



TECHNICAL FILE

COMBIRAIL



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Inclined rail system

COMBIRAIL

PRODUCT ADVANTAGES

The COMBIRAIL inclined rail system is a personal fall protection solution designed to secure inclined structures, thanks to its bi-directional locking carriage.

Versatility

Numerous possible uses (on feet, in front, overhead, etc.) and ideal when the operator is working at a distance from the device.

Safety

Certified up to 150 kg (operator & tools included).

Innovation

Optimum safety on all types of incline from 0° to 180°.

Design

Meticulous finishes and different anodising options available.

Ease of use

Allows easy changes of inclination:

- Certified with absorber, connected sternally, for vertical use
- Certified with and without absorber, for horizontal use.

Modular

Infinite pathways are possible thanks to the switch, which ensures continuity of movement without stalling.





Inclined rail system

COMBIRAIL

PRESENTATION

The COMBIRAIL solution is a unique way of continuously securing all types of horizontal, inclined and vertical structures.

TECHNICAL SPECIFICATIONS

- Rail material: aluminium 6060 T5
- Trolley materials: aluminium alloy body, integrated shock absorber and carabiner
- RCBC trolley: can be used on structures inclined from 0 to 180°.

A simple downward pull automatically locks the carriage in position.

COMPLIANCE

- EN 353-1: 2014 + A1 2017
- EU Regulation 2016/425
- EN 795 D : 2012



- EU type-examination certificate issued by :
APAVE SUDEUROPE SAS (n°0082)
CS60193 - 13322 MARSEILLE CEDEX 16 - France
- Production monitoring carried out by :
APAVE SUDEUROPE SAS (n°0082)
CS60193 - 13322 MARSEILLE CEDEX 16 - France
- Declaration of conformity



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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CERTIFICATE OF CONFORMITY N° 19.0196/A

Translation of the certificate n°19.0196/A issued on 12/02/2020 from French to English

1. Applicant

Applicant: M. DUSSERT Sébastien
Manufacturer: VERTIC – 691 Chemins des Fontaines - 38190 BERNIN - France

2. Equipment

Type of equipment: Anchor device type D – EN 795:2012, & TS 16415:2013
Trademark: **VERTIC**
Model: **RCBC + ALTIRAIL**

3. Description

Type D anchorage device, made of:

- An anchorage line in straight rail, in 6060 T5 aluminum, 40.3x11.5,
 - reference R.RAIL_3 of 3 m, reference R.RAIL_1.5 of 1.5 m and reference R.RAIL_1 of 1m
- A rail bent at 90°
 - reference R.A90E2 inward rail, reference R.A90S2 outgoing rail
- Fixation bracket reference R.SUP
- Non-opening trolley in 316L stainless steel, with four guide rollers, including an energy absorber and a connector, reference RCBC.
- Mobile stops, reference R.BE, or fixed stop, reference R.EXTF
- Junction between two rails, reference R.ECL or reference R.RO
- Switch, reference R.AIG3D for 3 directions, reference R.AIG4D for 4 directions
- Maximum cantilevered allowed 20cm

Use floor, wall and underside, with an angle maximal allowed of 15° and for 3 peoples (test according TS 16415:2013). (Description and complete test results in report n°19.0196)

4. Technical reference

Type D anchorage system, has been evaluated according the standard EN 795:2012 and CEN/TS16415:2013 "Personal fall protection equipment - Anchor devices".

5. Condition of use

This type D anchorage system is not a Personal Protection Equipment against fall protection.
This type D anchorage system is intended to be used with Personal Protection Equipments against fall from a height.

6. Conclusion

The type D anchorage system, reference **RCBC + ALTIRAIL**, of trademark **VERTIC**, description and complete test results available in the report n°19.0196, is conforming to the requirements of EN 795:2012 and CEN/TS 16415:2013.

20/11/2020
PPE in charge of the translation

ROMAIN SAVET-VIOLA
Ingénieur technicien

This certificate includes one page. No duplicate will be issued

This type of equipment is not a Personal Protective Equipment against falls from height, the present certificate of conformity is not an EC type examination certificate delivered by a notified body

APAVE SUDEUROPE SAS Siège social : 8 rue Jean-Jacques Vemazza - Z.A.C. Saumaty-Séon - BP 193 - 13322 MARSEILLE CEDEX 16
Tél. : 04 96 15 22 60 - Fax : 04 96 15 22 61 - Site Internet : www.apave.com
Société par Actions Simplifiée au Capital de 6 648 544 € - N° SIREN : 518 720 925



In enforcement of Regulation 2016/425 of the European Parliament and of the Council of 9th 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 Sudeurope SAS, notified body identified under number 0082, awards the
APAVE Sudeurope SAS, organisme notifié identifié sous le numéro 0082, attribue l'

EU TYPE-EXAMINATION CERTIFICATE

Attestation d'examen UE de type

N° 0082/0588/160/06/19/0617

The following PPE type complies with the applicable essential health and safety requirements
Le type de l'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 – Antichute mobile incluant un support d'assurage rigide

Trademark: **VERTIC** Model: **RCBC**
Marque commerciale Modèle

This certificate is awarded to the 2 following references:
La présente attestation est attribuée aux 2 références suivantes :

- **SYSTEME COMBIRAIL AVEC CHARIOT RCBC**
- **SYSTEME VERTIRAIL AVEC CHARIOT RCBC**

Manufacturer: VERTIC - 691 Chemins des Fontaines - 38190 BERNIN - France
Fabricant

Description: **Guided type fall arrester RCBC**

Non opening guided type fall arrester, in aluminum alloy 7075T651, with four guiding wheels. Energy absorber reference 710087 integrated in the fall arrester by a shackle in stainless steel AISI304, reference 710040-3. Energy absorber in polyester webbing protected by a thermoretractable sheet, length 150mm, with a connector with a captive pin reference 710053.

Rigid anchorage line COMBIRAIL and VERTIRAIL

Aluminum 6060T5 square rail dimension 40mm with one side grooved. The lower and upper ends are equipped with a removable tilting end stop kit, reference R.BE. The upper ends are equipped with a removable end stop kit reference R.BE or with a fix end stop kit reference R.EXTF. Fixing bracket, reference R.SUPECH. Junction of the rails with spline reference R.ECL in S355 steel or with removable rail reference R.RO.

Maximum span 1,5m. Orientation of use: vertical with a sideways leaning angle from 0° to 15° and a front leaning angle up to 74°, by 3 persons. Minimum rated load of 50kg and maximum rated load of 150kg.

Equipment also tested according to the requirements of VG11 RfU 11.116:2018, for use with a front leaning angle up to 74°, and according to VG11 RfU 11.119:2018 for use by 3 persons (detailed description in the EU Type Examination report 19.0082).

Description: **Antichute mobile RCBC**

Antichute mobile, non ouvrable, en alliage d'aluminium 7075T651, avec quatre roulettes de guidage. Absorbeur d'énergie référence 710087 intégré à l'antichute par une manille en acier inoxydable AISI304, référence 710040-3. Absorbeur en sangle polyester, protégé par une gaine thermoretractable, longueur 150 mm, et équipé d'un connecteur avec une barrette référence 710053.

Support d'assurage rigide COMBIRAIL et VERTIRAIL

Rail en aluminium 6060T5, de section carrée de 40mm de côté muni de cannelures sur un côté. Les terminaisons en extrémité hautes et basses sont équipées d'une butée amovible, référence R.BE ou d'une butée fixe, référence R.EXTF. Fixation du rail, référence R.SUPECH. Jonction des rails avec éclisse référence R.ECL en acier S355 ou éclisse pour rail ouvrante R.RO.

Portée maximale 1.5 m. Orientation d'utilisation : avec un angle d'inclinaison latéral de 0° à 15°. Charge nominale minimale 50 kg et charge nominale maximale 150 kg.

Équipement également testé selon les exigences de la fiche VG11 RfU 11.116 :2018 pour une utilisation avec un angle d'inclinaison avant jusqu'à 74°, et suivant la fiche RfU11.119 :2018, pour une utilisation par 3 personnes (description détaillée dans le rapport d'examen UE de type 19.0082).

Technical referential in use: EN 353-1:2014+A1:2017
Référentiel technique utilisé

Date of signature (day/month/year): 05/06/2019
Date de signature (jour/mois/année)

Date of issue (day/month/year): 05/06/2019
Date de délivrance (jour/mois/année)

Date of renewal (day/month/year): first edition
Date de renouvellement (jour/mois/année) 1^{ère} édition

Date of expiry (day/month/year): 05/06/2024
Date d'expiration (jour/mois/année)

PPE Certification Manager
Le Responsable de la Certification EPI
Immaterial original



Vincent Maillecheau
Validation électronique



Accréditation N° 5-0596
Scope available on
Portée disponible sur
www.cofrac.fr

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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 18
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 18, 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



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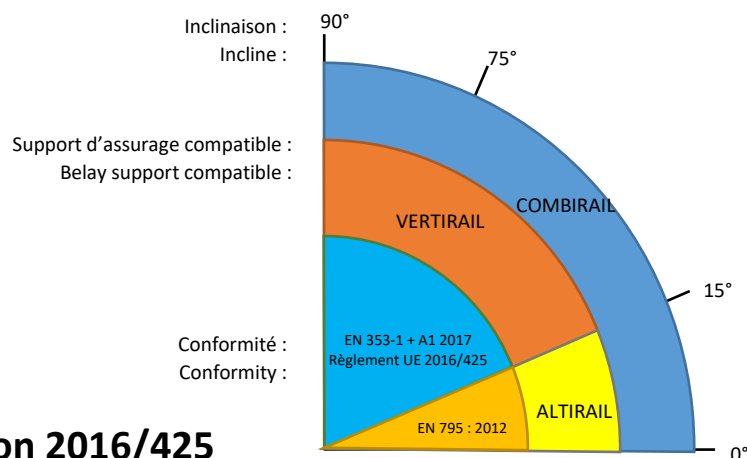
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COMPLIANCE

The RCBC mobile fall arrester and its anchoring support comply with :

EN 353-1 + A1 2017 and EU Regulation 2016/425



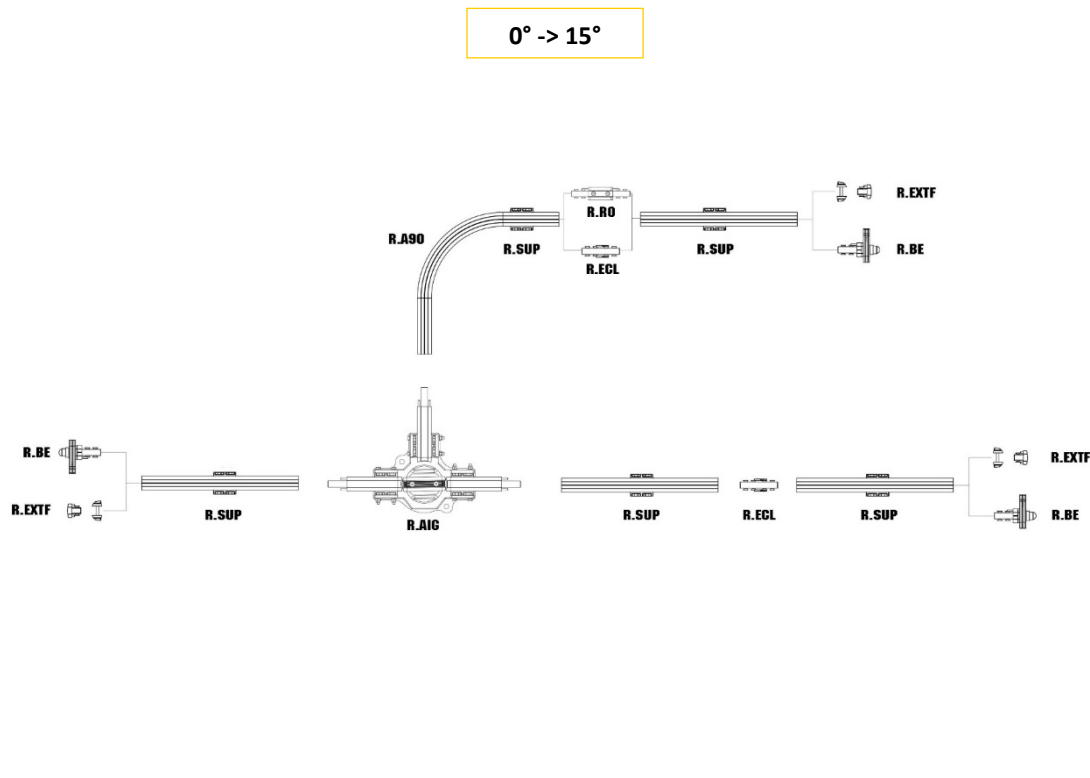
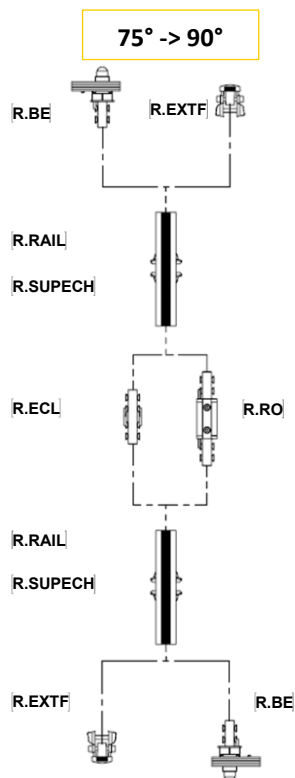
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 Certificado de examen UE de tipo expedido por : **CS60193 - 13322 MARSEILLE**
 EU - Baumusterprüfbescheinigung ausgestellt von : **CEDEX 16 - France**

Production monitoring by : **APAVE SUDEUROPE SAS** (n°0082)
 Production monitoring by : **APAVE SUDEUROPE SAS** (n°0082)
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 Produktionsüberwachung von : **CEDEX 16 - France**

EN 795 : 2012

Certificate of conformity issued by : **APAVE SUDEUROPE SAS** (n°0082)
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Download the RCBC declaration of conformity via this QR code



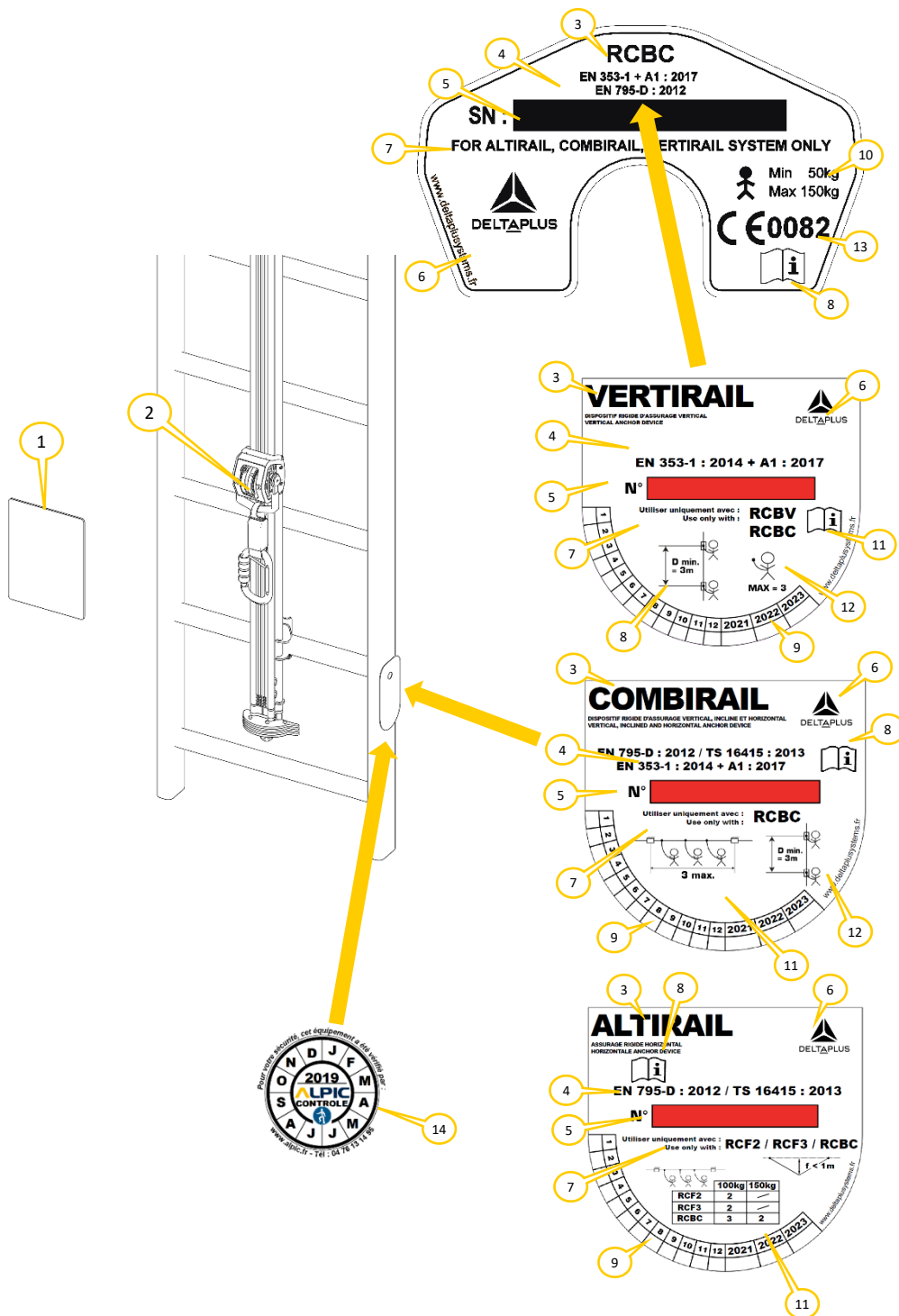


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- 1 PPE must be worn
- 2 Date of manufacture
Expiry date of the product
- 3 Product reference
- 4 Standard to which the equipment conforms
- 5 Serial number
YY : Year
MM: Month
0000 : Unique number
Manufacturer's name
- 6 Compatible component
- 7 Pictogram inviting you to read the instructions
- 9 Date of first commissioning
- 10 Minimum and maximum rated loads
- 11 Maximum number of people authorised to connect simultaneously :
0° > 75°: 3 max on the belay support
75° > 90° :
Max 2 pers. < 150 Kg
Max 3 pers. < 100 Kg between two intermediate anchors
- 12 Safety distance between 2 users
- 13 Notified body responsible for production control
CE 0082
APAVE SUDEUROPE SAS
CS60193 - 13 322 Marseille - Cedex 116 - France
- 14 Do not use for lifting
- 15 Date of installation
- 16 Date of periodic inspection
- 17 Date of periodic inspection



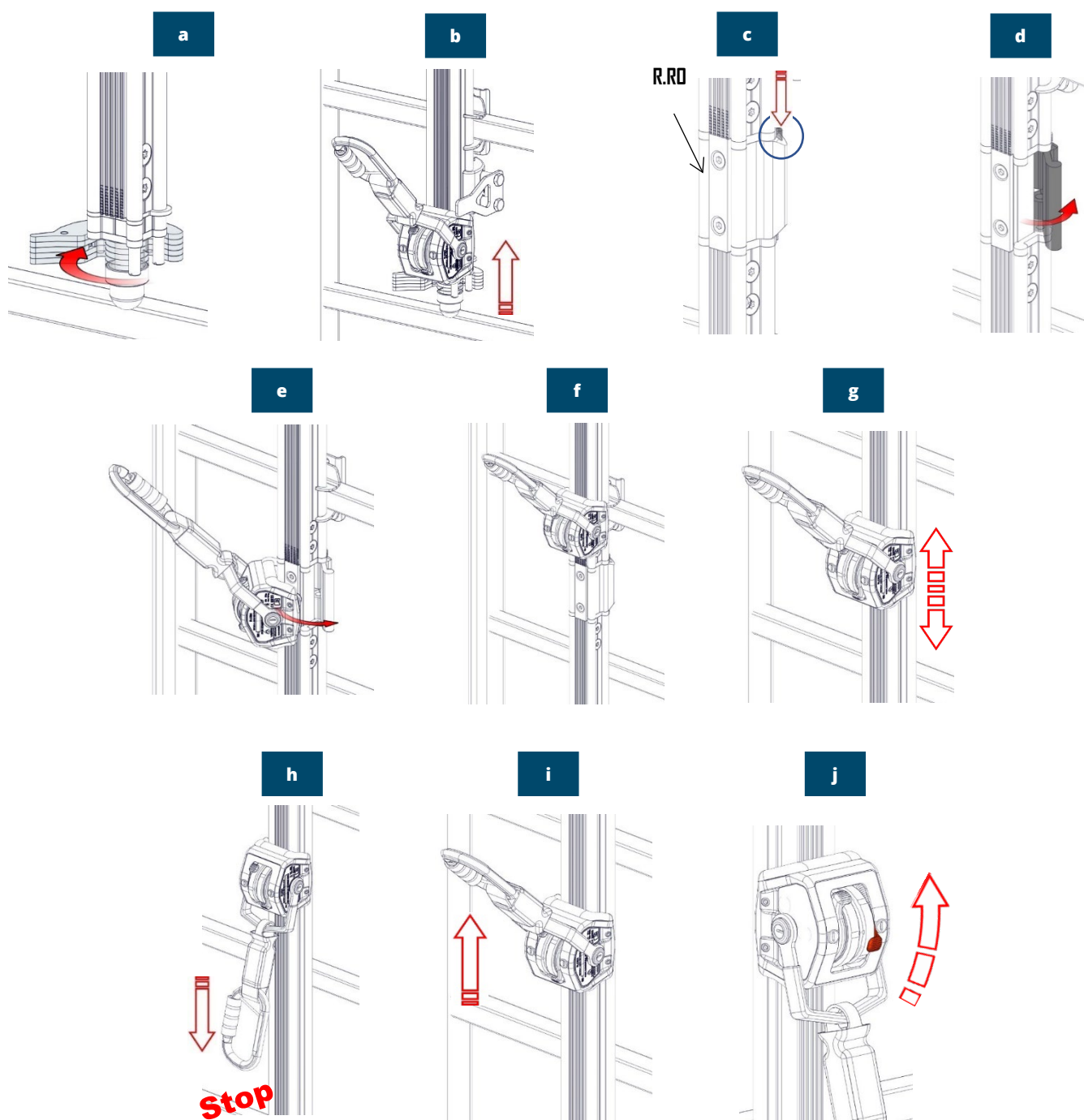


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RCBC trolley





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INFORMATION

These instructions are intended for users of the RCBC and its belay devices. It must be read and understood by everyone before using the product. If you have any doubts or problems understanding or if a problem arises which is not covered in this document, please contact your DELTAPLUS SYSTEM representative or the DELTAPLUS SYSTEM 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 the first country of destination, that the reseller provides the instructions for use, the instructions for maintenance, for periodic examinations as well as the instructions relating to repairs, written in the language of the country in which the product is used. Any activity at height is dangerous and may cause accidents, serious injury or death. You are responsible for practising 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 receive appropriate training.

Instructions for use & technical description

The RCBC has the special feature of being able to secure the user's progress along the rail over an angular range of 0 to 90°.

When used between 0 and 75° :

The RCBC and its belay support form PPE

complies with EN 353-1 + A1 2017 and EU PPE Regulation 2016/425

The temperature of the working environment must be higher than -30°.

The user must connect his harness complying with EN 361 via the sternal attachment point to the mobile fall arrester using the integrated connector complying with EN 362.

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

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 150 kg (including tools and equipment).

The belay system is designed to be used by three people simultaneously, each with their own RCBC trolley, with a minimum safety distance of 3 metres between them.

When used between 75° and 90° :

The RCBC and its belay support form an anchoring system that complies with standard EN 795 class D: 2012 and CEN/TS 16415: 2013.

This system is designed to arrest the fall of one or more people and must not be used to lift loads.

To minimise the height of fall, the lifeline should preferably be located as high as possible in relation to the user's working area.

The system must be used in conjunction with a set of PPE that complies with and is compatible with the configuration on site.



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system security.

The stopping distance of the fall arrest system used must be compatible with the available air draught on the site.

- Rail deflection (800mm max)
- + LL lanyard length
- + Deployment of the DLAbs absorber
- + User height T (usually 1.80m)
- Rail height H
- + Safety distance 1m
- = Clearance required

If an adjustable link is used, the user should take care to optimise the length in order to limit the possible height of fall and reduce the risk of tilting.

The user must connect his harness, via the sternal attachment point, to the mobile fall arrester using the integrated connector or directly to the plastic-coated stirrup if the fall arrester link already includes an absorber.

The belay system is designed to be used by three people simultaneously between each intermediate support, each of whom must have their own RCBC.

Whatever the angle of use:

The carriage connects and disconnects at the ends of the rail (1 - 2) or at an opening part ref. R.RO (3-6).

These actions must be carried out in a safe position, or using a separate personal protection system. The trolley has been designed to move freely on the rail without manual intervention (7): holding the locking mechanism or manipulating the trolley while moving may prevent it from locking in the event of a fall. Do not hold the trolley.

The carriage is locked in the event of a fall by the action of the cam on the rail (8).

To release the carriage, pull the connector in the opposite direction to the fall (9), if necessary push the button to help release (10).

There is no limit to the length of the climbing protection system. All points on the rigid belay support at which the mobile fall arrester could exit must be fitted with an R.EXTF or R.BE stop.

After use, never leave the trolley connected to the rail, clean it (see maintenance section) then store it in the waterproof pouch supplied. Protect it from shocks, humidity and excessive temperatures (+10°C / +40°C) during transport and storage.

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.

it should be readjusted correctly from a safe location.

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

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



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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.

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.

CAUTION DANGER :

- ▶ Make sure 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 Systems parts to ensure compatibility when assembling the COMBIRAIL system.
- ▶ The fall prevention function is only available in one direction. It is essential to observe the direction of installation (arrow on carriage pointing upwards).

Control - Points to check

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

Make sure that the product markings are legible.

Check that the fall-arrest system you have complies with and is compatible with those recommended.

Check that periodic checks and maintenance of the lifeline are up to date. Carry out a visual and functional check of

the entire lifeline, as well as the RCBC and its textile absorber.

The fixed end stop has plastic parts; if it is damaged, the safety of the user is not at stake, only the comfort of use will be impaired. Use the system identification and verification sheet to carry out these checks.

For each installation, a qualified person must check and certify that the anchoring device is suitable for the area to be secured and for the strength of the structure and interfaces on which it is installed. This verification may be carried out by calculation or by testing. Particular attention must be paid to the choice of fixings.

The strength of the anchoring device is directly linked to the quality of the support. Compliance can only be established if the materials making up the support are free from any manufacturing defect or loss of performance (ageing, overloading, corrosion, etc.).

The force induced by the fall is a maximum of 12kN. Its direction depends on the inclination of the installation, but it is likely to be directed towards the ground.

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

If in doubt, remove the product for a thorough check using the identification and equipment verification sheets. **In the event of non-compliance, destroy these products to prevent future use.**

Service life - Disposal

For Delta Plus Systems products, plastics and textiles, the maximum service life is 10 years from the date of manufacture. There is no limit for metal products.



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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.).

Destroy these products to prevent future use.

System warranty

The warranty begins on the date of delivery of the equipment or installation by Delta Plus Systems. It lasts for 10 years provided that annual maintenance has been carried out by a company approved by Delta Plus Systems. Delta Plus Systems warrants this product against defects in materials and workmanship. The following are excluded from the warranty: normal wear and tear, oxidation, modifications or repairs, improper storage, improper maintenance, damage due to accidents, negligence or use for which this product is not intended.

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 can 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.



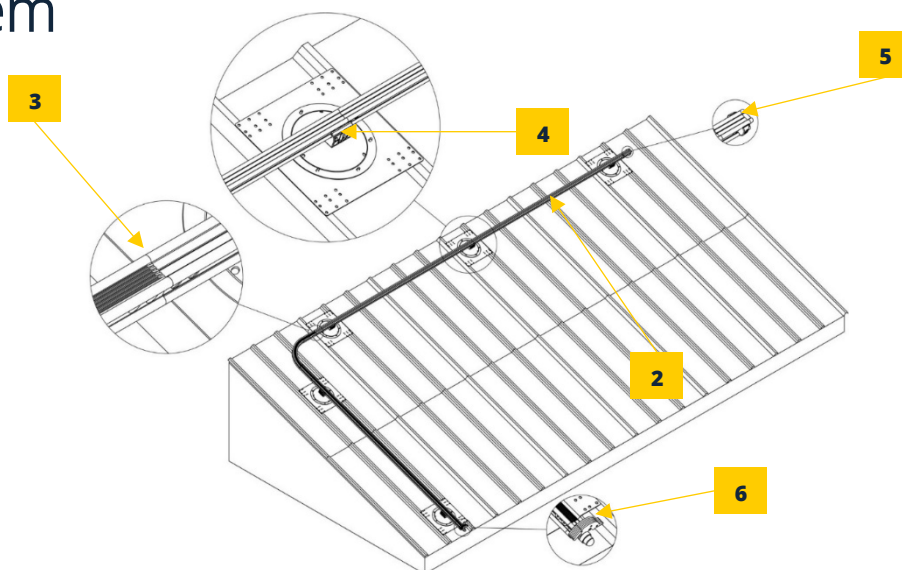
Delta Plus Training - 691,
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Cidex 8F - 38190 BERNIN -
France



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GENERAL NOMENCLATURE



1

WVRBCB bi-directional blocking trolley

Integrated shock absorber and karabiners - Aluminium alloy body

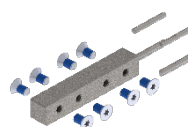


2

Belay rail

WVLRRAIL

Available in lengths of : 1, 1.5 and 3m. Material: 6060 T5 aluminium. Anodised on request.



3

Splint

WVRECL

Ensures rail alignment
4 A4 screws pre-coated with threadlocker



4

Rail support

WVRSUP

Maximum distance between 2 brackets: 4m when securing 2m for suspended work.



5

Fixed stop

WVREXTF

Prevents the carriage from sliding off the rail - Secured with 3 self-drilling screws (A2).



6

Opening stop

WVRBE

Enables the carriage to be inserted into the rail. Automatic closing of the stop.



7

Opening splint

WVRRO

Enables the carriage to be inserted at any point on the rail and acts as a jointing plate.

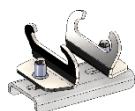


8

Safety sign

WVRPS

System identification and display of normative information.



9

Ladder rail support

WVRSUPECH

Prevents the carriage from sliding off the rail - Secured with 3 self-drilling screws (A2).



10

Manual switch

WVRIG3D or 4D

Available in 3 or 4 directions. Allows changes of direction without disconnection.



11

Motorised switch

WVRIG3DM or 4DM

Available in 3 or 4 directions. Operated by remote control. Allows changes of direction without disconnection.



12

Switching remote control

WVREM3 or 10

Used to control motorised points remotely. Can control up to 9 different points.



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GENERAL NOMENCLATURE



13

90° external angle

WVRA90S

For lateral movement of the trolley. 250 mm radius. Front installation.



14

90° inside angle

WVRA90E

For lateral movement of the trolley. 250 mm radius. Front installation.



15

90° external angle

WVRA90S2

For circulation on the underside of the carriage. Front or ceiling installation.



16

90° inside angle

WVRA90E2

For circulation on the underside of the carriage. Front or ceiling installation.



17

Rail support

WVRIAFS

Allows the installation of a rail angle on the front in a lateral position.

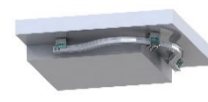


18

Rail support

WVRIAFS2

Enables a rail angle to be installed on the front in the overhead position.



19

Rail support

WVRIAFS2SF

Allows an angle rail to be installed on the ceiling in the overhead position.



20

Rail support

WVRIAS

Allows installation of a rail angle on the façade



21

Rail support

WVRIAS2

Allows installation of a rail angle on the façade



22

Rail support

WVRIAS2SF

Allows installation of a rail angle on the façade



23

Fixing bracket

WVREQG

Material: hot-dip galvanised steel



24

Fixing bracket

WVREQI

Material: 304L stainless steel



25

Anti-return system

WVRANTIR

Used to manage trolley flows or create "storage" areas to hold trolleys in position. Do not use as an end stop.



26

Anti-return system

WVRANTIR

Aluminium non-return system



27

Coding device

WVRDET

Ensures that the carriage is inserted on the rail in the correct direction of use



28

Drilling tool

WVROUTP

Template for drilling the rail.

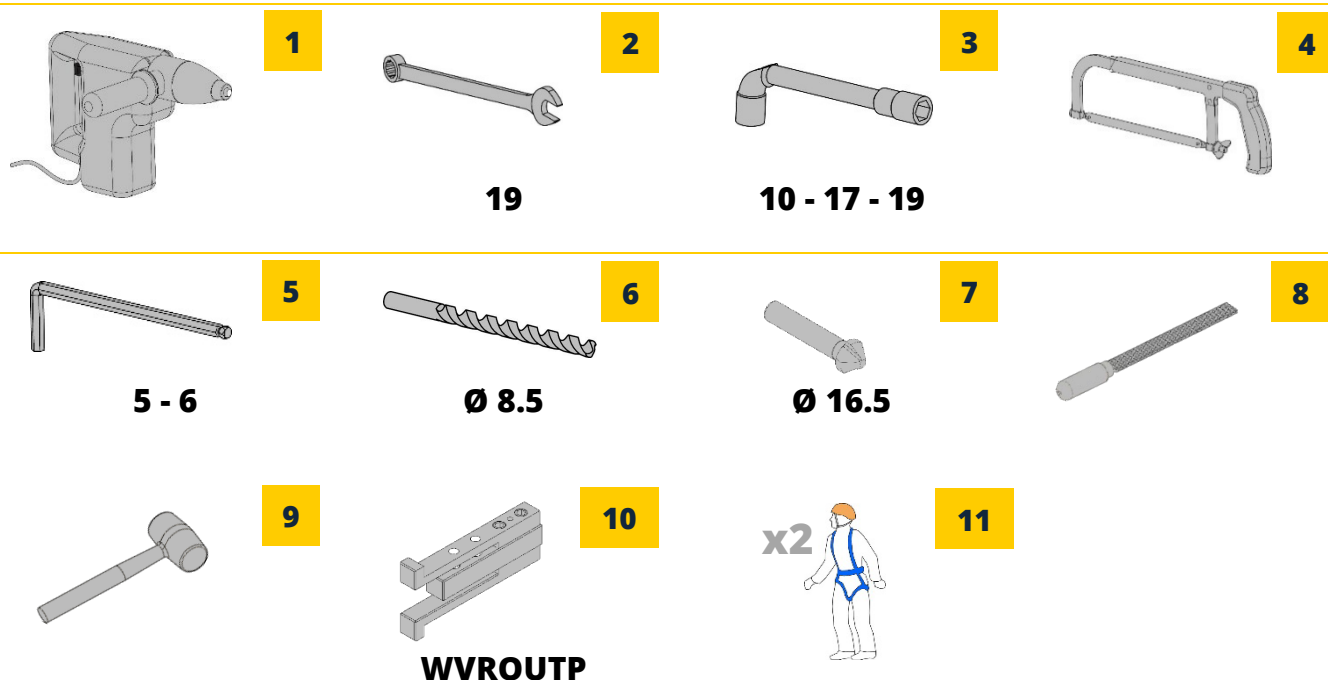


Distributed by

Inclined rail system

COMBIRAIL

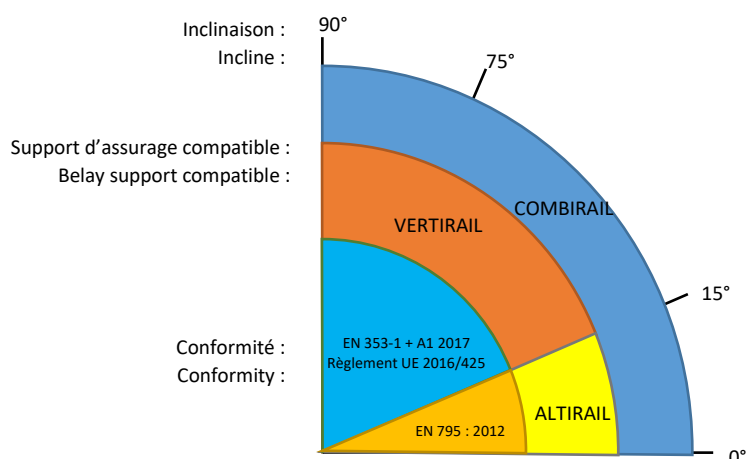
TOOLS & PERSONNEL REQUIRED



The COMBIRAIL system combines the ALTIRAIL and the VERTIRAIL system.

When the inclination is between 0 and 75°, the VERTIRAIL installation rules apply.

Between 0° and 15°:
refer to the ALTIRAIL installation rules.



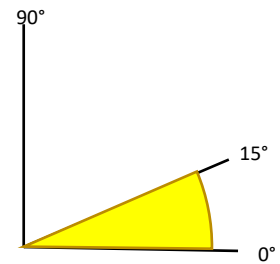
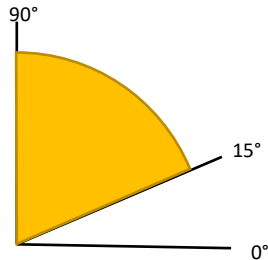


Distributed by

Inclined rail system

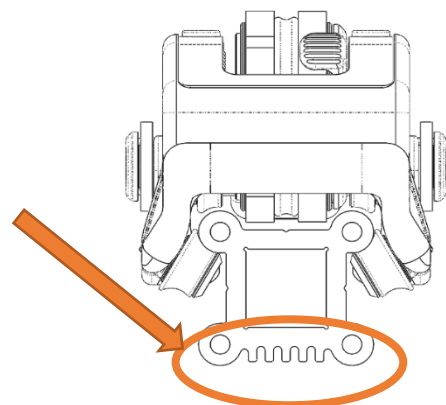
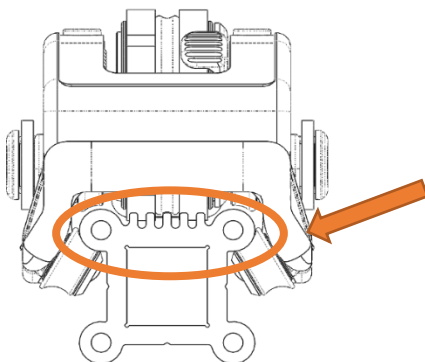
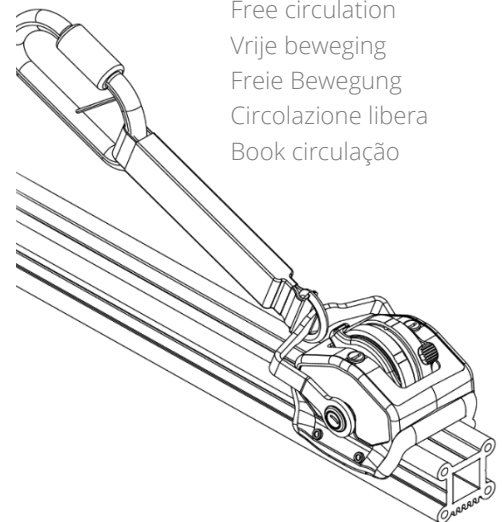
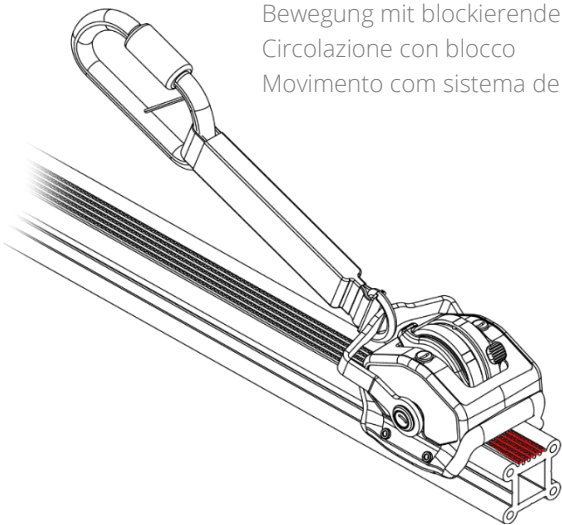
COMBIRAIL

PRE-REQUISITES



Blocked traffic
Movement with blocking system
Circulation with blocking
Beweging met blokkeringsysteem
Bewegung mit blockierendem System
Circolazione con blocco
Movimento com sistema de bloqueio

Free circulation
Free movement
Free circulation
Vrije beweging
Freie Bewegung
Circolazione libera
Book circulação

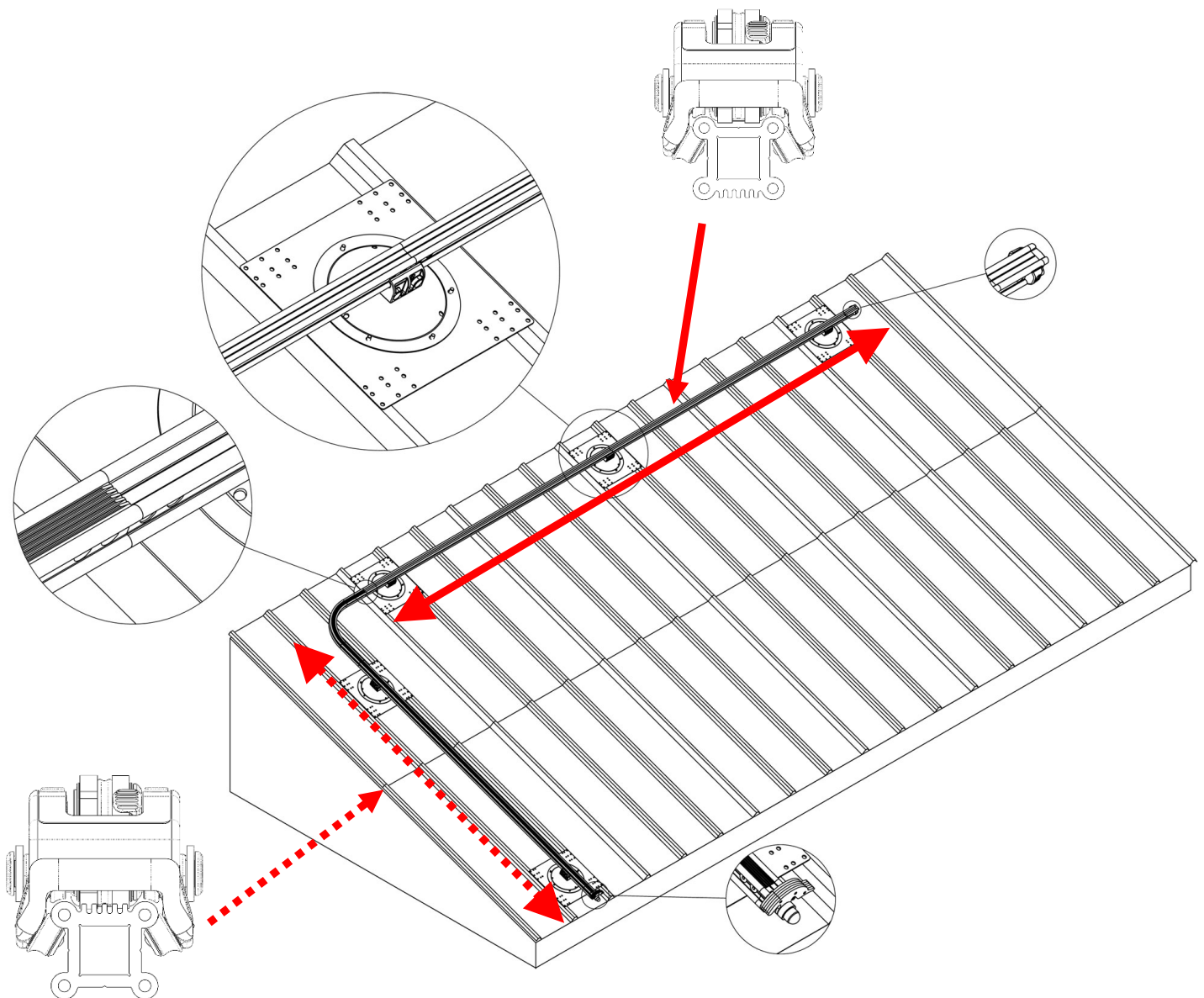




Distributed by

Inclined rail system

COMBIRAIL

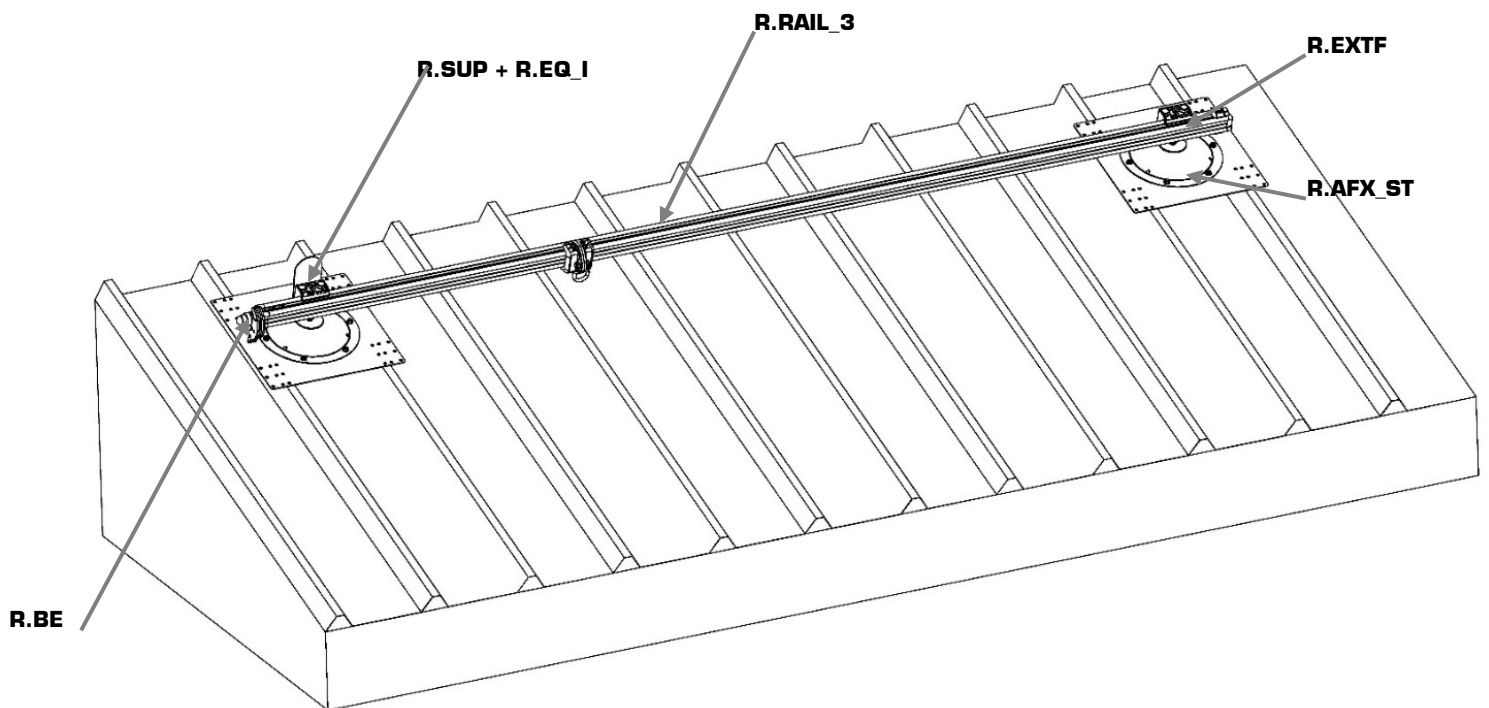
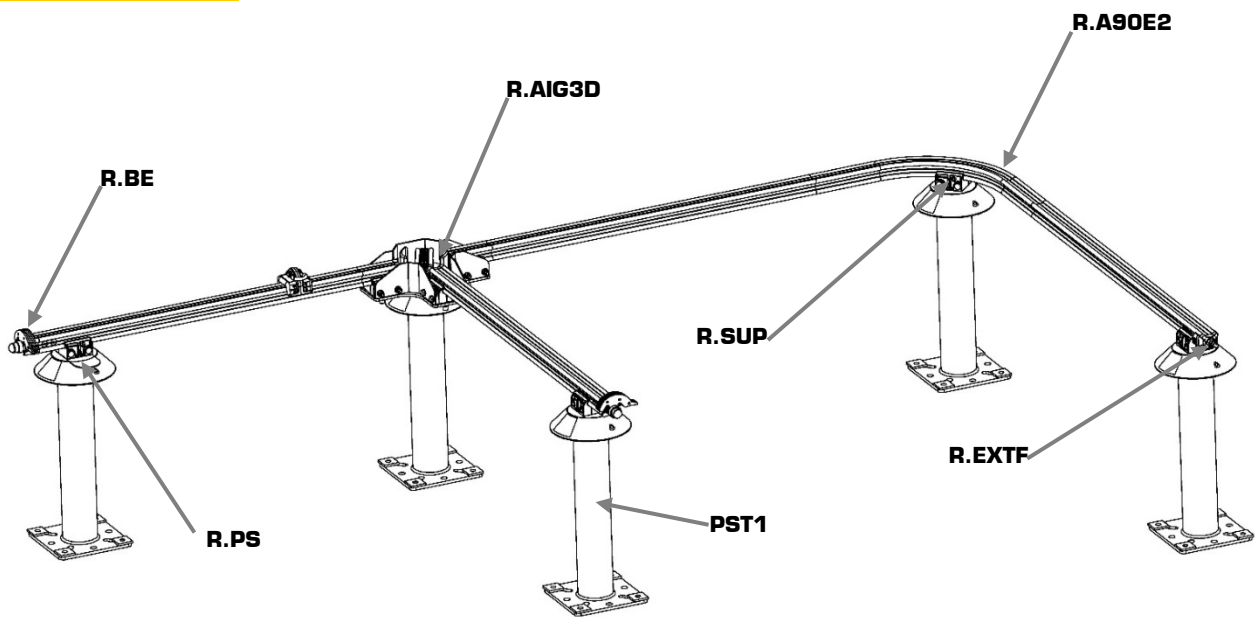




Distributed by

Inclined rail system

COMBIRAIL

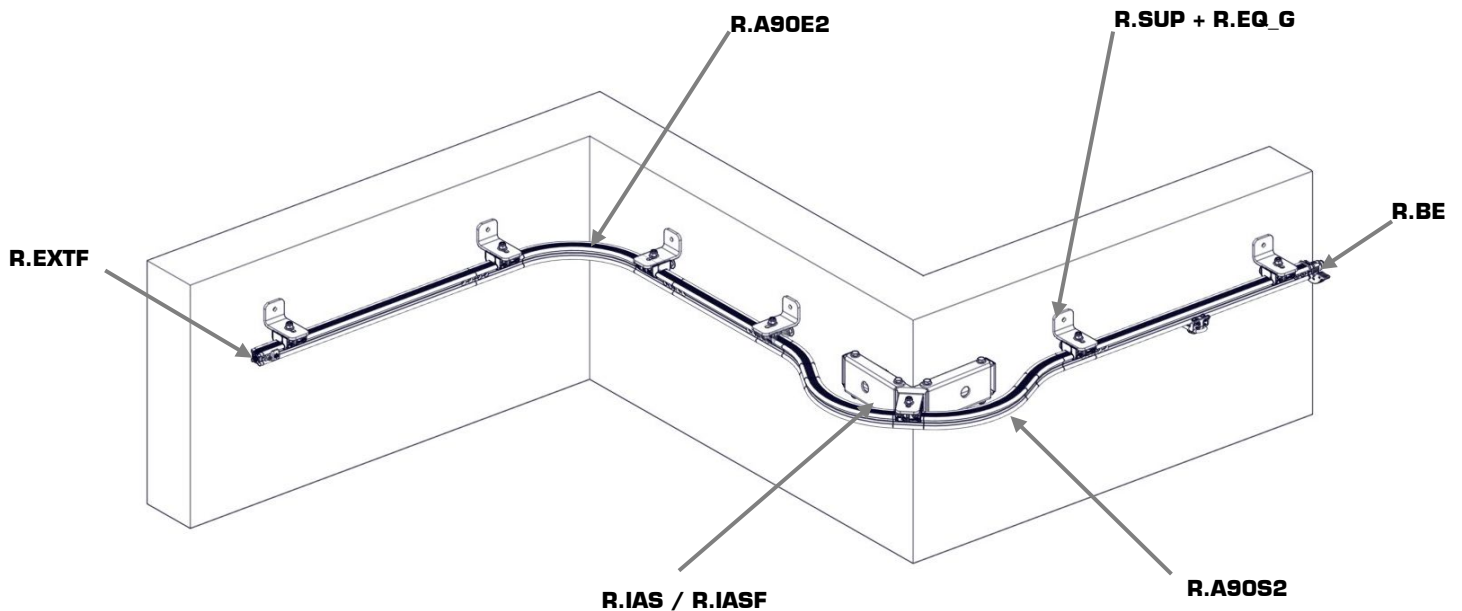
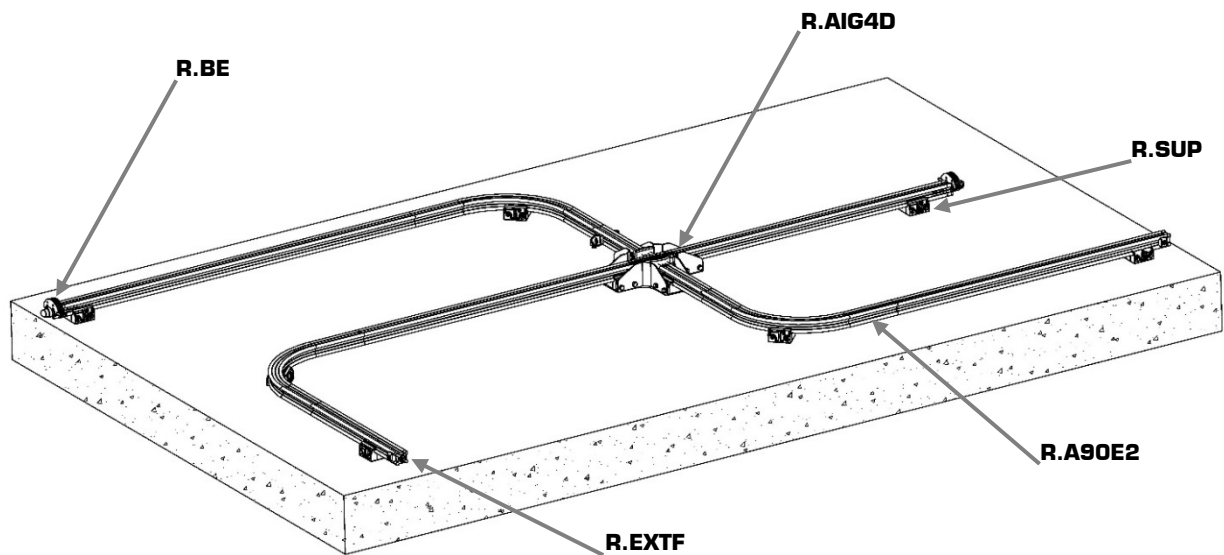




Distributed by

Inclined rail system

COMBIRAIL





Distributed by

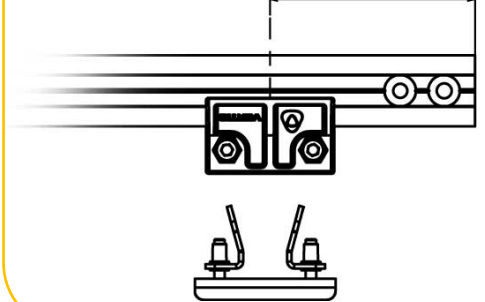
Rail systems

ALTIRAIL & COMBIRAIL

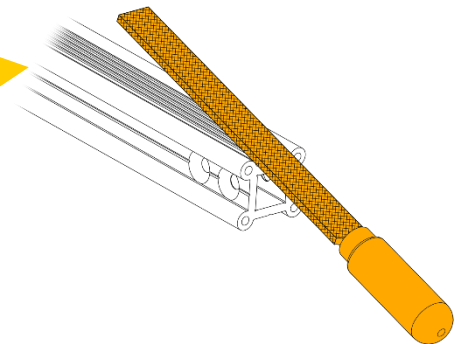
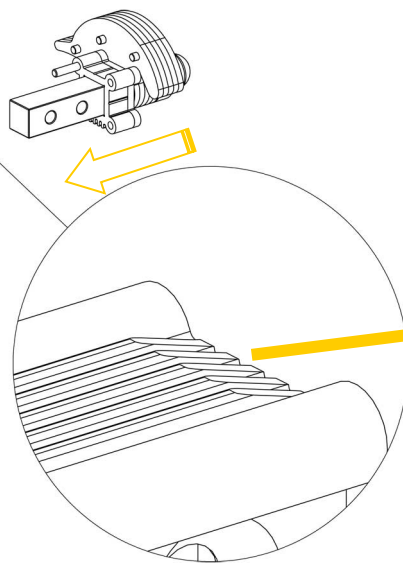
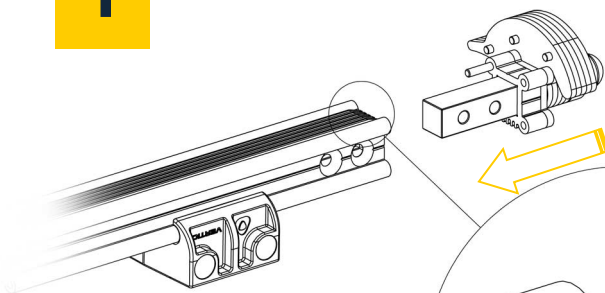
OPENING STOP - WVRBE



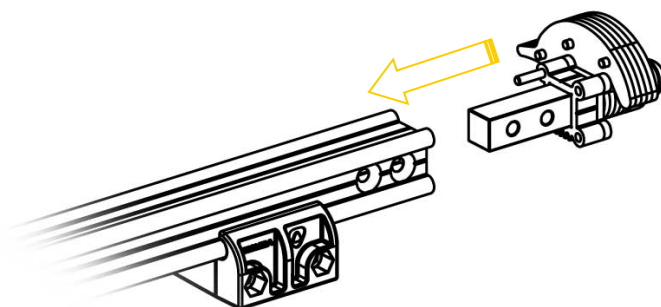
$100 < d < 200$



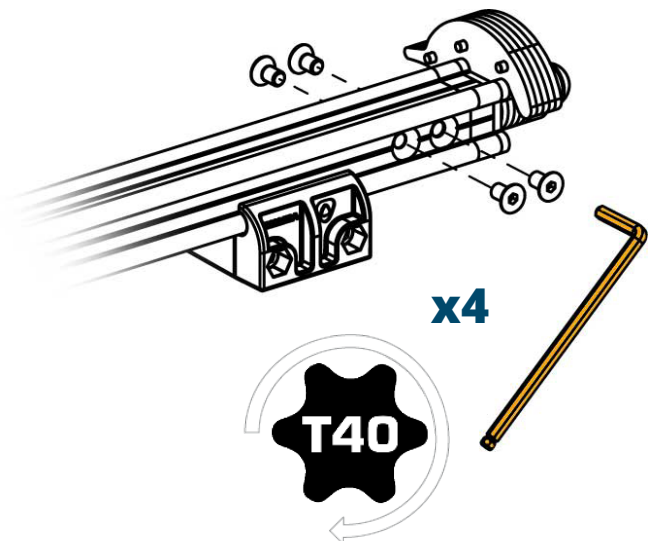
1



2



3



x4

T40

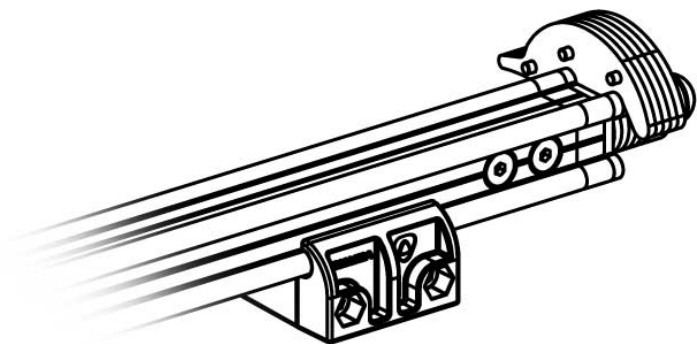


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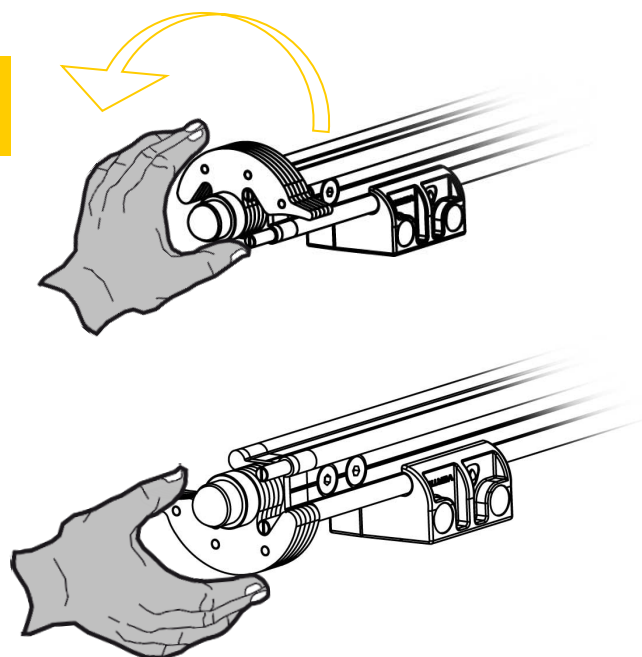
Rail systems

ALTIRAIL & COMBIRAIL

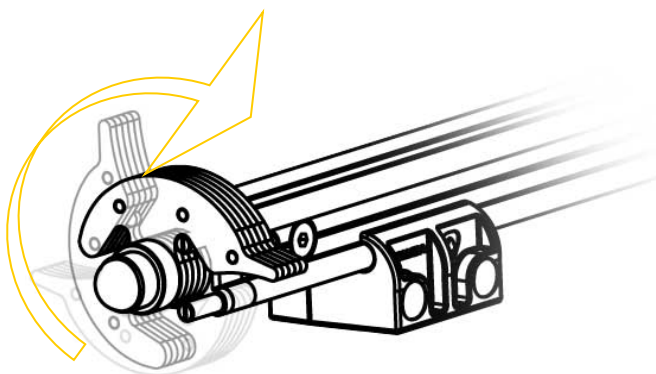
4



5



6



'CLIC'



Distributed by

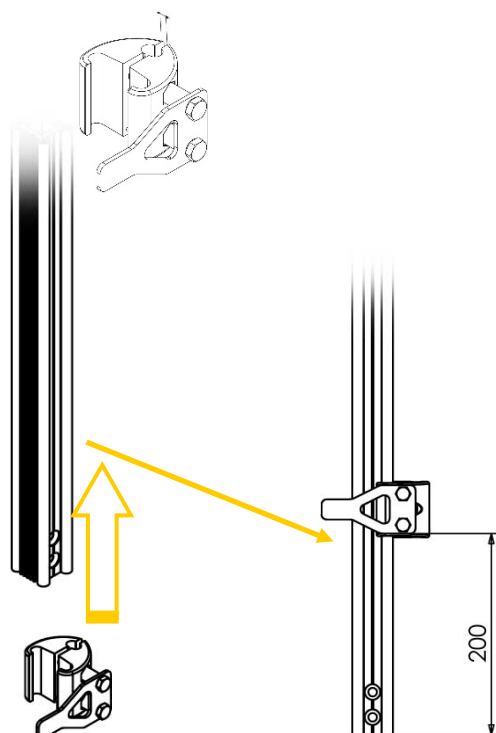
Rail systems

ALTIRAIL & COMBIRAIL

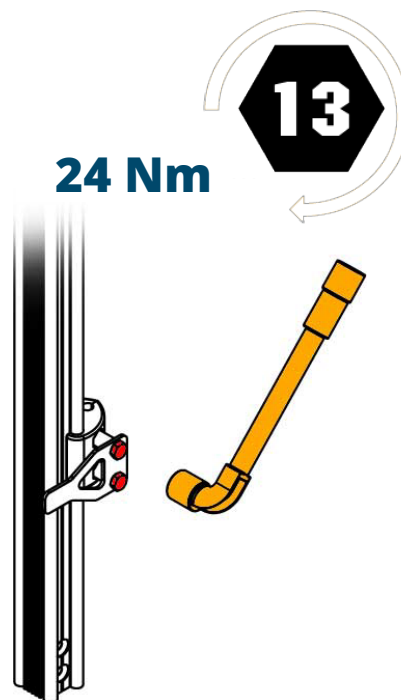
CLEAR DEVICE - WVRDET



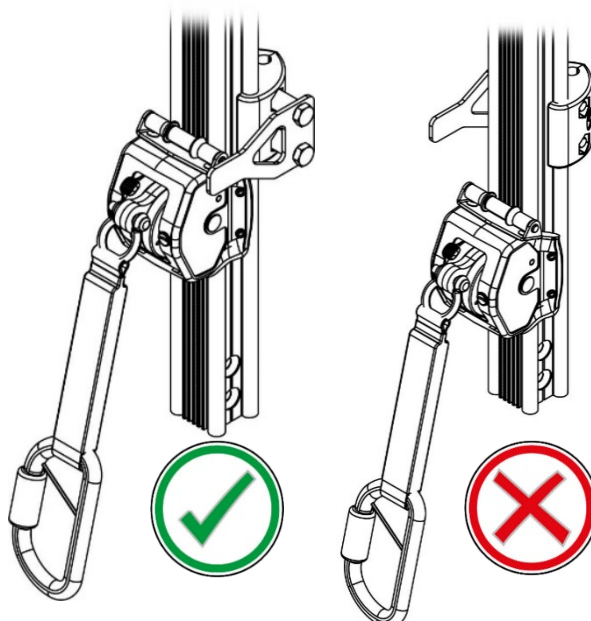
1



2



3



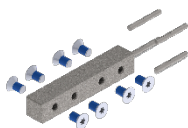


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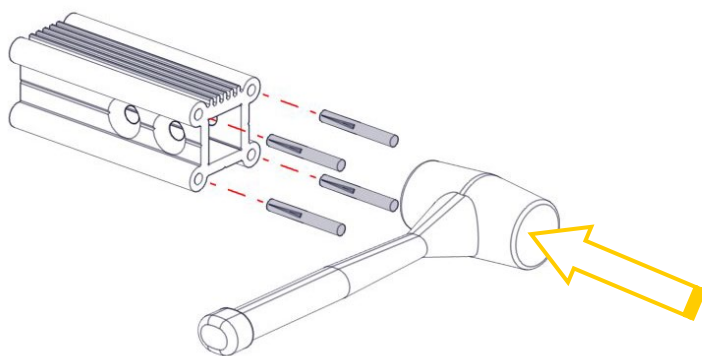
Rail systems

ALTIRAIL & COMBIRAIL

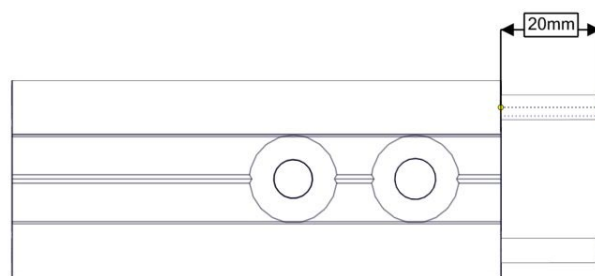
JOINT - WVRECL



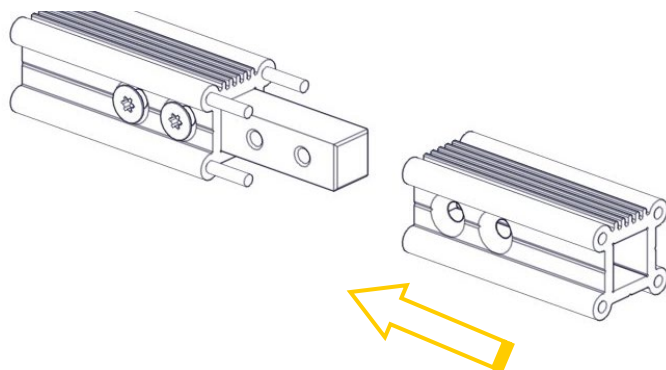
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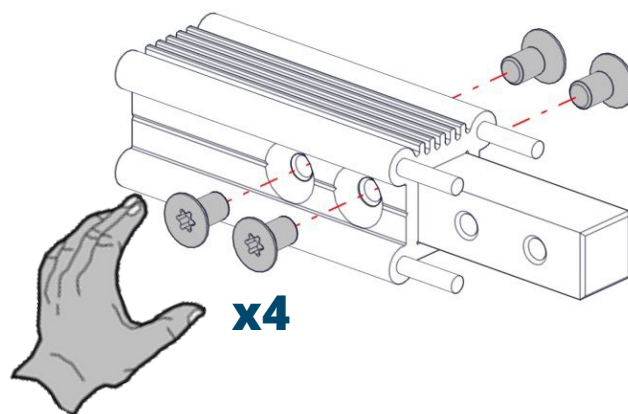
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3



4



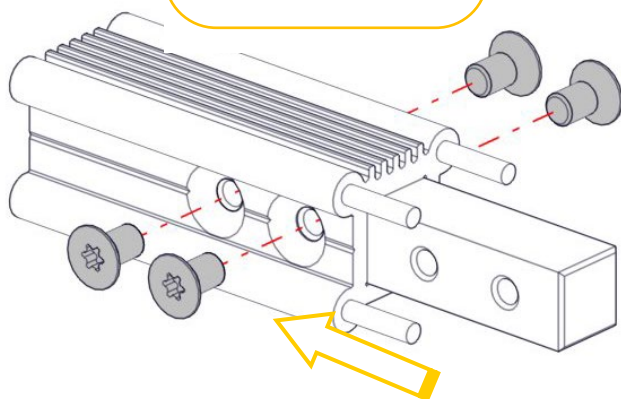
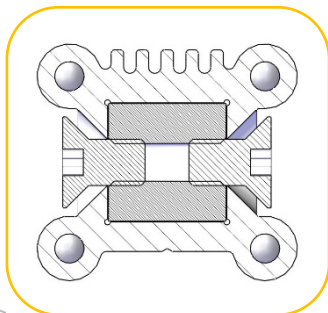


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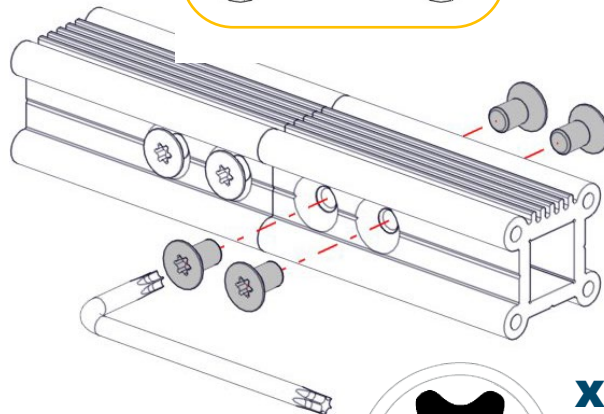
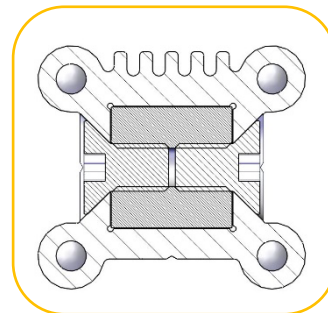
Rail systems

ALTIRAIL & COMBIRAIL

5



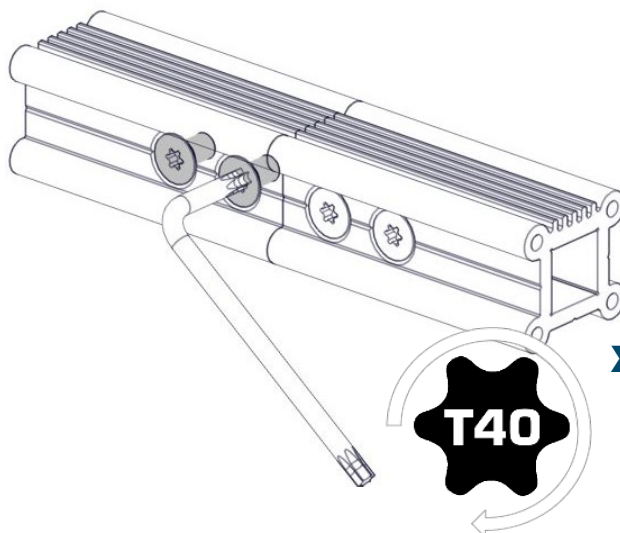
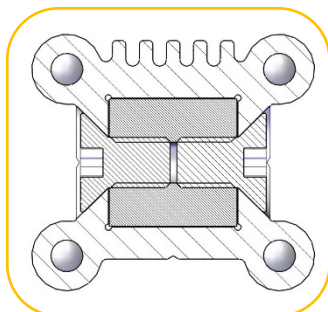
6



x4

T40

7



x4

T40



Distributed by

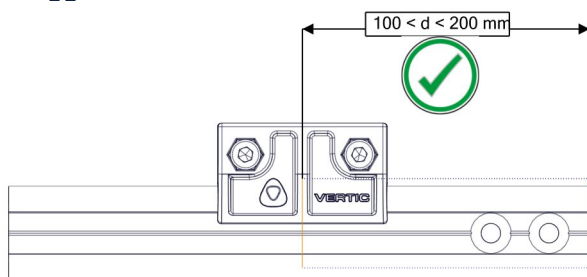
Rail systems

ALTIRAIL & COMBIRAIL

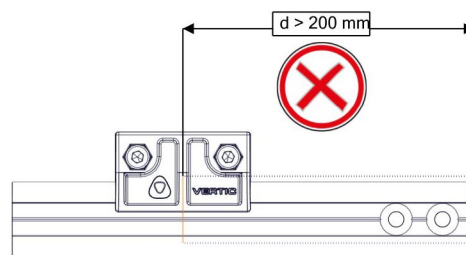
FIXED END-STOP - WVREXTF



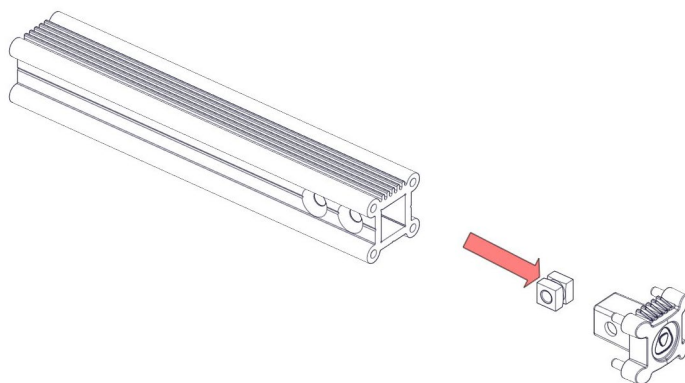
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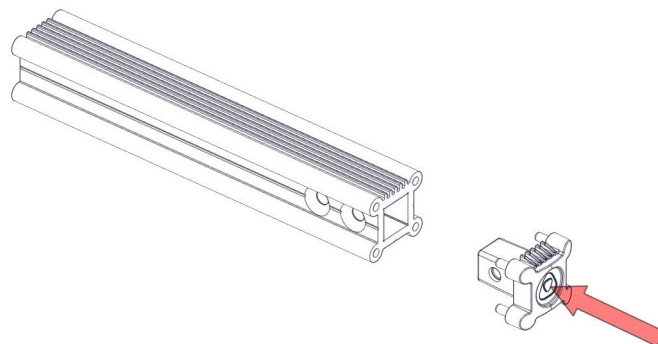
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3



4



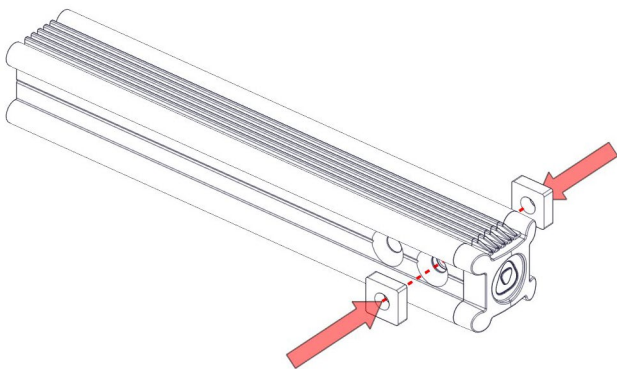


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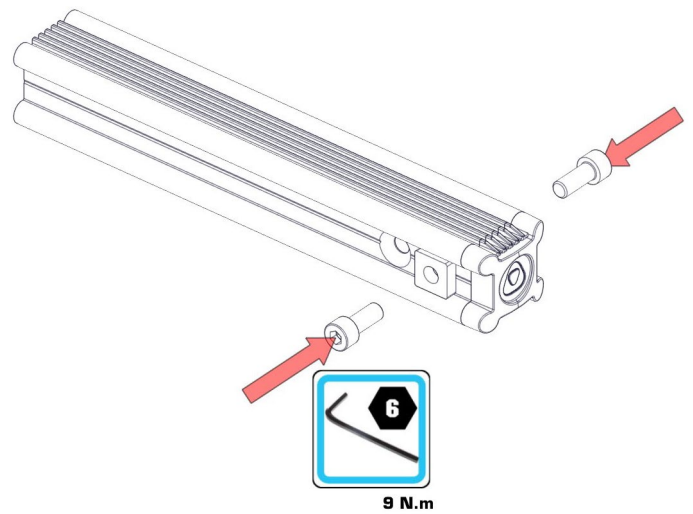
Rail systems

ALTIRAIL & COMBIRAIL

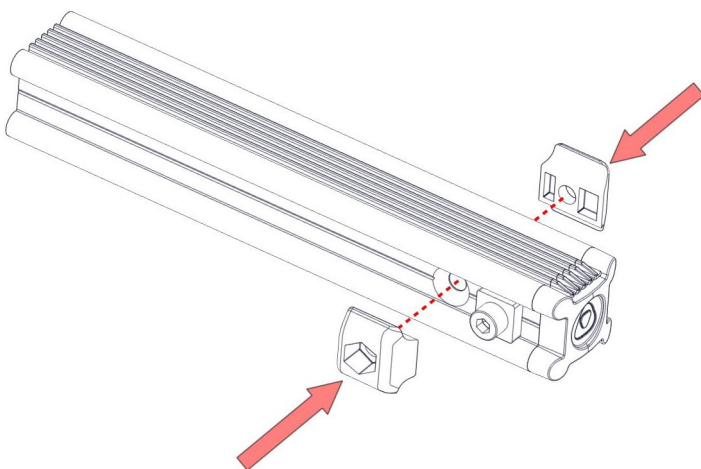
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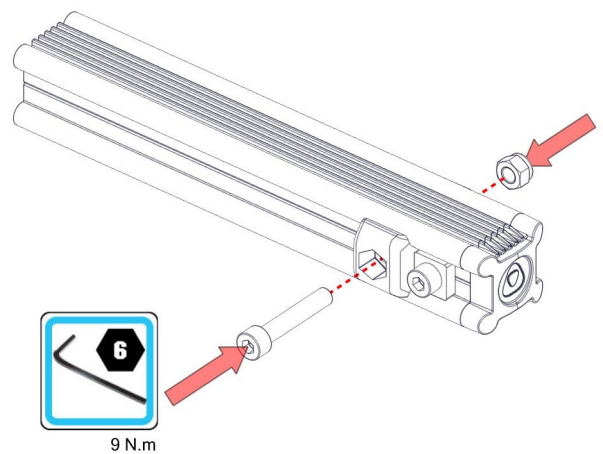
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7



8



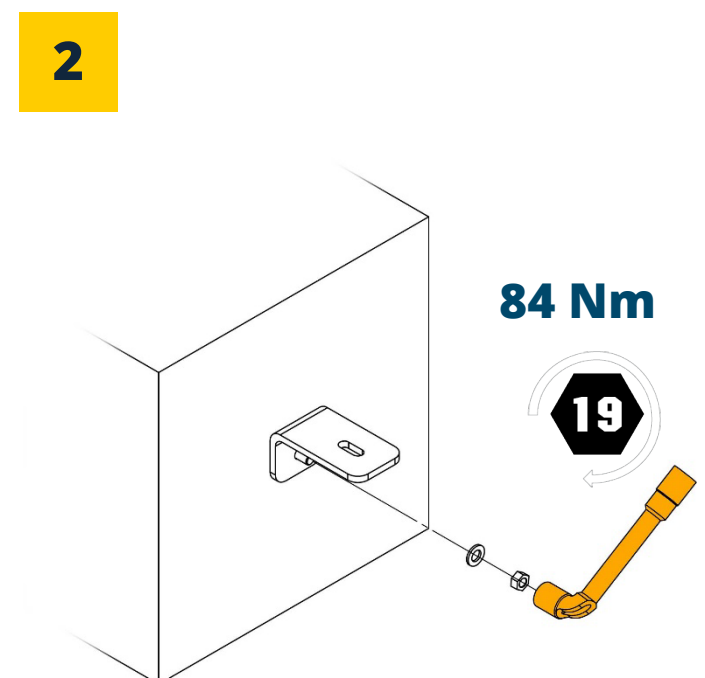
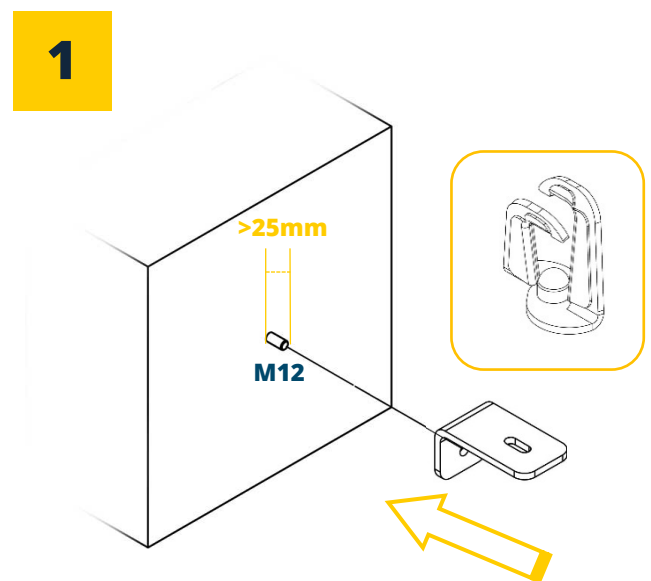
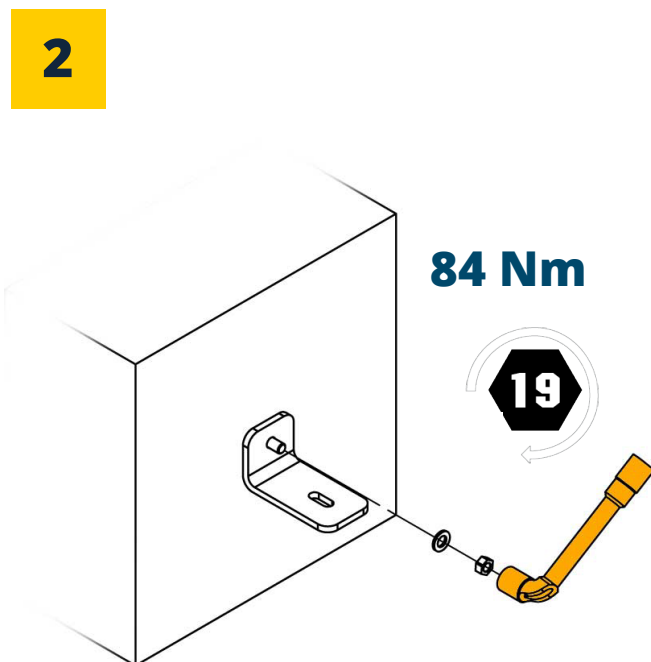
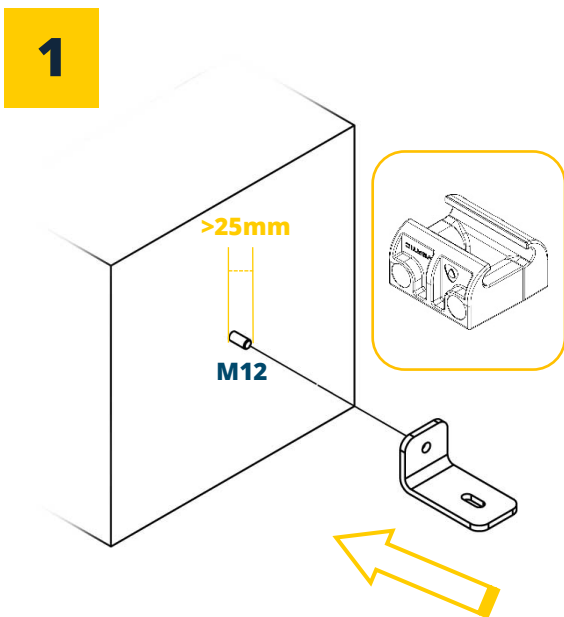


Distributed by

Rail systems

ALTIRAIL & COMBIRAIL

FIXING ANGLE BRACKET - WVREQG

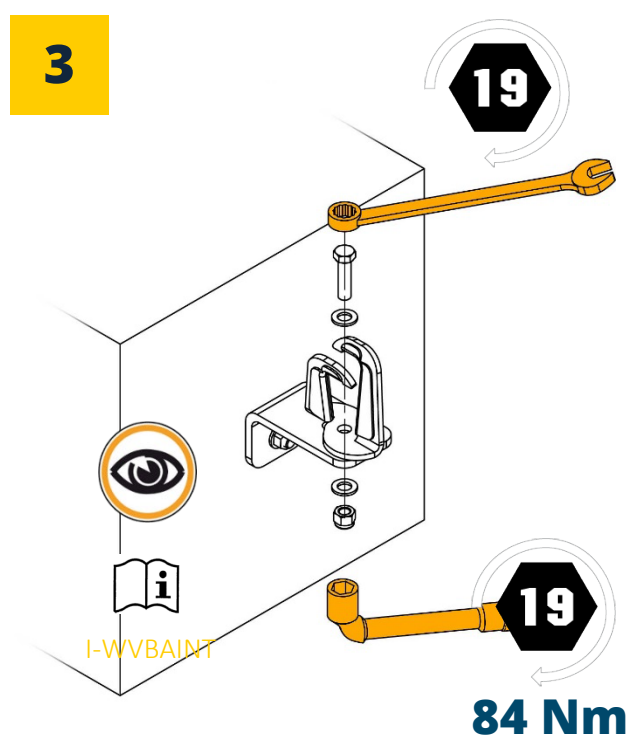
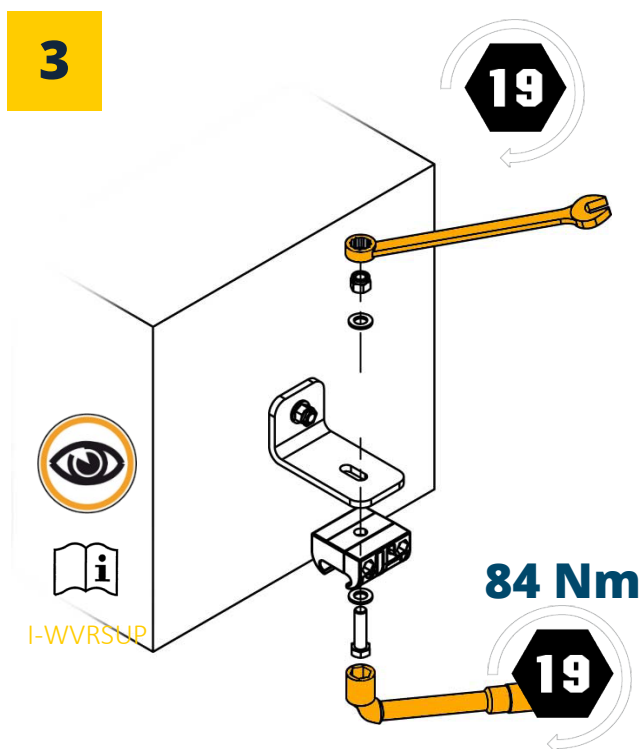




Distributed by

Rail systems

ALTIRAIL & COMBIRAIL



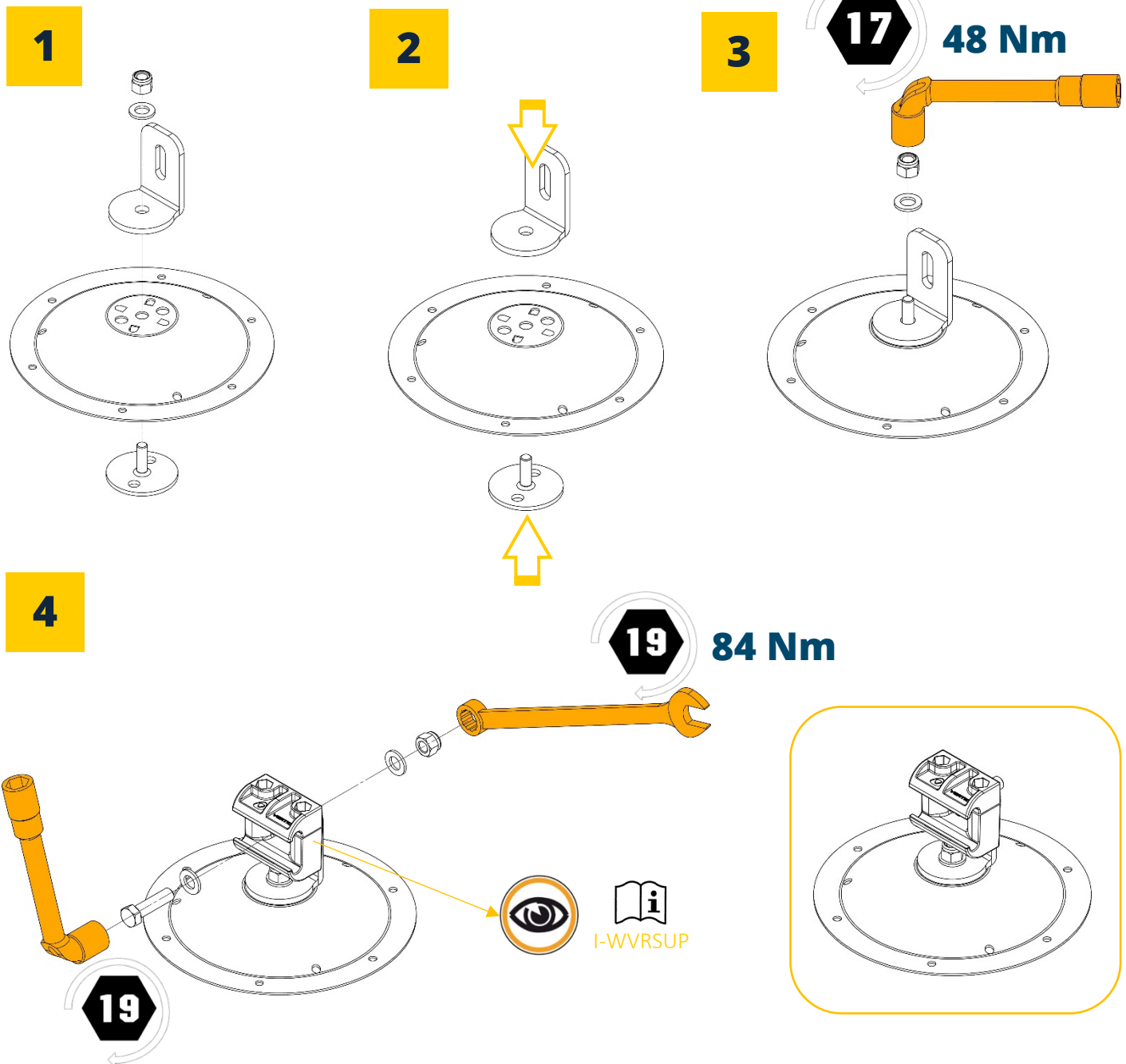


Distributed by

Rail systems

ALTIRAIL & COMBIRAIL

FIXING ANGLE BRACKET - WVREQI



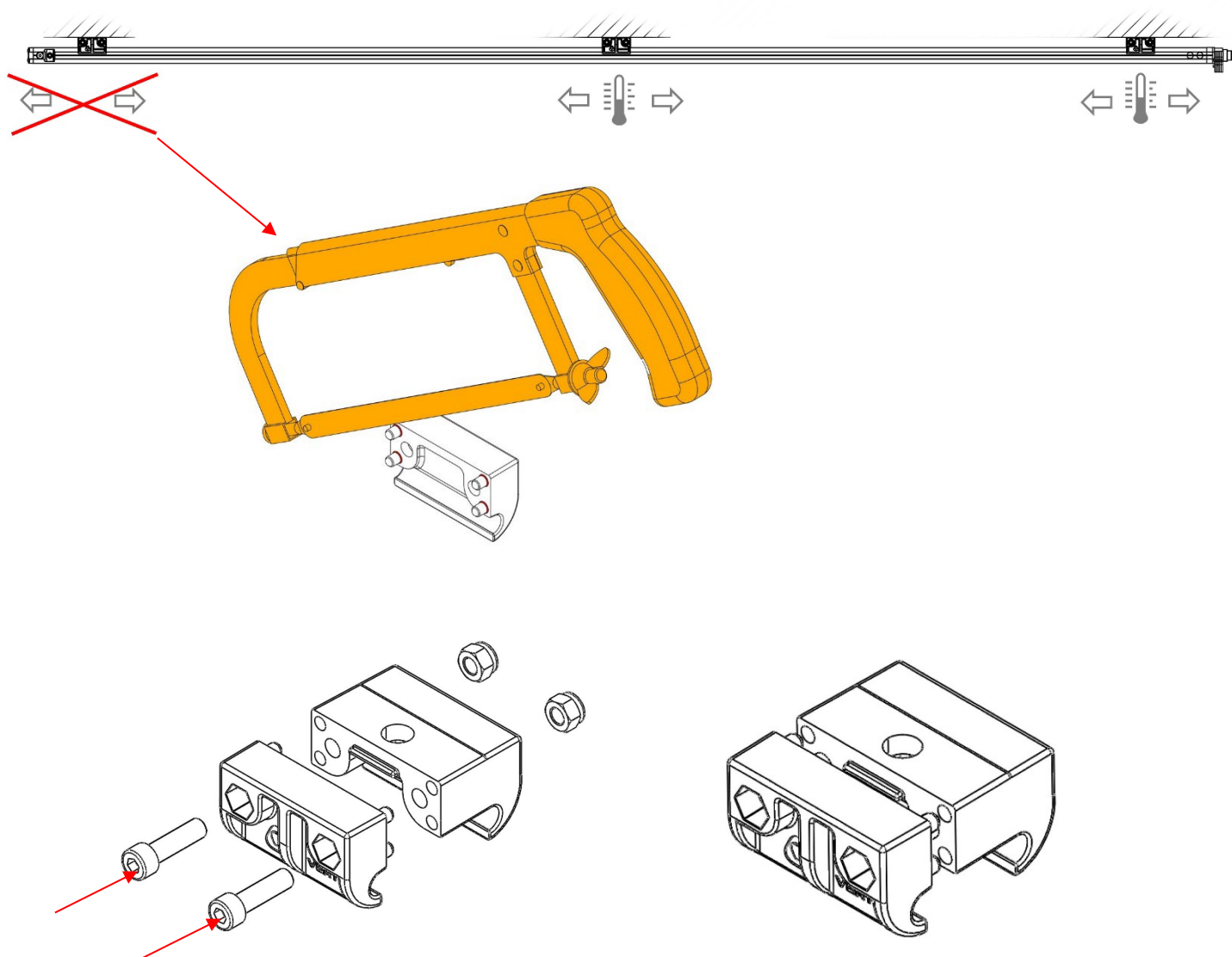


Distributed by

Rail systems

ALTIRAIL & COMBIRAIL

RAIL SUPPORT - WVRSUP



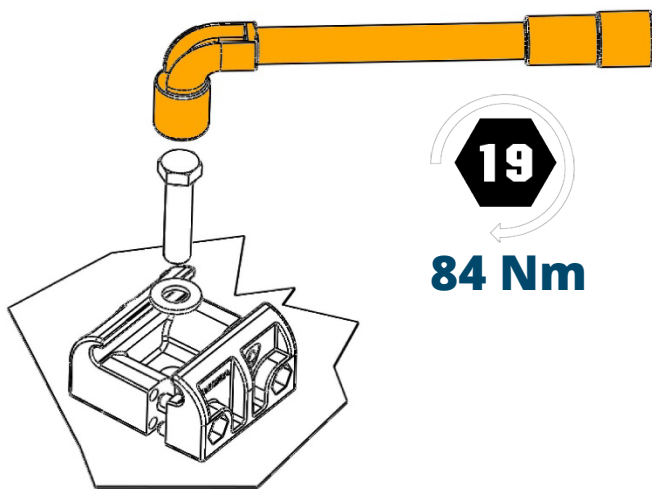


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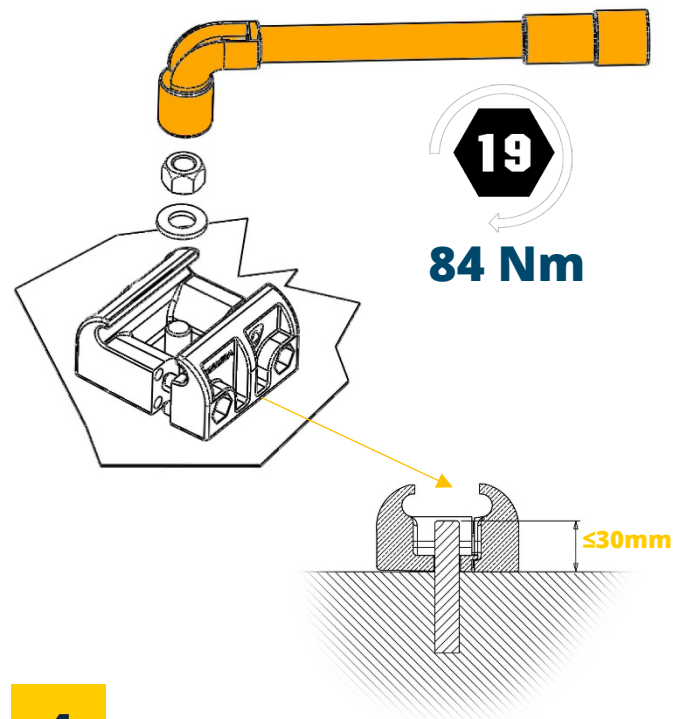
Rail systems

ALTIRAIL & COMBIRAIL

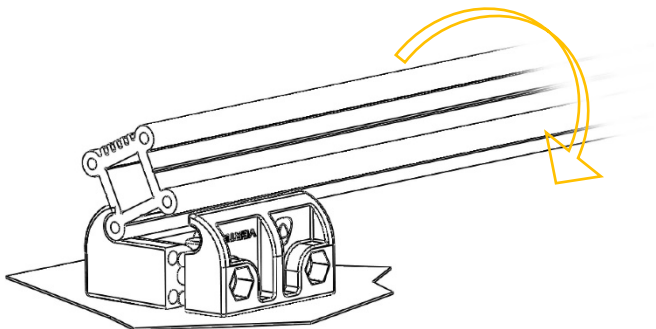
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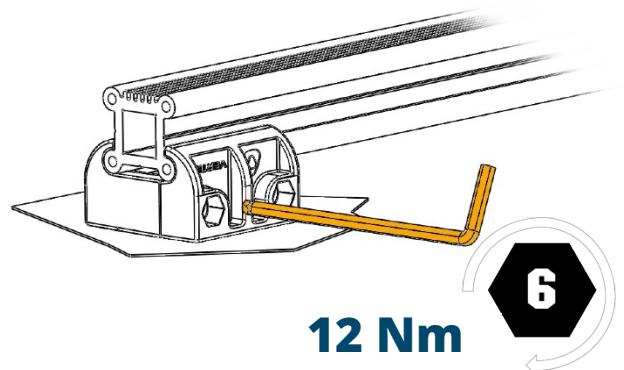
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3



4





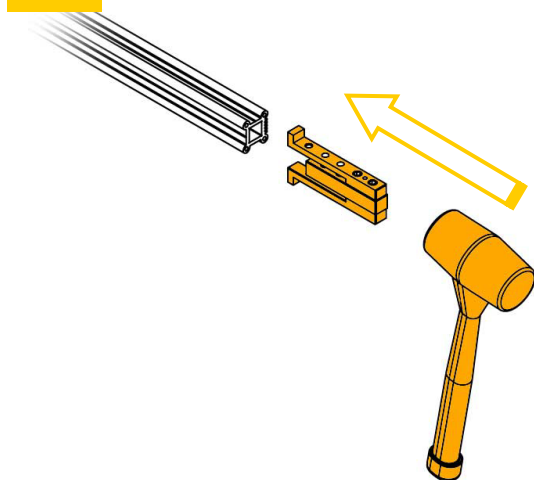
Distributed by

Rail systems

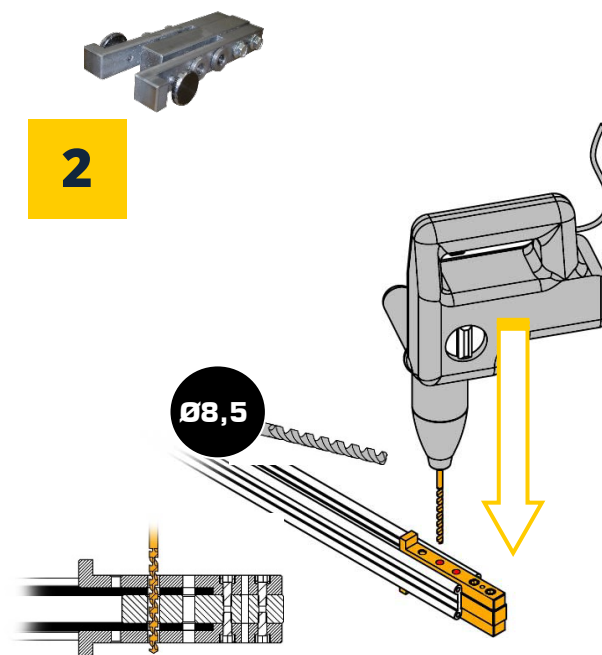
ALTIRAIL & COMBIRAIL

RAIL DRILLING TOOL - WVRROUTP

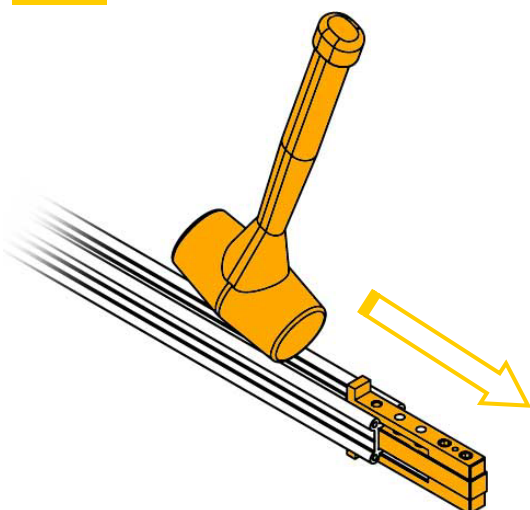
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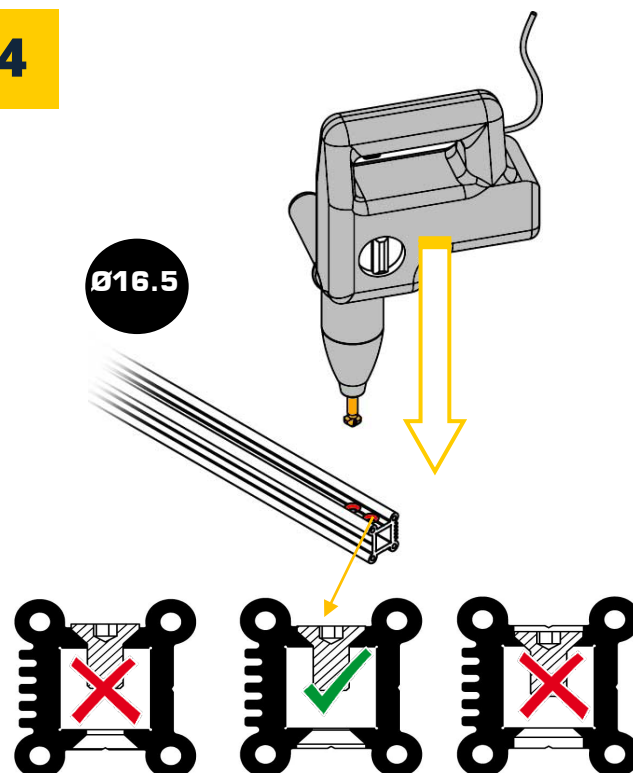
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3



4



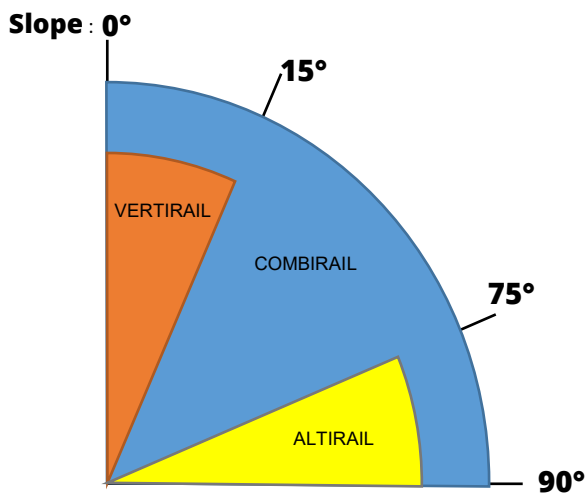


Distributed by

Rail systems

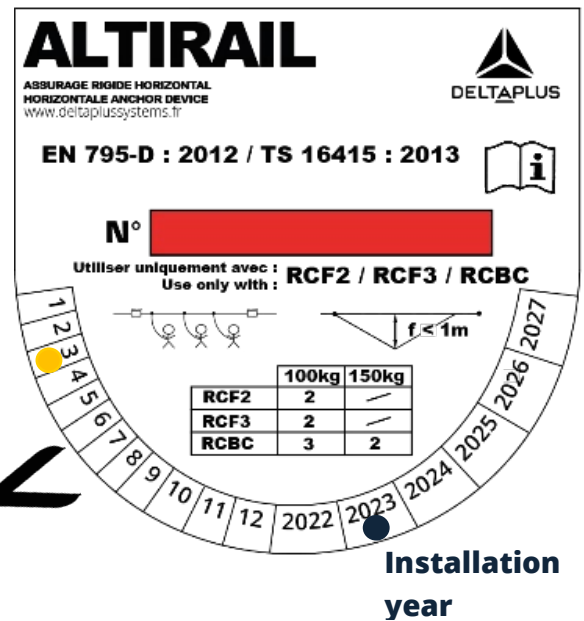
ALTIRAIL & COMBIRAIL

SAFETY PANEL - WVRPS

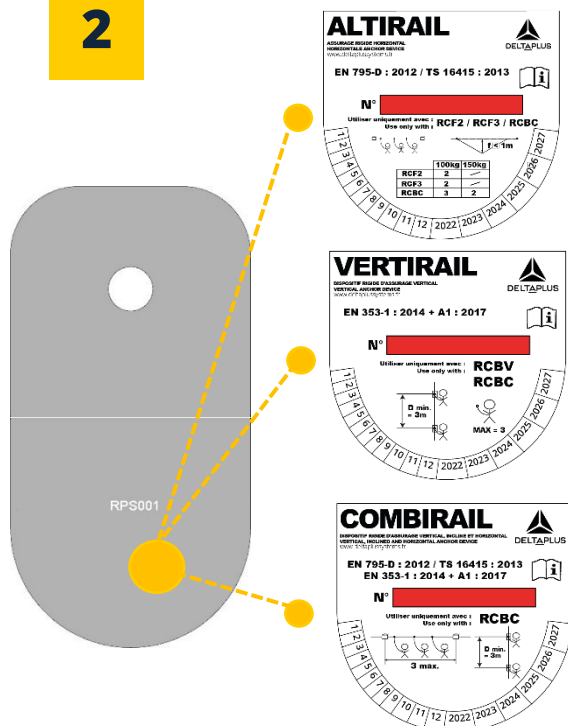


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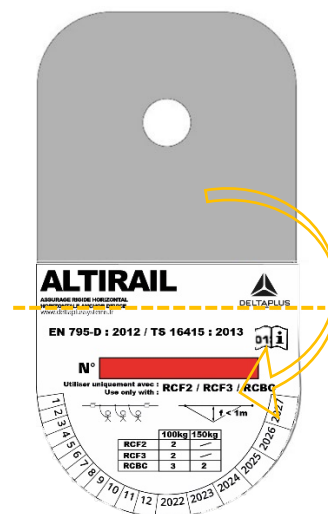
Installation
month



2



3

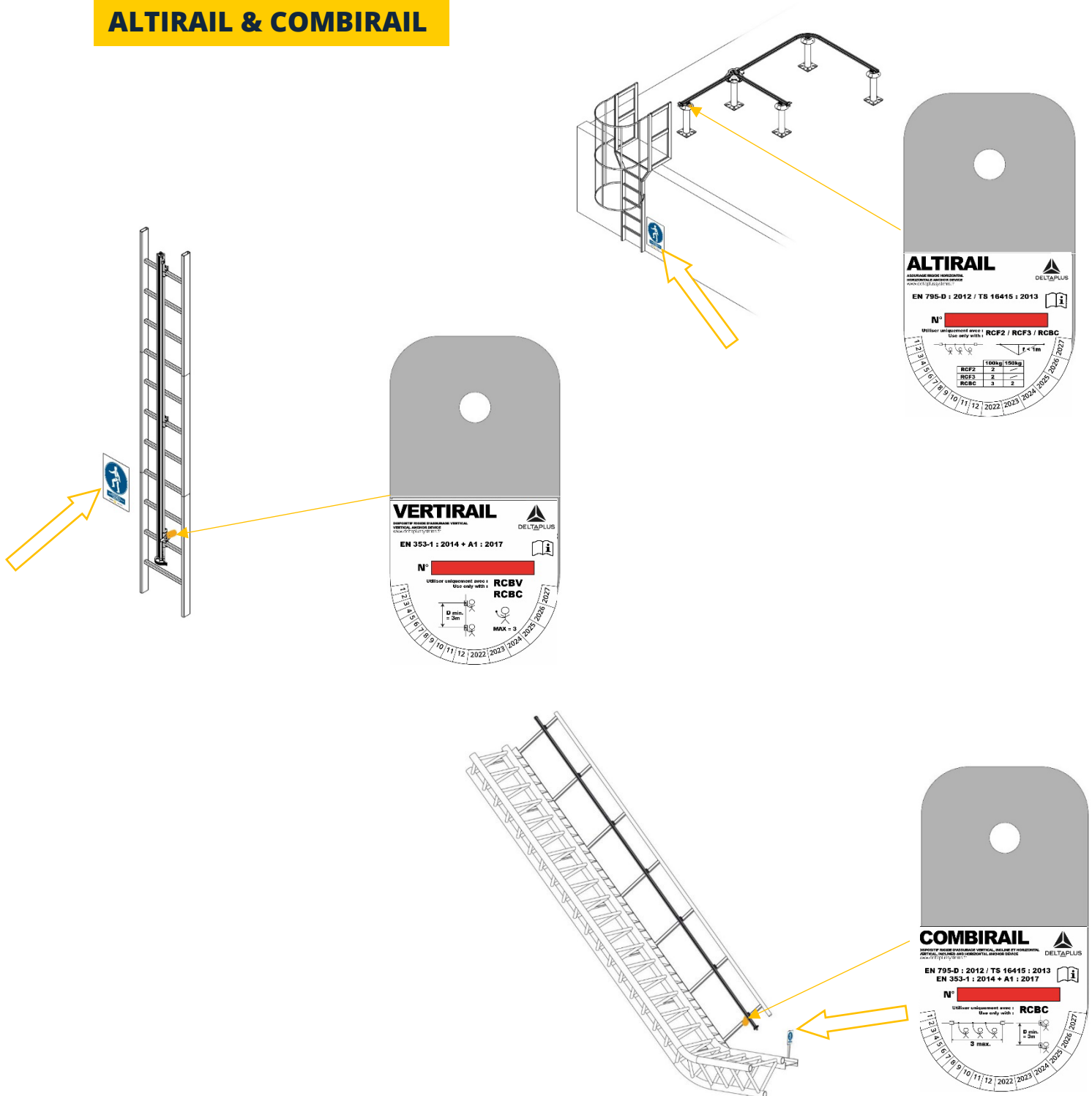




Distributed by

Rail systems

ALTIRAIL & COMBIRAIL





Distributed by

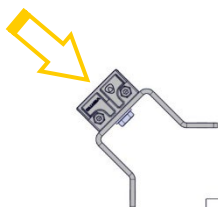
Rail systems

ALTIRAIL & COMBIRAIL

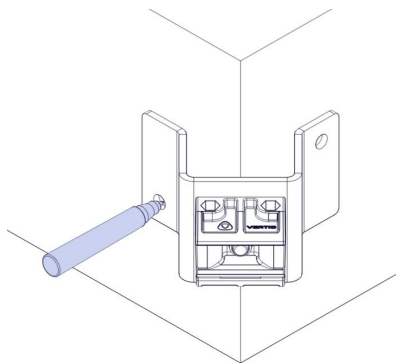
RAIL SUPPORT - WVRIA FS



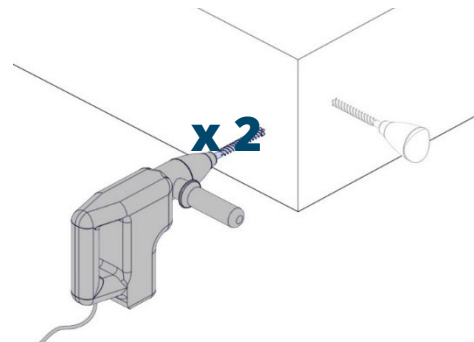
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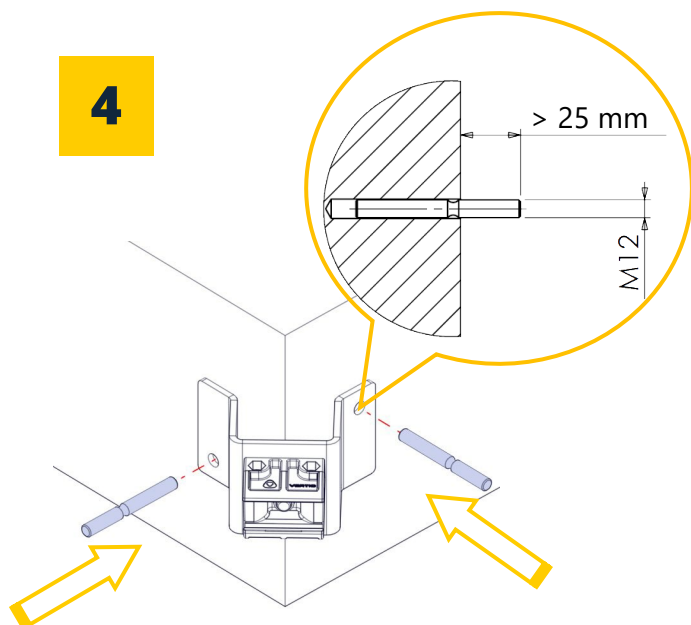
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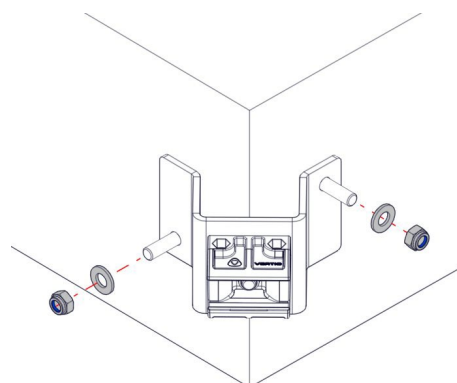
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4



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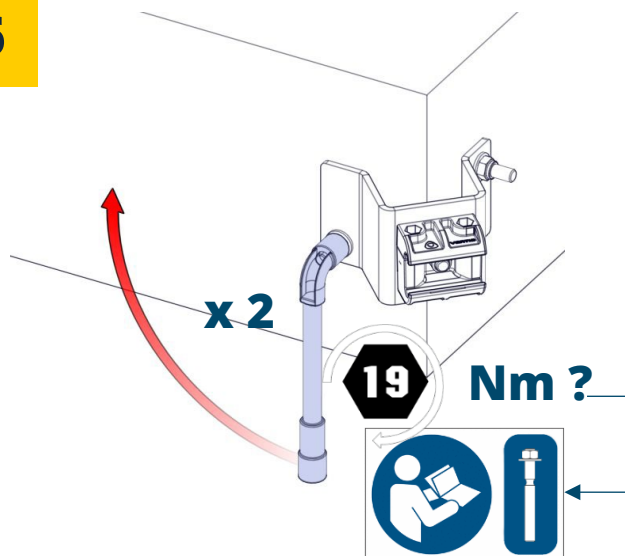


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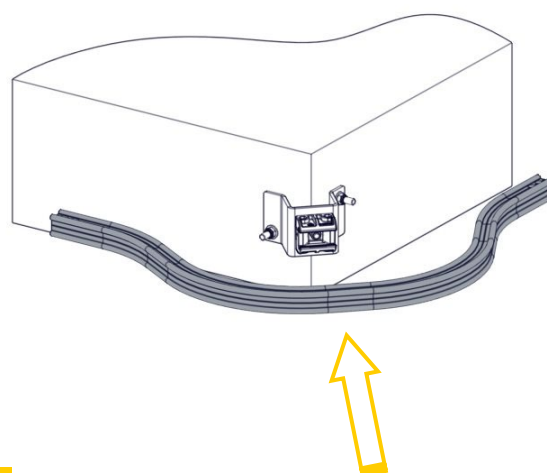
Rail systems

ALTIRAIL & COMBIRAIL

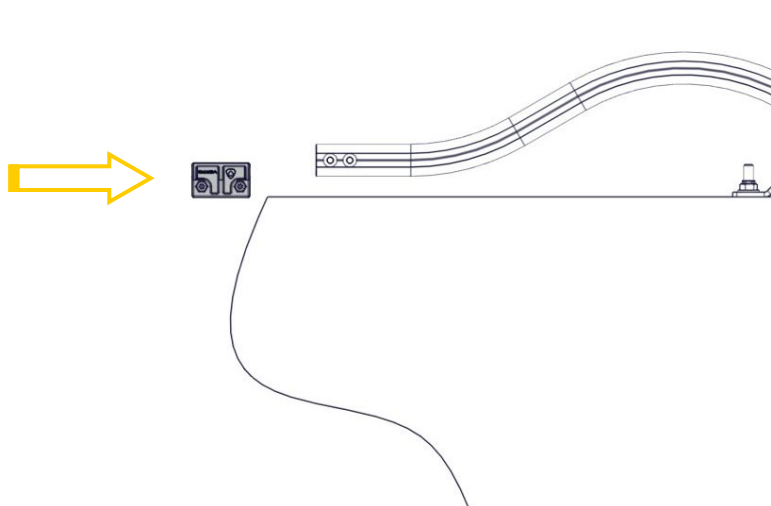
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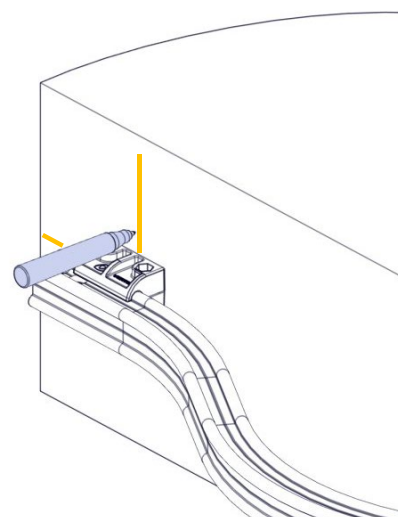
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8



9



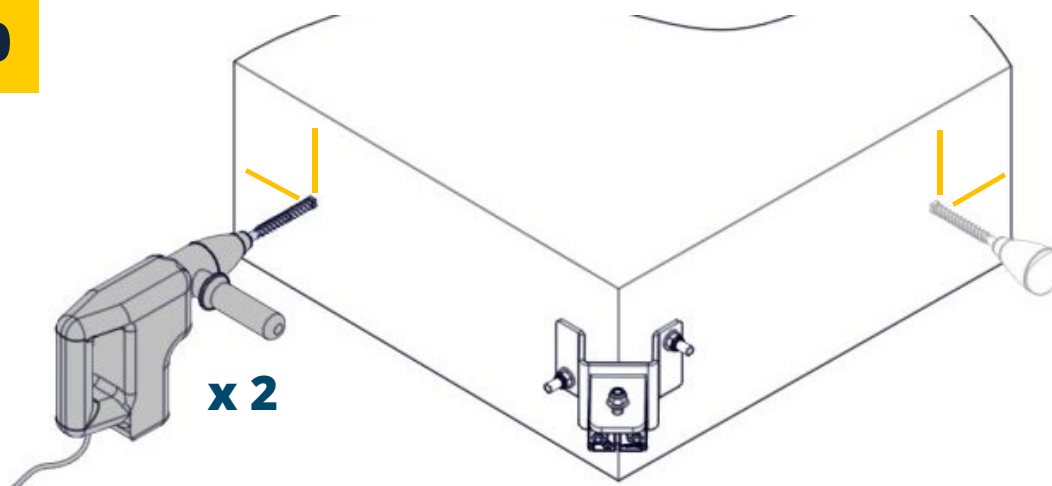


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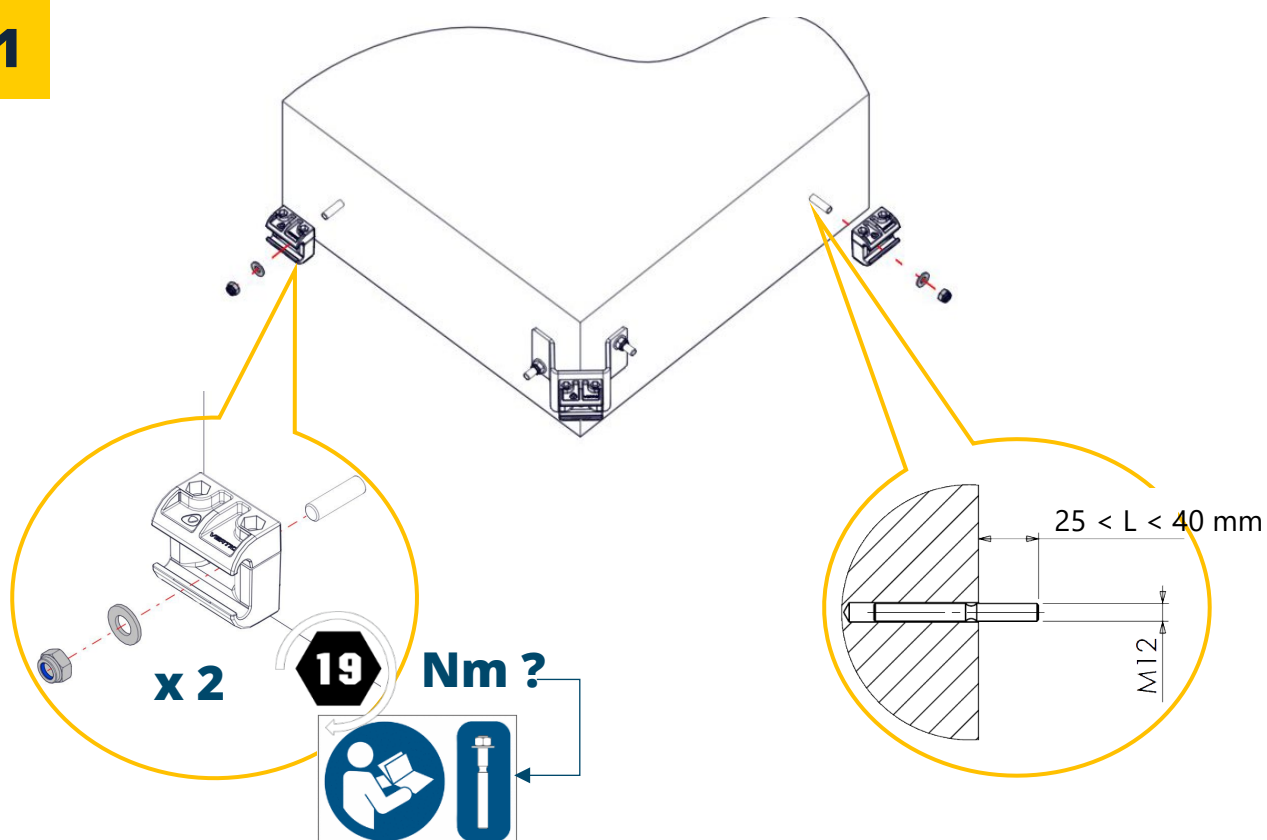
Rail systems

ALTIRAIL & COMBIRAIL

10



11



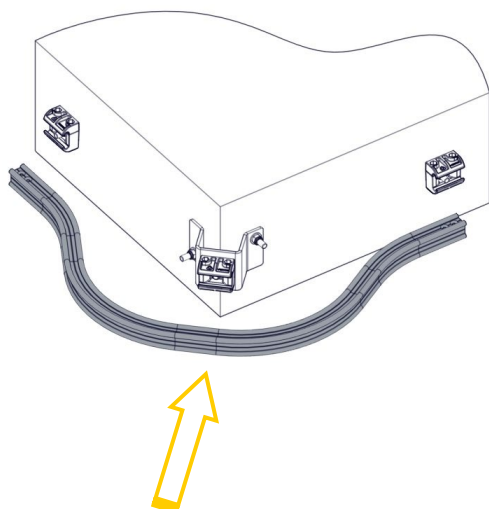


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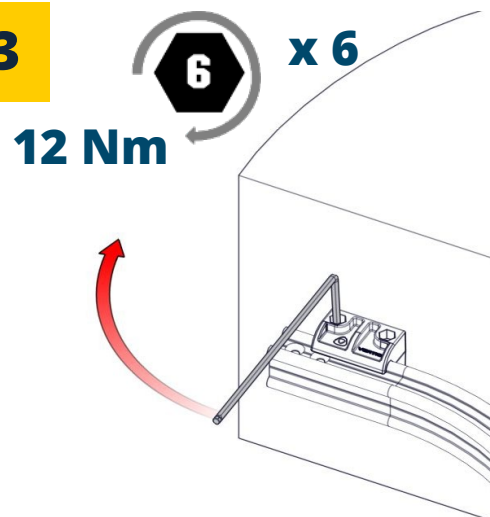
Rail systems

ALTIRAIL & COMBIRAIL

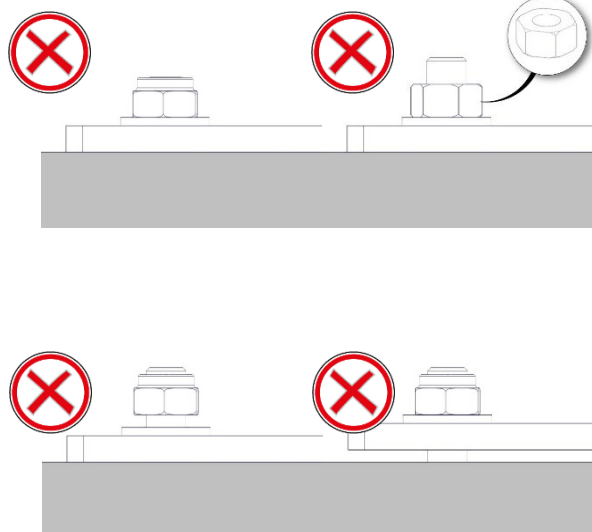
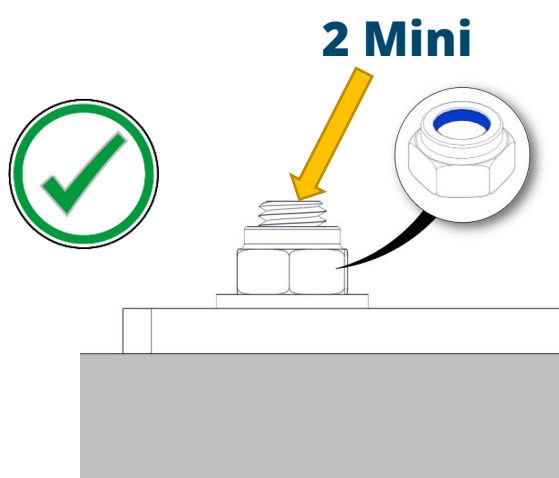
12



13



14





Distributed by

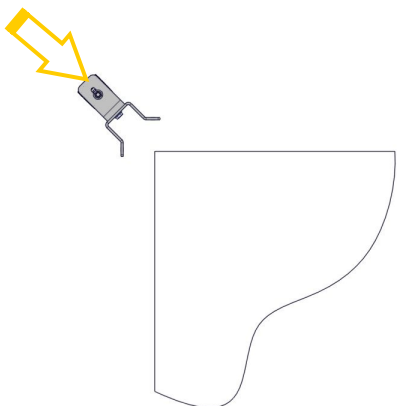
Rail systems

ALTIRAIL & COMBIRAIL

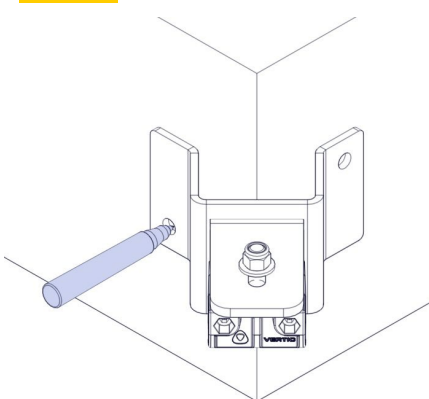
RAIL SUPPORT - WVRIAFS2



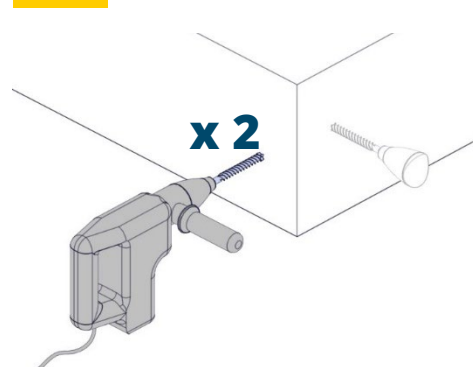
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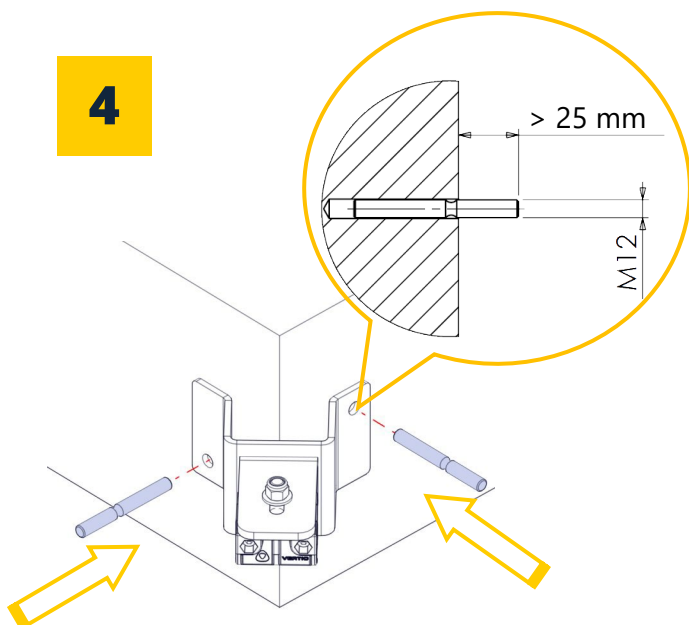
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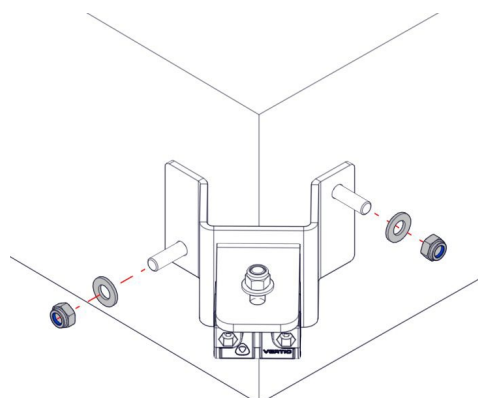
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4



5



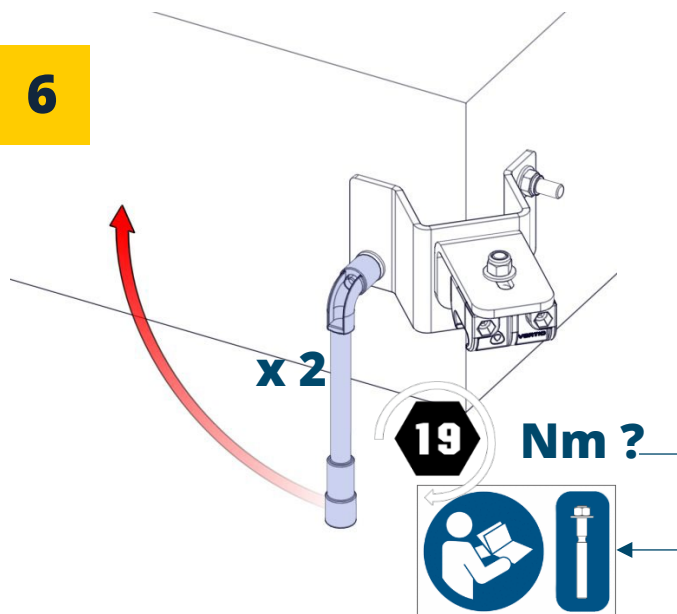


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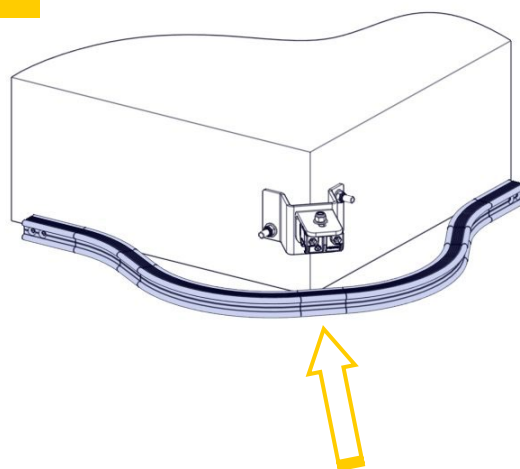
Rail systems

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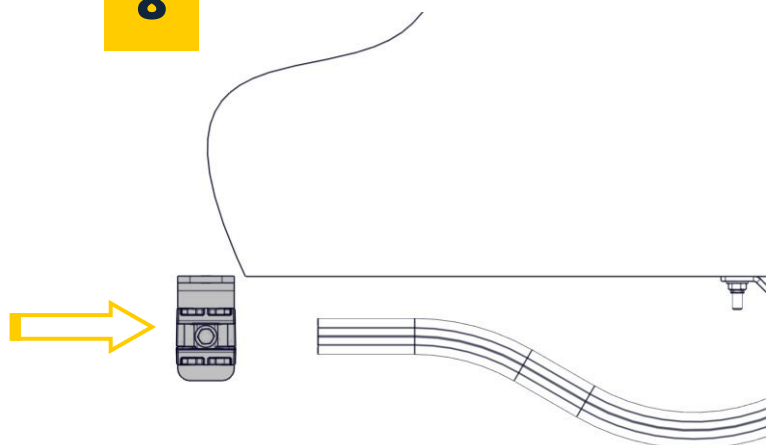
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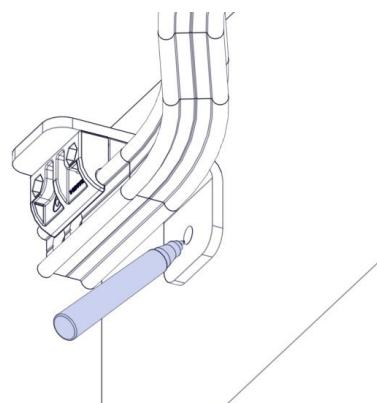
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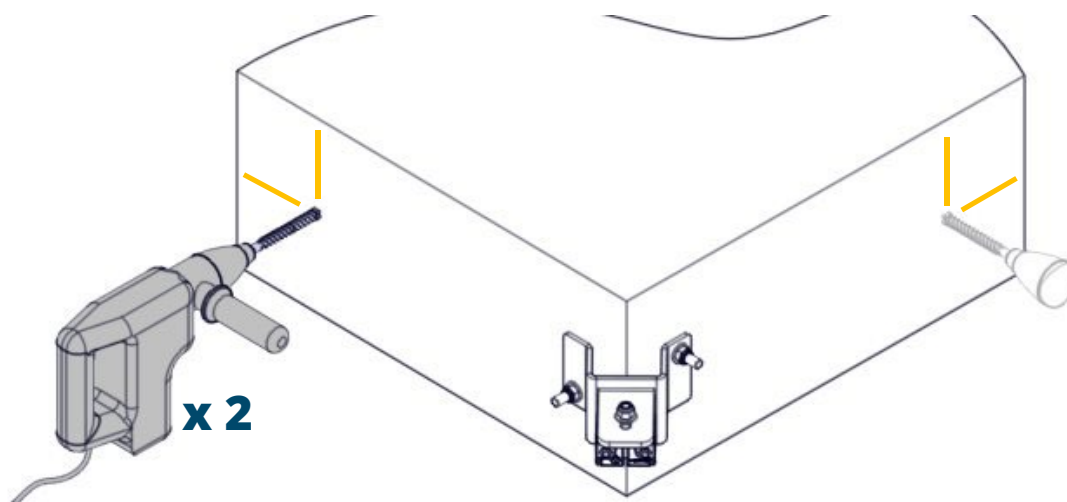


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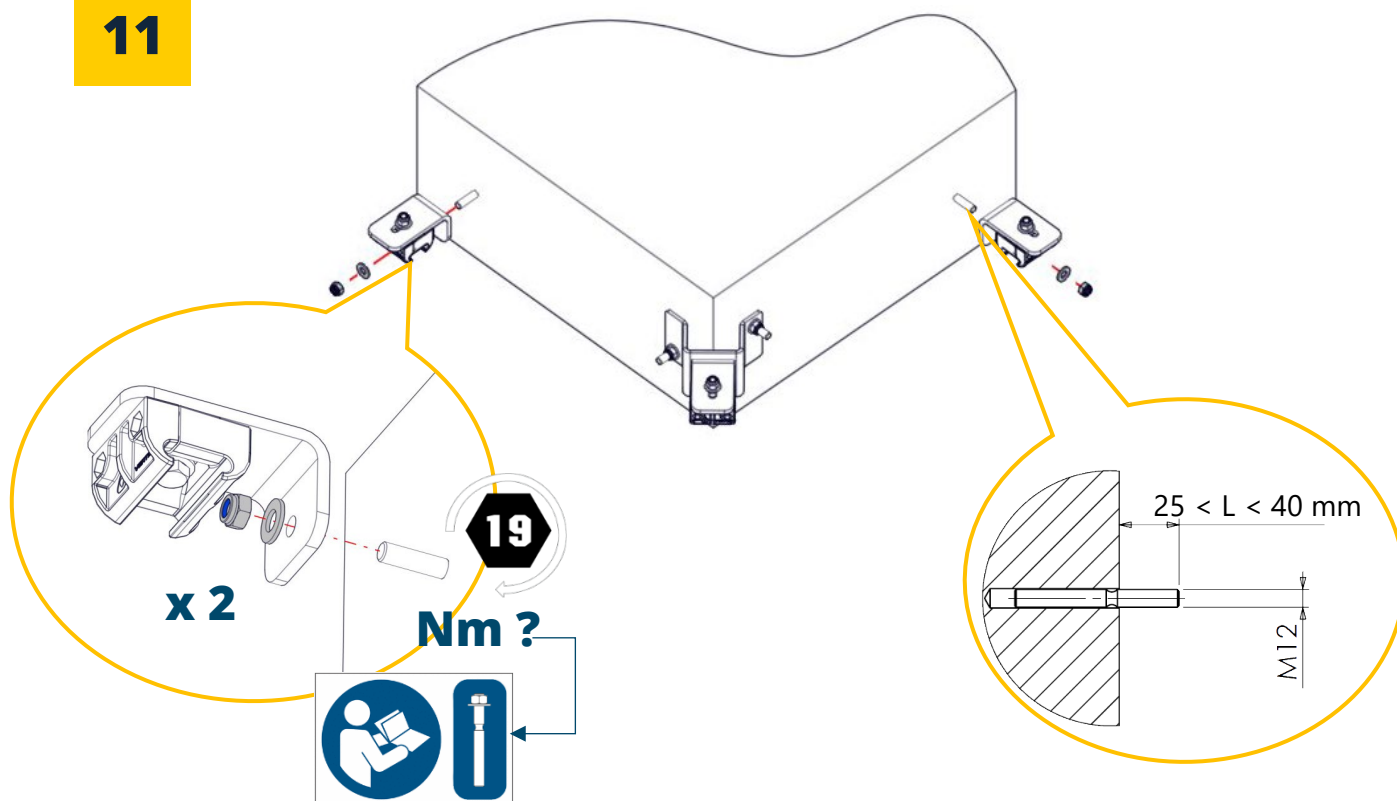
Rail systems

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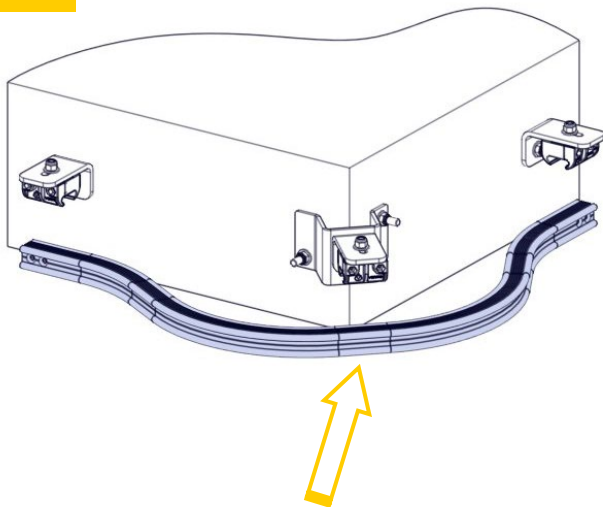


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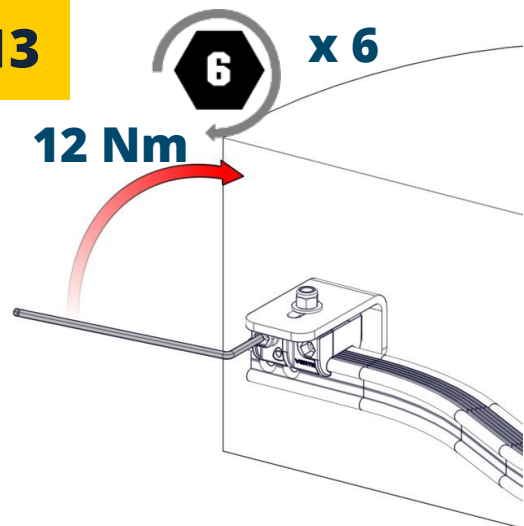
Rail systems

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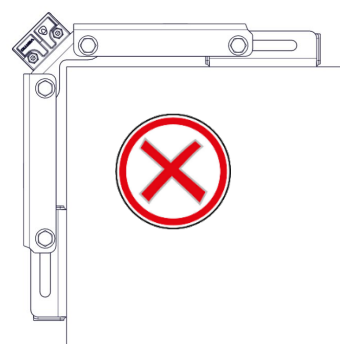
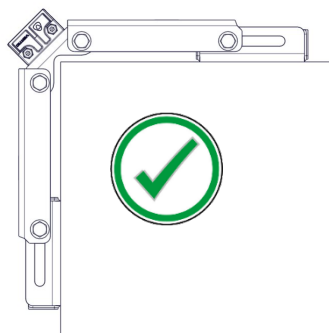
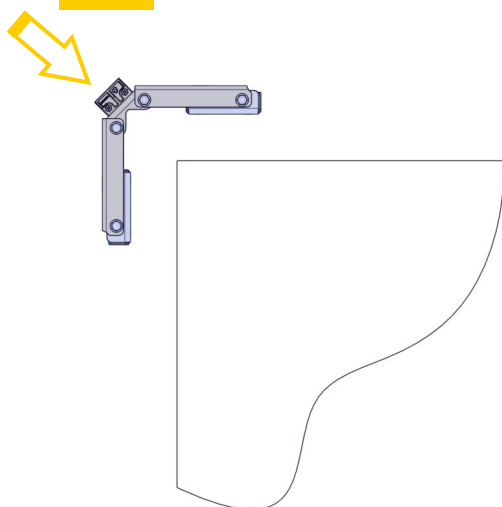
Rail systems

ALTIRAIL & COMBIRAIL

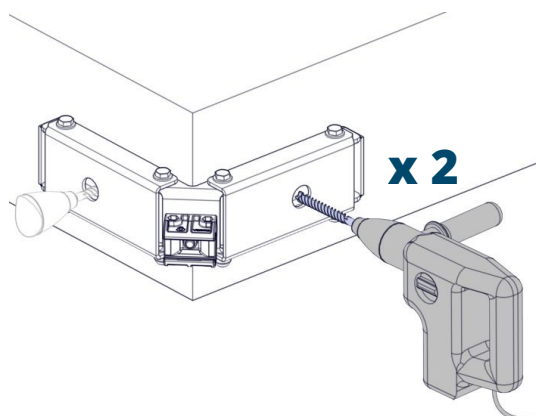
RAIL SUPPORT - WVRIAS



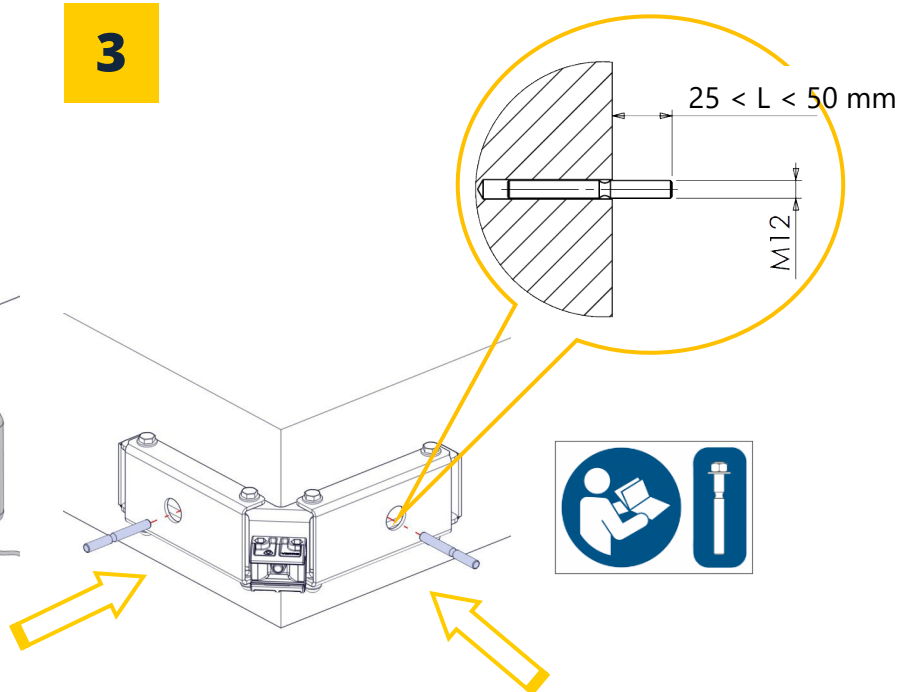
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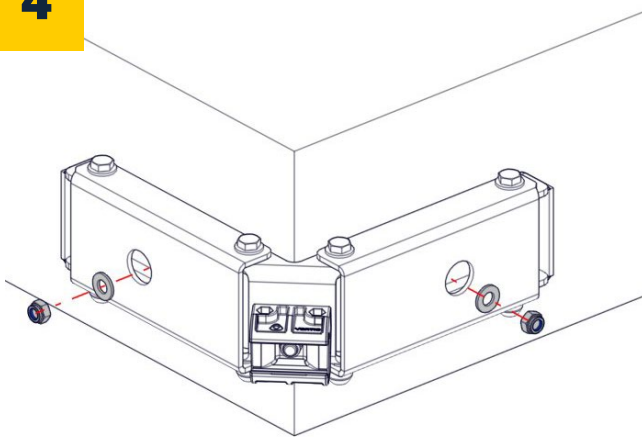


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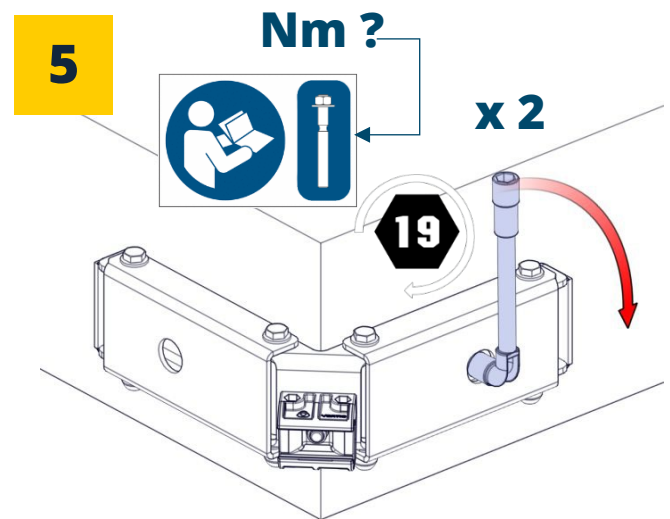
Rail systems

ALTIRAIL & COMBIRAIL

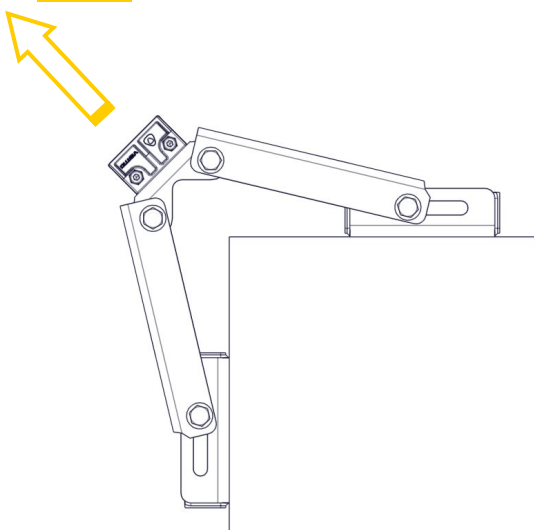
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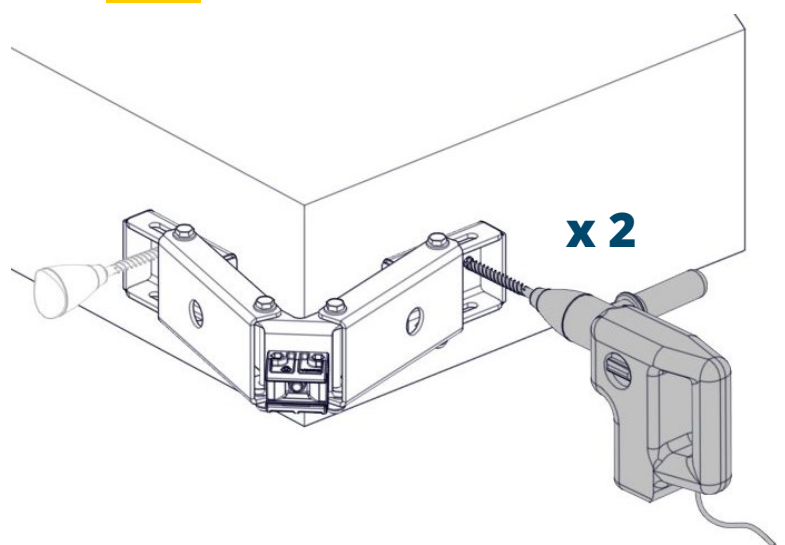
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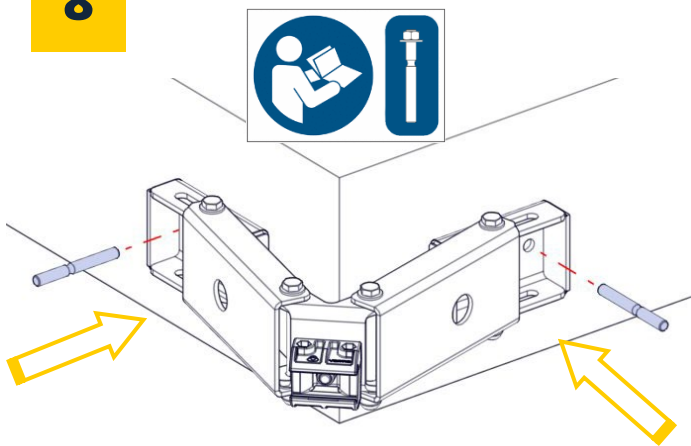


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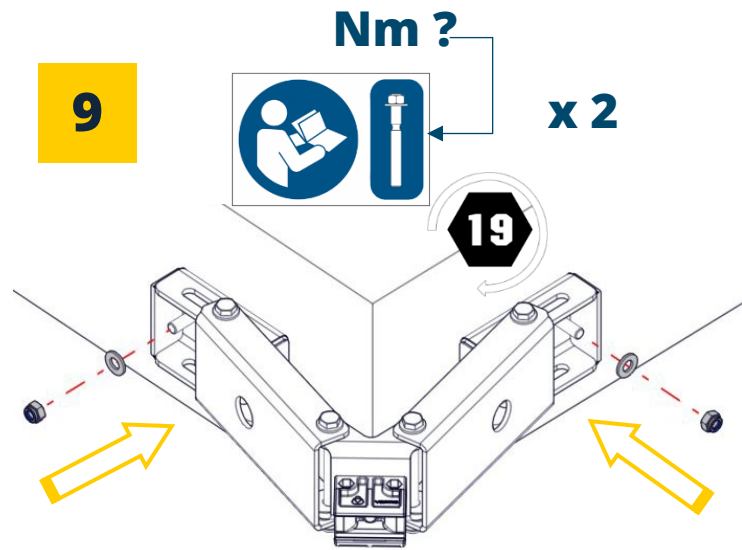
Rail systems

ALTIRAIL & COMBIRAIL

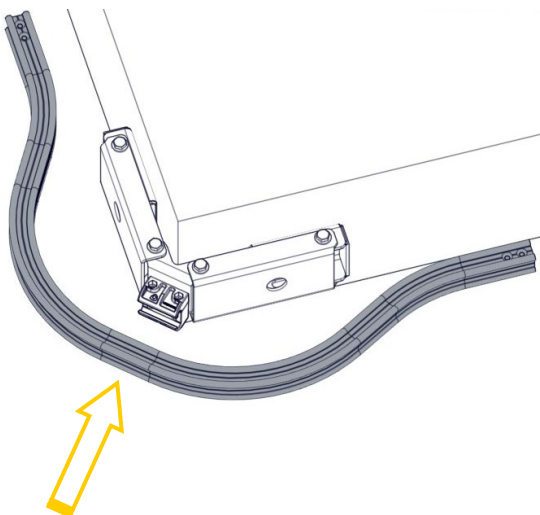
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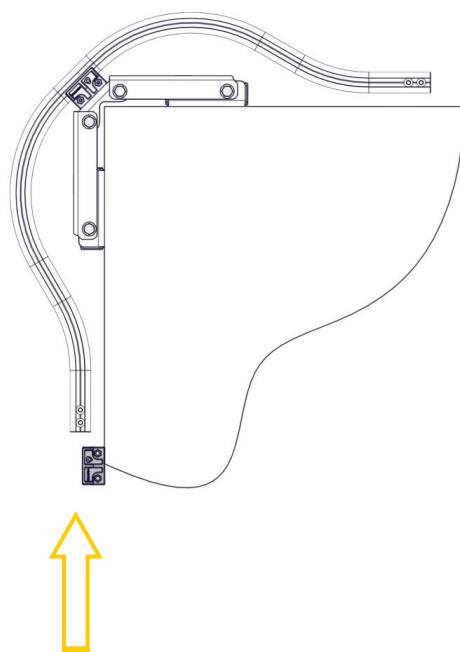
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8

Diagram 8 illustrates the final step of mounting the cable tray. A blue cylindrical fastener is shown being driven into the wall, securing the tray. A yellow line indicates the vertical alignment of the fastener. The tray is shown mounted to the wall, with the cable bundle resting inside it.

9

This diagram shows the second hole being drilled into the side panel of the unit. A power drill is shown drilling a hole into the side panel, indicated by a yellow line. The text "x 2" is shown on the side panel, indicating that two holes are to be drilled. A yellow line also indicates the position of the second hole on the side panel.

10



x 2

Nm ?



25 mm

M12





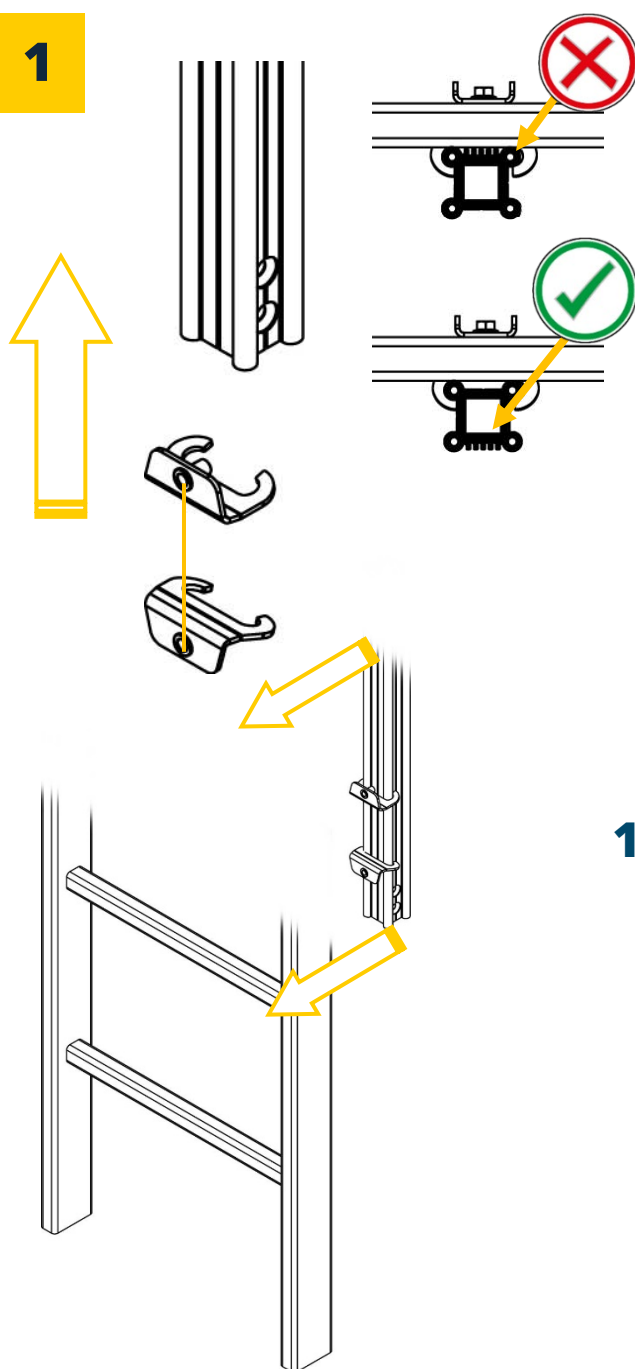
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Rail systems

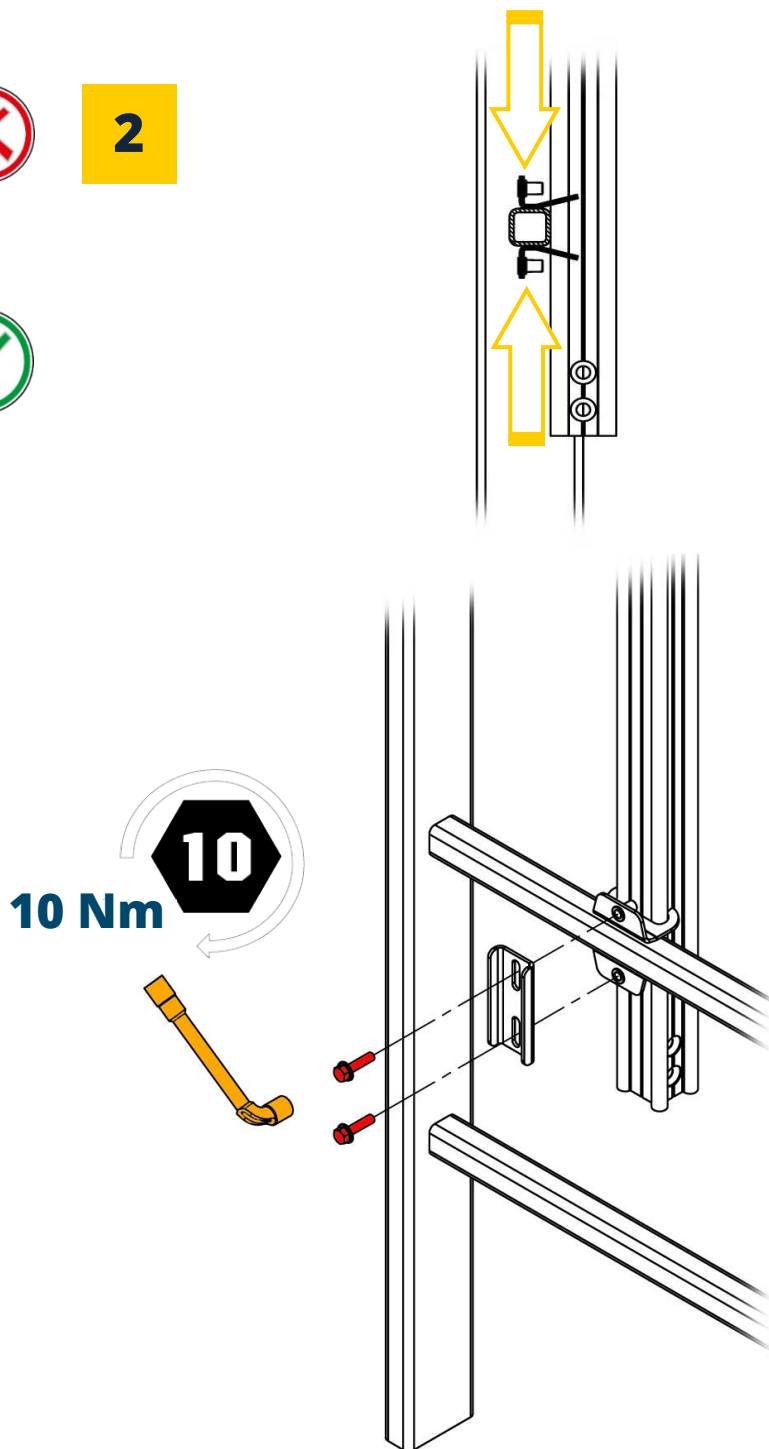
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RAIL SUPPORT - WVRSUPECH

1



2





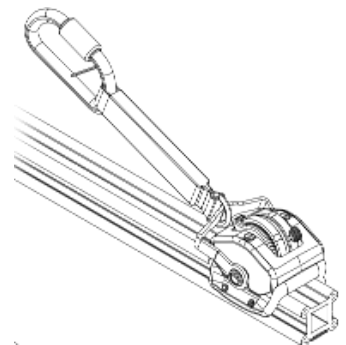
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Inclined rail system

COMBIRAIL

COMBIRAIL FALL ARREST SYSTEM FOR SLOPES

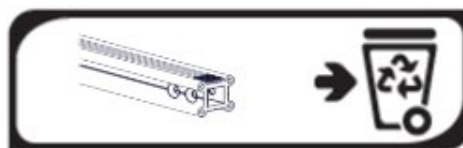
Product identification	
Manufacturer / Supplier :	Delta Plus Systems
Product name / Reference :	COMBIRAIL multi-angle fall arrest system
Normative references :	EN 795:2012 - CEN/TS16415:2013 - EN 353-1 2014 + A1 2017
Identification number :	
Date of purchase :	
Date of first use :	



Identification of the person responsible for the installation			
Name :		Company :	
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>For Delta Plus Systems products, plastics and textiles, the maximum service life is 10 years from the date of manufacture. There is no limit for metal products. 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"> - 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.). <p>Destroy these products to prevent future use.</p>



Identification & verification



Distributed by

Comments
 Good
 To watch out for
 Repaired
 To be discarded

Visual check of components					
General condition of the aluminium rail (marks, deformation, corrosion, etc.)					
Condition of fixings and supports (tightening, etc.)					
The distance between R.SUPECH rail supports must not exceed 1.5 m.					
The distance between the R.SUP rail supports must not exceed 4 m.					
On horizontal sections (0 to 15°), the rail teeth are on the support side.					
On oblique or vertical sections (16 to 90°), the rail teeth are on the carriage side.					
WVRSUP rail supports are fixed using M12 chemical anchors or M12 bolts.					
There is no play in the joints and all the screws are present and tight.					
The maximum rail overhang distances have been respected (Max. 200 mm)					
End stop at each rail end (fixed or retractable)					
Presence of markings with normative information					

Functional verification of components					
The RCBC trolley runs smoothly over joints, supports, etc.					
The carriage engages correctly on the rail					
Retractable end stop operating correctly (automatic return to position ...)					

Comments :

Inspection verdict	
The product is <u>fit</u> to remain in service	The product is <u>unfit</u> 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

Inclined rail system

COMBIRAIL

BI-DIRECTIONAL BLOCKING RUNNER RCBC

Product identification	
Manufacturer / Supplier :	Delta Plus Systems
Product name / Reference :	RCBC bi-directional blocking runner
Normative references :	EN 795 : 2012 Class D - EN 353-1 : 2014 + A1 : 2017
Serial number / Batch number :	
Year of manufacture :	
Date of purchase :	
Date of first use :	



User identification			
Name :		Address:	

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
<p>For Delta Plus Systems products, plastics and textiles, the maximum service life is 10 years from the date of manufacture. There is no limit for metal products.</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"> - 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.). <p>Destroy these products to prevent future use.</p>



Comments
Good
To watch out for
To repair
To be discarded

Visual check of components	Comments	Good	To watch out for	To repair	To be discarded
Condition of the main body (cracks, marks, deformation, wear, corrosion)					
Condition of the shackle and its 2 pins (cracks, marks, deformation, wear, corrosion, presence of the 2 circlips)					

Identification & verification



Distributed by

Visual check of components					
Condition of the 4 rollers and their crimping (cracks, marks, deformation, wear, corrosion)					
Condition of the 4 friction rollers (cracks, marks, deformation, wear, corrosion)					
Textile absorber expiry date					
Condition of textile absorber and plastic shackle (deformation, seams intact, wear, corrosion)					
Condition of snap hook (deformation, wear, corrosion, presence of clip)					
Condition of central wheel, PU tyres and cams (wear, corrosion)					
Wear indicator (groove) visible on the PU tyres of the central wheel					
Condition of side guards (cracks, marks, deformation, wear)					
Presence of the identification label with normative information					
Condition of the protective cover and its 2 fixing screws (tightness, play)					

Functional verification of components					
180° tilting of the plastic shackle (no hard point)					
Good rolling of the 4 rollers (no hard spots, smooth running)					
Good rolling of the 4 friction rollers (no hard spots, smooth running)					
The carriage runs smoothly on a straight rail element					
The carriage runs smoothly on a curved rail element					
Centre wheel turns freely (no hard spot)					
The truck is locked in place without slipping when overspeed in both directions of travel.					
The 2 stainless steel cams and their return springs operate correctly					
The energy absorber slides freely along the shackle					
The tyres of the central wheel press against the teeth of the rail to ensure the rotation of this wheel.					

Comments :	
Inspection verdict	
<input type="checkbox"/> The product is fit to remain in service	<input type="checkbox"/> 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 :			