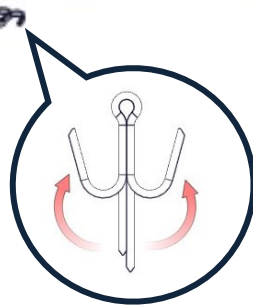
## Horizontal cable system

### ALTILIGNE

3

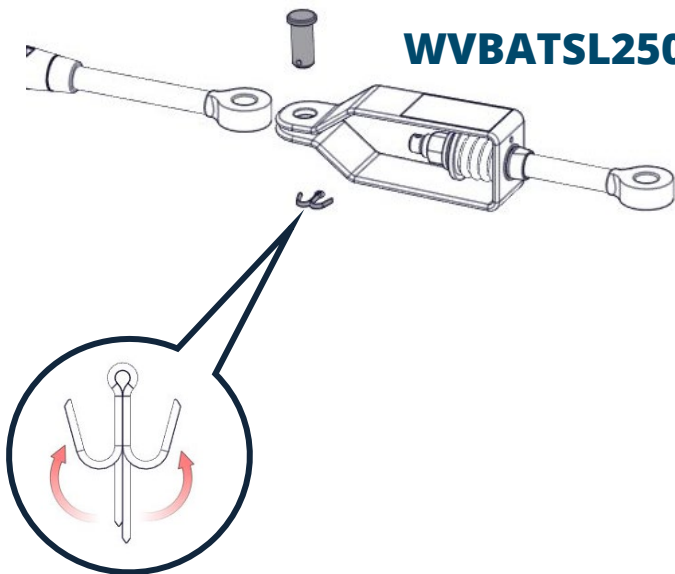


WVTSL4



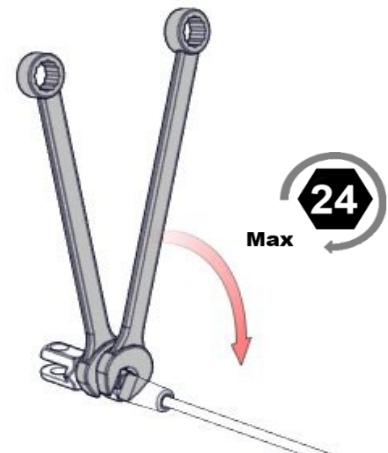
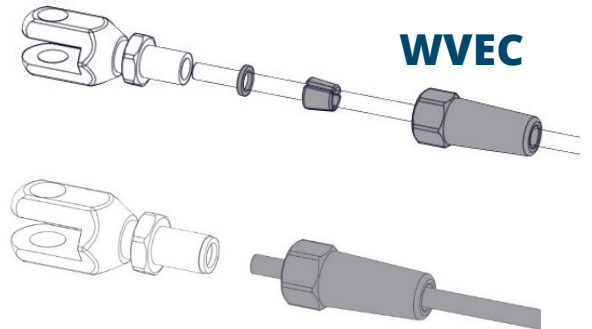
4

WVBATSL250



5

WVEC





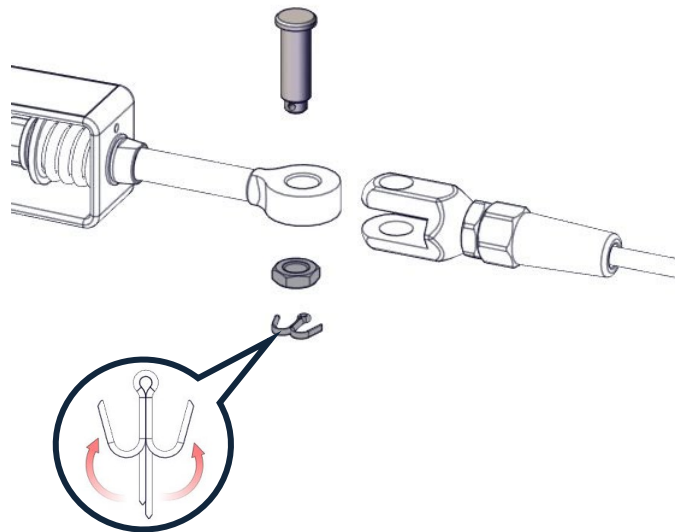


Distributed by

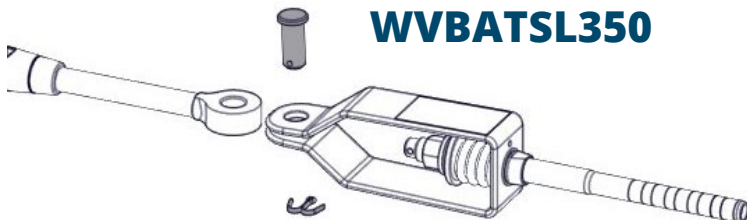
# Horizontal cable system

**ALTILIGNE**

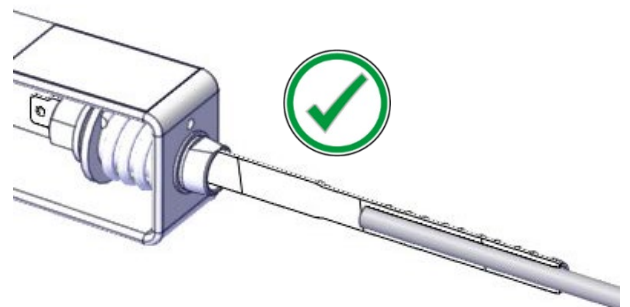
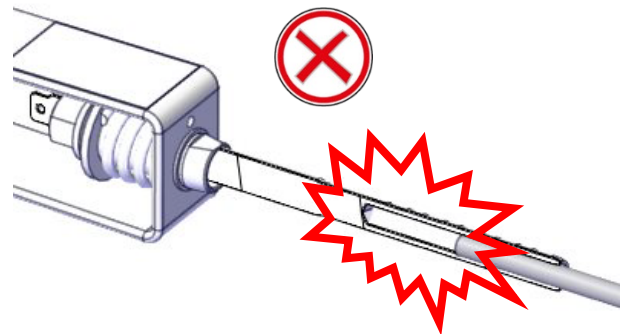
**6**



**7**



**WVBATSL350**



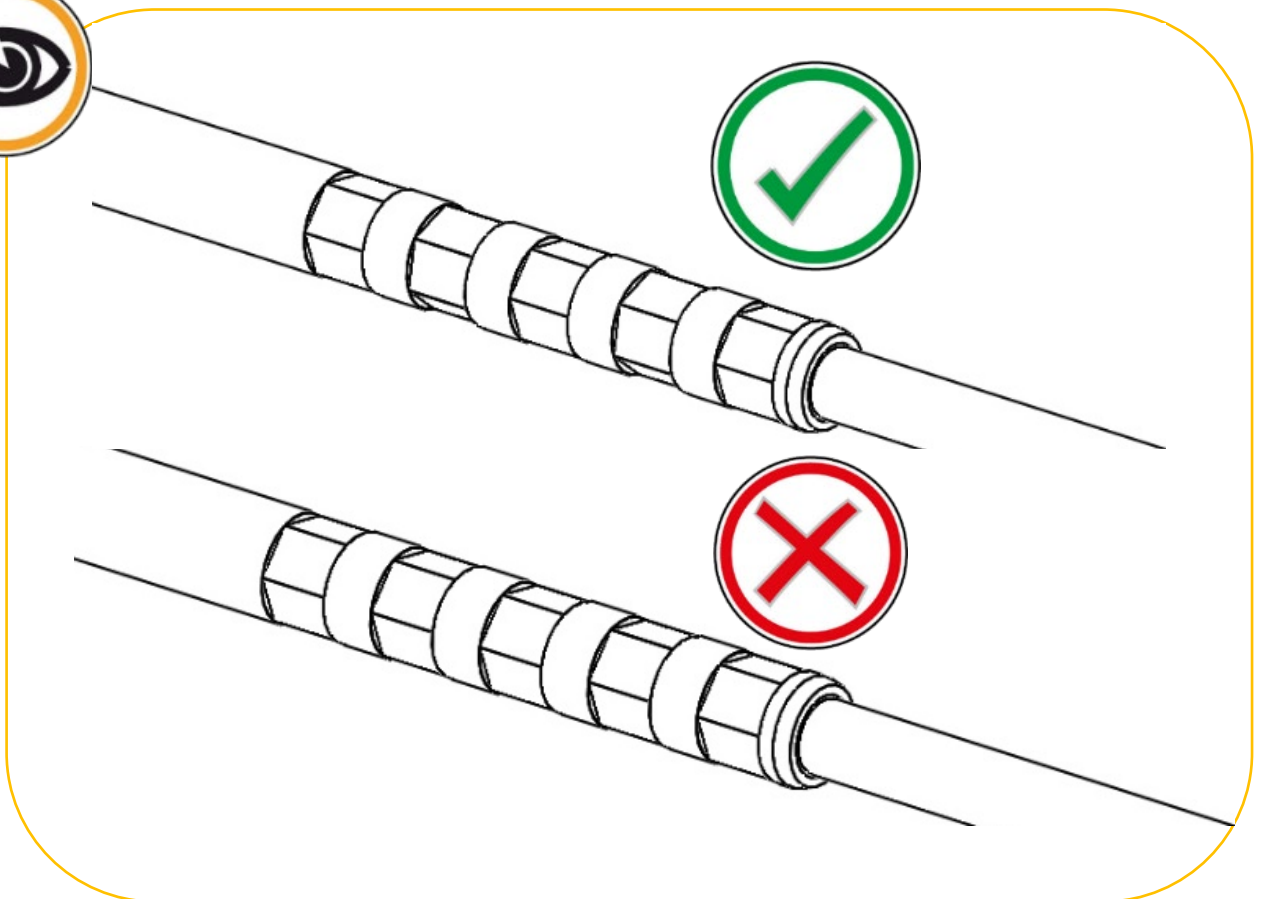
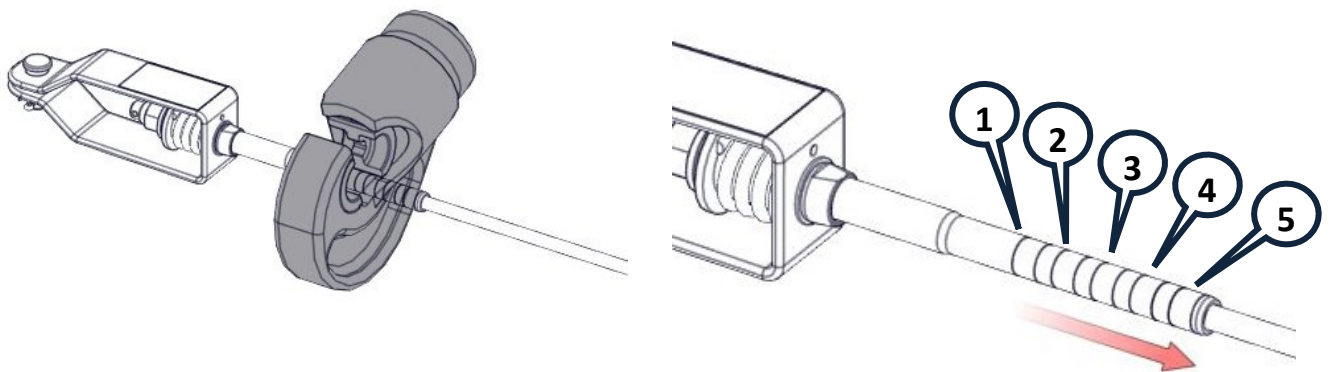


Distributed by

# Horizontal cable system

**ALTILIGNE**

**8**



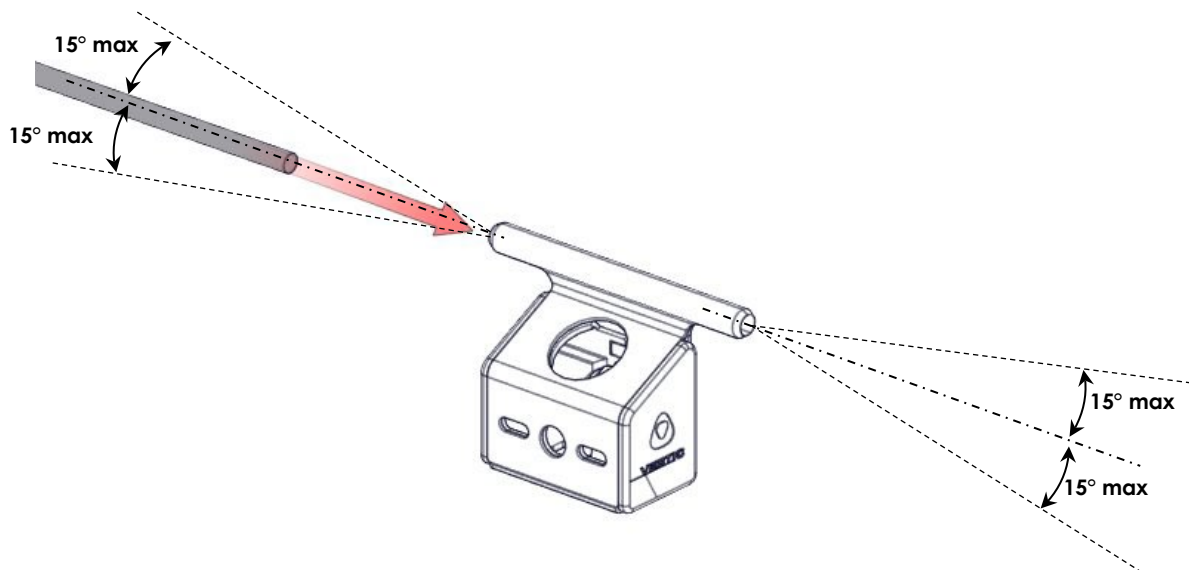
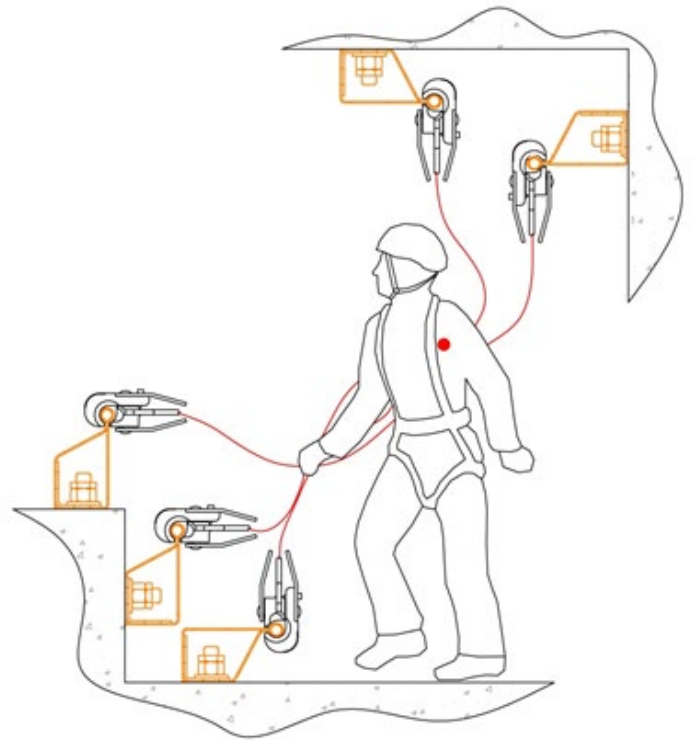
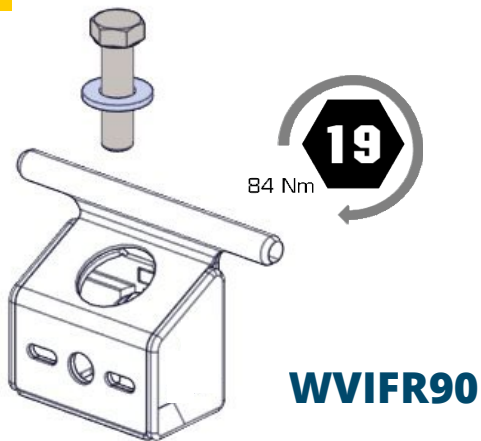


Distributed by

## Horizontal cable system

### ALTILIGNE

9



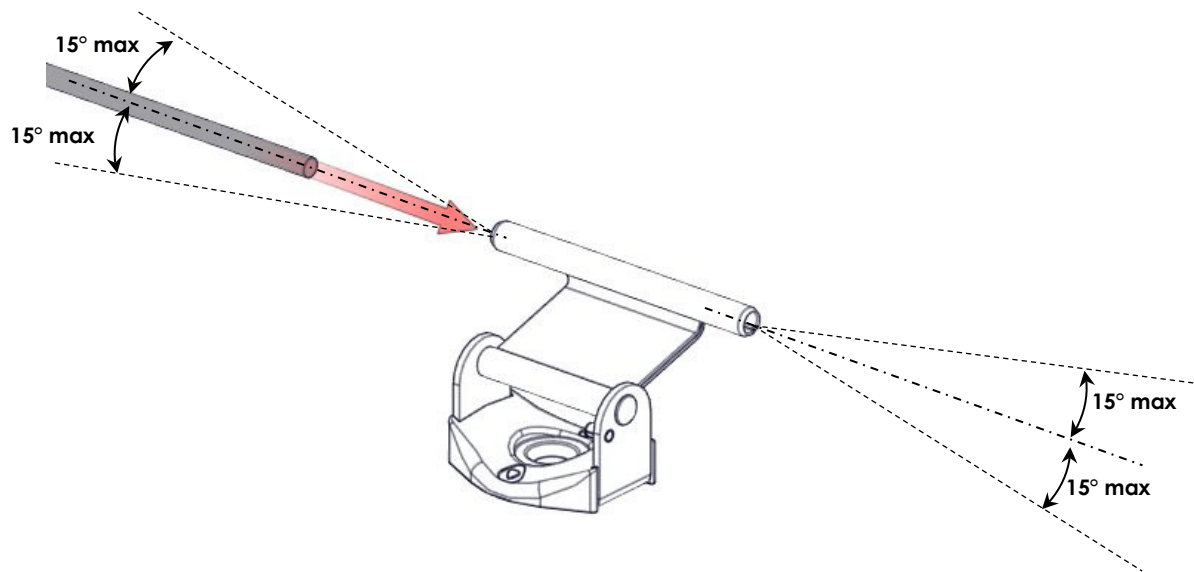
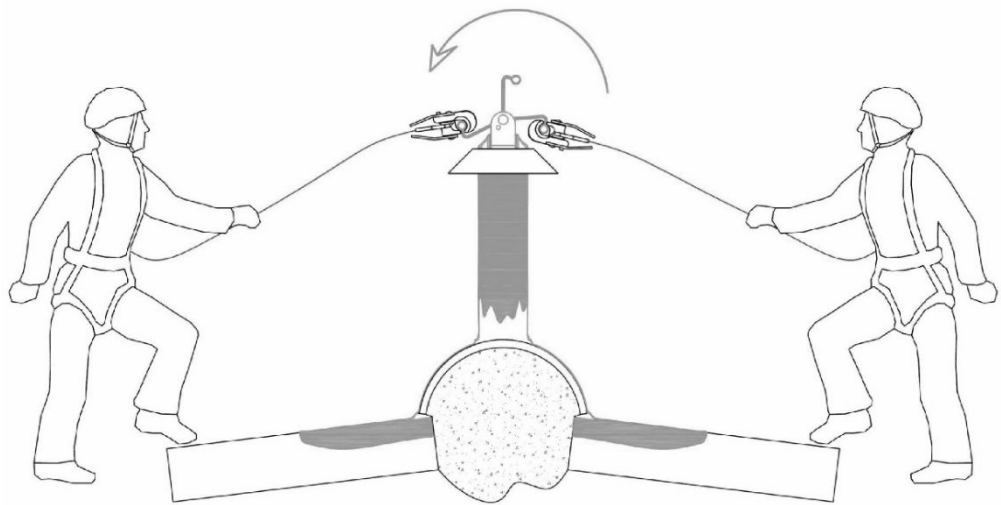
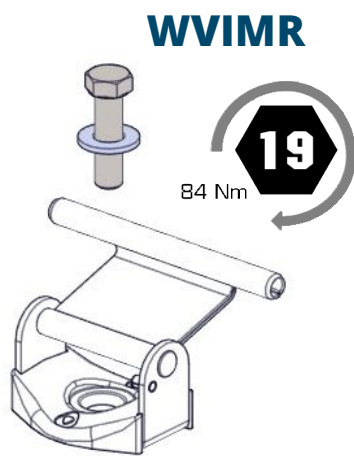


Distributed by

## Horizontal cable system

**ALTILIGNE**

**9bis**





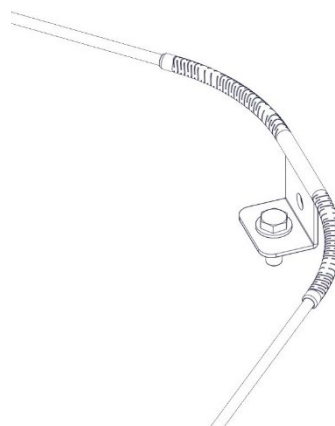
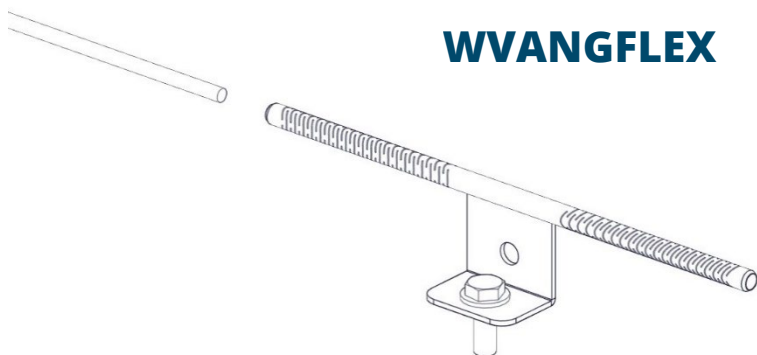
Distributed by

# Horizontal cable system

**ALTILIGNE**

**10**

**WVANGFLEX**



90° mini

**11**

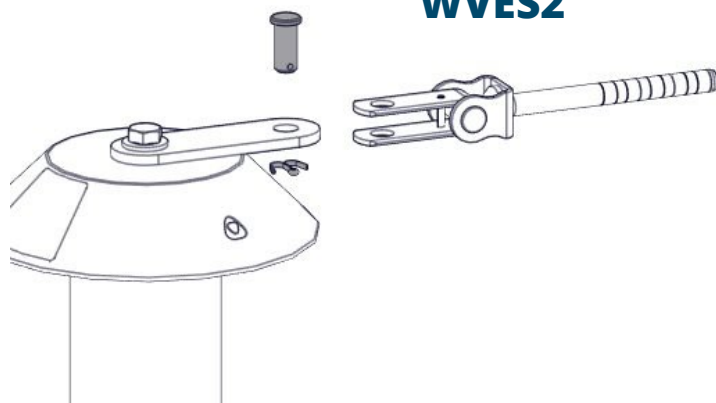
**WVPEX**



84 Nm

**12**

**WVES2**



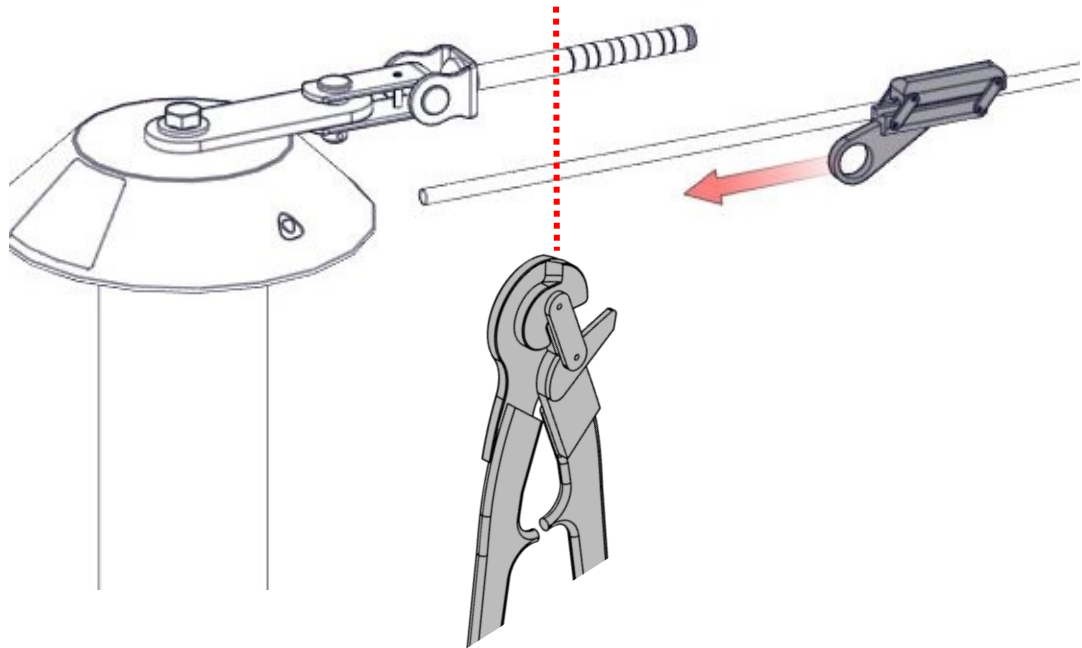


Distributed by

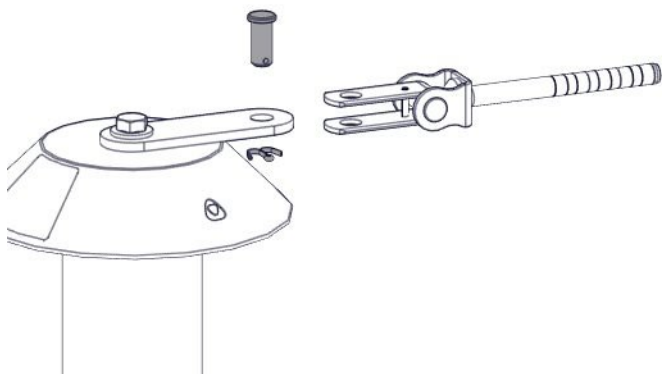
# Horizontal cable system

## ALTILIGNE

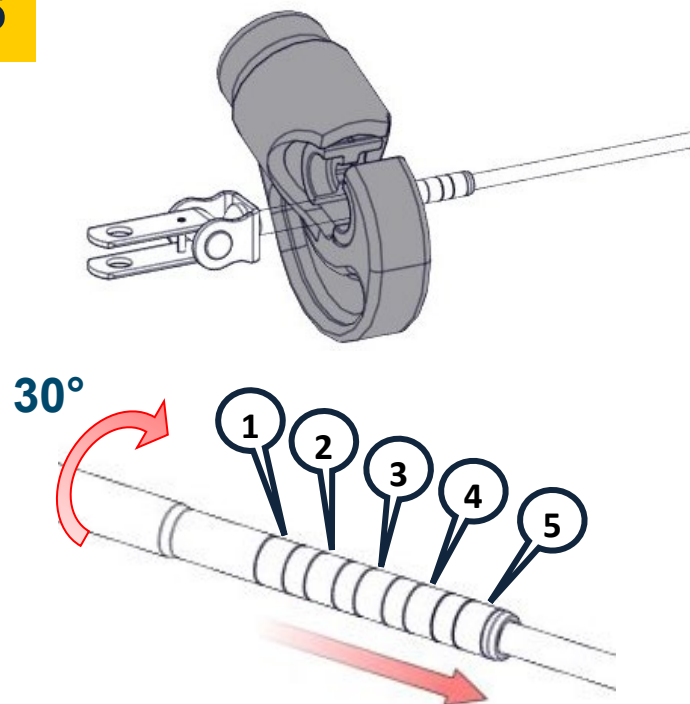
13



14



15



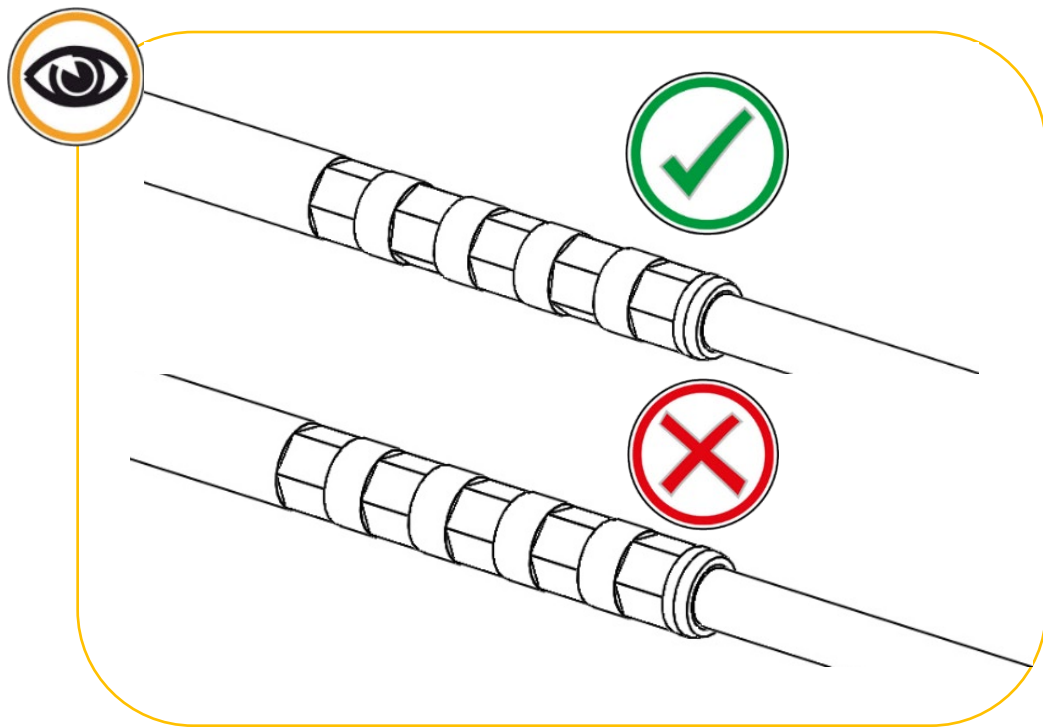




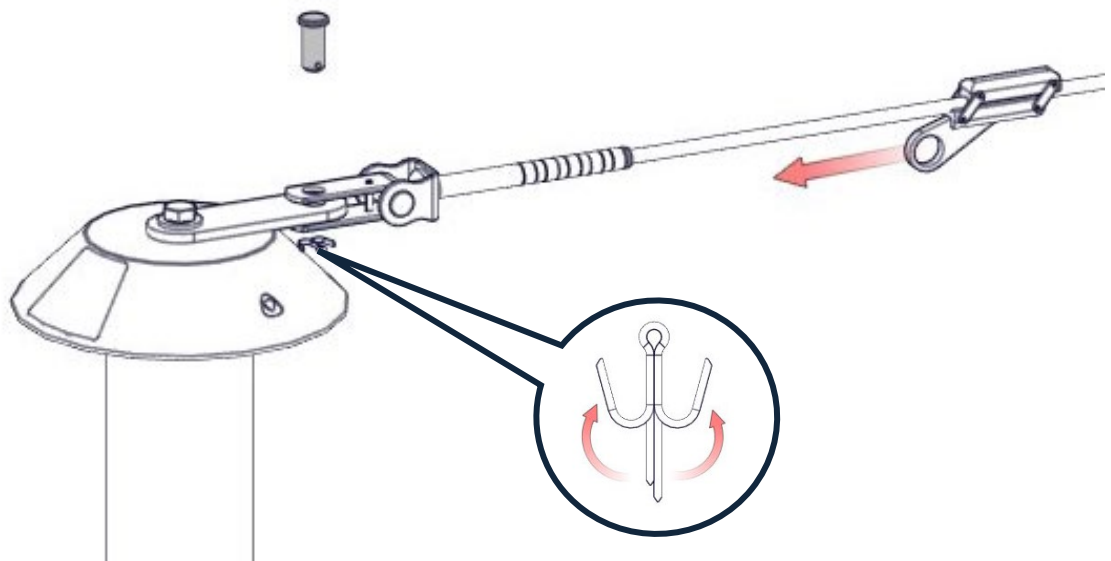
Distributed by

# Horizontal cable system

## ALTILIGNE



16



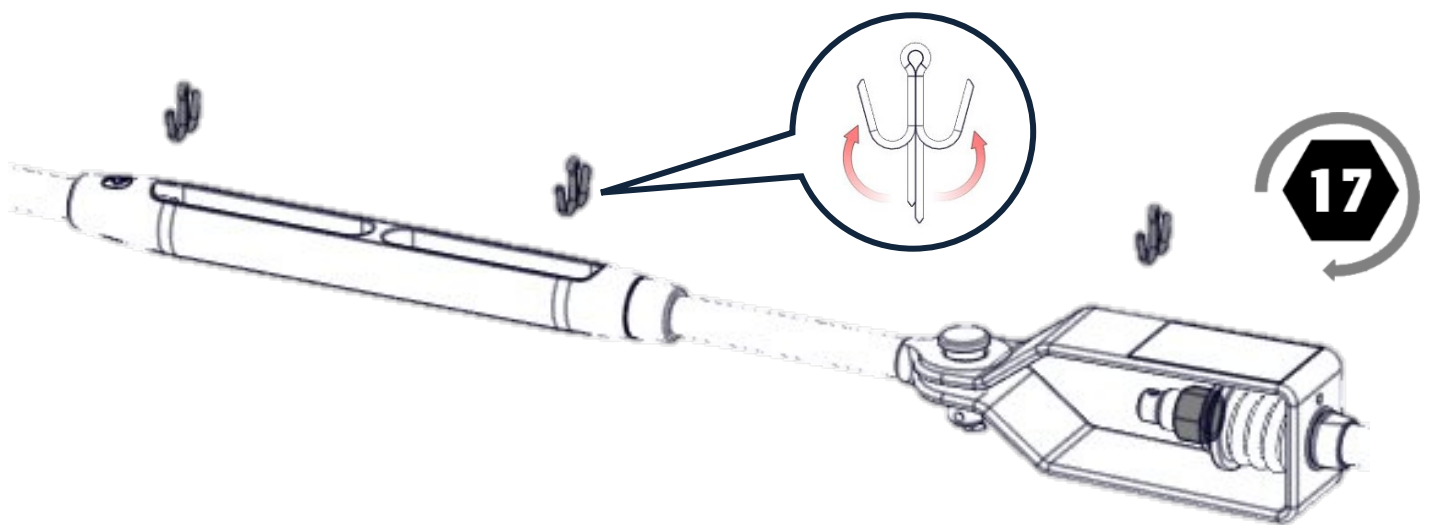
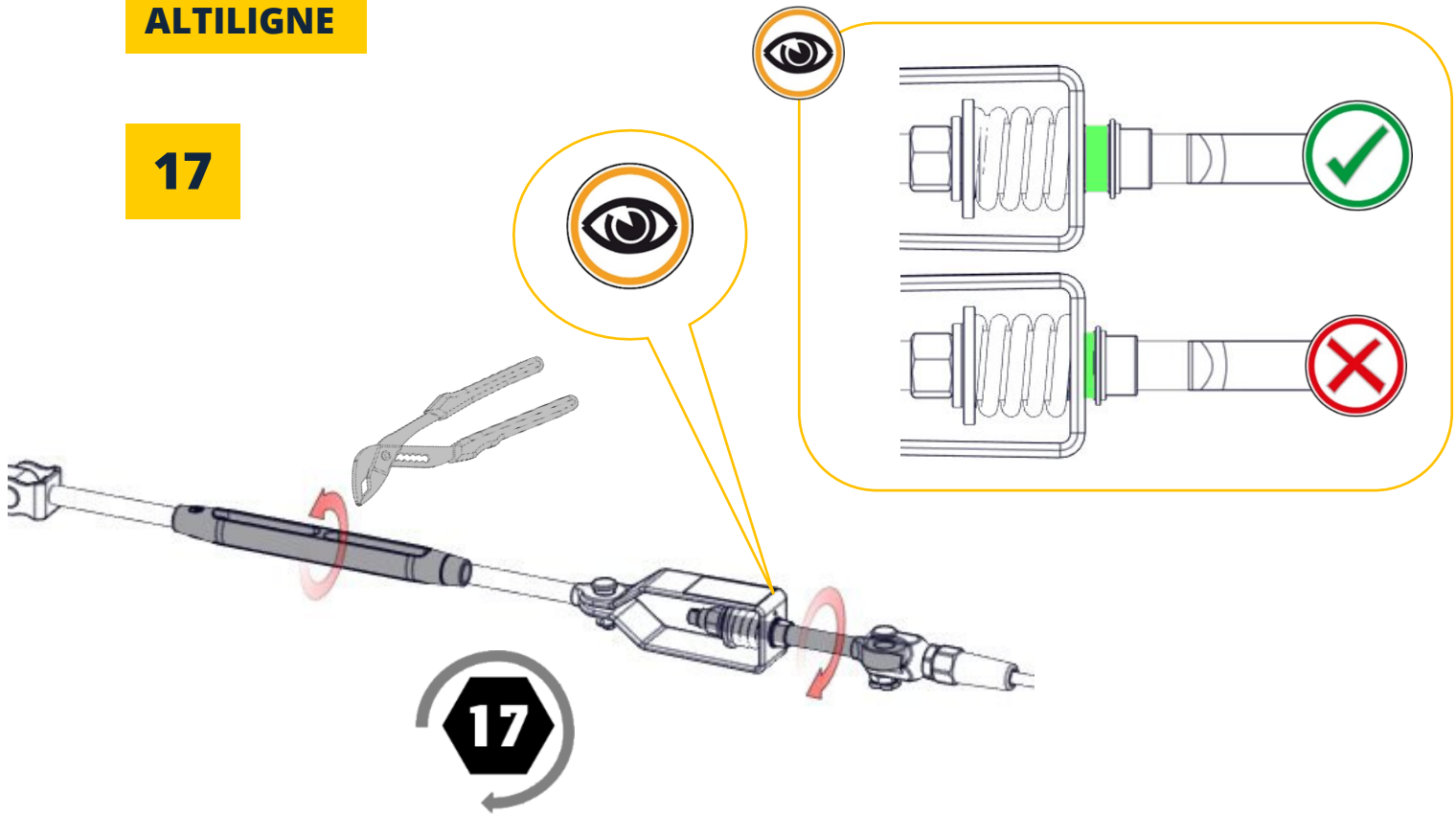


Distributed by

# Horizontal cable system

**ALUTILIGNE**

**17**





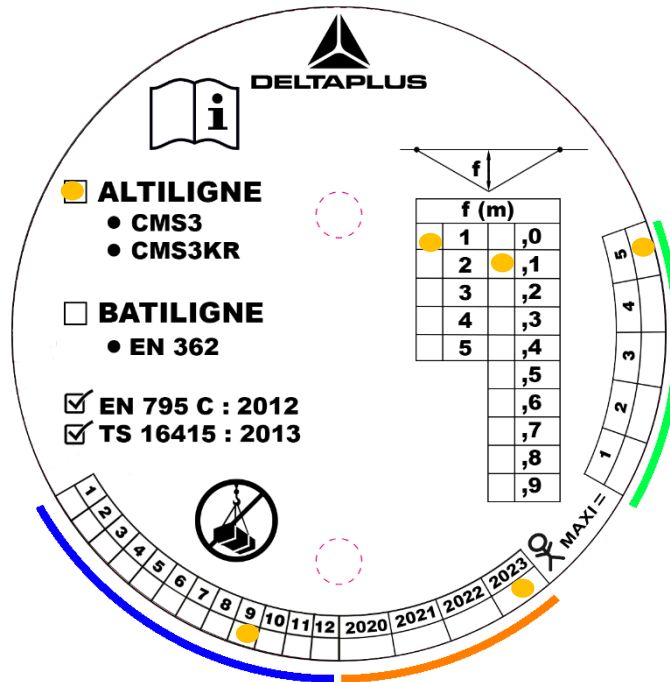
Distributed by

## Horizontal cable system

### ALTILIGNE

18

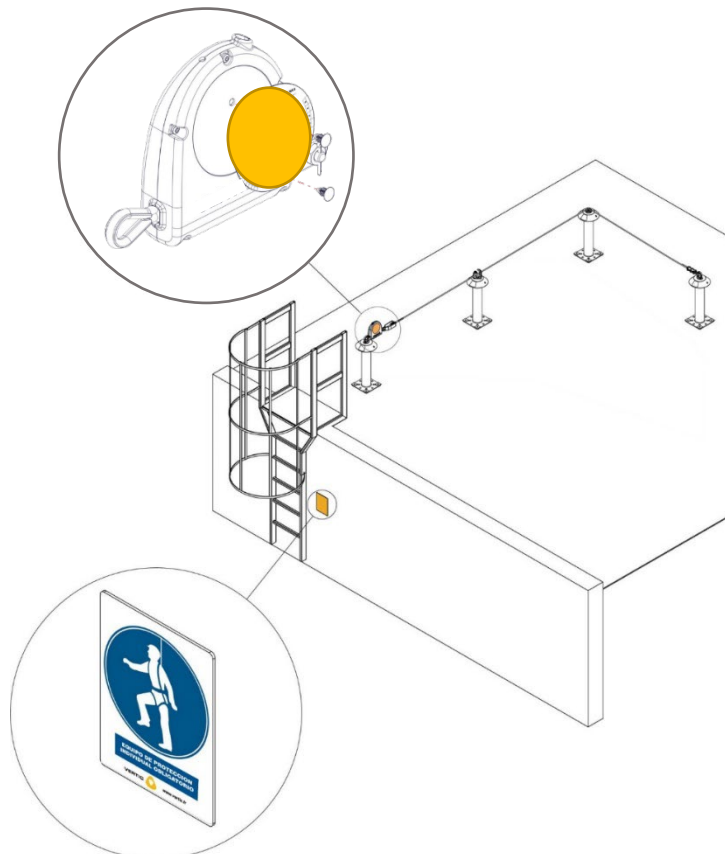
Mois d'installation  
Month of installation  
Mes de instalación  
Maand van installatie  
Einrichtungsmontat  
Mese di installazione  
Mês de instalação



Nombre d'utilisateurs  
Number of users  
Numero de usuarios  
Aantal gebruikers  
Anzahl von den Benutzern  
Numero di utenti  
Número de usuários

Année d'installation  
Year of installation  
Año de instalación  
Jaar van installatie  
Einrichtungsjahr  
Anno di installazione  
Ano de instalação

19



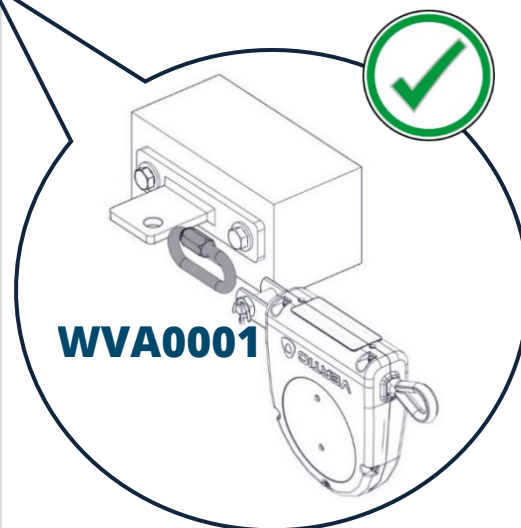
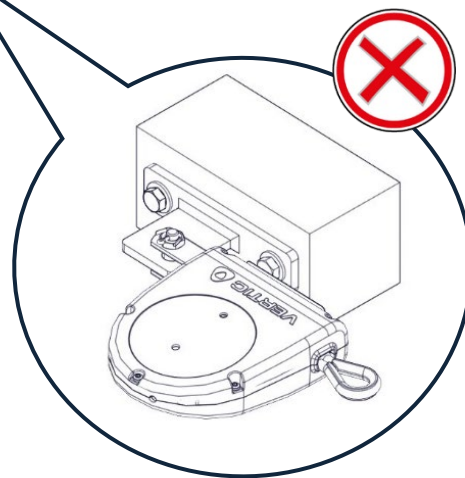


Distributed by

# Horizontal cable system

**ALTILIGNE**

**20**



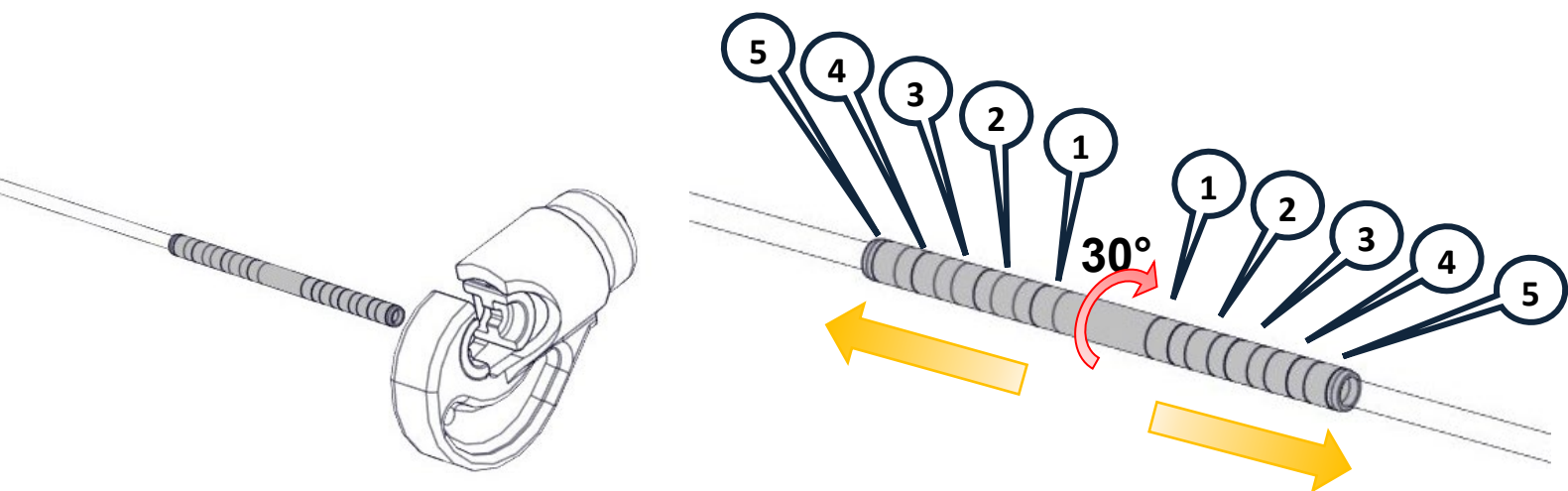
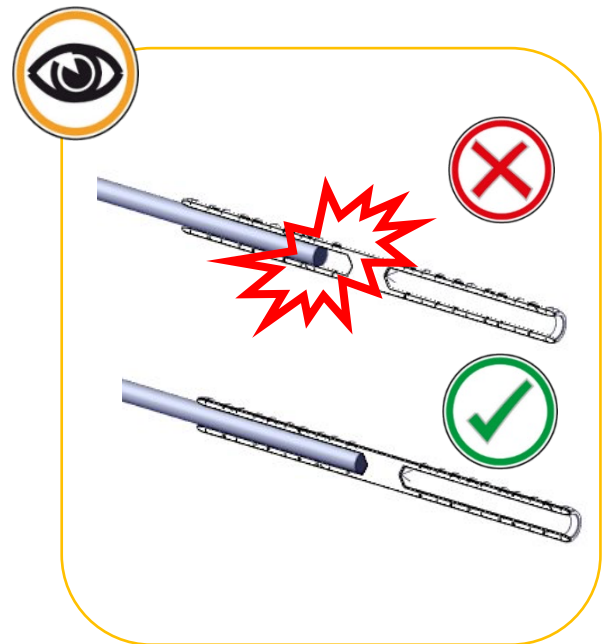
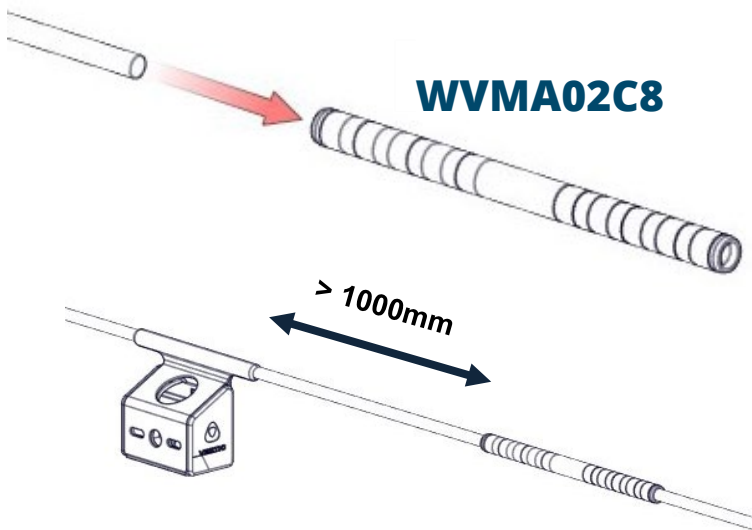


Distributed by

## Horizontal cable system

**ALTILIGNE**

**21**



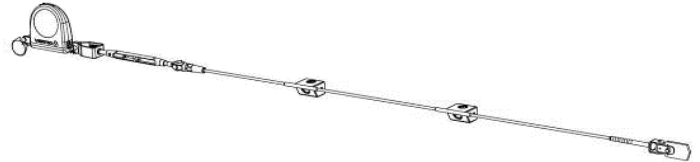


**Distributed by**

## Horizontal cable system

**ALTILIGNE**

### FALL PROTECTION CABLE SYSTEM ALTILIGNE



Product identification	
Manufacturer/Provider:	Delta Plus Systems
Product's name/Reference:	ALTILIGNE Fall protection cable system
Standards:	EN 795 :2012 – CEN/TS16415 :2013

Historical verification			
Date of first use:		Date of purchase:	
Maximum deflection:			
User ID			
Name:		Adress:	

The controller is not responsible for any inaccuracies in the information concerning the historical verification to be carried out by the user. The user is responsible for keeping a complete history of the periodic examinations and repairs carried out.






Lifespan/disposal
<p>The products are guaranteed against any material or manufacturing defect for a period of 10 years from the date of delivery for metal parts, the guarantee is 2 years for other parts (textile, plastic, electrical and electronic components, etc.). Interventions under the guarantee shall not have the effect of extending the duration of the guarantee.</p> <p>ATTENTION: an exceptional event can lead to a disposal of the product after only one use (operating type and intensity, operating environment: Aggressive environments, marine environment, cutting edges, extreme temperatures, chemicals, etc.)</p> <p>A product has to be disposed of when:</p> <ul style="list-style-type: none"> <li>- it is more than 10 years old and is made of plastics or textile,</li> <li>- it's been subjected to an important fall (or effort),</li> <li>- The outcome of the product checks is not satisfactory, - You doubt this reliability,</li> <li>- You don't know its complete operating history,</li> <li>- When its use has become obsolete (legal, standard, technical changes or incompatibility with other devices, etc.).</li> </ul> <p><b>These products must be destroyed to avoid future use.</b></p>













# Identification & verification



**Distributed by**

-  Comments
-  Correct
-  To be watched
-  To be repaired
-  To be discarded

Visual check of components					
Rope general state (signs, deformations, corrosion, no contact on the structure...)					
Brackets' state (tightening, corrosion...)					
Presence of cracked pins on the axles of the pretensioners, absorbers or extremities					
The specification marking containing the standard information is present					
The energy absorber WWABS55 did not triggered off					
Good state of the supporting scantlings (did not trigger off in case of support of ALTIPIX type)					
Correct rope tension (visual indicator = green ring located on the pretensioner)					

Functional check of components					
The runners CMS3 or CMS3-KR get easily over the intermediate brackets					
Check of the clearance which varies according to the link					

**Comments:**

### Control outcome

Product <b>can</b> remain in use	Product <b>cannot</b> remain in use
----------------------------------	-------------------------------------

### Controller's id and stamp

Name		Company	
Date of control		Controller's stamp (company & stamp)	
Date of next control			



**Distributed by**

## Horizontal cable system

**ALTILIGNE**

### MOBILE RUNNER WVCMS3



Product identification	
Manufacturer/Provider:	Delta Plus Systems
Product's name/Reference:	Mobile runner WVCMS3
Standards:	NF EN 795 : 2012 Type C

User ID			
Name:		Adress:	
Historical verification			
Date of first use:		Date of purchase:	
Manufacturing year:			

The controller is not responsible for any inaccuracies in the information concerning the historical verification to be carried out by the user. The user is responsible for keeping a complete history of the periodic examinations and repairs carried out.

Lifespan/disposal
<p>The products are guaranteed against any material or manufacturing defect for a period of 10 years from the date of delivery for metal parts, the guarantee is 2 years for other parts (textile, plastic, electrical and electronic components, etc.). Interventions under the guarantee shall not have the effect of extending the duration of the guarantee.</p> <p>ATTENTION: an exceptional event can lead to a disposal of the product after only one use (operating type and intensity, operating environment: Aggressive environments, marine environment, cutting edges, extreme temperatures, chemicals, etc.)</p> <p>A product has to be disposed of when:</p> <ul style="list-style-type: none"> <li>- it is more than 10 years old and is made of plastics or textile,</li> <li>- it's been subjected to an important fall (or effort),</li> <li>- The outcome of the product checks is not satisfactory, - You doubt this reliability,</li> <li>- You don't know its complete operating history,</li> <li>- When its use has become obsolete (legal, standard, technical changes or incompatibility with other devices, etc.).</li> </ul> <p><b>These products must be destroyed to avoid future use.</b></p>








## Distributed by






 Comments






 Correct

 To be watched

 To be repaired

 To be discarded

Visual check of components					
Runner's general state (deformations, wear, corrosion...)					
The associated anchorage system (rope, components...) is clearly marked as Delta Plus Systems's.					
The specification marking containing the standard information is present on the runner					

Functional check of components					
Both the runner's cams rotate freely around their axles					
The runner gets easily over the lifeline's intermediate brackets					

Comments:

### Control outcome

<input type="checkbox"/> Product <b>can</b> remain in use	<input type="checkbox"/> Product <b>cannot</b> remain in use
---	--

### Controller's id and stamp

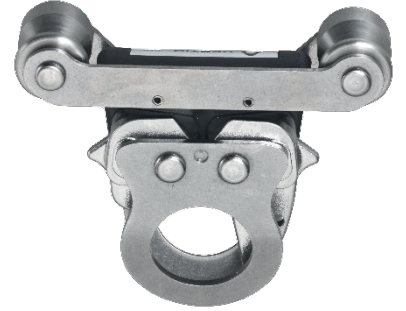
Name		Company	
Date of control		Controller's stamp (company & stamp)	
Date of next control			



**Distributed by**

## Horizontal cable system

**ALTILIGNE**



### MOBILE RUNNER WVCMS3KR

Product identification	
Manufacturer/Provider:	Delta Plus Systems
Product's name/Reference:	Mobile runner WVCMS3KR
Standards:	EN 795 : 2012 Type C

User ID			
Name:		Adress:	
Historical verification			
Date of first use:		Date of purchase:	
Manufacturing year:			

The controller is not responsible for any inaccuracies in the information concerning the historical verification to be carried out by the user. The user is responsible for keeping a complete history of the periodic examinations and repairs carried out.

Lifespan/disposal
The products are guaranteed against any material or manufacturing defect for a period of 10 years from the date of delivery for metal parts, the guarantee is 2 years for other parts (textile, plastic, electrical and electronic components, etc.). Interventions under the guarantee shall not have the effect of extending the duration of the guarantee.
ATTENTION: an exceptional event can lead to a disposal of the product after only one use (operating type and intensity, operating environment: Aggressive environments, marine environment, cutting edges, extreme temperatures, chemicals, etc.)
A product has to be disposed of when: <ul style="list-style-type: none"> <li>- it is more than 10 years old and is made of plastics or textile,</li> <li>- it's been subjected to an important fall (or effort),</li> <li>- The outcome of the product checks is not satisfactory, - You doubt this reliability,</li> <li>- You don't know its complete operating history,</li> <li>- When its use has become obsolete (legal, standard, technical changes or incompatibility with other devices, etc.).</li> </ul>
<b>These products must be destroyed to avoid future use.</b>








## Distributed by






 Comments






 Correct

 To be watched

 To be repaired

 To be discarded

Visual check of components					
Runner's general state (deformations, wear, corrosion...)					
The associated anchorage system (rope, components...) is clearly marked as Delta Plus Systems's.					
The specification marking containing the standard information is present on the runner					

Functional check of components					
Both the runner's cams rotate freely around their axles					
The runner gets easily over the lifeline's intermediate brackets					

Comments:

### Control outcome

Product <u>can</u> remain in use	Product <u>cannot</u> remain in use
----------------------------------	-------------------------------------

### Controller's id and stamp

Name		Company	
Date of control		Controller's stamp (company & stamp)	
Date of next control			