



# TECHNICAL FILE

VERTILIGNE



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# Vertical cable system

## VERTILIGNE

### PRODUCT BENEFITS

The ASCAB AN071 & VERTILIGNE vertical cable system is a flexible personal fall protection solution designed to secure vertical access routes. Its dedicated trolley can be connected at any point on the cable.

#### Versatility

Can be installed on a wide range of vertical structures

#### Durability

Made of stainless steel for excellent corrosion resistance

#### Easy ease of use

Easy to install, even when wearing gloves

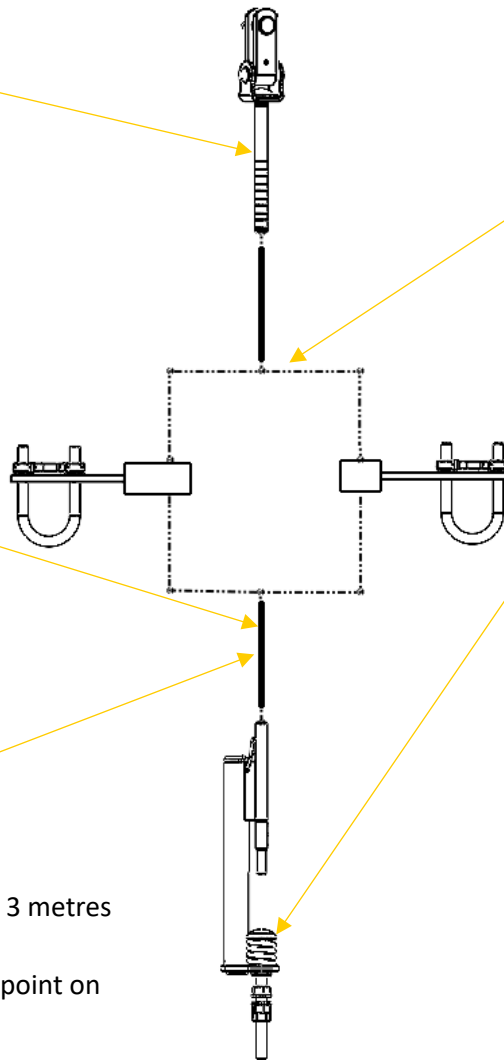
#### Safety

Tension indicator for optimum cable adjustment  
Load capacity: 125kg maximum (including user & tools)

#### Practicality

Can be used simultaneously: 3 users 3 metres apart

The trolley can be connected at any point on the cable





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#### PRESENTATION

The ASCAB AN071 & VERTILIGNE cable system is a flexible vertical system for securing vertical movements on ladders, masts or pylons.

#### TECHNICAL SPECIFICATIONS

- Cable material: 316 18/12 stainless steel
- ASCAB AN071 trolley material: stainless steel and polyester webbing

#### COMPLIANCE

- EN 353-1: 2014 + A1: 2017
- EU type examination certificate issued by :  
APAVE EXPLOITATION FRANCE SAS (N°0082)  
6 RUE DU GÉNÉRAL AUDRAN  
92412 COURBEVOIE CEDEX - FRANCE
- Production monitoring carried out by :  
APAVE EXPLOITATION FRANCE SAS (N°0082)  
6 RUE DU GÉNÉRAL AUDRAN  
92412 COURBEVOIE CEDEX - FRANCE



Download the declaration of conformity via this QR Code



#### REMINDER OF STANDARDS

Only when it is technically impossible to provide collective protection can individual protection against falls from height be considered (French Labour Code R4323-61).

Personal protective equipment can also be used as a complement to collective protection. The use of this type of protection imposes organisational constraints, in particular:

- defining, installing and choosing the type of equipment (lifeline, anchorage point, etc.),
- work with at least two people,
- definition of an emergency response plan,
- installation and use instructions,
- staff information and training,
- periodic inspections,
- weather conditions.

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

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

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





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In enforcement of Regulation 2016/425 of the European Parliament and of the Council of 9<sup>th</sup> March 2016 on Personal Protective Equipment and repealing the Directive 89/686/EEC and in compliance with the Module B Certification Scheme of Apave 'M.MEPI.45' in force.  
 En exécution du Règlement 2016/425 du Parlement Européen et du Conseil du 9 mars 2016 relatif aux Équipements de Protection Individuelle et abrogeant la Directive 89/686/CEE et en respect du Programme de Certification Module B de l'Apave 'M.MEPI.45' en vigueur.

Apave Exploitation France, notified body identified under number 0082, awards the  
 Apave Exploitation France, organisme notifié identifié sous le numéro 0082, attribue l'

## EU TYPE-EXAMINATION CERTIFICATE

Attestation d'examen UE de type

### N° 0082/0588/160/06/24/0274

The following PPE type complies with the applicable essential health and safety requirements  
 Le type de EPI suivant est conforme aux exigences essentielles de santé et de sécurité applicables

PPE: PPE category III – Guided type fall arresters including a rigid anchor line  
 EPI : EPI de catégorie III – Antichutes mobiles incluant un support d'assurage rigide

Trademark: DELTA PLUS  
 Marque commerciale

Model: ASCAB AN071 & VERTILIGNE      Reference: ASCAB AN071 & VERTILIGNE  
 Modèle      Référence

Manufacturer: DELTA PLUS SYSTEMS - 691 Chemin des Fontaines 38190 BERNIN - France  
 Fabricant

Description: **Guided type fall arrester ASCAB**  
 Openable guided type fall arrester, in 304L stainless steel, with one pivoting cam; and including an eyelet in 304 stainless steel with an energy absorber, reference EVH2. Energy absorber in polyester tear webbing protected by a heat-shrinkable sheath, including a connector, reference Z0STE0242, in Z359.12 steel, with a captive pin. Total length: 270mm.

**Rigid anchor line VERTILIGNE**

Wire rope in 316 stainless steel, reference C18, diameter 8mm, 7x7 construction. Attachment at upper end by top stop bracket, reference ES-2, with 316 stainless steel toggle jaw. Attachment at lower end by bottom stop bracket, reference EVB3, with 304 stainless steel cable tension system. Guiding with intermediate brackets every 8 meters of references WVCG90 with 90° angle or reference WVCGS straight.

Maximum span: 8m. Orientation of use: vertical with a sideways leaning angle from 0° to 15°. Minimum rated load: 50kg, maximum rated load: 125kg (detailed description in EU type examination report 24.0511).

Equipment also tested according to the European Coordination sheet PER/11.119\_V1, for use by 3 people.

Description : **Antichute mobile ASCAB**

Antichute mobile ouvrable en acier inoxydable 304L, avec une came pivotante, et intégrant un oeillet en acier inoxydable 304L équipé d'un absorbeur d'énergie, de référence EVH2. Absorbeur d'énergie en angle à déchirement en polyester, protégé par une gaine thermo-rétractable, incluant un connecteur en acier Z359.12 avec barrette, de référence Z0STE0242. Longueur totale : 270 mm.

**Support d'assurage rigide VERTILIGNE**

Câble en acier inoxydable 14401, de référence C18, de diamètre 8 mm, construction 7x7. Fixation en extrémité supérieure par la butée, de référence ES-2, constituée d'une chape articulée avec embout à sertir en acier inoxydable 316. Fixation en extrémité inférieure par la butée, de référence EVB3, avec système de tension du câble en acier inoxydable 304. Guidage du câble par supports intermédiaires tous les 8 mètres de références WVCG90 avec un angle de 90° ou WVCGS droit.

Portée maximale : 8 m. Orientation d'utilisation verticale avec un angle d'inclinaison latéral de 0° à 15°. Charge nominale minimale : 50 kg, charge nominale maximale 125 kg (description détaillée dans le rapport d'examen UE de type 24.0511).

Équipement également testé selon la fiche de coordination Européenne PPE-R/11.119\_V1], pour une utilisation par 3 personnes.

Technical reference: EN 353-1:2014+A1:2017

Date of signature (day/month/year): 25/06/2024  
 Date de signature (jour/mois/année)  
 Date of issue (day/month/year): 25/06/2024  
 Date de délivrance (jour/mois/année)  
 Date of expiry (day/month/year): 25/06/2029  
 Date d'expiration (jour/mois/année)

PPE Certification Manager  
 La Responsable de la Certification EPI  
 Immaterial original



Accréditation N° 5-0664  
 Scope available on  
 Portée disponible sur  
 www.cofrac.fr

Apave Exploitation France  
 Centre d'Essais et de Certification EPI  
 17, Bd Paul Langevin  
 38600 FONTAINE – France

For category III PPE, the certificate shall only be used in conjunction with one of the conformity assessment procedures referred in point c) of Article 19  
 Pour les EPI de catégorie III, l'attestation ne doit être utilisée qu'en liaison avec l'une des procédures d'évaluation de la conformité visées à l'article 19, point c).  
 The manufacturer shall inform the notified body of all modifications to the approved type and of all modifications of the technical documentation that may affect the conformity of the PPE with the applicable essential health and safety requirements or the conditions for validity of that certificate (article 7.2 – annex V)  
 Le fabricant informe l'organisme notifié de toutes les modifications du type approuvé et de toutes les modifications de la documentation technique qui peuvent remettre en cause la conformité de l'EPI aux exigences essentielles de santé et de sécurité applicables ou les conditions de validité de cette attestation (article 7.2 – annexe V).

This certificate includes one page - Cette attestation comporte une page

Headquarter (Siège social) : Apave Exploitation France SAS - 6 rue du Général Audran 92412 COURBEVOIE Cedex - France, RCS Nanterre 903 869 618

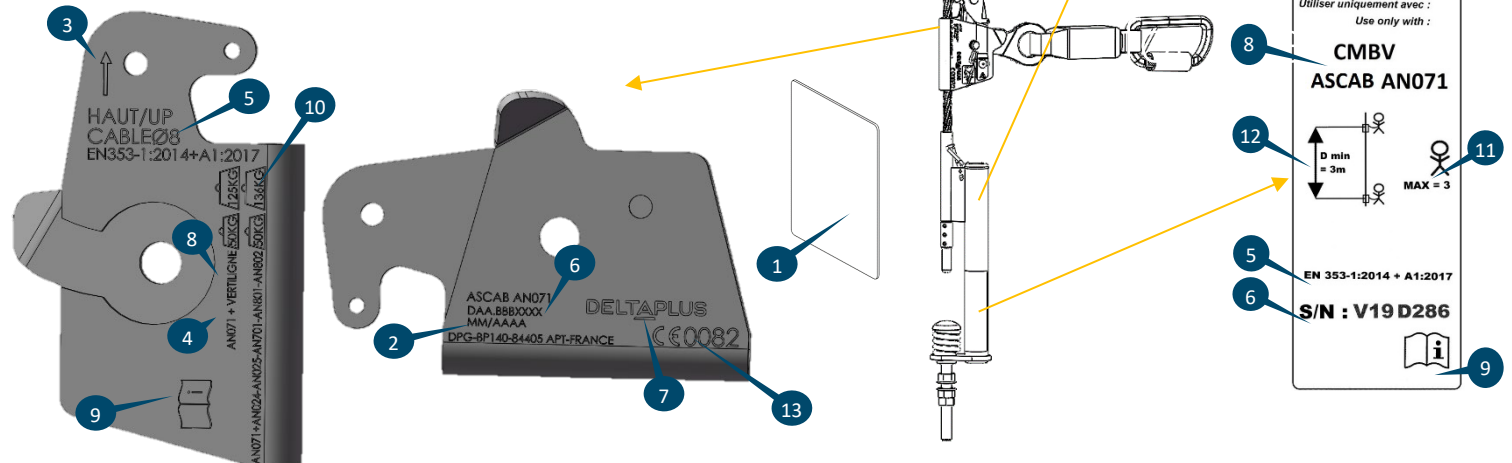


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## Vertical cable system

### VERTILIGNE

#### SIGNAGE & MARKING

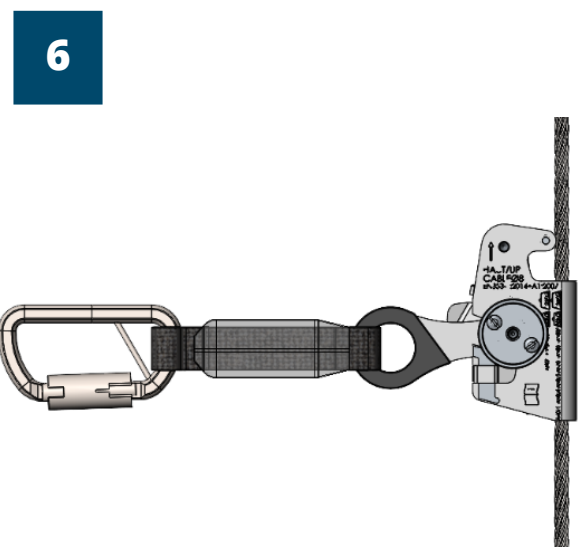
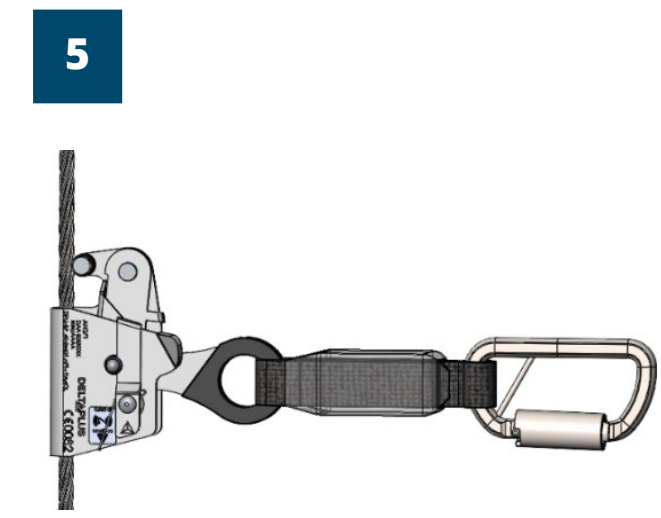
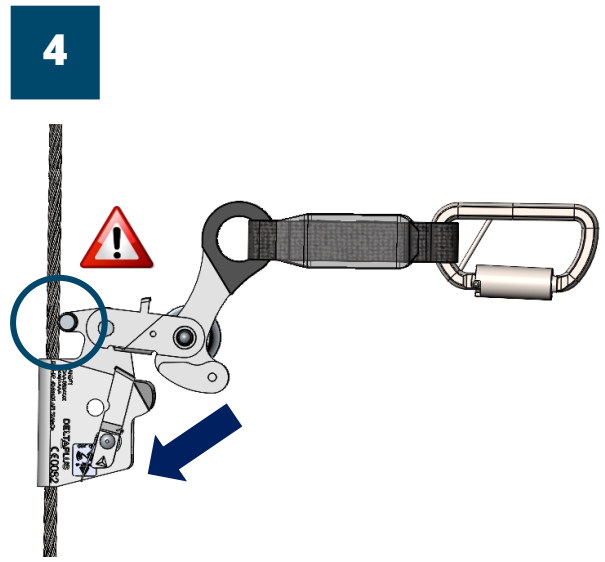
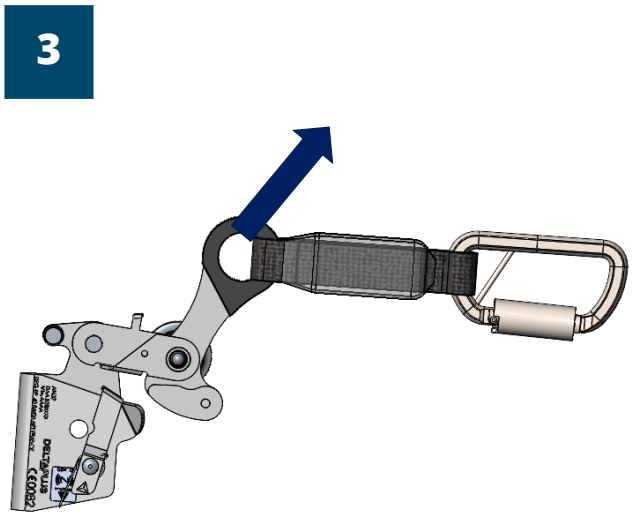
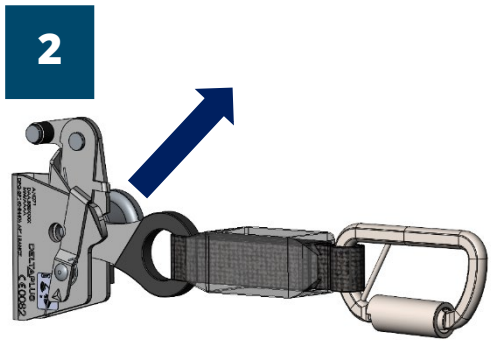
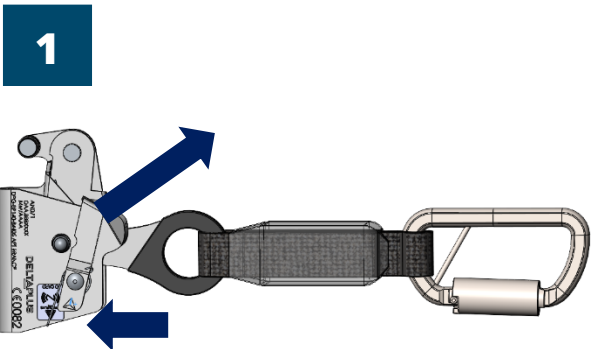


	FR	AT	SP	FROM	IT	PT	RO
1	PPE must be worn	Wearing mandatory PPE	Compulsory use of PPE	Obligatorischer EPI-Port	Porta EPI obbligatoria	Porta obrigatória do EPI	Purtarea EPI obligatorie
2	Expiry date of the product	Product expiry date	Fecha de vencimiento del producto	Ablaufdatum des Produkts	Data di scadenza del prodotto	Data de validade do produto	Data expirării produsului
3	Direction of use	Direction of use	Directions for use	Nutzungsrichtung	Direzione d'uso	Directions for use	Direcția de utilizare
4	Product reference	Product reference	Referencia del producto	Produktreferenz	Riferimento del prodotto	Referência do produto	Referința produsului
5	Standard to which the equipment conforms	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	Serial number	Serial number	Serial number	Seriennummer	Numero di serie	Serial number	Numărul seriei
7	Manufacturer's name	Manufacturer's name	Number of manufacturer	Name des Herstellers	Nome del produttore	Nome do fabricante	Numele producătorului
8	Compatible component	Compatible component	Componente compatible	Kompatible Komponente	Componente compatibile	Componente compatível	Componente compatibile
9	Pictogram inviting you to read the instructions	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
10	Minimum and maximum rated loads	Loads assigned min and max	Cargas asignadas mín. Y máx.	Belastungen zugewiesen min und max	Carichi assegnati min e max	Cargas atribuídas min e max	Sarcini minime și maxime atribuite
11	Maximum number of people authorised to connect simultaneously	Maximum number of people allowed to connect simultaneously	Maximum number of people allowed to connect simultaneously	Maximale Anzahl von Personen, die gleichzeitig eine Verbindung herstellen dürfen	Numero massimo di persone che possono connettersi contemporaneamente	Maximum number of people with permission to connect simultaneously	Numărul maxim de persoane autorizate să se conecteze simultan
12	Safety distance between two users	Security distance between two users	Safety distance between two users.	Sicherheitsabstand zwischen zwei Benutzern	Distanza di sicurezza tra due utenti	Distância de segurança entre dois usuários	Distanța de siguranță dintre doi utilizatori
13	Notified body responsible for production control	Notified body in charge of the control of the production	Organismo notificado a cargo del control de la producción	Benannte Stelle, die für die Produktionskontrolle zuständig ist	Organismo notificato responsabile del controllo della produzione	Organismo notificado encarregado do controle da produção	Organism notificat desemnat pentru controlul producției
	CE0082 APAVE EXPLOITATION FRANCE SAS - 6 RUE DU GÉNÉRAL AUDRAN - 92412 COURBEVOIE CEDEX - FRANCE						
14	Date of periodic inspection	Date of periodic inspection	Periodic inspection date	Datum der periodischen Überprüfung	Data dell'ispezione periodica	Data da inspeção periódica	Data inspecției periodice

# Operating principle



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## Vertical cable system

### VERTILIGNE

#### Information

The system is certified for use on aluminium or steel ladders with a minimum strength of 12kN and a maximum deviation of 15° to the side and 15° to the front and rear. Any other use is prohibited and may be dangerous.

These instructions are intended for users of the ASCAB AN071 fall arrester and its VERTILIGNE support. It must be read and understood by each person before using the product. If you have any doubts or problems of understanding, or if a problem arises which is not covered in this document, please contact your Delta Plus Group representative or the Delta Plus Group technical department directly. This manual must always be available and accessible to the user. It is essential for the user's safety that, if the product is resold outside the first country of destination (France), the reseller supply the instructions for use, maintenance, periodic inspections and repairs, written in the language of the country where the product is to be used. Any activity at height is dangerous and may cause accidents, serious injury or death. You are responsible for practicing and learning the techniques for using the appropriate equipment. Before using the product, you must therefore read and understand all the information contained in the instruction manual. Failure to heed any of these warnings could result in serious injury or death. For safety reasons, the user must be in good health and not under the influence of medication, alcohol or drugs. Workers using personal protective equipment must be properly trained and competent.

#### Instructions for use

#### & technical description

The PPE consists of a mobile fall arrester, reference ASCAB AN071, and a Delta Plus Group belay support in Ø8 stainless steel cable, reference VERTILIGNE. The product is certified to EN 353-1: 2014 + A1: 2017.

The temperature of the working environment must be above -30°C.

This device is used to move and protect against falls from height, both upwards and downwards.

The VERTILIGNE belay support must only be used with the ASCAB AN071 mobile trolley. The user must connect his harness to the trolley via the sternal attachment point using the connector integrated into the ASCAB AN071, in compliance with EN 362.

The connection incorporates a textile energy absorber to limit the impact force in the event of a fall. CAUTION The length of the connection element must not be lengthened or shortened, for example by adding or removing a connector.

The truck can be connected and disconnected at any point in the system. These actions must be carried out in a safe position, or using a separate personal protection system.

- Push the locking paddle and pull the side knob (1 and 2)
- Swing the arm away from the body (3)
- Insert the cable into the body of the ASCAB AN071 (4)
- Push the arm back into the body, the "click" of the safety paddle and the appearance of the end of the pin indicates that the ASCAB AN071 has locked properly (5,6).

To remove the ASCAB AN071: repeat steps 1, 2 and 3, disengaging the carriage from the cable.

The tearing strap deploys and absorbs the energy of the fall. Fully automatic, it has a built-in shock absorber and a coding device that prevents it from being mounted in the wrong direction on the cable.



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### **VERTILIGNE**

The trolley has been designed to move freely on the cable without manual intervention. Holding the locking mechanism or manipulating the trolley during travel may prevent it from locking in the event of a fall. Do not hold the trolley.

The minimum distance under the user's feet is 2 metres. During the first 2 metres, the user may not be protected against falling to the ground, so extra precautions should be taken when ascending or descending.

The truck is designed to be used by a single person weighing a minimum of 50 kg (excluding tools and equipment) and a maximum of 125 kg (including tools and equipment).

The belay device is designed to be used by three people at the same time, each of whom must have their own ASCAB AN071 fall arrester and must maintain a minimum safety distance of 3 meters between them. Warning: each user may be influenced and fall due to the movement of the belay device initiated by the other users.

There is no limit to the length of the rope grab. All points on the rigid belay support at which the mobile fall arrester could come out of the rigid belay support must be fitted with a stop, reference WVEVB3.

Protect it from shocks, humidity and excessive temperatures (+10°C / +40°C) during transport and storage.

Rigid belay devices may not be used in rescue situations. Operations must be carried out using a separate personal protection system.

On systems longer than 20m or installed in high-wind areas, every other passer-by must be installed in the opposite direction in an alternative way (i.e. oriented to the left, to the right, to the left).

### **Important - Prevention Before use**

At height, your life depends on the equipment used. Any doubts about the safety of the device should be reported to the manufacturer and to the person responsible for the installation.

A fall arrest harness complying with EN 361 is the only body-gripping device permitted for use in a fall arrest system. A harness must be size-appropriate, correctly adjusted and fitted to the user's body size.

The fall arrest harness should be properly adjusted to ensure a snug fit and should not be used if it is loose. If the harness loosens during ascent or descent, it should be readjusted correctly from a safe position.

The durability of the substrate must be checked in accordance with its use.

Make sure the cable is properly tensioned by checking that the tension indicator is visible, which guarantees a value of 50 DaN.

The product must not be used beyond its limits, or in any other unforeseen situation.

A rescue plan must be put in place to deal with any emergencies that may arise during work.

In a fall arrest system it is essential to check the clearance under the user before and during use, to avoid any collision with the ground or an obstacle during the fall. In the ASCAB AN071 & VERTILIGNE cable system, this space must be at least 2 m.

The trolley must not be used in the working position. If it is necessary to hold the trolley in the working position, a separate system must be used.

A hazard may arise when 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 piece of equipment.





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**ATTENTION DANGER:** please ensure that your equipment does not rub against abrasive materials or sharp parts that could damage its integrity, particularly the textile energy absorber.

As the trolley is supplied with its own connector, it is not possible to change the components independently.

Use only Delta Plus Group parts to ensure compatibility when assembling the ASCAB AN071 & VERTILIGNE cable system.

The fall prevention function only works in one direction. It is essential to observe the direction of installation (arrow on trolley label pointing upwards).

Mobile fall arresters including a rigid stainless steel anchor support 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.

#### Control - Points to check

Check that the instructions for using the lifeline are clearly displayed on the panel provided.

Check that your fall arrest system complies with and is compatible with those recommended for use with the ASCAB AN071 & VERTILIGNE cable system.

Check that the product markings are legible. Check that periodic checks and maintenance of the lifeline are up to date.

Carry out a visual and functional check of the entire lifeline. Use the ASCAB AN071 & VERTILIGNE cable system identification and verification sheet to carry out these checks.

After a fall, do not use the belay system or trolley again until they have been checked and brought back into compliance by a competent person authorized by the manufacturer.

#### Service life - Disposal

For Delta Plus Systems textile products, the maximum service life is 10 years from the date of manufacture. There is no limit for metal products. For Delta Plus Systems plastic products: scrapping after 10 years, with the exception of the WVABS55 reference, as long as an annual inspection is carried out.

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

A product must be scrapped when :

- ▶ It is over 10 years old and made of plastic or textile.
- ▶ He has suffered a serious fall (or strain).
- ▶ The result of the product checks is not satisfactory.
- ▶ You have doubts about its reliability.
- ▶ You don't know its full history of use.
- ▶ Its use is obsolete (changes in legislation, standards, technology or incompatibility with other equipment, etc.).



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Destroy these products to prevent future use.

#### System warranty

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

The presentation of the receipted invoice will be strictly required when the guarantee is invoked.

Under this warranty, the only obligation incumbent on Delta Plus Systems shall be the free replacement or repair of the product or component recognised as defective by its services. In order to benefit from the warranty, any product must first be submitted to the after-sales service of Delta Plus Systems, whose agreement is indispensable for any replacement. Any carriage and/or on-site replacement costs shall be borne by the purchaser.

#### Maintenance and servicing

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 procedures. If in doubt about the condition of the product, replace it with an original Delta Plus Systems part.

A soiled product must be washed and rinsed with clean water, then dried. It must not be brought into contact with corrosive or aggressive materials, or stored at extreme temperatures.

All chemical products and solvents may alter the resistance of the system components. If the product is likely to come into contact with these products, please let us know the exact name of the chemical components and we will reply after an appropriate study.

The condition of PPE must be checked at least every 12 months by an authorised and competent person in strict compliance with Delta Plus Systems' operating procedures. These periodic and regular examinations are necessary because the safety of the user is linked to maintaining the effectiveness and resistance of the equipment.

The inspection and the results must be recorded in writing in a maintenance log using the identification and inspection sheet supplied by Delta Plus Systems.

Delta Plus Systems can also help you check, inspect and maintain your permanent fall arrest and PPE safety systems. You can also ensure that your teams are fully conversant with the use of these fall arrest solutions and the basic concepts they need to know to work safely at height, by offering them comprehensive, customised training courses run by our training centre.



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
















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#### GENERAL NOMENCLATURE

 <p><b>1</b></p> <p><b>Cable</b> WVC18</p> <p>Stainless steel ø8mm, 7x7 Integrated bolducer for better traceability</p>	 <p><b>2</b></p> <p><b>Crimp end with articulated clevis</b> WVES2</p> <p>End of lifeline with crimping</p>	 <p><b>3</b></p> <p><b>Low end piece</b> WVEVB3</p> <p>Allows pre-tensioning of the cable</p>	
 <p><b>4</b></p> <p><b>Straight cable entry</b> WVCGS</p> <p>Mandatory every 8m</p>	 <p><b>5</b></p> <p><b>90° angle cable gland</b> WVCG90</p> <p>Mandatory every 8m</p>	 <p><b>6</b></p> <p><b>Top &amp; bottom support</b> WVSHL1</p> <p>For fixing at the top or bottom of the ladder</p>	
 <p><b>7</b></p> <p><b>Low bracket</b> WVSHL4</p> <p>For fixing at the bottom end of the ladder</p>	 <p><b>8</b></p> <p><b>High support</b> WVSVH</p> <p>For fixing at the top end of the ladder</p>	 <p><b>9</b></p> <p><b>Safety sign</b> WVPS</p> <p>Allows system identification &amp; monitoring</p>	
 <p><b>10</b></p> <p><b>Lifeline extension</b> WVPHR2</p> <p>Makes it easier for the operator to move from the ladder to the roof</p>	 <p><b>11</b></p> <p><b>Cable locking rings</b> WVBAG01 / WVESC8</p> <p>Allows curves and changes of direction. Removable or crimped version</p>	 <p><b>12</b></p> <p><b>WVSBP bracket</b></p> <p>For fixing to concrete walls</p>	 <p><b>13</b></p> <p><b>One-way blocking mobile trolley</b> ASCAB AN071</p>

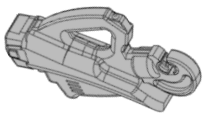


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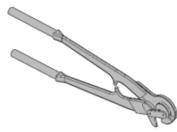
### VERTILIGNE

#### TOOLS & PERSONNEL REQUIRED

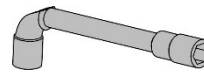


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**SERT01**

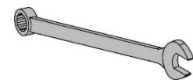


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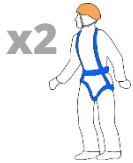
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**17 - 19**



4

**10 - 17 - 19 (x1)  
12 - 24 (x2)**



x2

5





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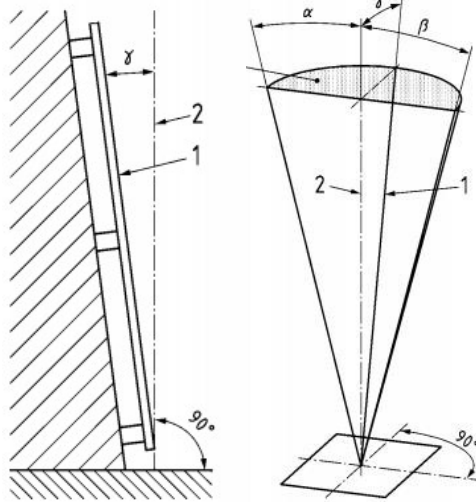
### VERTILIGNE

#### PRE-REQUISITES

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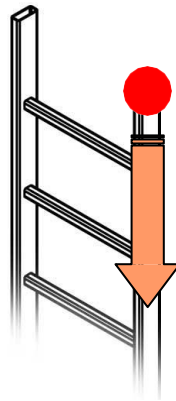
$\beta$  (beta): 0° to 15°.

$\gamma$  (gamma): 0° to 15°.



## >12 kN

- Minimum breaking strength
- Minimum breaking resistance
- Maximum resistance to rotation
- Carico di rottura minimo
- Resistência mínima à rutura
- Minimale breuksterkte
- Minimale Bruchfestigkeit



## NF EN ISO 14122-4 NF E85-016

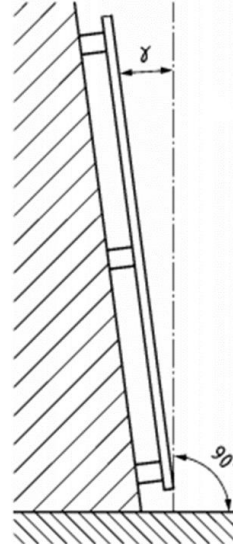
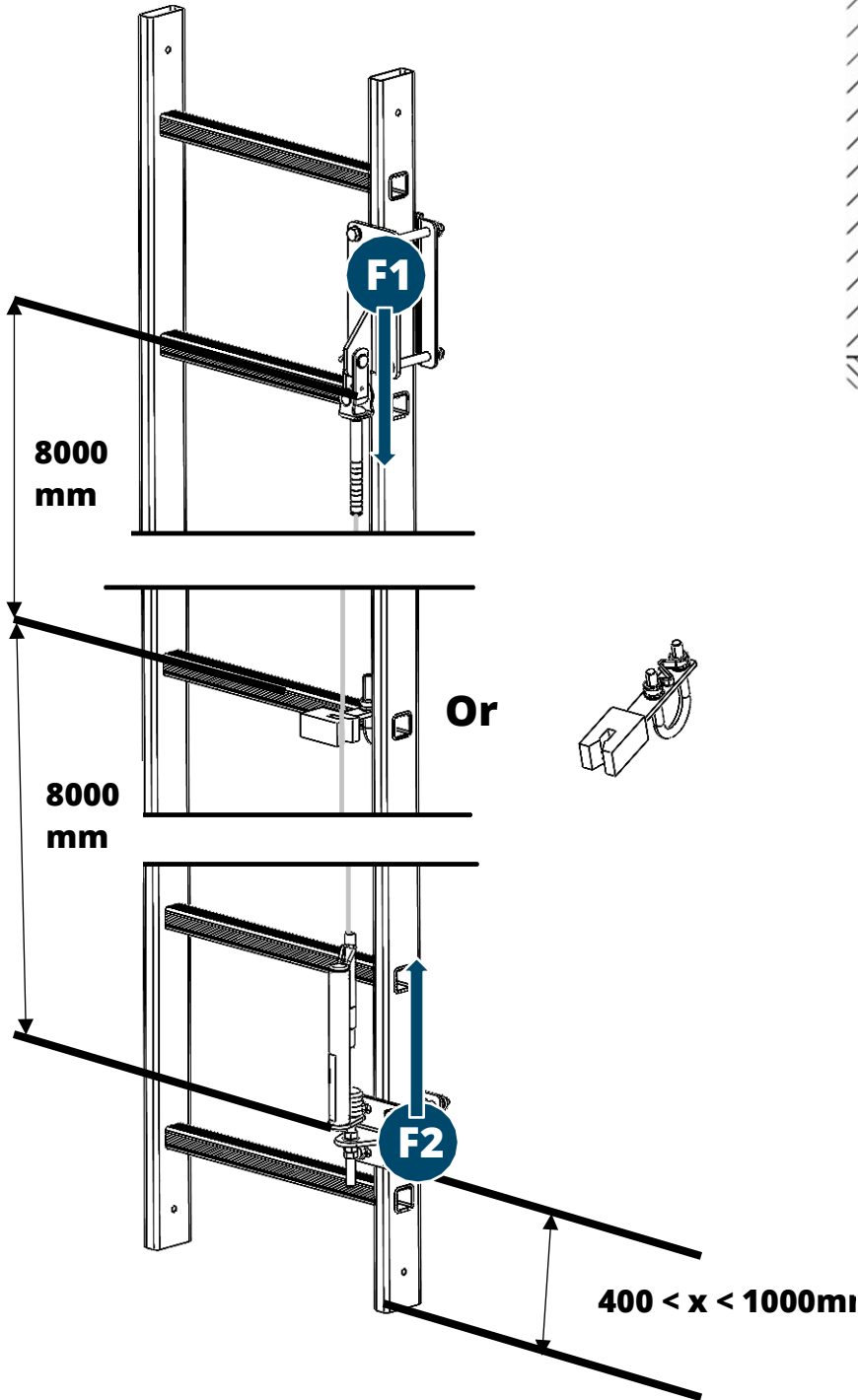
- Compliant scale
- Standard-compliant ladder
- Báscula conforme a las normas
- Scala conforme agli standard
- Balança em conformidade com a norma
- Standaard weegschaal
- Standardkonforme Leiter



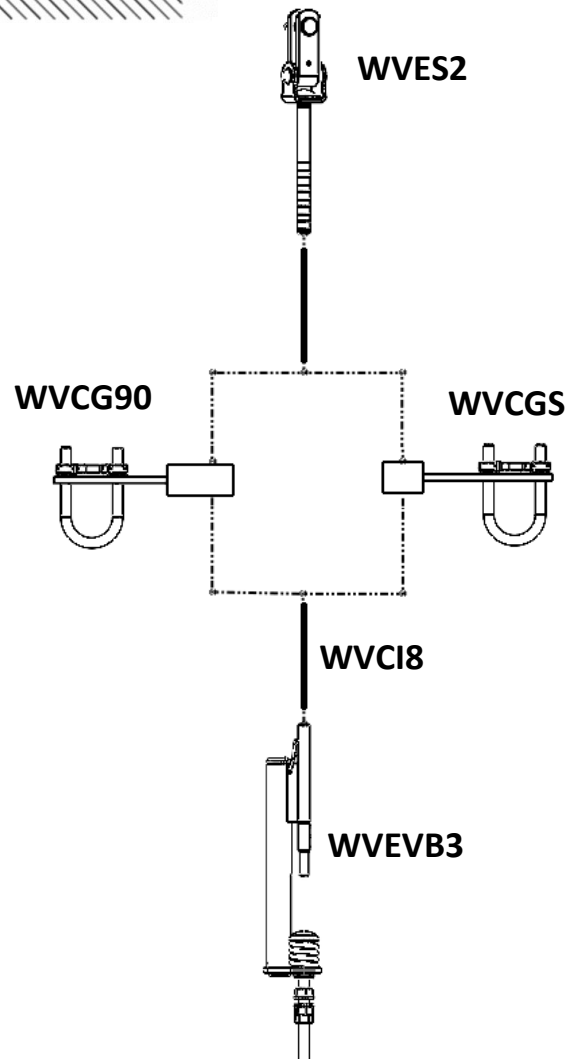
Distributed by

## Vertical cable system

### VERTILIGNE



$\gamma$	F1	F2
0°	< 12kN	0kN
15°	< 12kN	< 6kN





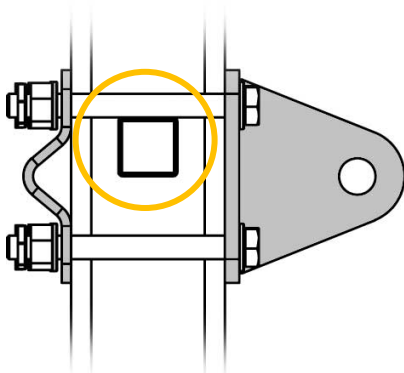
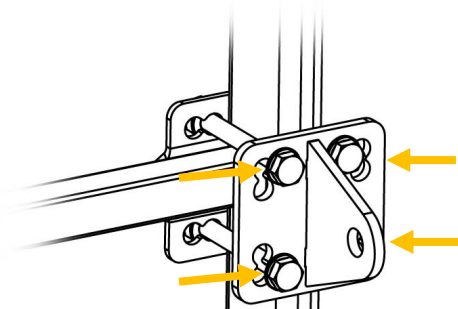
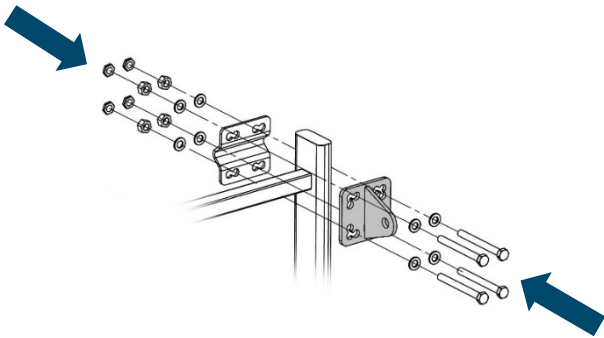
Distributed by

# Vertical cable system

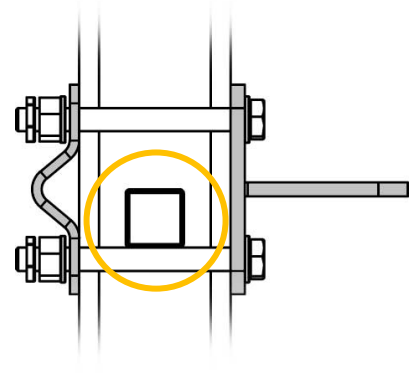
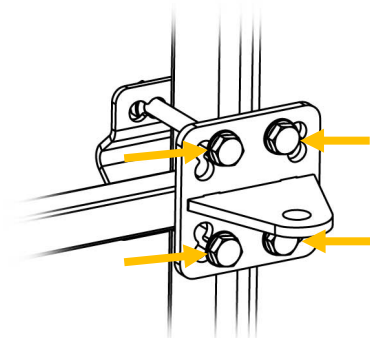
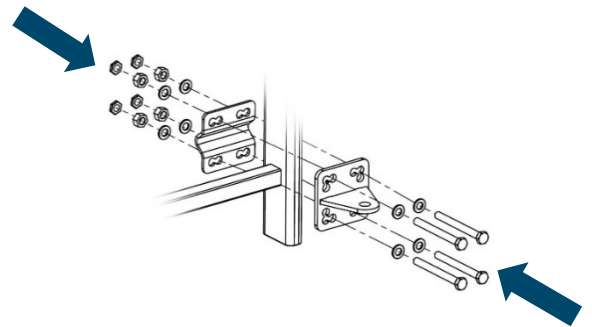
## VERTILIGNE

### 1 MOUNTING THE TOP OR BOTTOM PIECE ON A LADDER - WVSHL4

#### HIGH ROOM - WVS VH



#### IN LOW ROOM - WVSHL4



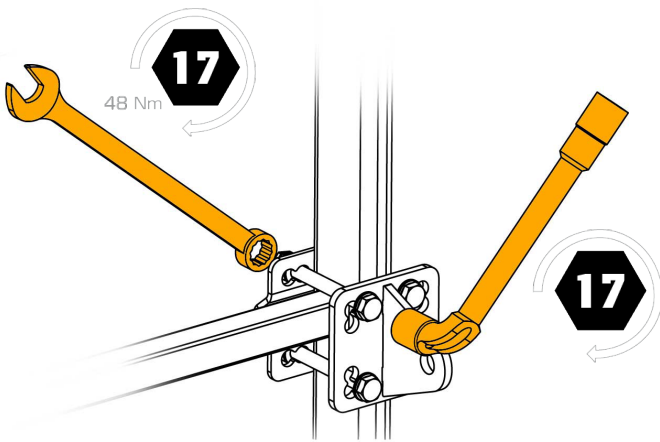


Distributed by

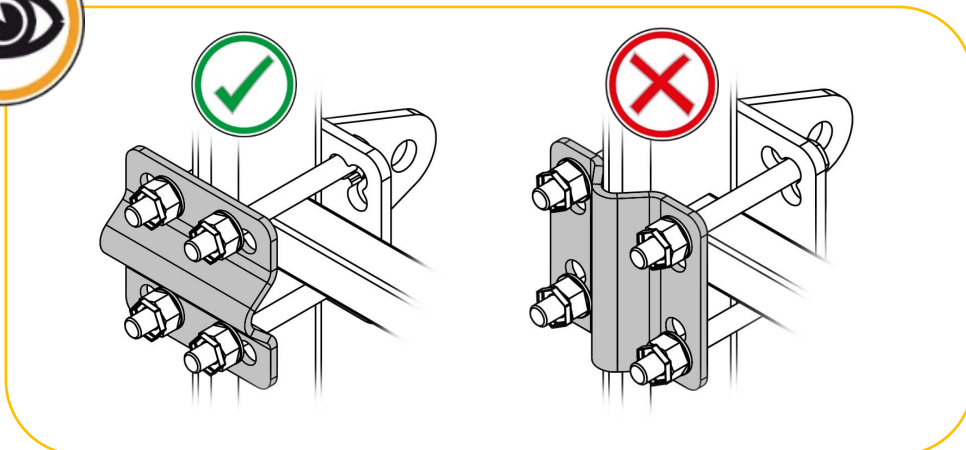
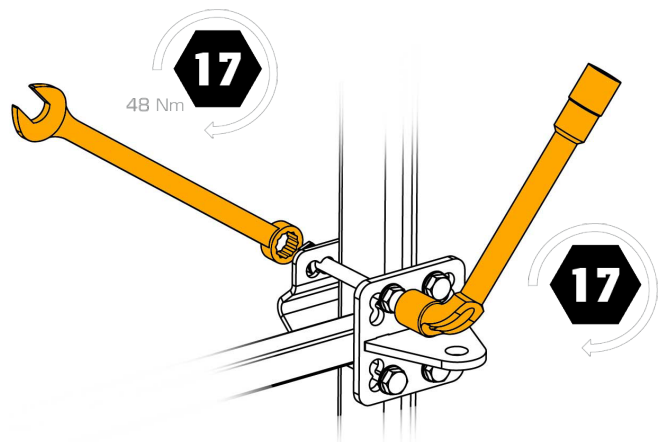
# Vertical cable system

## VERTILIGNE

### HIGH ROOM - WVS VH



### LOW ROOM - WVSHL4







Distributed by

## Vertical cable system

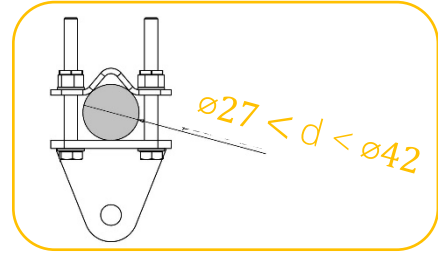
**VERTILIGNE**

**1a.**

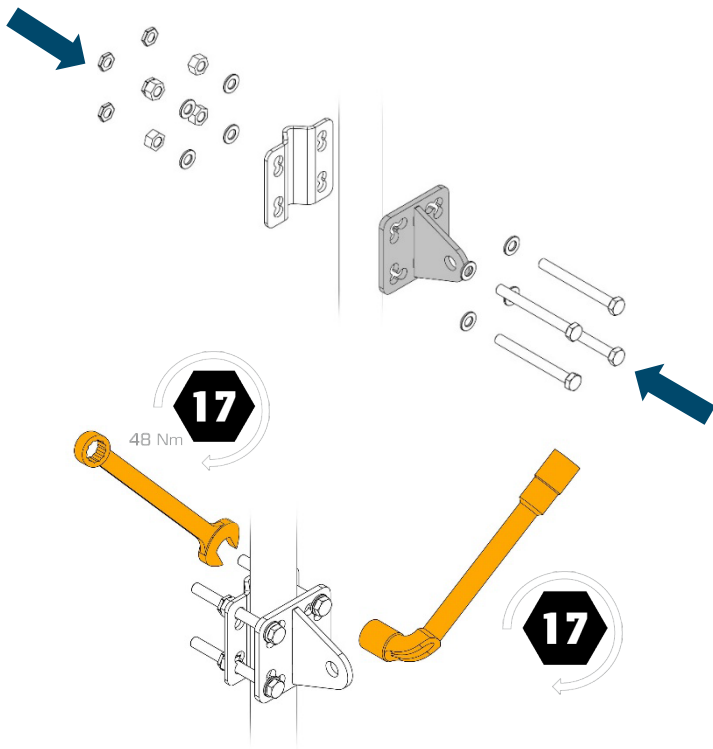
### MOUNTING THE TOP OR BOTTOM PIECE ON A TUBULAR MAST - WVSHL4

**>12 kN**

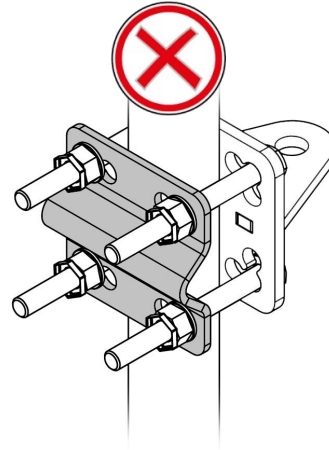
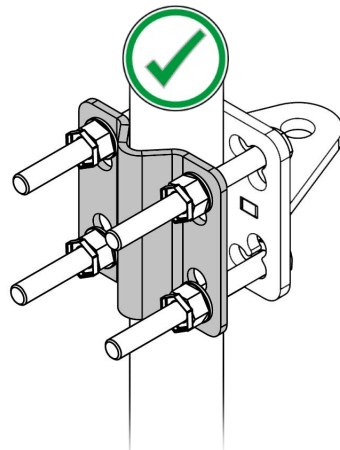
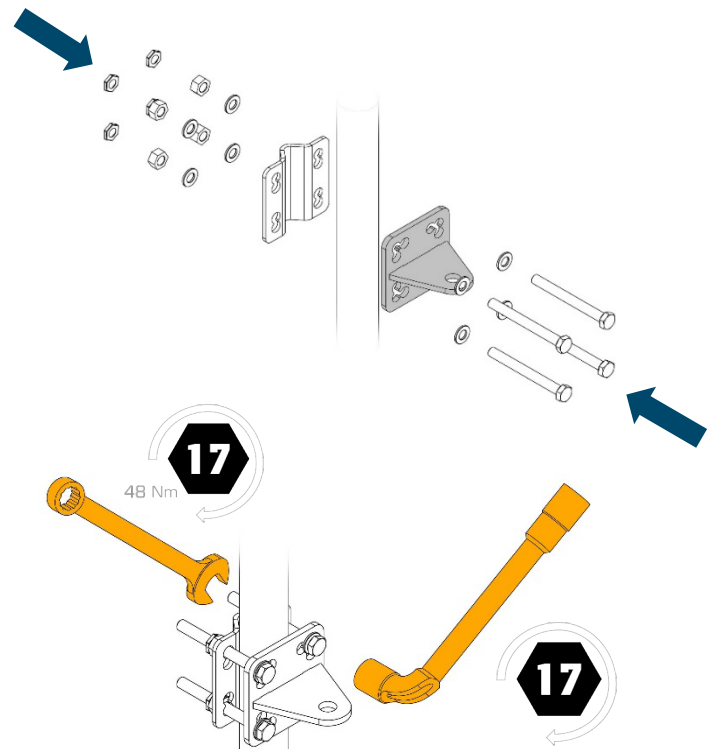
Minimum breaking strength  
 Minimum breaking resistance  
 Maximum resistance to rotation  
 Carico di rottura minimo  
 Resistència mínima à rutura  
 Minimale breuksterkte  
 Minimale Bruchfestigkeit



#### HIGH ROOM - WVSHL4



#### IN LOW ROOM - WVSHL4





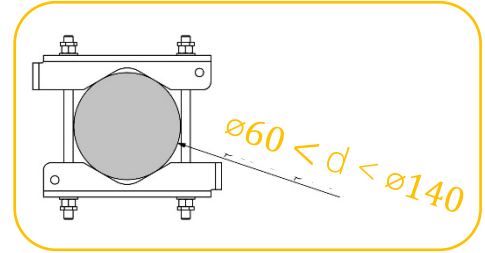
Distributed by

## Vertical cable system

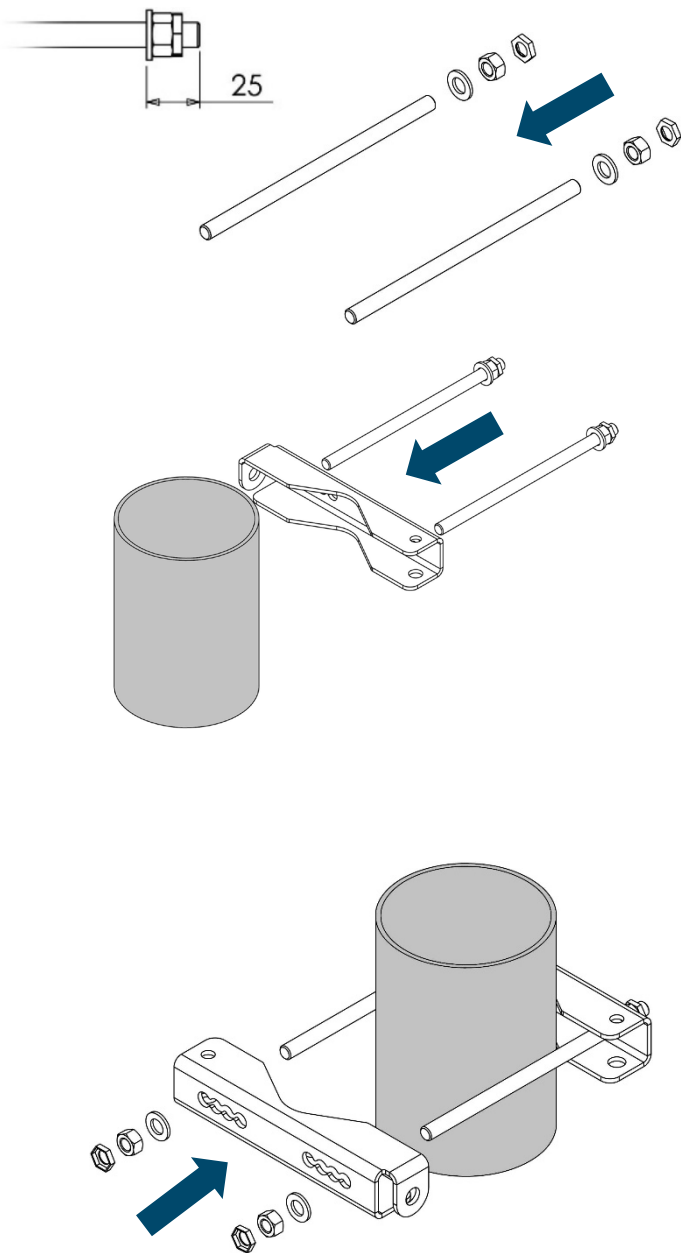
### VERTILIGNE

1<sup>er</sup>

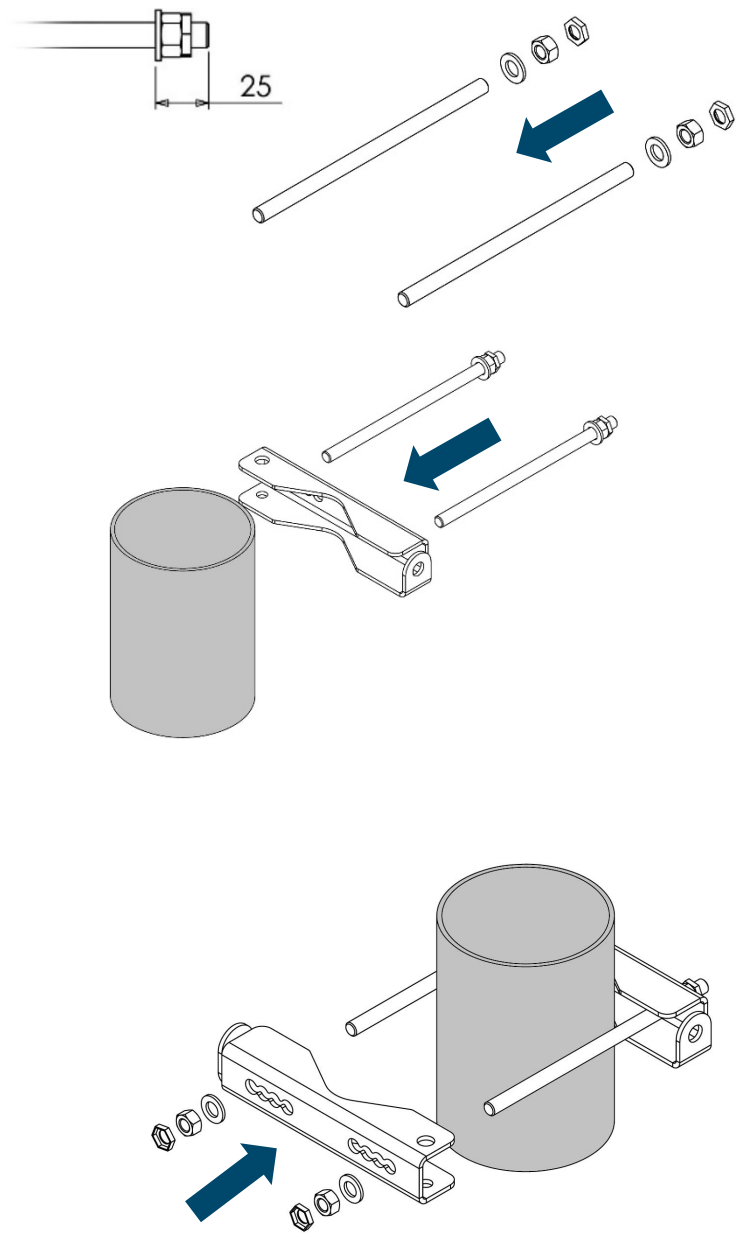
#### MOUNTING THE TOP OR BOTTOM PIECE ON A TUBULAR MAST - WVSHL1



#### HIGH ROOM - WVSHL1



#### IN LOW ROOM - WVSHL1



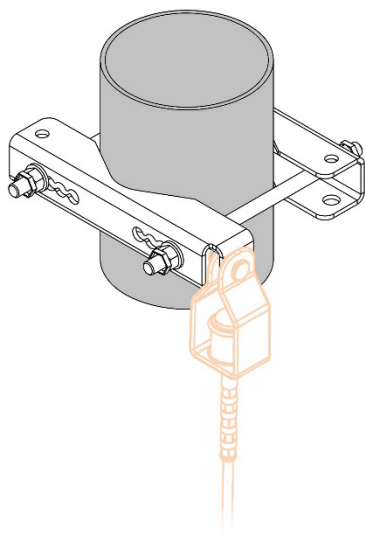
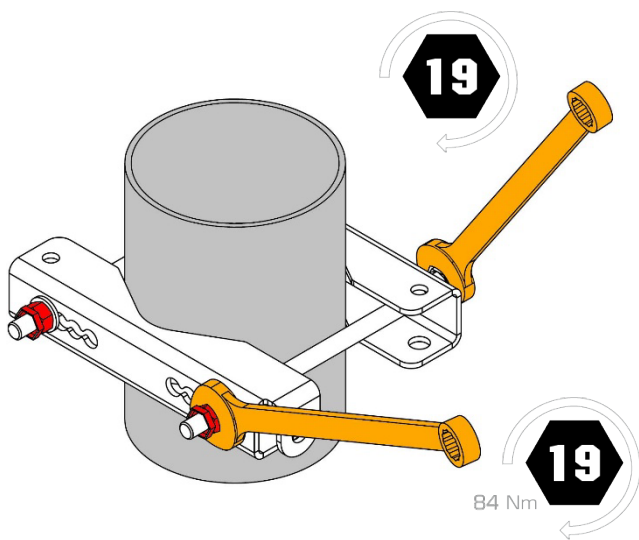


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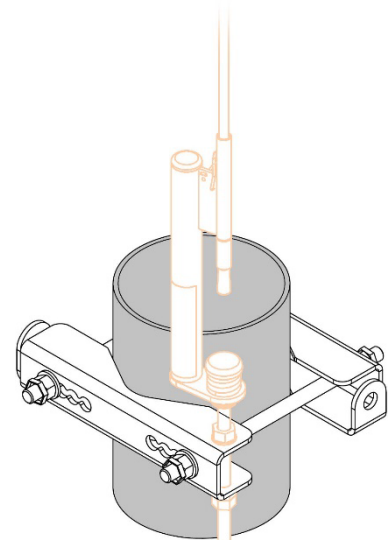
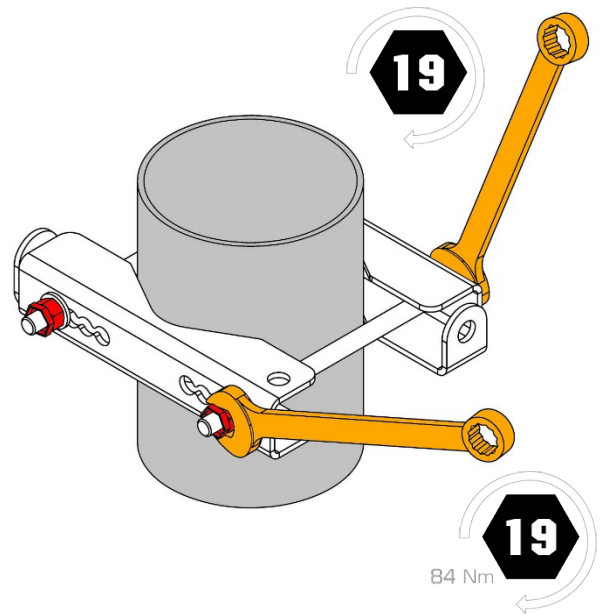
# Vertical cable system

## VERTILIGNE

### HIGH ROOM - WVSHL1



### LOW ROOM - WVSHL1



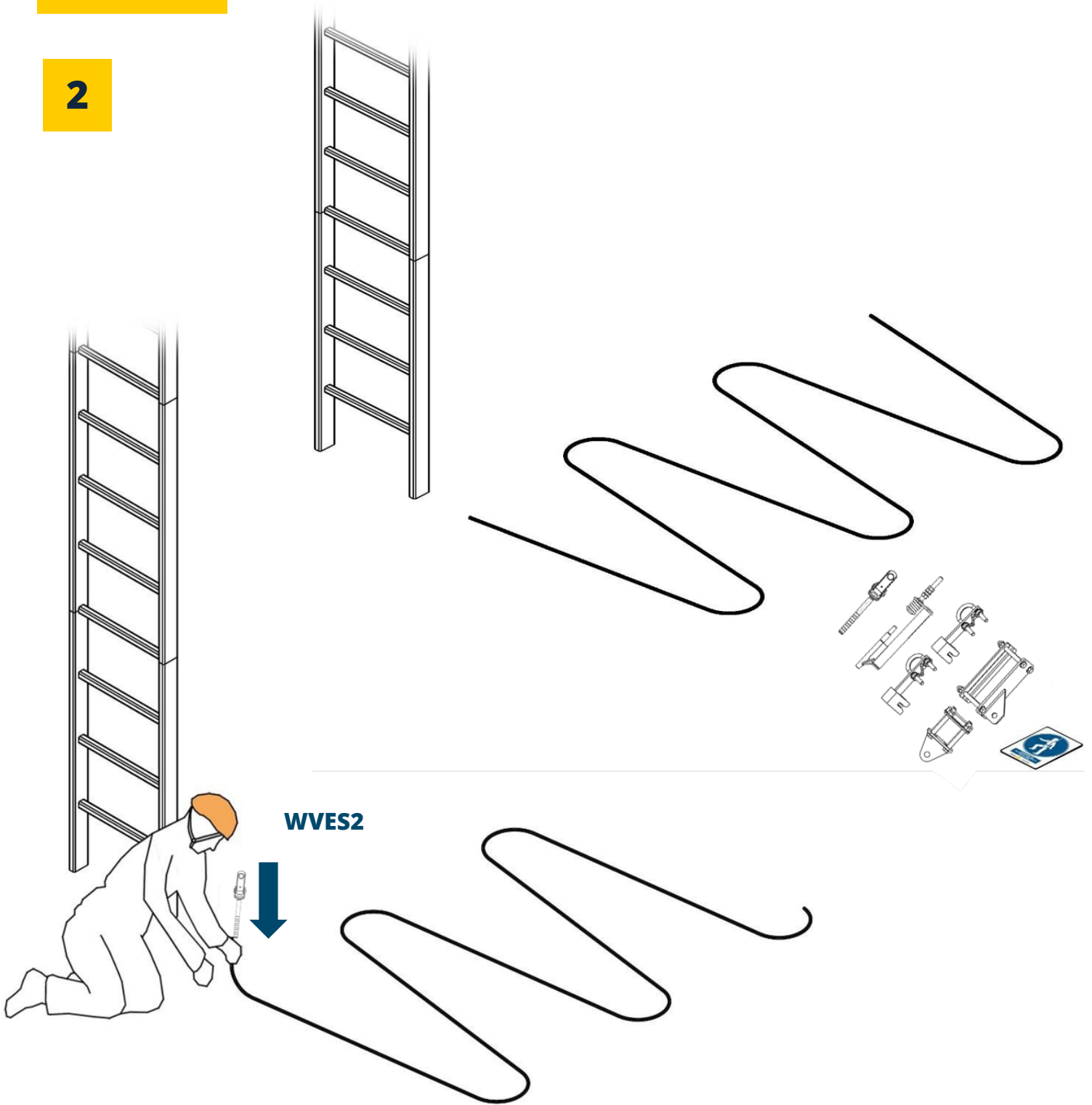


Distributed by

# Vertical cable system

## VERTILIGNE

2





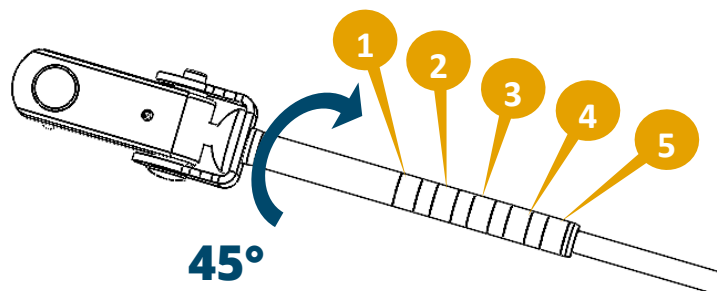
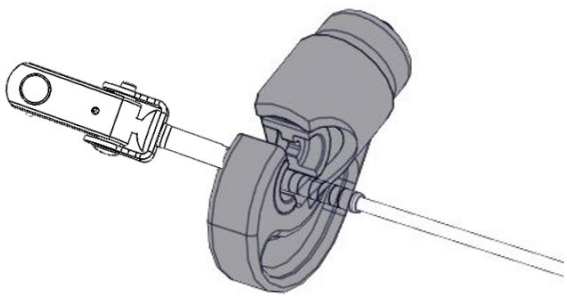


Distributed by

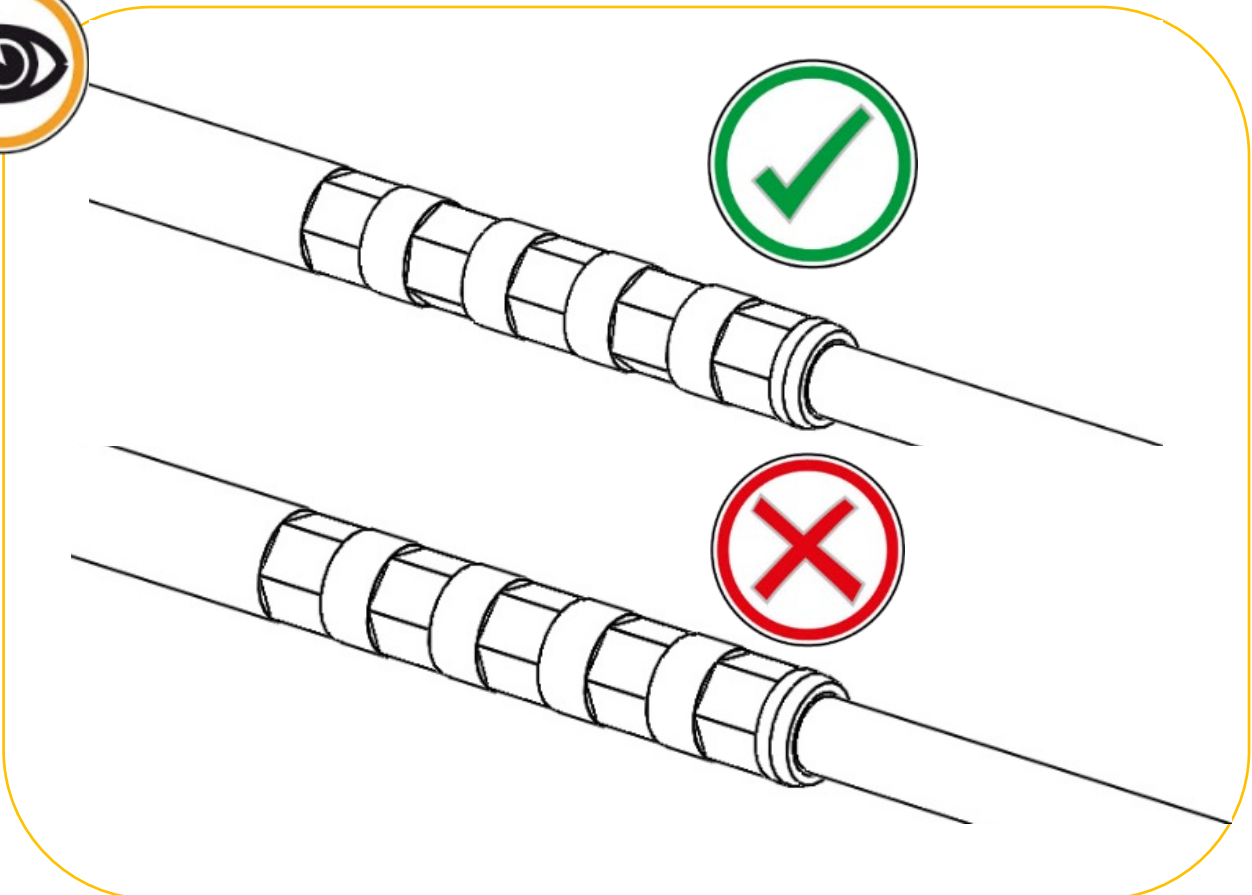
# Vertical cable system

## VERTILIGNE

### 3 WVES2



1 > 45° > 2 > 45° > 3 > 45° > 4 > 45° > 5



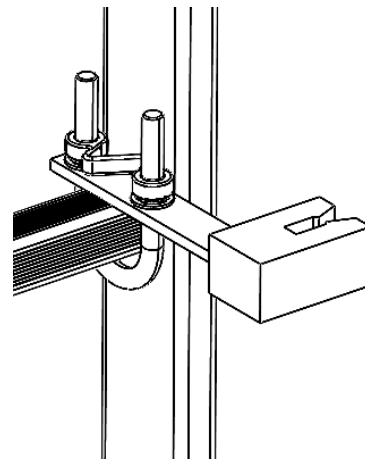
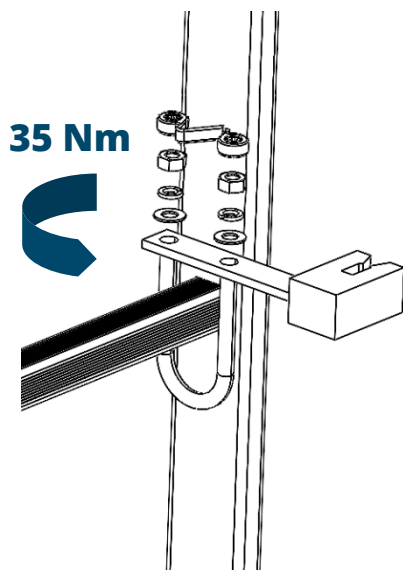
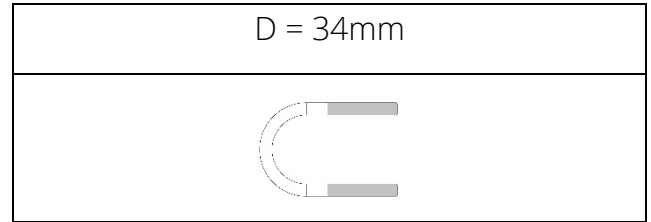
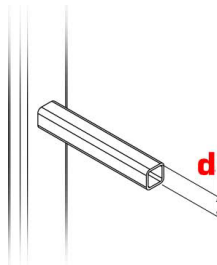


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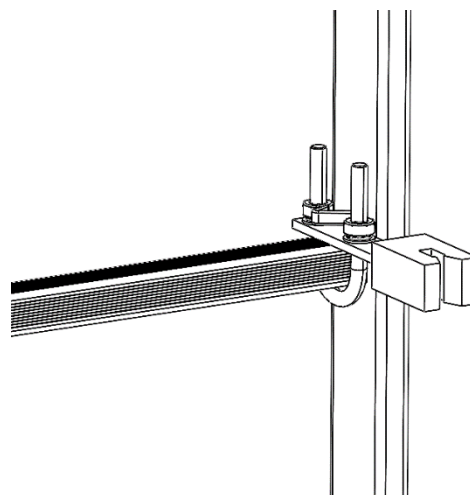
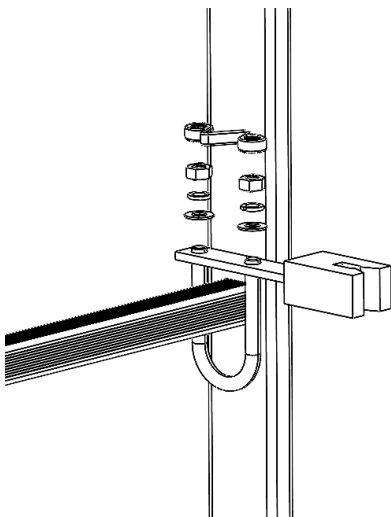
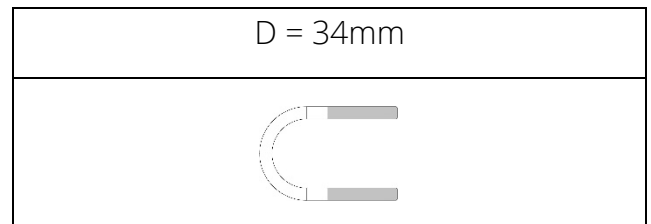
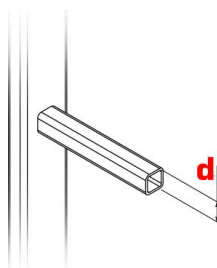
## Vertical cable system

### VERTILIGNE

#### 4 WVCG90



#### 4a WVCGS



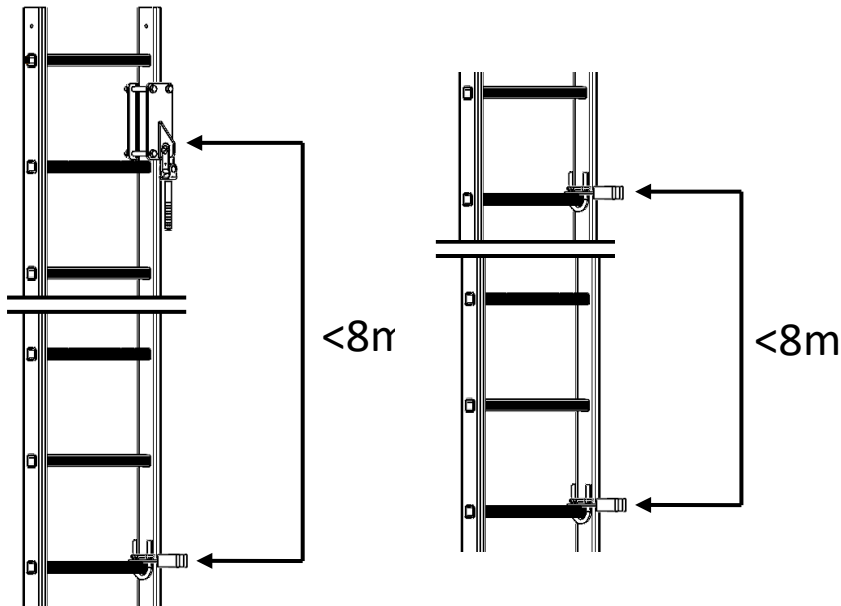


Distributed by

## Vertical cable system

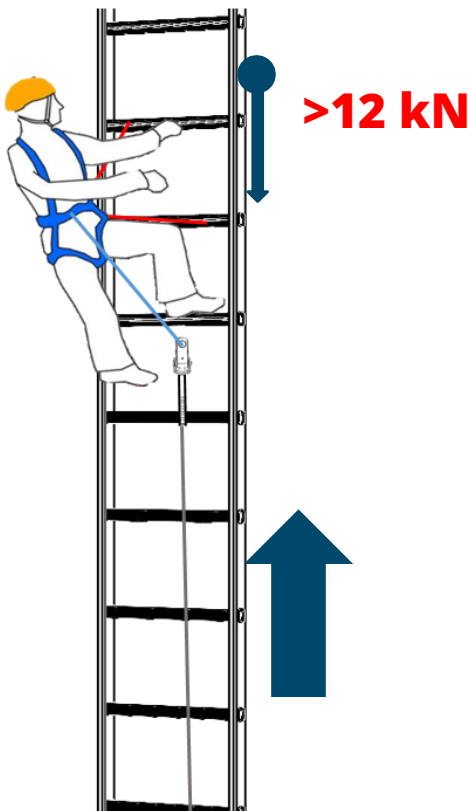
### VERTILIGNE

5

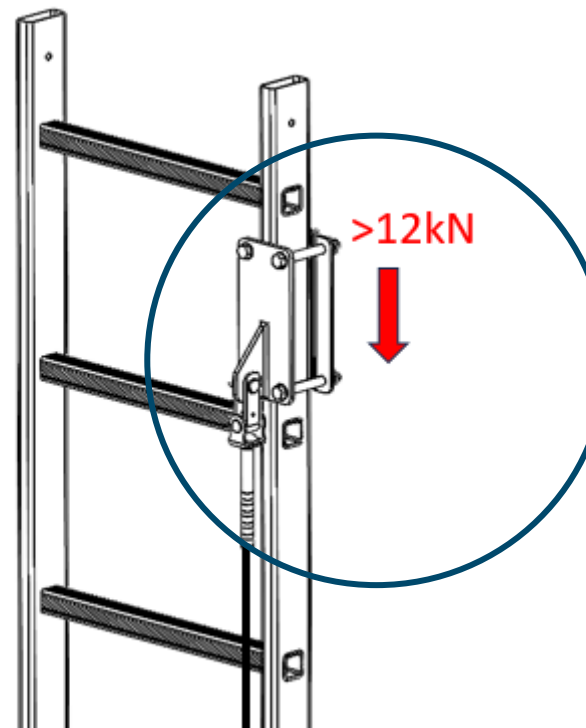


Note: for systems longer than 20m or installed in windy areas, **every second cable guide must be installed in the opposite direction** (to the left, then to the right, then to the left and so on).

6



7





Distributed by

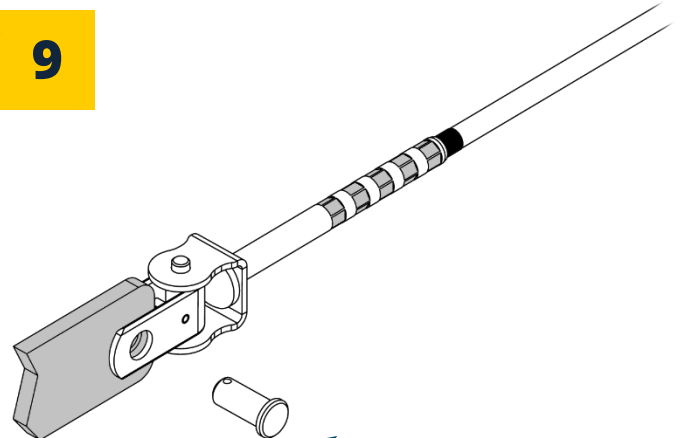
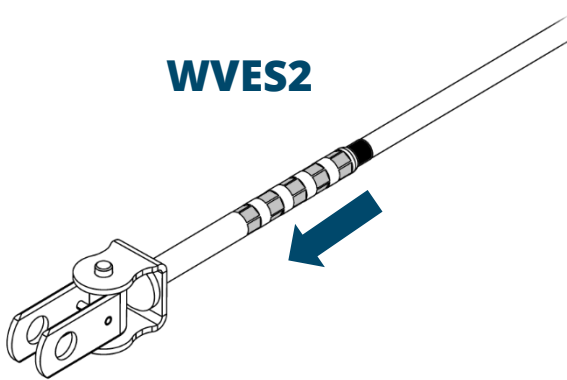
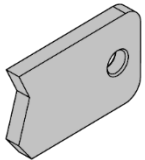
## Vertical cable system

**VERTILIGNE**

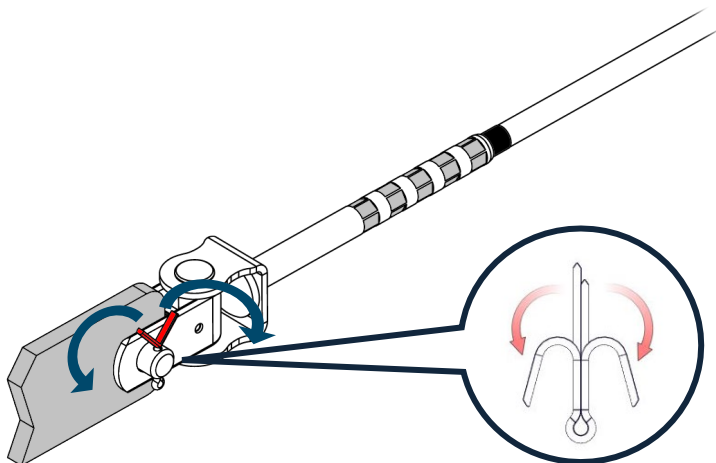
**8**

**WVES2**

**9**



**10**







Distributed by

## Vertical cable system

### VERTILIGNE

12

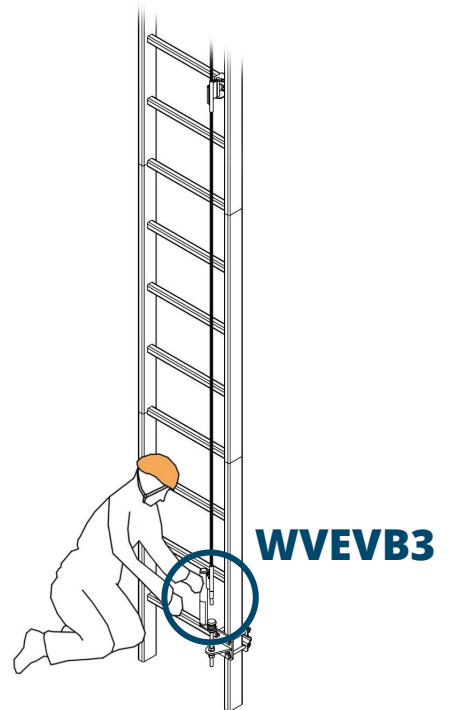


**WVSHL4 or WVSHL1**

See previous pages



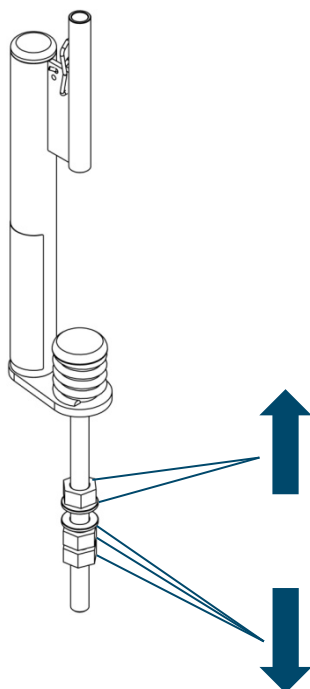
13



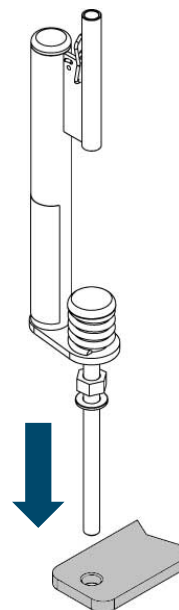
**WVEVB3**

14

**WVEVB3**



15



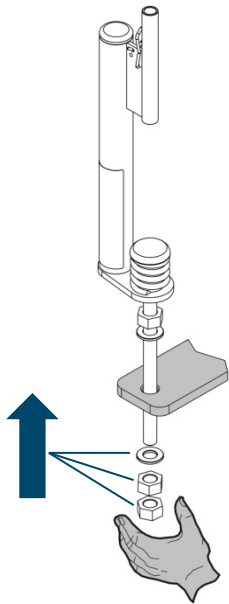


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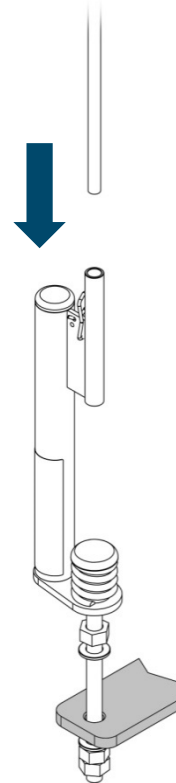
# Vertical cable system

## VERTILIGNE

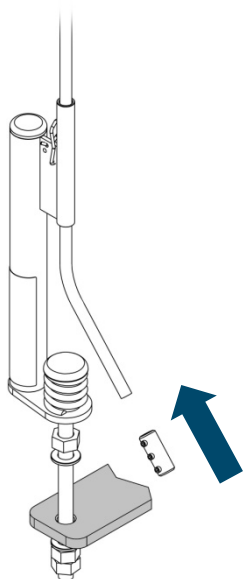
16



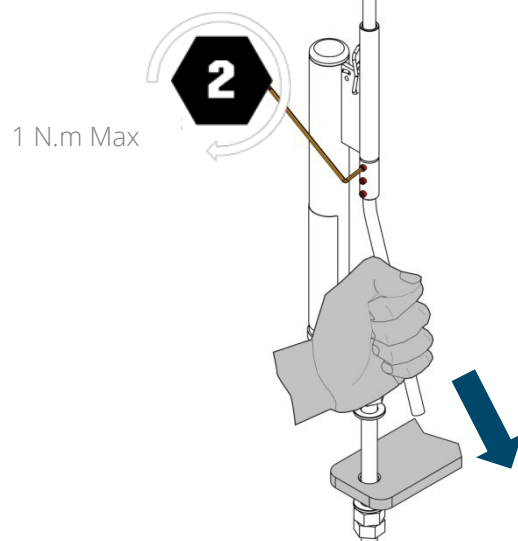
17



18



19



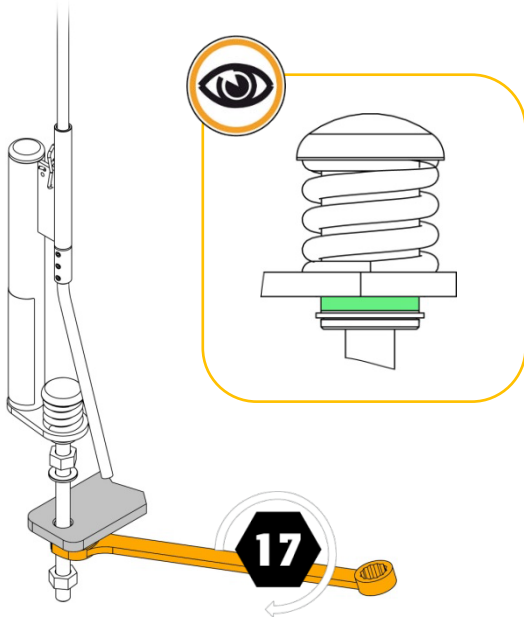


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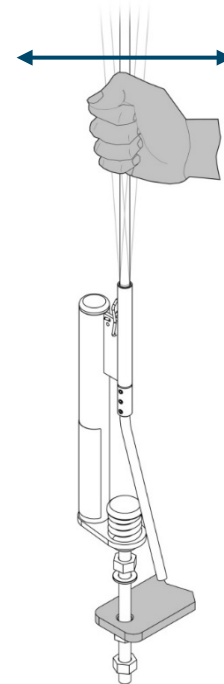
## Vertical cable system

### VERTILIGNE

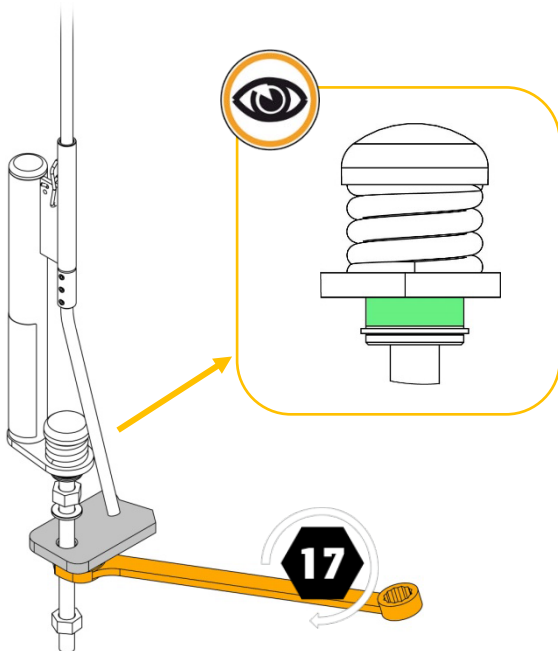
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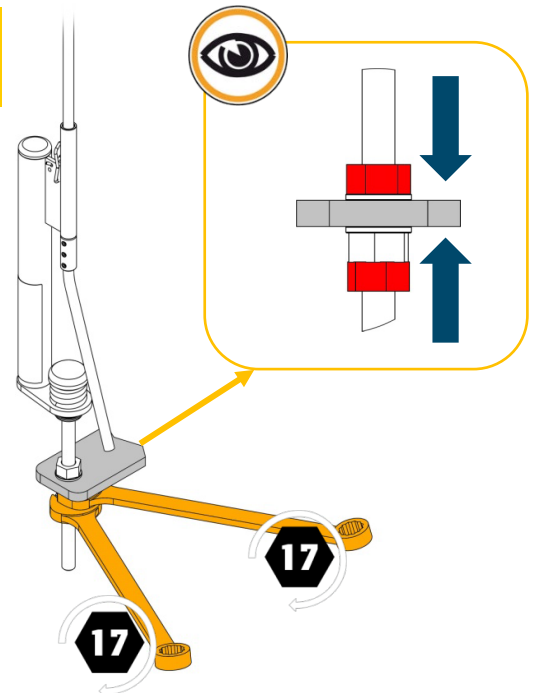
21



22



23



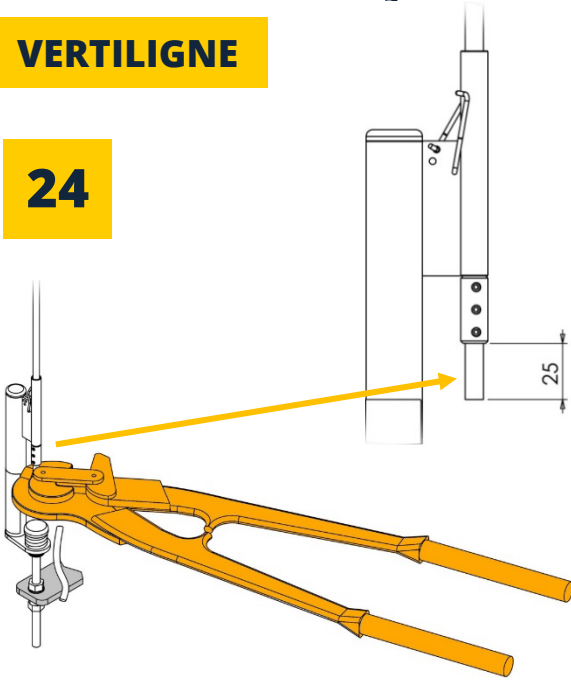


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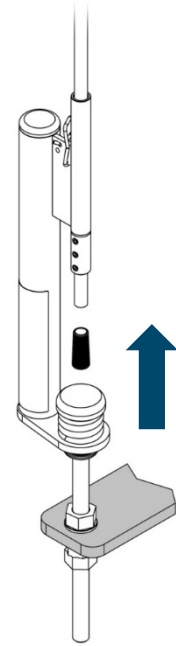
# Vertical cable system

## VERTILIGNE

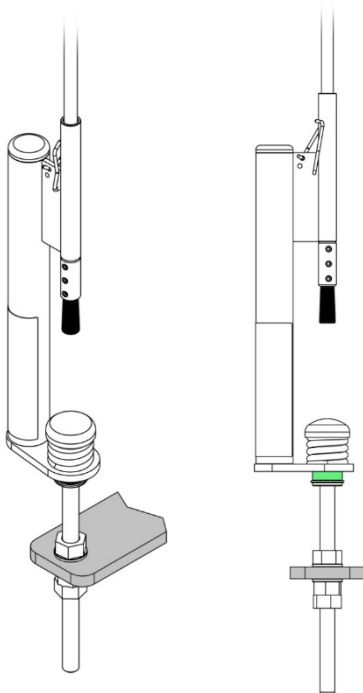
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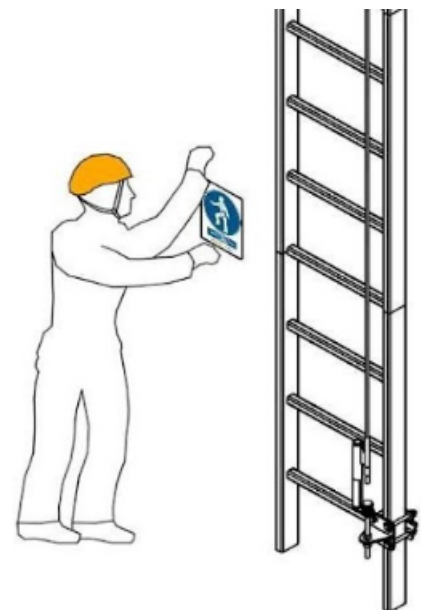
25



26



27 WVPS



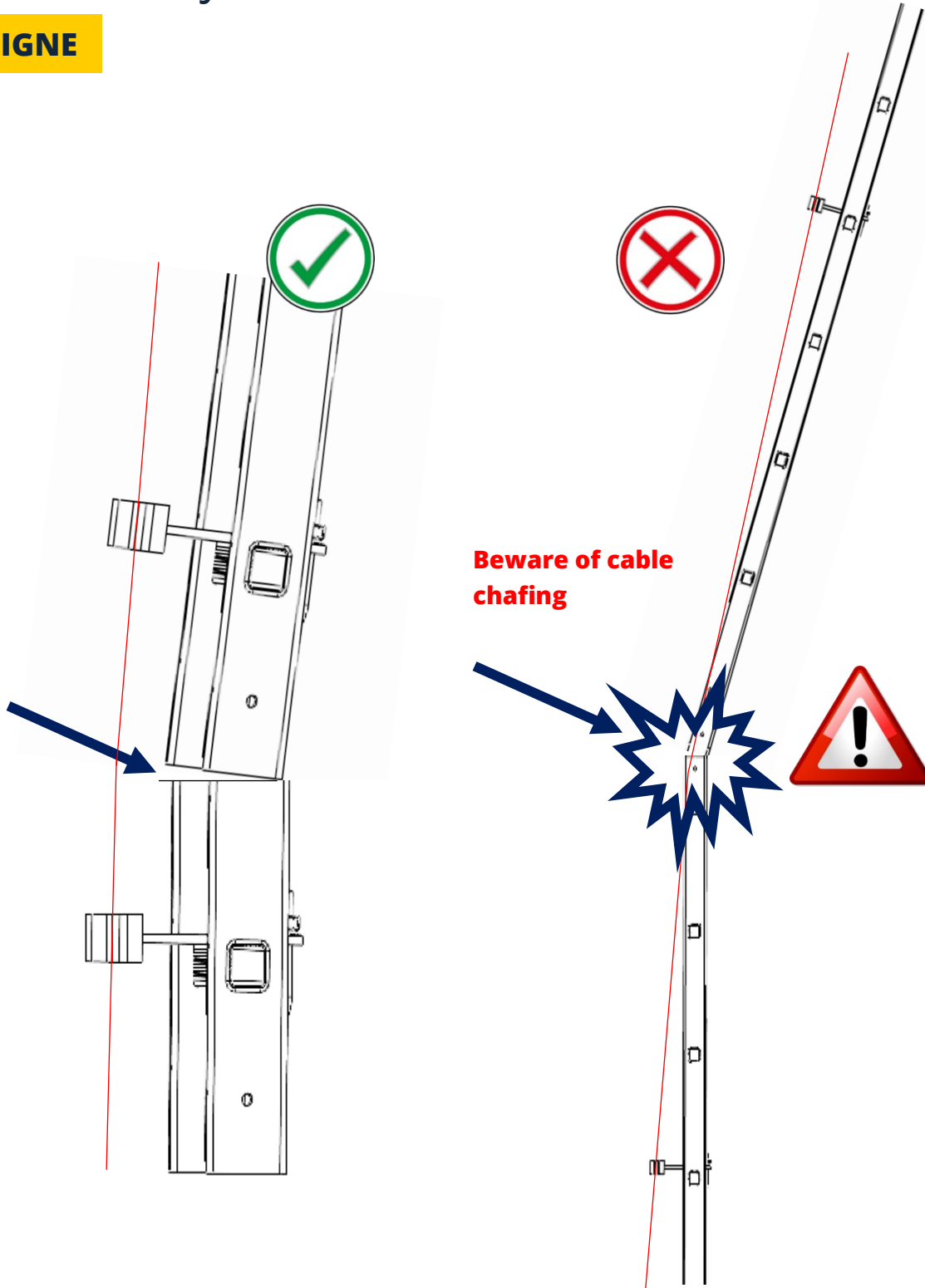


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# Vertical cable system

**VERTILIGNE**

**28**





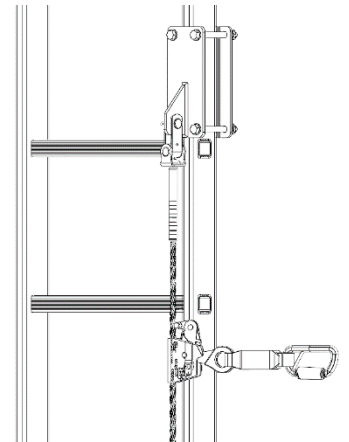


**Distributed by**

## Vertical cable system

**VERTILIGNE**

### VERTILIGNE FALL ARREST SYSTEM



Product identification	
Manufacturer / Supplier :	Delta Plus Systems
Product name / Reference :	VERTILIGNE
Normative references :	EN 353-1: 2014 + A1: 2017

Historical verification			
Date of first use :		Date of purchase :	
Maximum arrow :			
User identification			
Name :		Address:	

The controller declines all responsibility in the event of inaccuracy in the information concerning the historical verification to be carried out by the user. The user is obliged to keep a complete record of the periodic examinations and repairs carried out.

Service life / 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.) provided that the annual maintenance has been carried out by a company approved by Delta Plus Systems.</p> <p>CAUTION, an exceptional event may lead you to reject a product after a single use (type and intensity of use, environment of use: aggressive environments, marine environment, sharp edges, extreme temperatures, chemicals, etc.).</p> <p>A product must be scrapped when :</p> <ul style="list-style-type: none"> <li>- It is over 10 years old and made of plastic or textile, except for the seals, which need to be inspected regularly.</li> <li>- He has suffered a serious fall (or strain).</li> <li>- The results of the product checks are not satisfactory. You have doubts about its reliability.</li> <li>- You don't know its full history of use.</li> <li>- When its use is obsolete (changes in legislation, standards, technology or incompatibility with other equipment, etc.).</li> </ul> <p><b>Destroy these products to prevent future use.</b></p>

Comments

Good

To watch out for

Repaired

To be discarded

Visual check of components					
General condition of the cable (marks, deformations, corrosion, no contact with the structure, etc.)					
Condition of fasteners (tightness, corrosion, etc.)					
Presence of markings with normative information					



## Distributed by

Comments

Good

To watch out for

Repaired

To be discarded

Functional verification of components					
The carriage engages correctly on the system					
The ASCAB AN071 trolley runs smoothly on the cable					
Proper operation of the low end stop					
Presence of a low fixed stop if there is a risk of falling in the low parking area					

Comments :

### Inspection verdict

The product is **fit** to remain in service

The product is **unfit** to remain in service

### Identification and visa of the controller

Name :		Company	
Date of inspection :		Controller's stamp (Signature / Stamp) :	
Date of next inspection :			



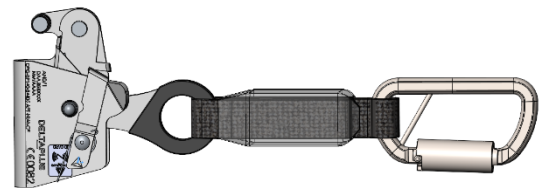
**Distributed by**

## Vertical cable system

**VERTILIGNE**

### ASCAB MOBILE TROLLEY AN071 & VERTILIGNE

Product identification	
Manufacturer / Supplier :	Delta Plus Group
Product name / Reference :	ASCAB AN071 & VERTILIGNE mobile trolley
Normative references :	EN 353-1: 2014 + A1: 2017



User identification			
Name :		Address:	
Historical verification			
Date of first use :		Date of purchase :	
Year of manufacture :			

The controller accepts no responsibility for any inaccuracies in the information concerning the historical verification to be carried out by the user.

#### Service life / 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.) provided that the annual maintenance has been carried out by a company approved by Delta Plus Systems.

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

A product must be scrapped when :

- It is over 10 years old and made of plastic or textile, except for the seals, which need to be inspected regularly.
- He has suffered a serious fall (or strain).
- The results of the product checks are not satisfactory. You have doubts about its reliability.
- You don't know its full history of use.
- When its use is obsolete (changes in legislation, standards, technology or incompatibility with other equipment, etc.).

**Destroy these products to prevent future use.**






## Distributed by






 Comments






 Good

 To watch out for

 Repaired

 To be discarded

Visual check of components					
Condition of the main body of the truck (cracks, marks, deformations, wear, corrosion, etc.)					
Textile absorber expiry date					
Condition of the textile absorber (deformation, wear, corrosion)					
Condition and locking of connectors (deformation, wear, corrosion)					
Condition of endings (cuts, wear, tears)					
The associated belay system (cable, components, etc.) is a Delta Plus branded system.					
Presence of markings with standard information on the truck					

Functional verification of components					
Proper operation of the opening system					
The trolley locks if it falls onto a vertical support					
The carriage slides correctly into place on the belay bracket					
It is impossible to open the carriage sufficiently to reach the cable if the carriage is upside down.					

Comments :

### Inspection verdict

<input type="checkbox"/> The product is <b>fit</b> to remain in service	<input type="checkbox"/> The product is <b>unfit</b> to remain in service
---	---

### Identification and visa of the controller

Name :		Company	
Date of inspection :		Controller's stamp (Signature / Stamp) :	
Date of next inspection :			