



Permanent fall-protection systems



enjoy safety

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Experience & innovation to keep you safe

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- P. 6-7 The promise of turnkey safety
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Angled lifeline

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Collective protection

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Collective protection

Types of solution


- 1**




Self-supporting railing
- 2**




Railing on parapet
- 3**




Railing on steel deck
- 4**



Railing on waterproofed slab/deck
- 5**



Ladder
- 6**




Pathways


Personal protection

Safe movements


- 1**



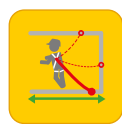
Extensive horizontal movement, suspended access and/or access under tension possible
- 2**




Extensive horizontal or vertical movement or on angled plane
- 3**



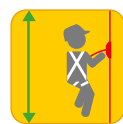
Horizontal movement
- 4**




Continuous horizontal movement
- 5**




Vertical movement
- 6**



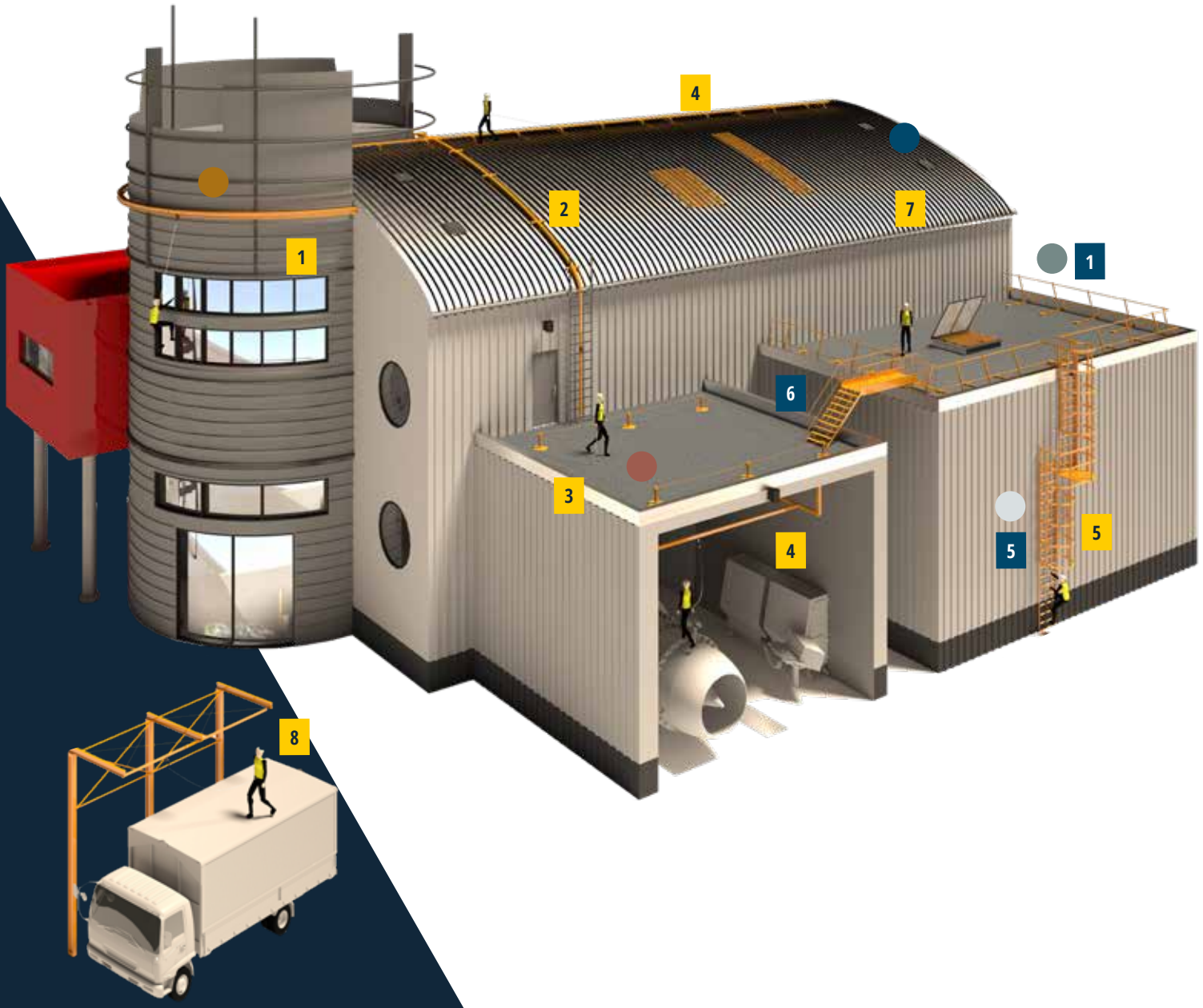
Extensive vertical movement
- 7**



Limited horizontal movement (below 3 m)
- 8**



Tailored safety solutions



Basic concepts of working at heights

Fall factor

The fall factor represents the proportional severity of a fall

Its value ranges from 0 to 2 and is obtained by dividing the height of the fall by the length of the rope.

To limit the fall factor:

- always prefer work with restraint
- raise the position of the anchor point (the higher the worker is above their anchor point, the more severe the fall)
- make the connecting system as short as possible.



Factor 0

Limited free fall

The anchor point is located above the worker's head and their lanyard



Factor 1

Free fall that may reach up to once the length of the connecting system

The anchor point is located on the worker's chest (at the sternal attachment of the harness)



Factor 2

Free fall that may reach up to twice the length of the connecting system

The anchor point is located close to or under the worker's feet (between the sternal attachment of their harness and the ground)

Clearance

Distance between the user's feet and the first impact zone

Clearance is the distance between the user's feet and the first impact zone. There is a difference between available clearance and required clearance.

1

Available clearance

Distance between the structure on which the worker is working at a height and the nearest obstacle (ground, balcony etc.)

2

Required clearance

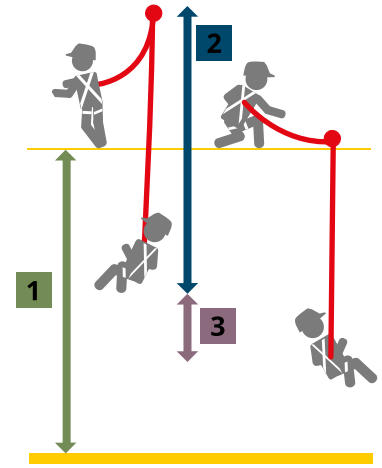
+

Minimum distance required for the worker to fall with no risk of colliding with the nearest obstacle.

3

LÉGENDE

- 1 Available clearance
- 2 Length of the line
+ energy absorber extension
+ worker's height
- 3 Safety distance (1m)



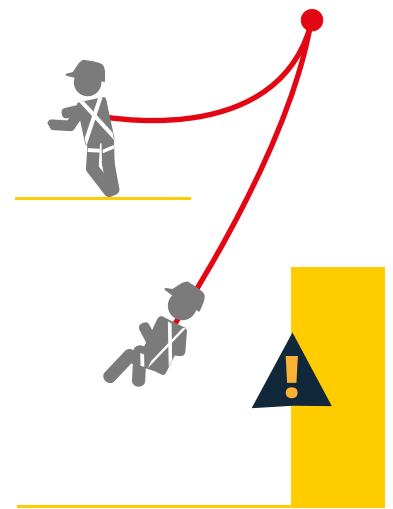
Pendulum effect

Risk of the worker swinging in multiple directions in the event of a fall

The pendulum effect is the risk that the worker may swing in multiple directions in the event of a fall.

That could lead to collision between the worker and the ground or even an obstacle (wall, platform, etc.). It generally occurs when the anchor point is not located exactly above the worker working at a height.

To limit the risk of the pendulum effect, the angle between the worker and the anchor must be reduced, while taking account of the fall factor.



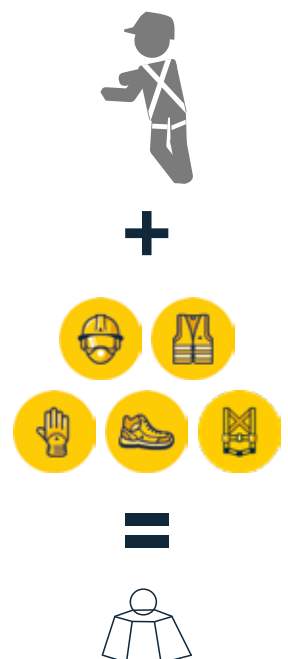
Impact force

Severity of a fall depending on the weight of the user and their equipment

The greater the total weight of the worker and their equipment, the greater the quantity of energy to absorb during a fall. Exceeding 100 kg is fairly easy. That mass must be multiplied by 9.81 for a free fall over 1 metre.

That is why it is indispensable to make sure the energy absorption capacity of the fall-arrest system is never exceeded, to limit the force of the impact experienced by the user.

Useful information: permanent fall-protection systems are now designed in Europe to limit the impact force to 600 DaN and are tested for factor 2, the least favourable.



The promise of turnkey safety

Our duty is to protect people at work.

To that end, we design and manufacture complete solutions for personal and collective worker protection across the world.

Through our **46 subsidiaries in 30 countries** all over the world, we operate and distribute our products in over **110 countries**.

Our complete offer encompasses five large families of personal protective equipment and collective protection systems.

Our products are designed to achieve three goals: **safety, comfort and good design**. Each of our solutions is challenged by our research and development experts. That enables us to offer ever more advanced and more differentiating solutions.



Audit & advice

Our primary concern: the user

Every day, we make your concerns our own in order to design personal protective equipment and permanent fall-protection systems that are suited to your working environments.



Integrated design and manufacturing

A complete safety range

Regardless of your organisation or the shape of your building, our in-house engineers work on designing tailored solutions that are fully adapted to your needs.



Inspection

The assurance of optimum quality

As part of our continuous search for optimum quality, our products are tested and certified to applicable standards. Our products undergo in-depth testing in our own quality control laboratory before they are certified by notified independent testing bodies.



Support

Closeness to users

Because we are convinced that human support is a key requirement, you will find our teams in France and elsewhere, ready to offer training and all the engineering and installation assistance you may need.

Certified solutions to keep you safe

Our ISO 9001, ISO 14001 and MASE certifications bear testament to our dedication and our commitment to continually improve the quality of our products and services, and in favour of addressing health, safety and environment requirements.



Installation

Ready-to-use solutions

You can trust our installation partners, who are trained and certified all over the world, and benefit from a turnkey solution wherever you are located.

Verification

Verification and validation of your equipment

Our teams take charge of initial inspections, commissioning and the periodic verification of your fall-protection equipment and systems.

Training & approval

Teaching of good techniques and practices for safe working at heights

As a regulated training body, we can transmit our know-how and experience by training users in good techniques and practices so that you can address all the risks relating to your business activity.

Maintenance and upgrading for compliance

Replacement of equipment in the event of nonconformity

Our teams can inspect your fall-protection equipment and systems and replace them if they are found to be nonconforming.

Designing of tailored solutions

Our international engineering team supports products that can address the local requirements of standards and customers.

Our project managers and trade specialists will support you in the development of your project and coordinate with our production staff to manufacture high-quality fall-protection systems.

Our **know-how** in the areas of **production** and assembly, combined with our **in-house design department**, allows us to **design tailored solutions that are adapted to your expectations and working requirements**, in compliance with **applicable standards**.

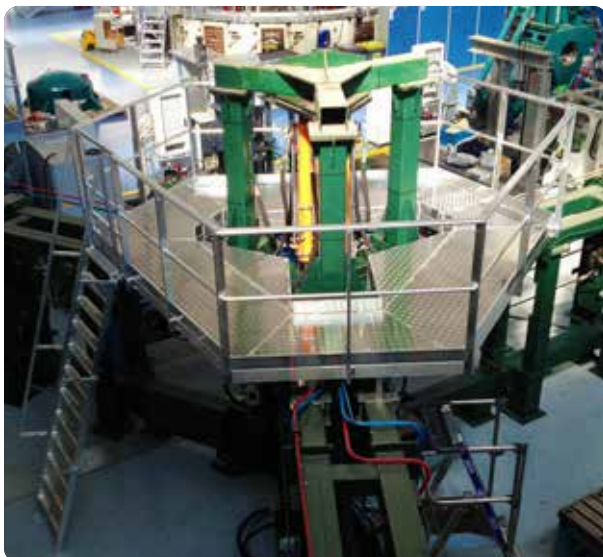
Walkways with non-slip floors

Designing of tailored walkways (on supports, PRM and/or suspended) suitable for slopes ranging from 0 to 20° and all types of substrates



Movement platforms with non-slip floors

Designing of platforms for maintaining equipment and machinery, adapted to all types of base structures



From designing to standards, from environmental requirements to value creation

Steps

Designing of tailored access equipment suitable for slopes ranging from 20 to 45° and all types of supports

Possibility to add locking doors to make use safer



Step ladders

Designing of tailored step ladders with railings or fall-protection rails suitable for slopes ranging from 45 to 75°, for all types of support



Gantries

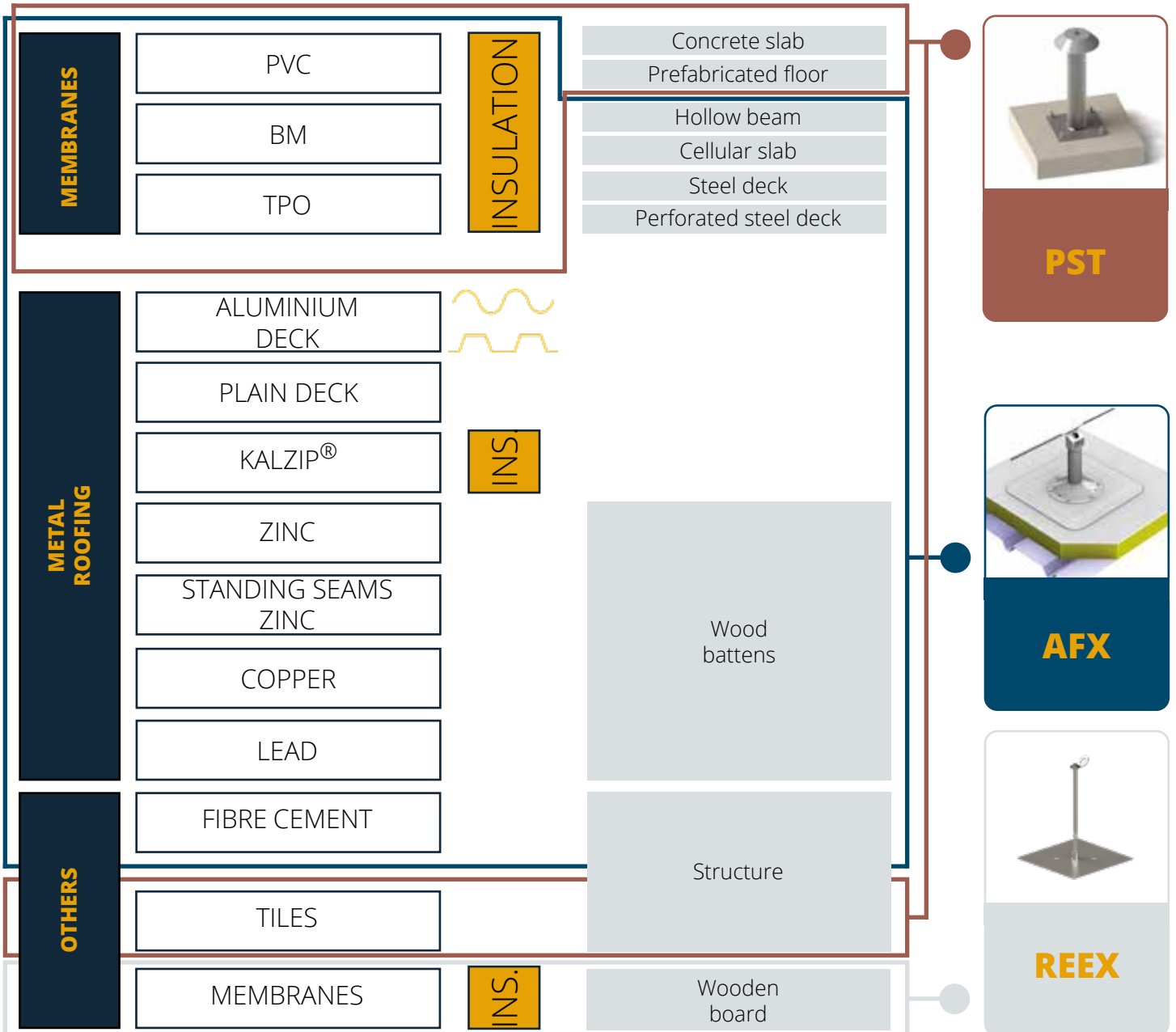
Designing of gantries fitted with fall-protection rails for maintaining special equipment or for loading and unloading vehicles



Personal protection



1 DEFINE YOUR SUBSTRATE



Legend

- 1** Types of structure & waterproofing
- 4** Fastening supports

- 2** Roofing
- 5** Interfaces

- 3** Optional insulation

Selection guide: systems

2 SELECT YOUR SYSTEM



Horizontal safety



Angled safety



Vertical safety



ALTILIGNE



BATILIGNE



COMBIRAIL



VERTILIGNE



ALTIRAIL



ALTIRAIL LR



VERTIRAIL



LADDERRAIL

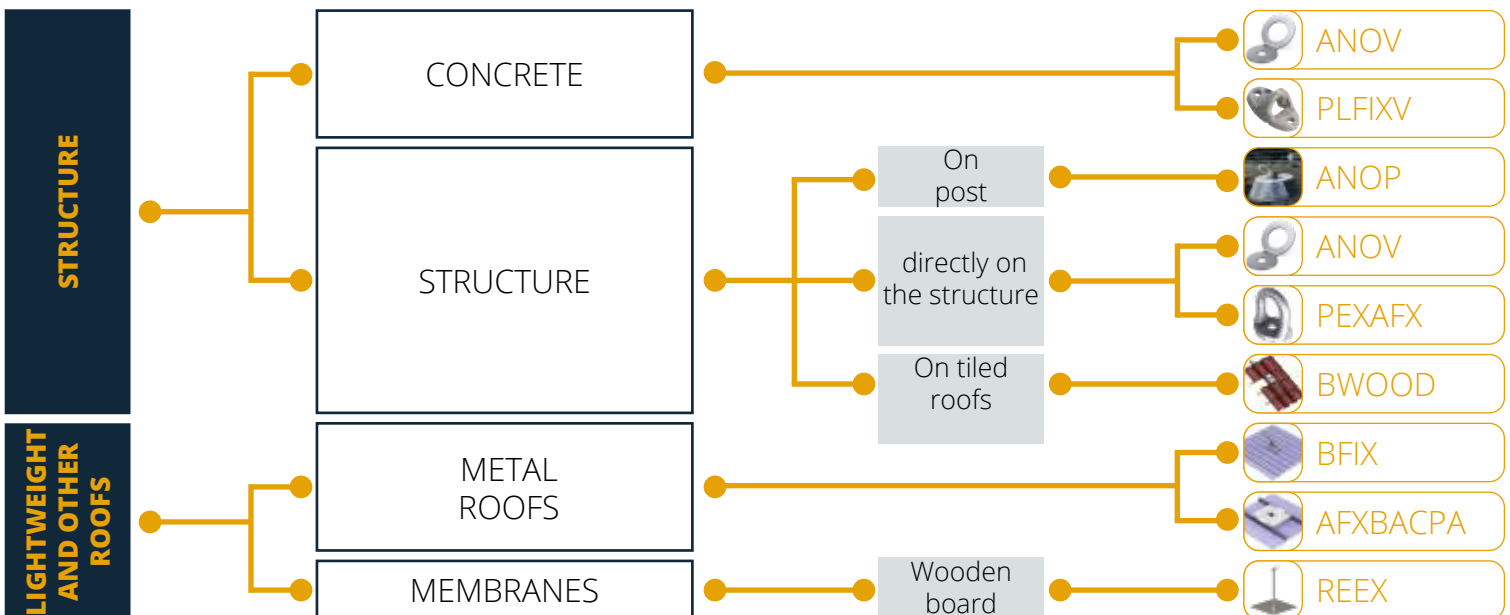
3 FOR SAFETY IN A DEMARCATED AREA



Local safety

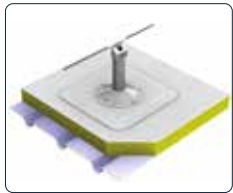


Anchor points

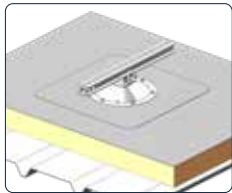




PVC OR BITUMEN



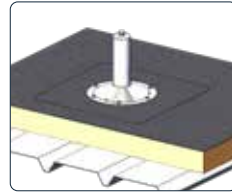
Lifeline anchor
WVAFXPVC



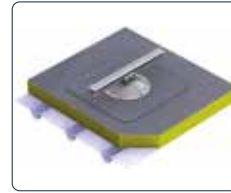
Rail anchor
WVAFXPVC



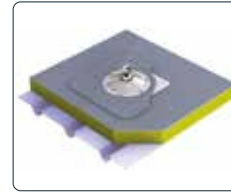
Anchor point
WVAFXPCPA



Lifeline anchor
WVAFXBM



Rail anchor
WVAFXBM



Anchor point
WVAXBMPA

Hollow beam

Cellular slab

Solid steel deck

Concrete slab

Prefabricated wide slab

Perforated steel deck

Fastening kit

WVKVBSEx

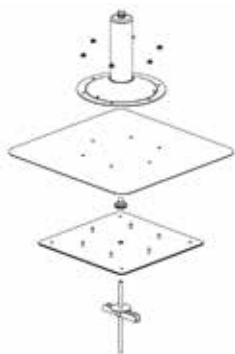
WVKVBSE1
0 < thickness of insulation < 130 mm

WVKVBSE230
100 < thickness of insulation < 230 mm

WVKVBSE330
200 < thickness of insulation < 330 mm



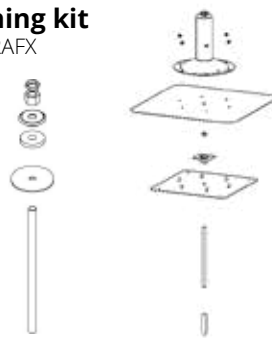
Solid deck



Important: the reinforcement kit (WVKVRBAC) is required for fastening end and angle anchors for horizontal lifelines

Fastening kit

WVANCRAFX



Important: the reinforcement kit (WVKVRBAC) is required for fastening end and angle anchors for horizontal lifelines

Fastening kit

WVKV4FIXx



Perforated deck



Available in 130, 230 or 330 mm

- ▶ Fitted directly on the waterproofing
- ▶ A single central fastener connects to the deck
- ▶ Installation independent of the structure
- ▶ Version available for perforated deck



Scan the QR code to see the installation video



BM



PVC

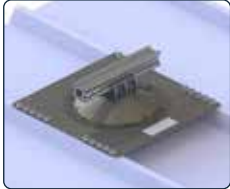


STEEL DECK



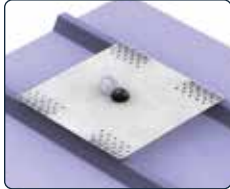
Lifeline anchor

WVAFX2FR
Special centre distances:
WVAFX2ES or WVZOI



Rail anchor

WVAFXST
Special centre distances:
WVAFXSTES or WVZOI



Anchor point

WVAFXBACPA
Special centre distances:
WVAFXBACPAES or WVZOIPA



Anchor point

WVAFXBACOPA
(dedicated to Ondulit steel roofs)

Standard steel deck

Fastening kit
WVKVBAC

x 4
 x 20

Thickness $\geq 0.6\text{mm}$
Fastening with self-drilling screws

- ▶ Compatible with centre distances 250, 280, 304 & 333 mm
Special centre distances on request for lifeline or rail anchors and for anchor points (part number WVAFXxSPECIF)
 - ▶ Centre distances for ES versions: 415 & 440 mm
 - ▶ Centre distances for ZOI versions: 300, 352, & 386 mm
-

Scan the QR code to see the installation video

- ▶ Compatible with the following centre distances:
193.25, 264 & 299 mm



STEEL & ALUMINIUM DECK



Steel deck

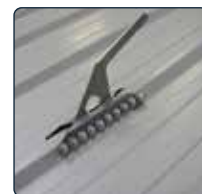
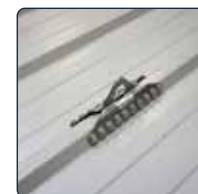
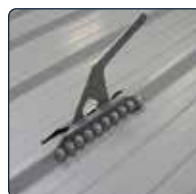
Aluminium



Lifeline anchor
WVAFX1




Ladder anchors and supports
WVBFXT & WVBFXTC




Ladder anchors and supports
WVBFXAT & WVBFXATC
WVBFXAS & WVBFXASC



Ladder anchors and supports
WVBFXS & WVBFXSC

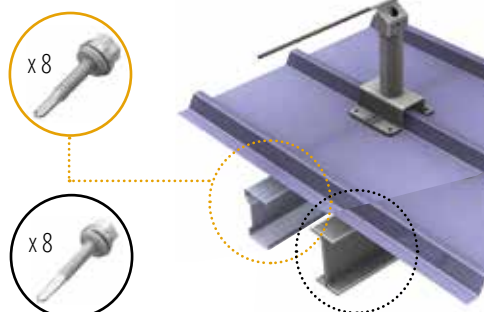
- ▶ Compatible with: 
- Metal plates of the cold profile type
- L > 50mm; thickness > 1.5mm
- Min. metal plate: IPN or UPN 80
- L > 50mm; thickness > 1.5mm

Scan the QR code to see the installation video



Cold profile metal plate or IPN/UPN 80

Fastening kit: cold profile metal plate
WVKV1A



Fastening kit: IPN or UPN 80
WVKV1M

- ▶ Anchor point alone or with ladder anchor available on sinusoidal and trapezoidal deck



- Part no WVBFXS (plain)
- Part no WVBFXSC (ladder)



- Part no WVBFXT (plain)
- Part no WVBFXTC (ladder)

- ▶ Fastening kit included

- ▶ Anchor point alone or with ladder anchor available on sinusoidal and trapezoidal deck:

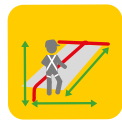


- Part no WVBFXS (plain)
- Part no WVBFXSC (ladder)



- Part no WVBFXAT (plain)
- Part no WVBFXATC (ladder)

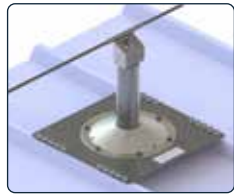
- ▶ Fastening kit included



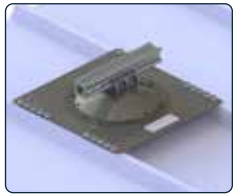
ALUMINIUM



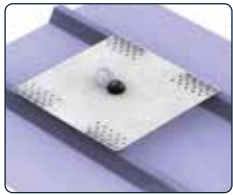
Aluminium



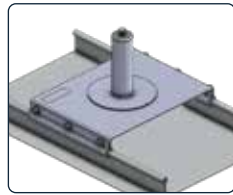
Lifeline anchor
WVAFX2FR



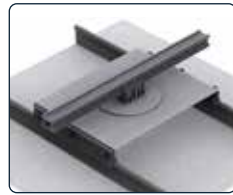
Rail anchor
WVRAFXT



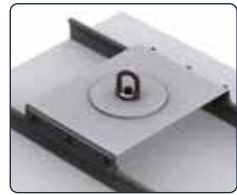
Anchor point
WVAFXBACPA



Lifeline anchor
WVAFXKAL1



Rail anchor
WVRAF XKAL



Anchor point
WVAFXKAL2

Sinusoidal

Trapezoidal

Fastening kit
WVKVBACALUS



x 8
x 27

Thickness ≥ 0.9mm

Fastening kit
WVKVBACALU



x 8
x 21



- ▶ Compatible with centre distances: 250, 280, 304 & 333 mm
- ▶ Special centre distances on request for lifeline or rail anchors and for anchor points (WVAFxSPEFIC)

- ▶ Fastened directly on standing seams - diameter 20mm (Kalzip, Bémo etc.)
- ▶ 100% stainless steel
- ▶ Standing seam centre distance: 400 mm
- ▶ Special centre distance on request
- ▶ Thickness of aluminium deck > 0.9mm
- ▶ Fastening: rivets (kit included)



ZINC & COPPER



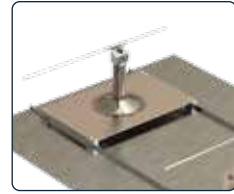
Lifeline anchor
WVAFXZN



Anchor point
WVAFXZNPA



Rail anchor
WVRAFXZN



Lifeline anchor
WVAFXZNJD

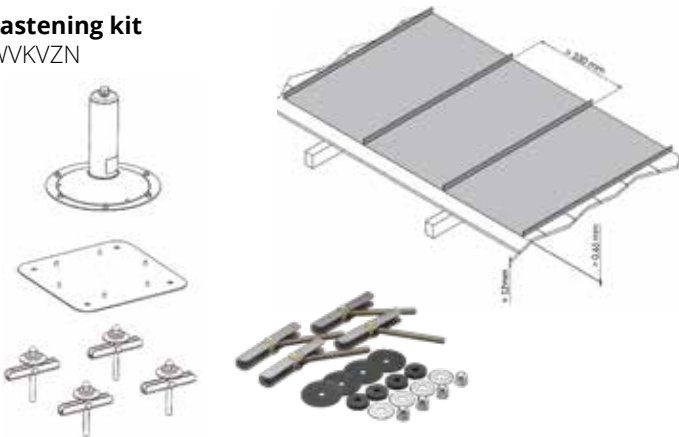


Anchor point
WVAFXZNJDPA

Wooden roofs

Fastening kit

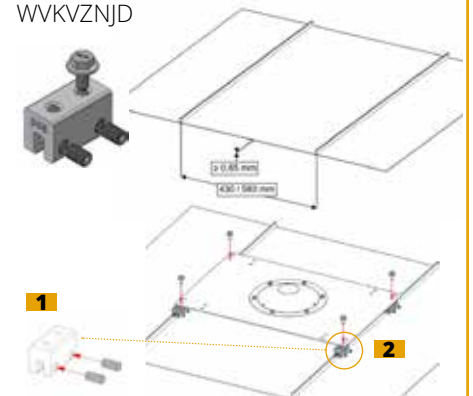
WVKVZN



Wooden roofs

Fastening kit

WVKVZNJD

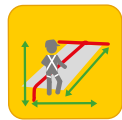


- ▶ Installation with no work on the underside, no blocking of zinc dilatation
- ▶ Can withstand strain in all directions
- ▶ Certified for wooden battens - 12mm thick
- ▶ Available in clamping version (JD part numbers) for corrugation centre distances of 430 or 580mm
- ▶ Fastening kit included



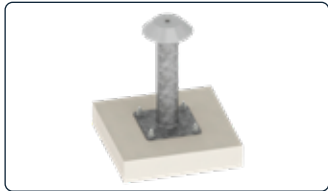
Scan the QR code to see the installation video





Other types

CONCRETE



Standard post
WVPST2



Square post
WVPSTC



Anchor ring
WVANO



Anchor points
WVPLFIXVI (st st) & WVPLFIXV

Fastening kit
WVANCRM12
Ø12mm fasteners
HILTI HVU M12



x 4

Waterproofing connection accessories:

- Aluminium sleeve (WVFALU1)
- PVC sleeve (WVFPVC1)




Fastening kit
WVANCRM12
Ø12mm fasteners
HILTI HVU M12



x 1



Fastening kit
WVANCRM12
Ø12mm fasteners
HILTI HVU M12



x 2



- ▶ Fastening: chemical or metal anchors
- ▶ Available in four different versions: standard, square, insulated & stainless steel

- ▶ Environments: indoor & outdoor -40°C to +80°C
- ▶ Fastening: chemical or metal anchors
- ▶ Facilitates carabiner connection
100% 316L stainless steel
Quick and easy installation

- ▶ Environments: indoor & outdoor -20°C to +50°C
- ▶ Installation on vertical, horizontal or angled structures
- ▶ Withstands strain in all directions & suitable for suspended access



STRUCTURE



Lifeline anchor
WVAFXFC

Rail anchor
WVAFXCPA

Anchor point
WVAFXFC

Standard post
WVPST1

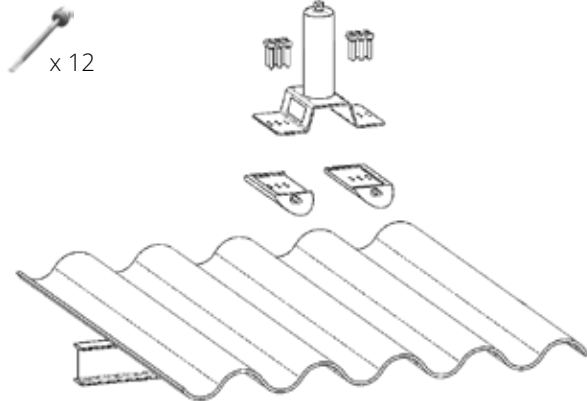
Standard anchor point
WVPEXAFX

Structure

Structure

Structure

Fastening kit WVKVFC



Fastening kit WVKBx or WVKCx

WVKBx:
Double
clamping



WVKB1: 80 - 150 mm
WVKB2: 150 - 250 mm
WVKB3: 235 - 330 mm

WVKCx:
Double
clipping



WVKC1: 80 - 150 mm
WVKC2: 150 - 250 mm
WVKC3: 235 - 330 mm

Fastening kit WVKBxP or WVKCxP

WVKBxP:
Single
clamping



WVKB1P: 80 - 150 mm
WVKB2P: 150 - 250 mm
WVKB3P: 235 - 330 mm

WVKCxP:
Single
clipping

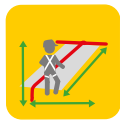


WVKC1P: 80 - 150 mm
WVKC2P: 150 - 250 mm
WVKC3P: 235 - 330 mm

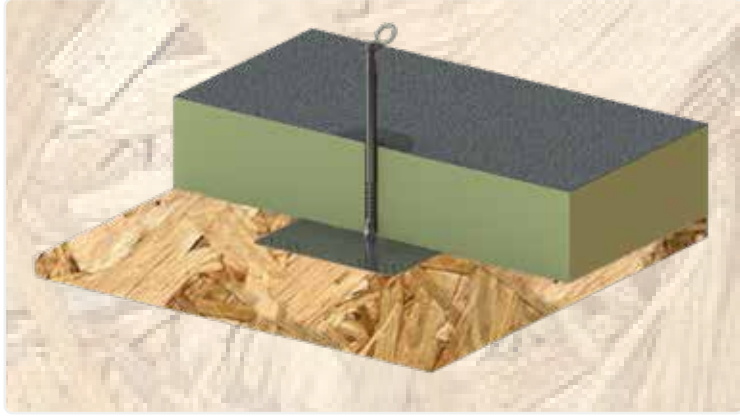
- ▶ Easy installation with no work on the underside
- ▶ Fastening on metal structure: minimum IPN 80 or UPN 80
- ▶ Joints adapted to fibre cement plates with 5.5 corrugations for waterproofing

- ▶ Fastening with clamping kit (WVKBxP) or clipping kit (WVKCxP)
- ▶ Available in insulated or square version
- ▶ Sleeves for waterproofing connection: aluminium (WVVALU1), PVC (WVFPVC1) or lead (WVKEFP-TUILE)

- ▶ Fastening with clamping kit (WVKBx) or clipping kit (WVKCx)



WOODEN BOARD



Anchor point
WVPARXx

Lifeline anchor
WVRXx

Simple anchors
WVBWOODS and WVBWOOD

Anchors + ladder hooks
WVBWOODSC and WVBWOODC

Wooden board - OSB or CTBH (22 mm min.)

Wooden rafters

Fastening kit not included

WVKVBOIS
St st screw A2 x 21 + Wood screw x 2



Waterproofing connection accessories for post

PVC sleeve (WVRXM010)
BM sleeve (WVRXM011)

Reinforcement kit

6 dimensions available:
WVRXR200 - WVRXR300
- WVRXR400 - WVRXR600 -
WVRXR800 - WVRXR1000



Waterproofing connection accessories for reinforcement kit

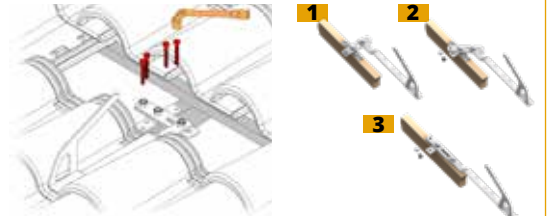
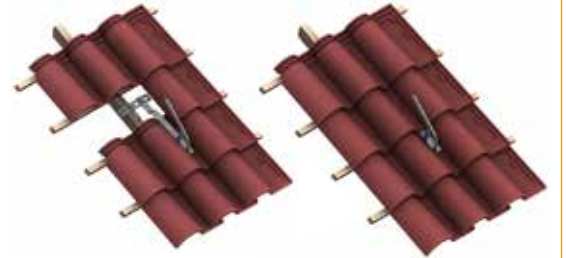
PVC sleeve (WVRXM012)
BM sleeve (WVRXM013)

Fastening kit included

Lag screw x 4

Screwing of bolts without pre-drilling

Wooden rafter section 3.6 x 6 cm (pre-drilling recommended)



- ▶ Anchor point certified for 2 workers (item code WVPARXx)
- ▶ Available in different heights to adapt to the waterproofing thickness:
200, 300, 400, 600, 800 & 1000 mm
- ▶ May be used as a lifeline anchor for heights from 200 to 400 included (item code WVRXx)
- ▶ May be used in all axes

- ▶ 100% stainless steel
- ▶ Adjustable anchor points, with or without ladder hook and allowing use with all types of connector
- ▶ Includes a patented tripping mechanism to keep force in the centre line of the rafter
- ▶ Easy installation: top fastening, without waterproofing connection or cutting
- ▶ May be installed on all rafter types, including small sections



Benefits

Ease of use

Its dedicated glider can be connected at any point of the cable for unconstrained movement

Ease of installation

Distance between anchors certified to 15 metres

Versatility

Many possibilities of use (at the foot, on façades, overhead etc.) and ideal when the worker is at a distance from the device

Long life

Made in stainless steel for high corrosion resistance

Practicality

The post that is used at the start of the line can also be used as the end post, independently from the number of angles or intermediate pieces (Altifix or PST anchor)

High design

Carefully finished for complete integration into architectural constraints

Safety

Presence of cable tension indicator and fall indicator

ACCESSORIES



CMS3 - Glider

For using the system at a distance without disconnection while passing intermediate parts. Used with all types of connector.



CMS3KR - Roller glider

For use on the underside, inaccessible to the worker. It also makes movement easier when a safety block is used, or with a high-rise connection. Rollers may be added to the glider for heavy loads.



Online tutorials

Go to our YouTube page to see our tutorials for use and installation!

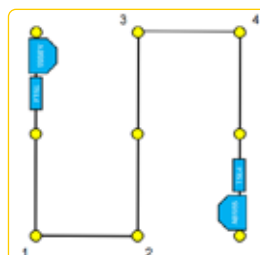
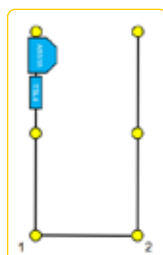


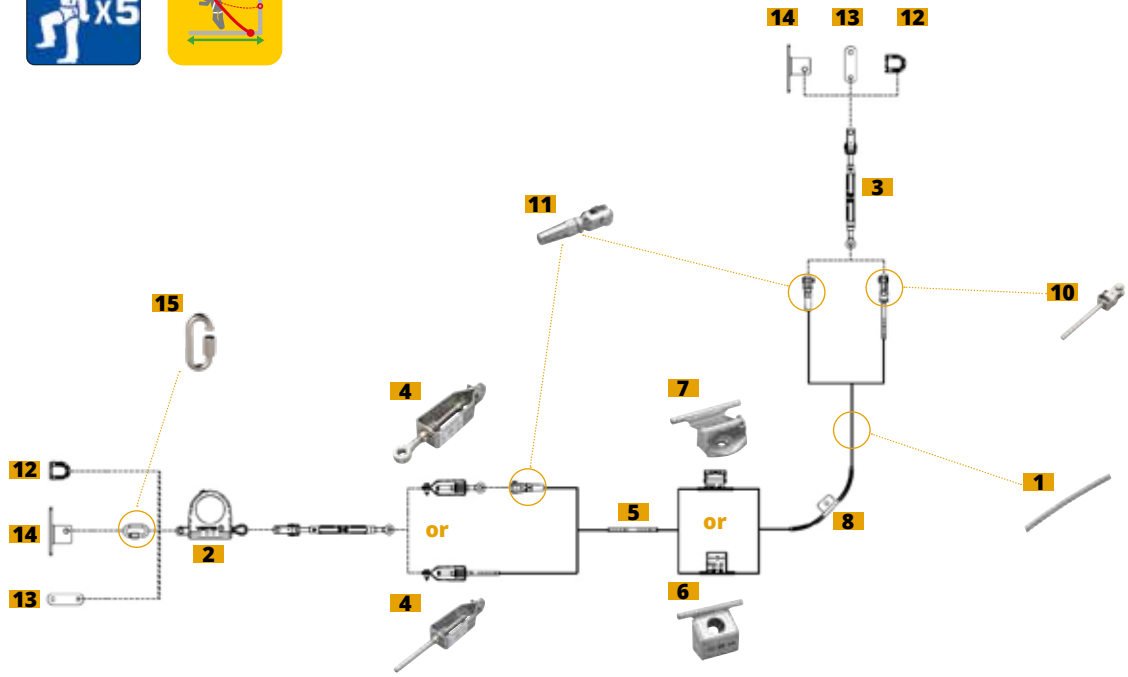
Design calculations

We have a special program for calculating our lifelines. It is available 24/7; please enquire for your identifiers.

INSTRUCTIONS & EXAMPLES OF INSTALLATION

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





LIST OF PARTS



1
Cable
WVCI8
Stainless steel, Ø8mm, 7x7
Integrated tape for improved traceability,



2
Energy absorber
WVABS55
Reduces the forces applied to the structure. Available in metal shell version (ABS55M).



3
Manual pre-tensioner
WWTSL4
Allows tension at the end of the line with no special tools.



4
Manual tensioner/for crimping
WVBATSL250/WVBATSL350
For adjusting the line tension. Integrated tension indicator.



5
Crimping sleeve
WVMAC02C8
For joining the cable. Crimper required.



6
Fixed intermediate piece
WVIFR90
For passing the glider without unhooking.



7
Mobile intermediate piece
WVIMR
For passing the glider without unhooking.



8
Flexible angle piece
WVANGFLEX



9
Flexible angle piece for façade
WVANGFLEX



10
Articulated clevis crimping end
WVES2
Lifeline end with crimping.



11
Manual end piece
WVEC
Manually mounted on the end of the cable.



12
Anchor ring
WVPEXAFIX
End anchor. May also be used as an anchor point.



13
Terminal anchor
WVPEX
End anchor.



14
T piece
WVT
Lifeline end. May be installed on concrete, steel or beam (fastening not included).



15
Quick link
WVA0001
For connecting the energy absorber and the T piece (optional).



16
Safety signboard
WVPS
Installation at the system access. For identifying and monitoring the system.



Benefits

Comfort

Can be used with just a carabiner
Distance between anchors certified to 15 metres

Ease of use

Easy passage of anchors without taking off

Ease of installation

No special tools required for installing cable ends

Long life

Made in stainless steel for high corrosion resistance

Practicality

The post that is used at the start of the line can also be used as the end post, independently from the number of angles or intermediate pieces (Altifix or PST anchor)

Safety

Presence of a tension indicator for optimum cable adjustment

ACCESSORIES



Ready-to-install kits

For more simplicity, Batiligne is also offered as a kit:

15, 30 or 40 metres or with ends alone.



Continuity and safety

The worker moves along the system without taking it off, even at intermediate pieces.

SERVICES



Online tutorials

Go to our YouTube page to see our tutorials for use and installation!

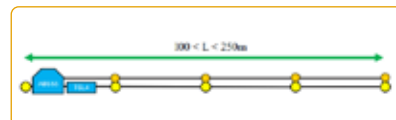
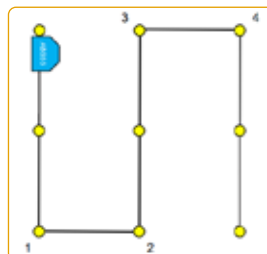
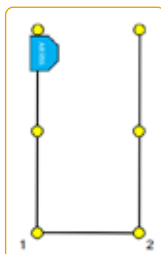


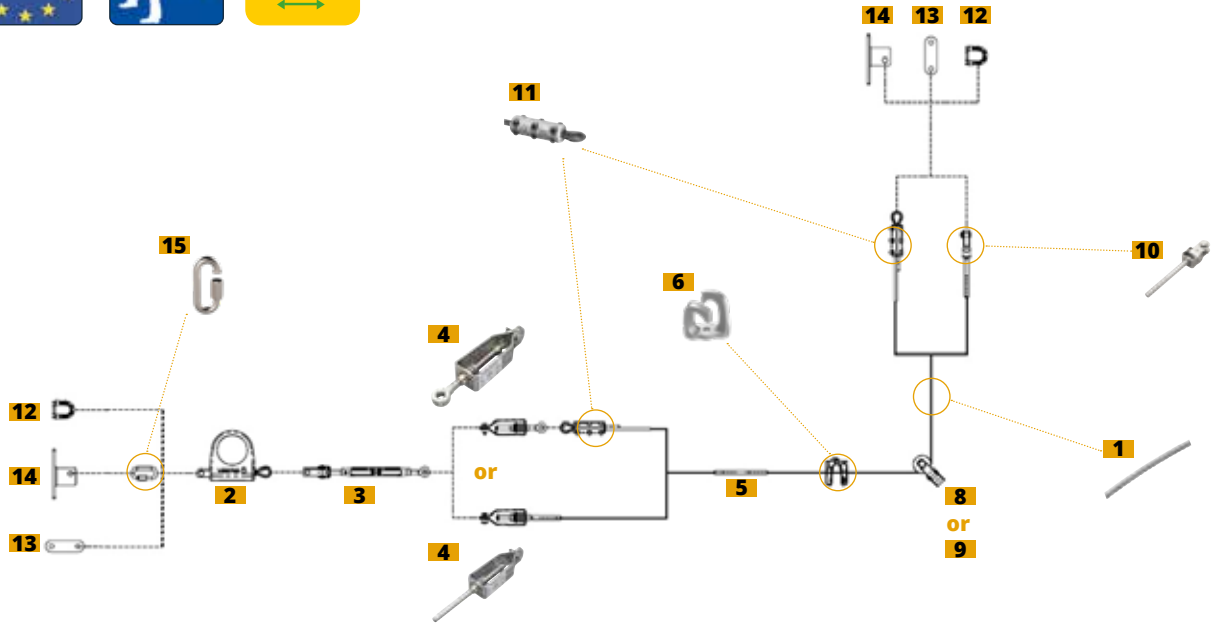
Design calculations

We have a special program for calculating our lifelines. It is available 24/7; please enquire for your identifiers.

INSTRUCTIONS & EXAMPLES OF INSTALLATION

		ABS55	TSL4
	$0 < n \leq 3$	1	0
	$4 < n \leq 6$	1	0
	$0 < L < 100 \text{ M}$	1	0
	$100 < L < 250 \text{ M}$	1	0 < 1





LIST OF PARTS



1
Cable
WVCI8
Stainless steel, Ø8mm, 7x7
Integrated tape for improved traceability,



2
Energy absorber
WVABS55
Reduces the forces applied to the structure, Available in metal shell version (ABS55M).



3
Manual pre-tensioner
WVTSL4
Allows tension at the end of the line with no special tools.



4
Manual tensioner/for crimping
WVBATSL250/WVBATSL350
For adjusting the line tension. Integrated tension indicator.



5
Crimping sleeve
WVMAC02C8
For joining the cable. Crimper required.



6
Intermediate piece
WVBAINT2
Maximum 15 metres space between each anchor.



7
Manual end
WVBAEXT2
Assembled without special tools.



8
Angle piece
WVBAANG2
For making variable angles.



9
Angle piece for façade
WVBAANGSA
For installing the piece on a salient or re-entrant corner on the façade. Adjustable for the degree.



10
Articulated clevis crimping end
WVESA
Lifeline end with crimping.



11
Manual end piece
WVEC
Manually mounted on the end of the cable.



12
Anchor ring
WVPEXAFX
End anchor. May also be used as an anchor point.



13
Terminal anchor
WVPEX
End anchor.



14
T piece
WVT
Lifeline end. May be installed on concrete, steel or beam (fastening not included).



15
Quick link
WVA0001
For connecting the energy absorber and the T piece (optional).



16
Safety signboard
WVPS
Installation at the system access. For identifying and monitoring the system.



Benefits

Ideal for high installations, on the underside or when the clearance is not compatible with a cable system.

Versatility

Many possibilities of use: suspended, at a distance or in combination with a heavy fall-arrest connection (safety block) Can be installed on all types of structure and roof

Ease of use

Routing allows an indefinite number of paths and keeps the safety system continuous throughout all movements

Long life

Made in stainless steel for high corrosion resistance

High design

Carefully finished for complete integration into architectural constraints. Many RAL colours available.

Safety

Fall height reduced by the rigidity of the system

ACCESSORIES



RCF2

Roller glider

Made with several rollers to allow perfect movement regardless of the position used. This glider is ideal for intensive use.



RCF3

Glider for suspended access

Designed for travelling under load, allows great mobility during work when suspended.



Lateral movement



Movement above the rail



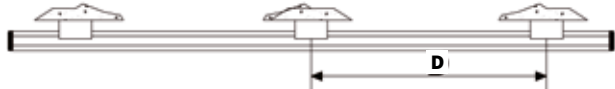
In ceiling position

INSTRUCTIONS FOR USE

Use only in a fall-protection system **D = 4 m**
Suspended access

D = 2 m

Max. 2 workers
between each anchor

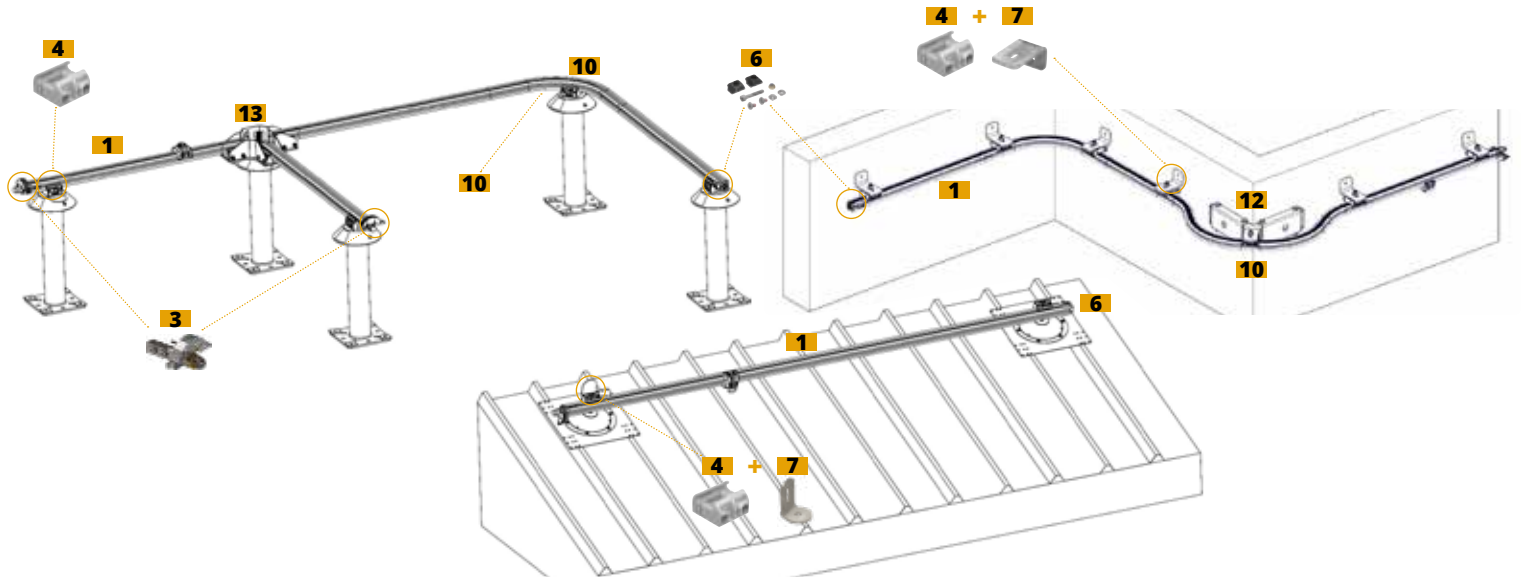


SERVICES



Online tutorials

Go to our YouTube page to see our tutorials for use and installation!



LIST OF PARTS



1
Aluminium rail
WVRRAIL
Delivered drilled and milled.
Available in lengths of 1, 1.5 and 3m.



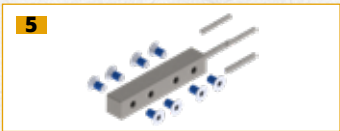
2
Glider entry/exit
WVRRO
For installation at any point of the rail to allow the glider to be put in place.



3
Folding stop
WVRBE
For inserting the glider on the rail. Automatic closure.



4
Opening anchor
WVRSUP
Copper-aluminium rail anchor that makes removal easy. Allows free expansion of the rail.



5
Splice
WVRECL
For assembling two rail lengths.



6
Fixed stop
WVREXTF
Locks the glider at the end and finishes the rail perfectly.



7
bracket
WVREQG or WVREQI
For mounting the rail on a façade with movement on the underside. Available in stainless steel.



8
Safety signboard
WVRRPS
Installation at the system access. For identifying and monitoring the system.



9
90° angles - lateral movement
WVRA90E/WVRA90S
Interior/exterior angle for lateral movement of glider.



10
90° angles - underside movement
WVRA90E2/WVRA90S2
Interior/exterior angle for movement on the underside of the glider.



11
Rail angle anchors
WVRIAFS/WVRIAFS2/
WVRIAFS2SF
Standard angle anchors without offset.



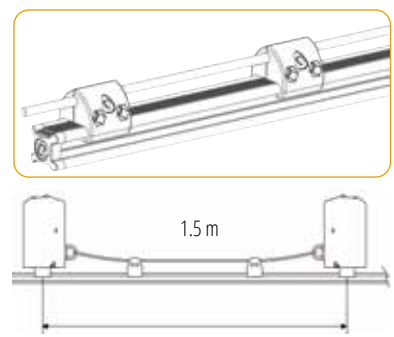
12
Rail angle anchors
WVRIAS/WVRIAS2/WVRIAS2SF
Mobile angle anchors with offset. For managing rail expansion.



13
Routing: manual or powered
WVRAIG3D/WVRAIG4D
or WVRAIG3DM/WVRAIG4DM
For changing directions. Available in 3/4 directions. Remote activation using a remote control for the powered version.

GOING FURTHER

For particular uses where the available anchors are spaced by more than 5 metres, we suggest **combining our rigid Altirail system with a 10mm galvanised cable**. This solution thus makes it possible to **cover larger spans**, providing the bearing structure to which the slings are fixed is capable of withstanding the required force. **Work under tension possible.**





Benefits

Innovation

Ideal solution for installations requiring a large fastening centre distance - 8 metre span

User comfort

Glider with plastic rollers mounted on bearings for perfectly fluid movement

Versatility

Fastening anchor adaptable to all structure thicknesses

Long life

Very strong 316 stainless steel glider and profile, suitable for aggressive and dusty environments

Safety

Glider with 2 safety hooks

Screws pre-coated with thread locker to prevent loosening

ACCESSORIES



RCLR Glider

The RCLR glider is permanently installed on the rail.

Because of its peerless movement fluidity, it makes it possible to move unhindered along the whole rail span.



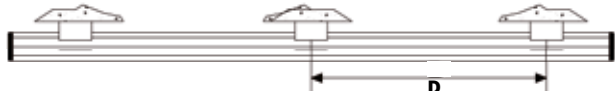
INSTRUCTIONS FOR USE

Use only in a fall-protection system
Suspended access

D = 8 m

D = 5 m

Max. 3 workers
between each anchor

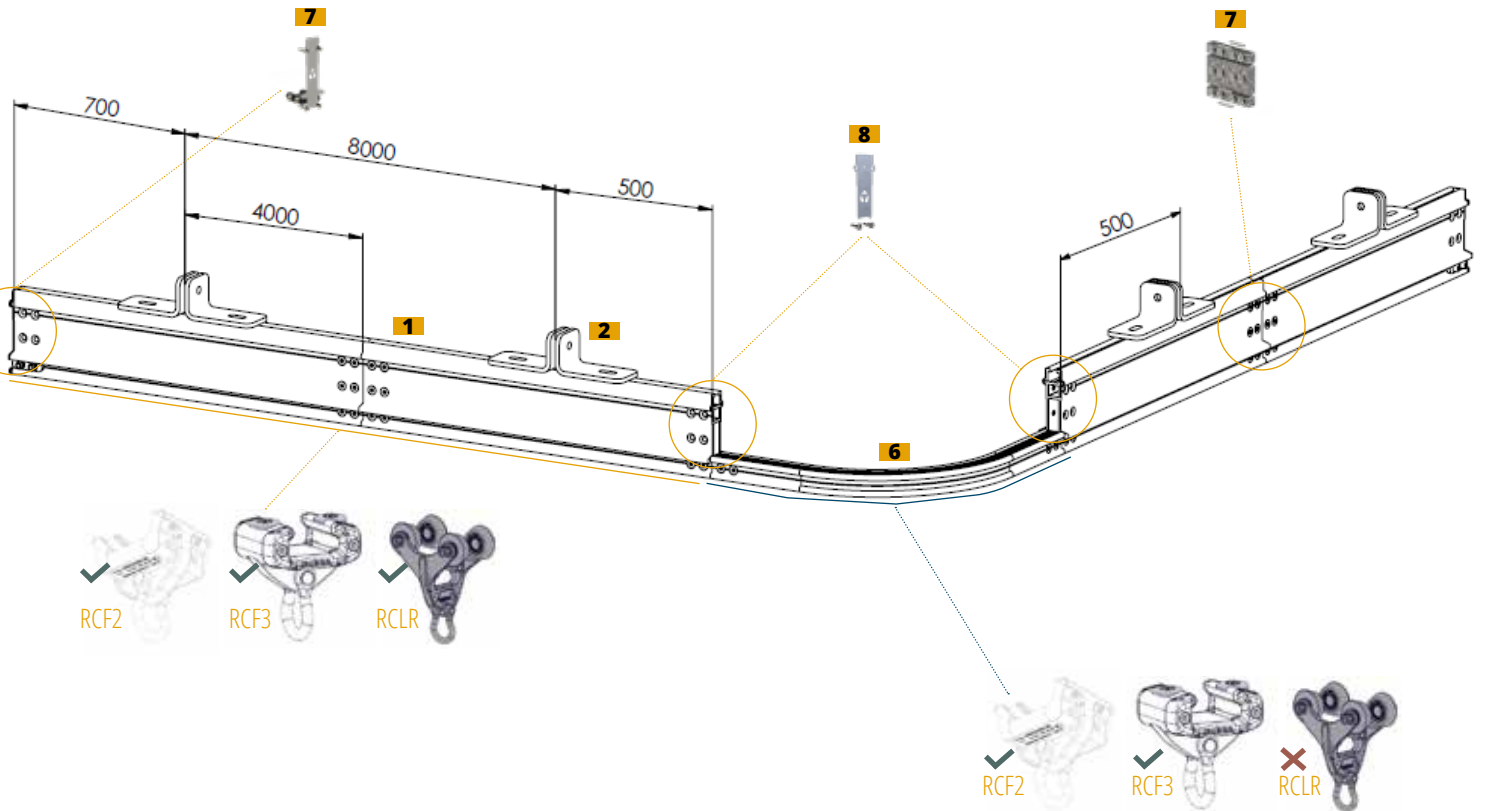


SERVICES

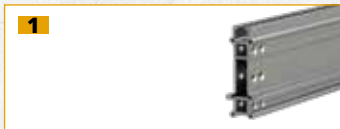


Online tutorials

Go to our YouTube page to see our tutorials for use and installation!



LIST OF PARTS



1
LR rail
 WVRRAILLR
 May be cut or drilled if needed (ROUTP tool). Compatible with Delta Plus Systems RCLR, RCF2, RCF3. Length 4.40 m.



2
LR rail anchor
 WVRSUPLR1
 Allows the LR rail to be turned along the line of the fall. Galvanised steel.



3
LR rail anchor
 WVRSUPLR2
 For fastening the LR rail perpendicular to the structure. Galvanised steel.



4
LR rail anchor
 WVRSUPLR3
 For fastening the LR rail parallel to the structure. Galvanised steel.



5
LR rail splice
 WVRECLLR
 For assembling two rail lengths.



6
90° angles - underside movement
 WVRA90E2/RA90S2
 Interior/exterior angle for movement on the underside of the glider.



7
LR rail end
 WVRRBLR
 Locks the glider at the end and finishes the rail perfectly.



8
LR rail angle end
 WVRRBLR
 For a perfect rail finish.



9
IR safety signboard
 WVRPSLR
 Installation at the system access. For identifying and monitoring the system.



Benefits

Innovation

Optimum safety for all types of angles from 0° to 180°

Ease of use

Easy change of angles:

- certified with absorber, connected to the sternal connector, for vertical use
- certified with and without absorber, for horizontal use

Modular

Allows indefinite paths thanks to routing, which allows safe continuous movement without unhooking

Versatility

Many possibilities of use (at the foot, on façades, overhead etc.) and ideal when the worker is at a distance from the device

High design

Carefully finished for complete integration into architectural constraints

Safety

Load capacity per glider: 150kg maximum (user and tools included). The simultaneous number of users between each anchor varies depending on the installation configuration of the system.

ACCESSORIES



RCBC Glider

This glider is fitted with multiple rollers for perfect movement, regardless of the position of use.

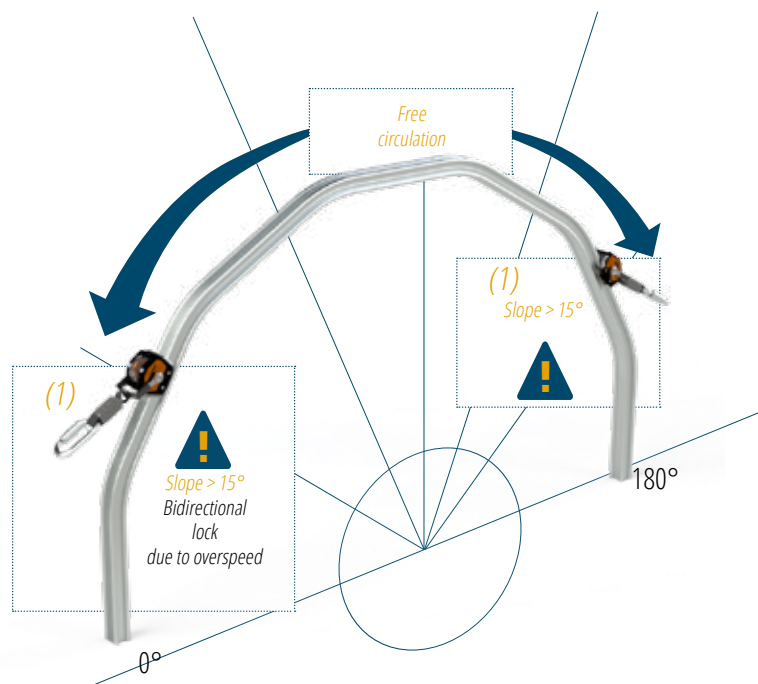
(1) Bidirectional centrifugal lock, which only activates when the operator needs it, by overspeed, regardless of the slope of the anchor.

SERVICES



Online tutorials

Go to our YouTube page to see our tutorials for use and installation!

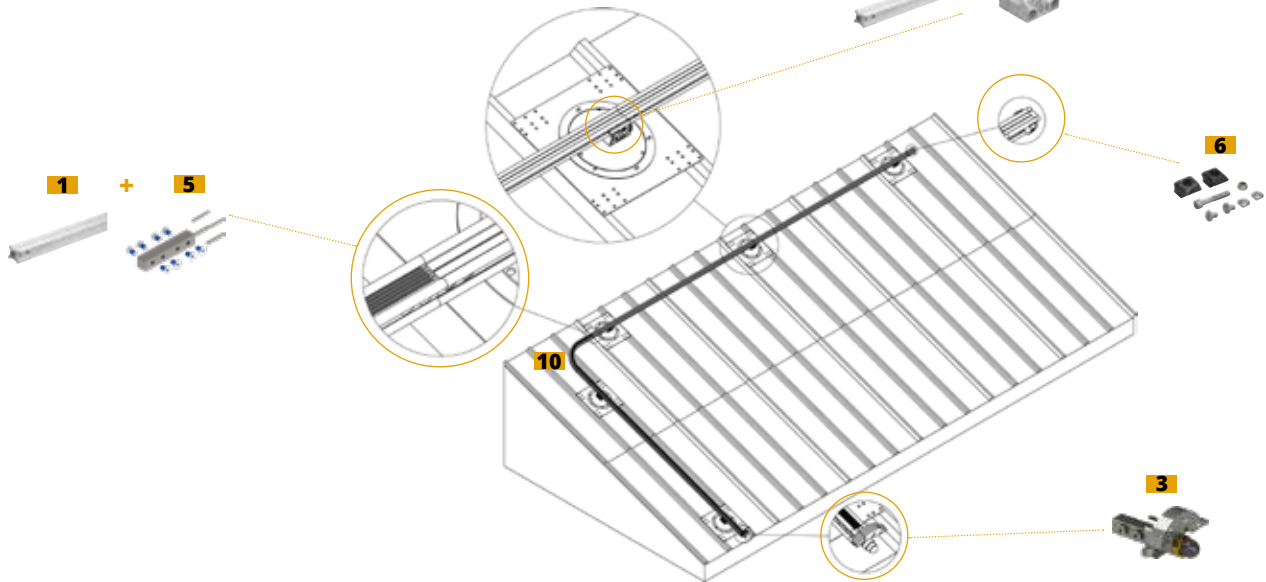




1 + 4



1 + 5



LIST OF PARTS



1
Aluminium rail
WVRRAIL
Delivered drilled and milled.
Available in lengths of 1, 1.5 and 3m.



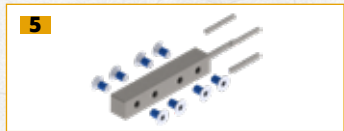
2
Glider entry/exit
WVRRO
For installation at any point of the rail to allow the glider to be put in place.



3
Folding stop
WVRBE
For inserting the glider on the rail. Automatic closure.



4
Opening anchor
WVRSUP
Copper-aluminium rail anchor that makes removal easy. Allows free expansion of the rail.



5
Splice
WVRECL
For assembling two rail lengths.



6
Fixed stop
WVREXTF
Locks the glider at the end and finishes the rail perfectly.



7
bracket
WVREQG or WVREQI
For mounting the rail on a façade with movement on the underside. Available in stainless steel.



8
Safety signboard
WVRRPS
Installation at the system access. For identifying and monitoring the system.



9
90° angles - lateral movement
WVRA90E/WVRA90S
Interior/exterior angle for lateral movement of glider.



10
90° angles - underside movement
WVRA90E2/WVRA90S2
Interior/exterior angle for movement on the underside of the glider.



11
Rail angle anchors
WVRIAFS/WVRIAFS2/
WVRIAFS2SF
Standard angle anchors without offset.



12
Rail angle anchors
WVRIAS/WVRIAS2/WVRIAS2SF
Mobile angle anchors with offset. For managing rail expansion.



13
Routing: manual or powered
WVRAIG3D/WVRAIG4D
or WVRAIG3DM/WVRAIG4DM
For changing directions. Available in 3/4 directions. Remote activation using a remote control for the powered version.



14
Non-return system
WVRANTIR
For locking the glider on a given area of the rail.



OPTIONAL

Special bends on request.



Benefits

Practicality

May be used simultaneously by 3 users placed 3 metres apart
The dedicated glider can be connected at any point of the cable.

Ease of use

Easy installation of the glider, including with gloves

Versatile

May be installed on the most varied vertical structures

Long life

Made in stainless steel for high corrosion resistance

Safety

Presence of a tension indicator for optimum cable adjustment
Load capacity: 125kg maximum (user and tools included)

ACCESSORIES



CMBV locking glider

The CMBV moves remotely through intermediate pieces, while providing unidirectional locking. It is smart and can be connected at any point of the cable.

Foolproofing is inserted on the glider to avoid improper use and to ensure locking in the event of a fall. EN-353-1 certified with textile absorber.



VLINE locking glider

The VLINE moves remotely on a single-span lifeline, while providing unidirectional locking. It is smart and can be connected at any point of the cable.

EN 353-1 certified.

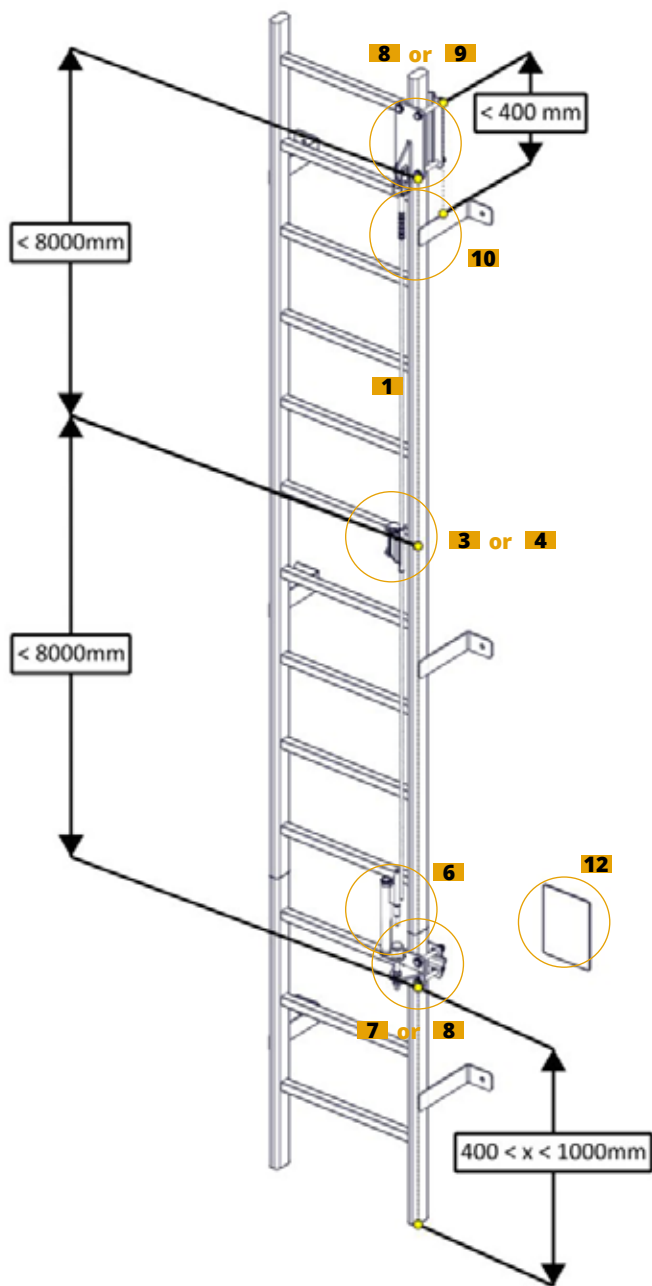
SERVICES



Online tutorials

Go to our YouTube page to see our tutorials for use and installation!





LIST OF PARTS



1
Cable
 WVC18
 Stainless steel, Ø8mm, 7x7. Integrated tape for improved traceability.



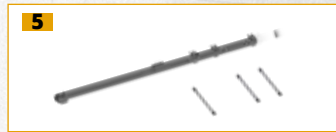
2
Bracket
 WWSBP
 For fastening on a concrete wall.



3
Fixed intermediate piece
 WVIFV
 Supplied with 3 fastenings sizes to adapt to ladder rungs.



4
Mobile intermediate piece
 WVMIMV
 Supplied with 3 fastenings sizes to adapt to ladder rungs.



5
Lifeline riser
 WVPHR2
 Makes it easier for the worker to move from ladder to roof.



6
Lower end piece
 WVEVB3
 For pre-tensioning the cable.



7
Lower anchor
 WVSHL4
 For fastening the lower end of the ladder. Compatible with different types of stile.



8
Lower and upper anchor
 WVSHL1
 For fastening the lower or upper end of the ladder. Can be adjusted for the post diameter.



9
Upper anchor
 WWSVH
 For fastening the upper end of the ladder. Compatible with different types of ladder.



10
Articulated clevis crimping end
 WVES2
 Lifeline end with crimping.



11
Cable locking rings
 WVBAG01/WVESC8
 For curves and direction changes. Removable or crimped version.



12
Safety signboard
 WVPSV
 Installation at the system access. For identifying and monitoring the system.



Benefits

Fluidity

Perfectly fluid movement, both upwards and downwards

Ease of use

Simultaneous use of the system by 3 users placed 3 metres apart
Certified with absorber with sternal connector, for vertical use

Practicality

May be installed directly on the ladder rungs

High design

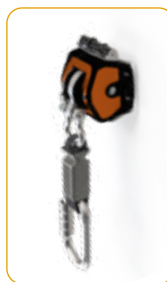
Carefully finished for complete integration into architectural constraints

Safety

Load capacity: 150kg maximum (user and tools included)



ACCESSORIES



RCBV

Unidirectional locking glider

The versatile RCBV glider can be used on structures with angles of up to 15° lateral and 45° frontal.

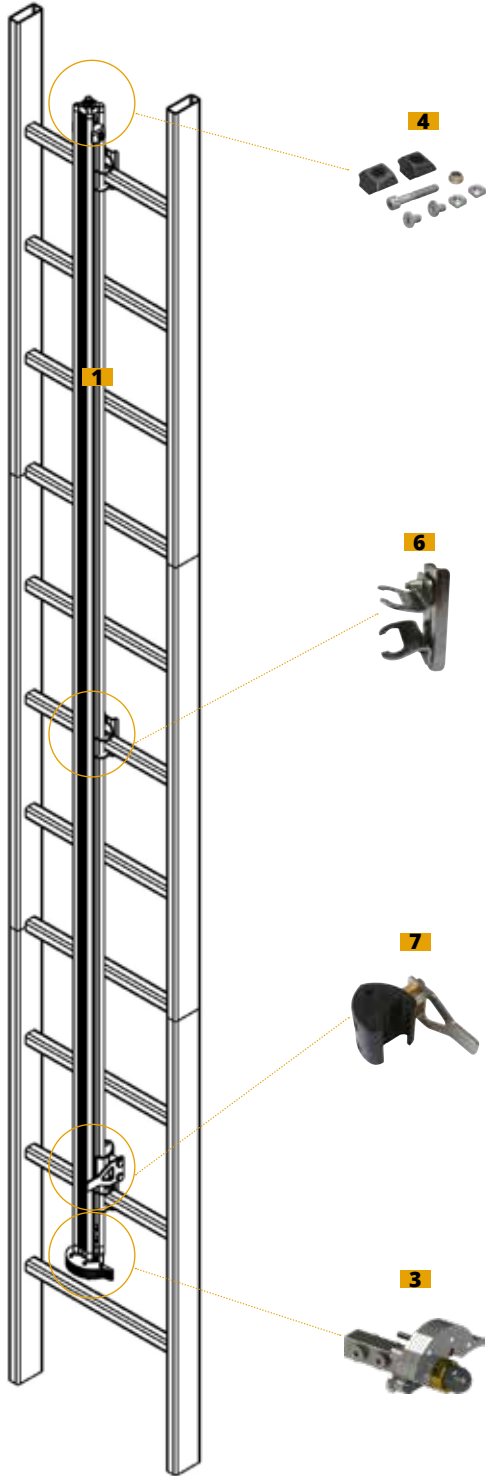
When any tension is applied downward, the glider locks automatically in its position.

SERVICES



Online tutorials

Go to our YouTube page to see our tutorials for use and installation!



LIST OF PARTS



1
Aluminium rail
WVRRAIL
Delivered drilled and milled.
Available in lengths of 1, 1.5 and 3m.



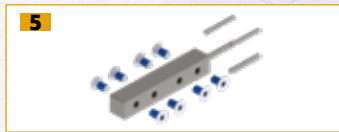
2
Glider entry/exit
WVRR0
For installation at any point of the rail to allow the glider to be put in place.



3
Folding stop
WVRBE
For inserting the glider on the rail. Automatic closure.



4
Fixed stop
WVREXTF
Locks the glider at the end and finishes the rail perfectly.



5
Splice
WVRECL
For assembling two rail lengths.



6
Mounting bracket
WVRSUPECH
Adapts to the dimensions and centre distances of ladder rungs.



7
Foolproofing
WVRDET
Prevents errors while putting the glider in place.

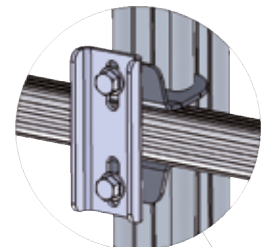
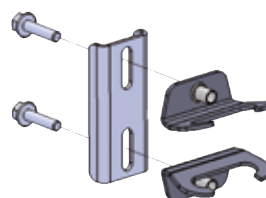
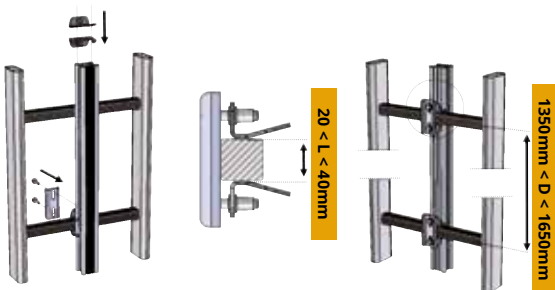


8
Safety signboard
WVRPS
Installation at the system access. For identifying and monitoring the system.



9
Manual routing
WVRAIG3D/WVRAIG4D
For changing directions.
Available in 3/4 directions.

PRINCIPLE FOR RAIL ASSEMBLY ON THE LADDER WITH THE RSUPECH ANCHOR





Benefits

Fluidity

Perfectly fluid movement, both upwards and downwards

Ease of use

Simultaneous use of the system by 3 users placed 3 metres apart
Certified with absorber with sternal connector, for vertical use

Practicality

The glider may be inserted and removed at any point of the system
Asymmetrical rail profile to allow glider insertion in the correct direction.

High design

Carefully finished for complete integration into architectural constraints

Safety

Load capacity: 150kg maximum (user and tools included)

ORIGINS

Our teams went to meet **telecoms** and **wind farm** workers.

Ladderrail came out of collecting and analysing their requirements and is **THE solution for safe working at very great heights.**



ACCESSORIES



WVLDRS

Unidirectional locking glider

The versatile LDRS glider can be used on structures with angles of up to 15° lateral and 45° frontal.
When any tension is applied downward, the glider locks automatically in its position.

SERVICES

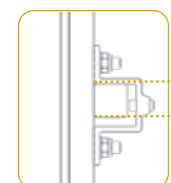
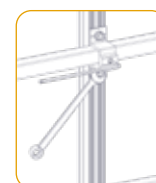
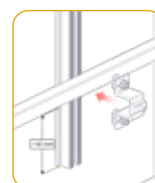


Online tutorials

Go to our YouTube page to see our tutorials for use and installation!

LADDER COMPATIBILITY

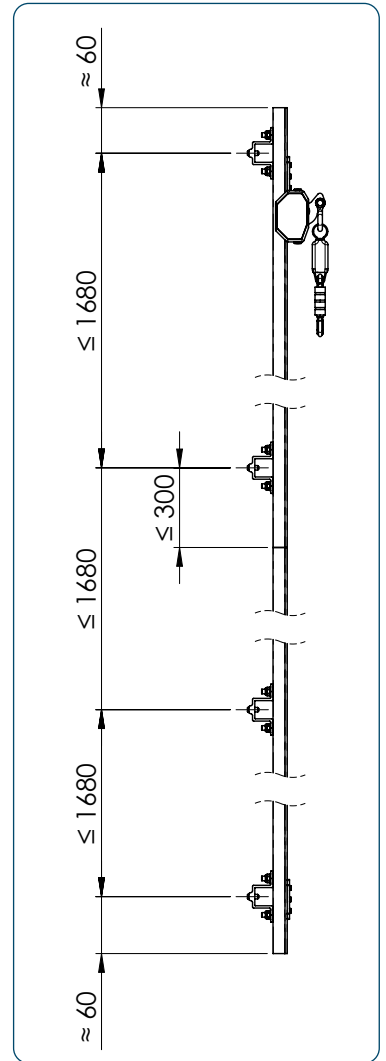
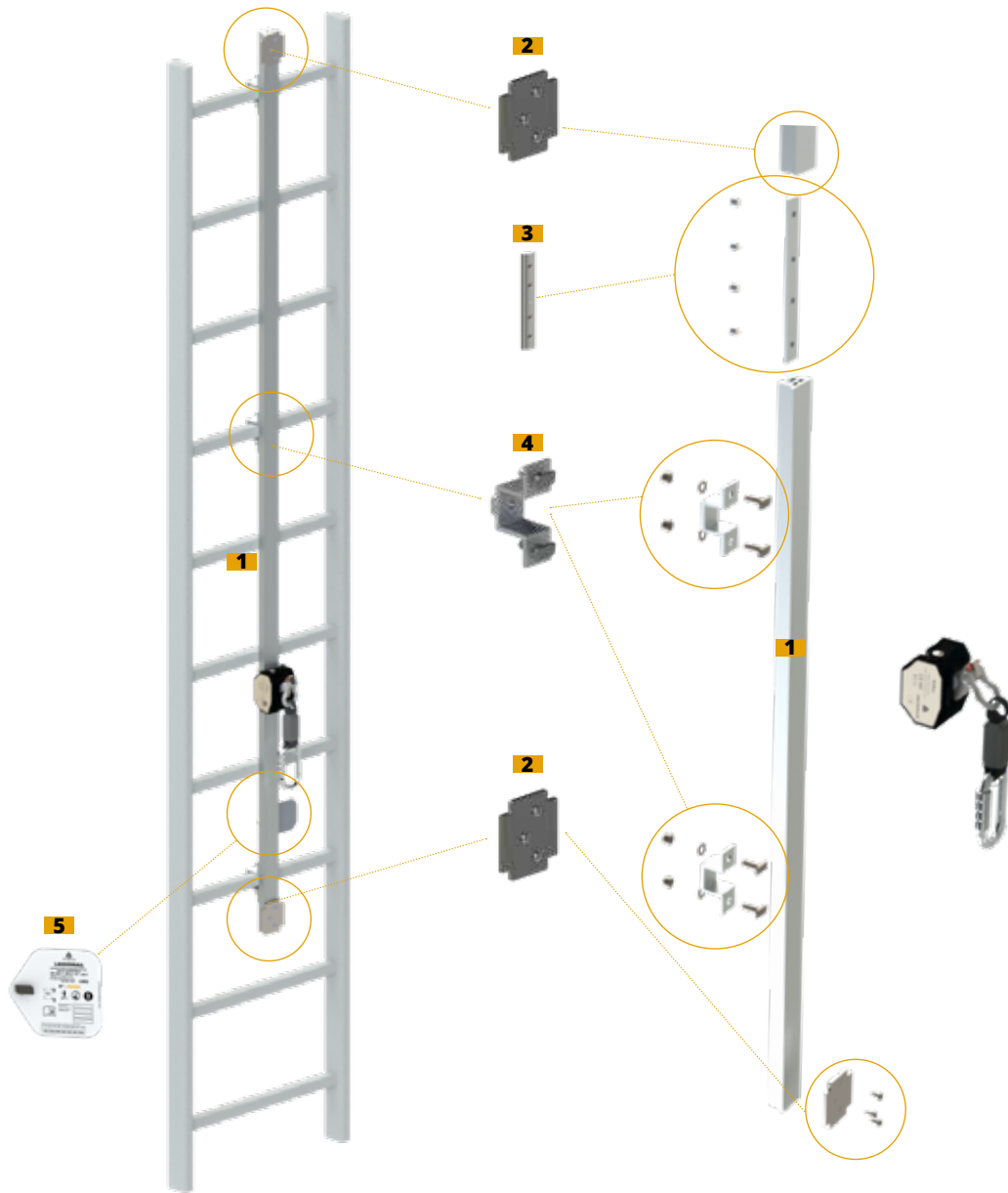
Compatible with tubular and square rungs



20 < L < 31mm



RAIL ASSEMBLY PRINCIPLE



LIST OF PARTS



Aluminium rail
WVLDRRAIL
Length: 3m.



Fixed stop
WVLDREXTF
Locks the glider at the end and finishes the rail perfectly.



Splice
WVLDRECL
For assembling two rail lengths.



Mounting bracket
WVLDRSUPECH
Adapts to the dimensions and centre distances of ladder rungs.



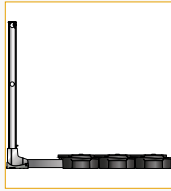
Safety signboard
WVLDRPS
Installation at the system access. For identifying and monitoring the system.



1 DEFINE YOUR INTERFACE



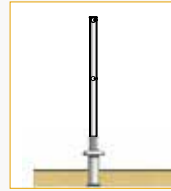
Self-supporting



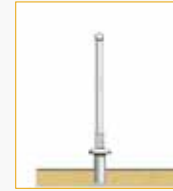
Self-supporting
EVOAPx



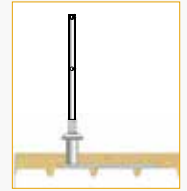
Waterproofed substrates



On slab D shoe with insulation
EVODEX



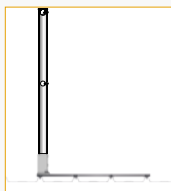
On slab D shoe without insulation
EVODEX



On deck BE shoe
EVOBEx



Steel deck



Steel deck
EVOBSx



Parapet



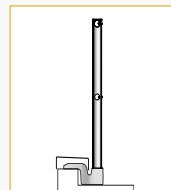
Flat surface mounting
EVOVx



Offset mounting without offset
EVOLx



Offset mounting with offset
EVOLx

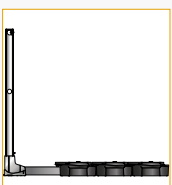


Uninsulated parapet
EVOZx

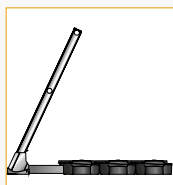


Insulated parapet
EVOZx

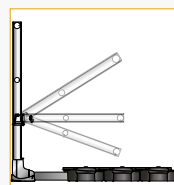
2 SELECT YOUR UPRIGHT



Straight EVOxD

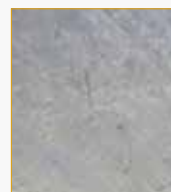


Angled EVOxC



Folding EVOxF

3 SELECT YOUR FINISH



No finish



Powder coated EVOxxL



Benefits

Versatility & speed of installation

The simplest solution to install in the market

Our collective protective equipment has been designed to keep you safe. It has also been conceived to make its installation as intuitive and speedy as possible.

With the help of a number of methods, we have succeeded in dramatically cutting the installation time of our railings.

1 Reduced handling operations and ergonomics

Smart weighting blocks

Lightweight: weight 12.5 kg

Ergonomic: two handles give an easy hold, while taking care of the fitter's spinal column

Optimised grasp: the centre of gravity is located very close to the worker's body.



2

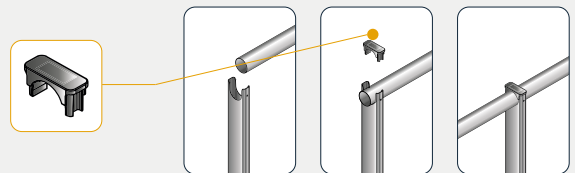
Easy and intuitive installation

EVO accessories offer the guarantee of simple and fast assembly

Ease of installation: rails and mid rails fit easily

Extremely lightweight: thanks to a strategic choice of materials used and smart parts design

Intuitive: our EZclip plug makes it easy to install the upper rail. Clip, screw and you're done!



3

Versatility & personalisation

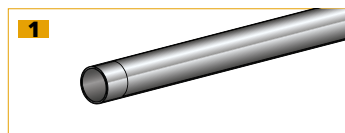
A wide range of railings to adapt to all types of configuration

Adaptability: 7 fastening possibilities are available, with a choice of 3 uprights (straight, angled, folding)

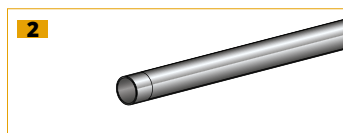
The design tones perfectly with the building architecture thanks to the many paint finishes available



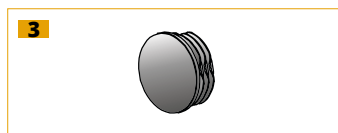
COMMON PARTS



1
Ø45 mm rail with reduction
3000 mm long
WV830450



2
Ø35 mm mid rail with reduction
3000 mm long
WV830350



3
Ø45 mm rail plug
WV830451



4
Ø35 mm mid rail plug
WV830351



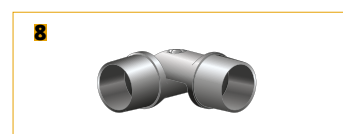
5
EZclip plastic plug
WV820000



6
Ø45 mm rail angle
WV830452



7
Ø35 mm mid rail angle
WV830352



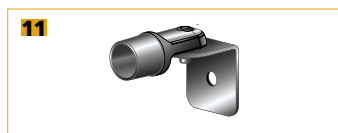
8
Ø45 mm rail and Ø35 mm mid rail aluminium angle
WV830453



9
Ø45 mm rail wall termination
WV830454



10
Ø35 mm mid rail wall termination
WV830354



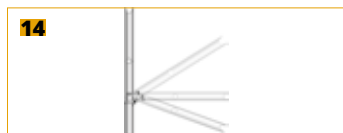
11
Ø45 mm rail and Ø35 mm mid rail aluminium wall termination
WV830455



12
Straight upright
WV8200535 - height 535 mm
WV8200760 - height 760 mm
WV8200885 - height 885 mm
WV8201010 - height 1010 mm
WV8201105 - height 1105 mm
WV8201182 - height 1182 mm

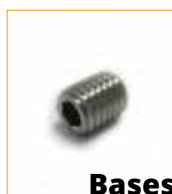


13
Angled upright
WV8200565C - height 565 mm
WV8200855C - height 855 mm
WV8200985C - height 985 mm
WV8201005C - height 1005 mm
WV8201165C - height 1165 mm

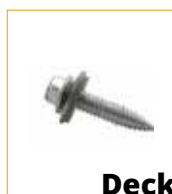


14
Folding upright
WV8201010F - height 1010 mm - aluminium articulation
WV8201105F - height 1105 mm - aluminium articulation

FASTENERS



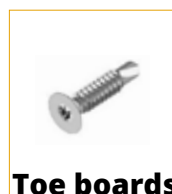
Bases



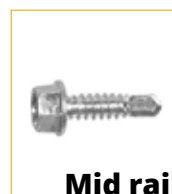
Deck



Deck



Toe boards



Mid rail



Concrete blocks

Hex socket screw
M08X10i DINI913
ZOSYSBV15ST002

Self-drilling screw and sealed washer 6x25
ZOSYSBVHF06025

Neck washer
ZOSYSBRC001

Self-drilling screw
Perfix TH st st 4.8 x 16
ZOSYSBVHF48016

Self-drilling screw
Perfix TH st st 4.8 x 25
ZOSYSBVHF48025

Self-drilling screw
Perfix TH st st 4.8 x 50
ZOSYSBVHF48050



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BASES

15



Flat base
WV811001

16



Surface mounted base
Aluminium
WV812001

17



Surface mounted base with 60 mm offset
Aluminium
WV812002

18



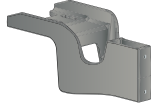
Surface mounted base with 95 mm offset
Aluminium - special part number

19



Surface mounted base with 116 mm offset
Aluminium - special part number

20



Z shoe for uninsulated parapet
Aluminium
WV813000

21



Z shoe for insulated parapet < 70 mm
Aluminium
WV813070

22



Z shoe for insulated parapet < 100 mm
Aluminium
WV813100

23



Z shoe for insulated parapet < 130 mm
Aluminium
WV813130

24



Z shoe for insulated parapet < 160 mm
Aluminium
WV813160

25



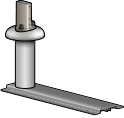
D shoe post with insulation
Height to measure - Special part number

26



D shoe post without insulation
Height to measure - Special part number

27



BE shoe post
Height to measure - Special part number

28



D/BE shoe waterproofing sleeve
Z2SYS814002

29



Perpendicular plain deck railing base - 250mm corrugation
WV815011

30



Parallel plain deck railing base - 250mm corrugation
WV815010

31



Perpendicular plain deck railing base - 333mm corrugation
WV815021

32



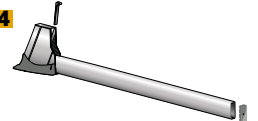
Parallel plain deck railing base - 333mm corrugation
WV815020

33



Straight brace
Self-supporting straight and folding version
WV817002

34



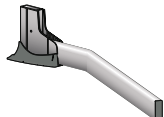
25° brace
Angled self-supporting version
WV817003

35



Base + brace, 32° bend to the right
WV817010

36



Base + brace, 32° bend to the left
WV817011

37



Locking wedge
WV817001

38



Plastic pedestal, 12.5 kg
3 pedestals per brace (French standard)
WV817000



TOE BOARD



39
Toe board
Length 3000 x 100 x 9 mm
WV840000



40
External toe board angle kit
Height 100 mm
WV840003



41
Straight toe board fitting
Height 150 mm
WV840005



42
Toe board anchor for railing, flat and on plain steel deck
Height 100 mm
WV841001



43
Toe board anchor for railing with offset plate and waterproofed deck
Height 100 mm
WV844001

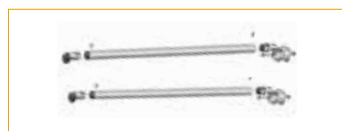


44
Toe board anchor for self-supporting railing
Height 67 mm
WV847001

ACCESSORIES

1000 mm railing and ladder joining kits

Practical: adapt to all types of railing and ladders in the market



1000mm railing and ladder joining kit
Aluminium - fasteners and companion plates included



1000mm railing and ladder joining kit
Plastic - fasteners and companion plates included

Gate

Safety: the gate closes automatically to keep the users safe



Gate kit for 25° angled self-supporting railing
Height 580mm and 1100 mm (elements available separately)



Gate kit for straight self-supporting railing
Height 580mm and 1100 mm (elements available separately)

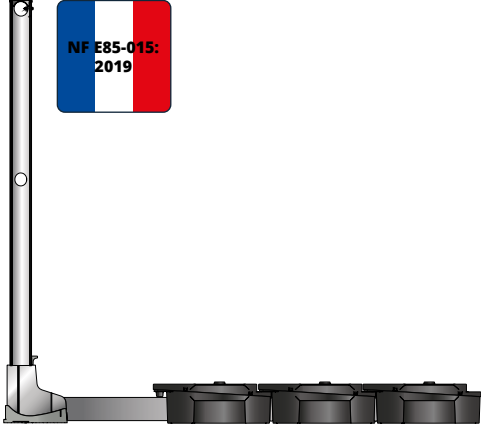
Selection guide: gate

Railing	Upright	Description
580 mm high gate kit		
Self-supporting	Straight	580 mm high gate kit for straight self-supporting railing
	25° angle	580 mm high gate kit for 25° angled self-supporting railing
All but self-supporting	30° angle	580 mm high gate kit for angled EVO® railing
	Straight	580 mm high gate kit for straight EVO® railing
1100 mm high gate kit		
All types	30° angle	1100 mm high gate kit for straight self-supporting railing
	Straight	1100 mm high gate kit for angled self-supporting railing

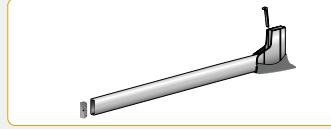


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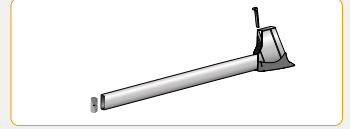
Self-supporting guardrails



Bases



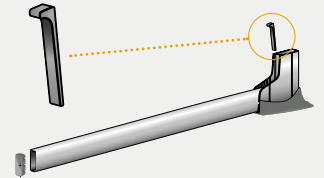
Straight brace
For straight railing version



25° brace
For angled railing version

Fasteners

The base is fastened to the upright by means of the locking wedge and concrete blocks, using Perfix TH st. st 4.8 x 50 self-drilling screws.



Installation configurations



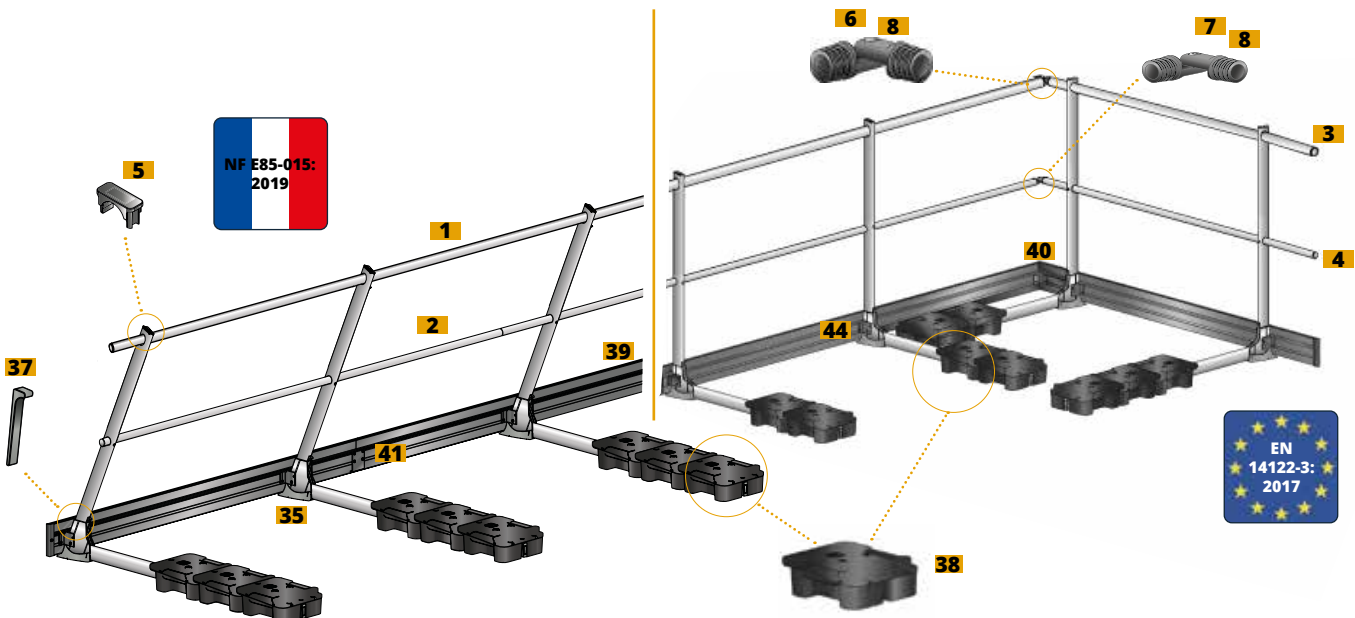
Straight upright

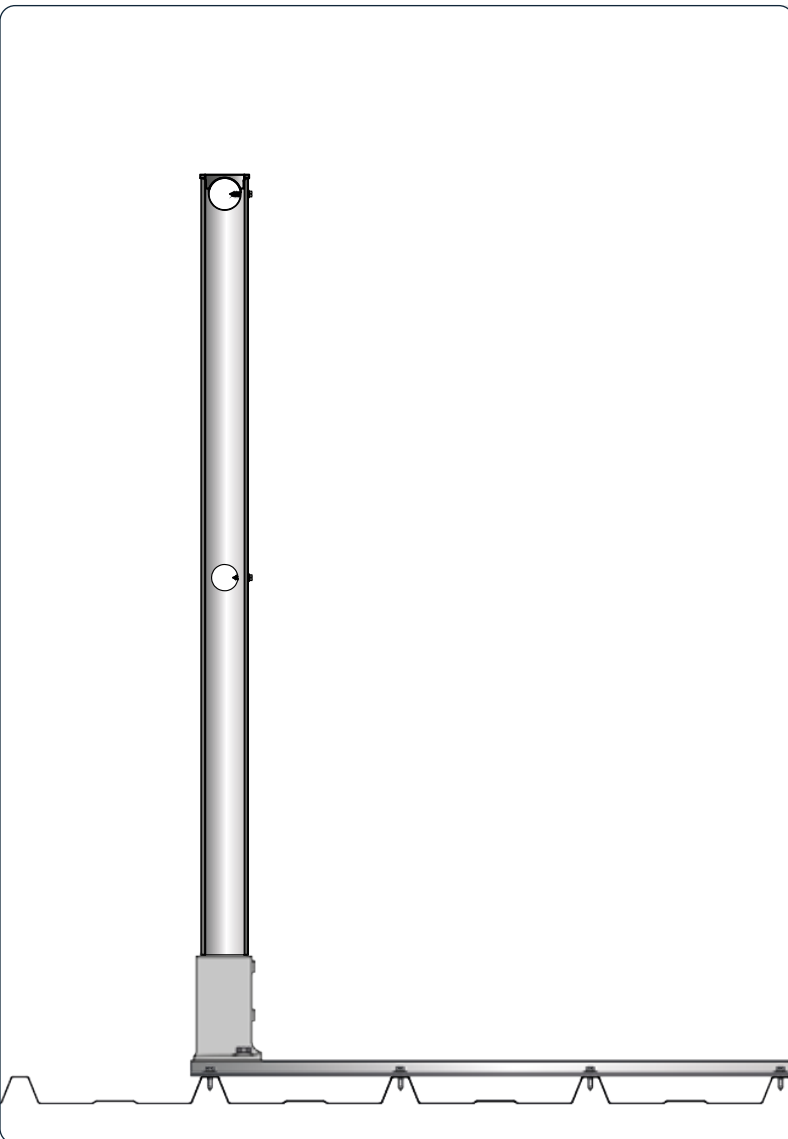


Straight upright angled version

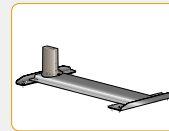


Folding upright





Bases



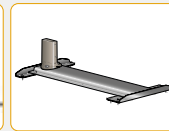
Perpendicular base - 250 mm corrugation

Fasteners not included



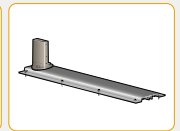
Parallel base - 250 mm corrugation

Fasteners not included



Perpendicular base - 333 mm corrugation

Fasteners not included



Parallel base - 333 mm corrugation

Fasteners not included

Fasteners

Fastened by 6x25 self-drilling screws and neck washers

Corrugations	Configuration	Quantities
250 mm	Parallel to deck	8 screws
	Perpendicular to deck	
333 mm	Parallel to deck	6 screws
	Perpendicular to deck	

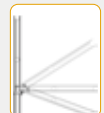
Configurations



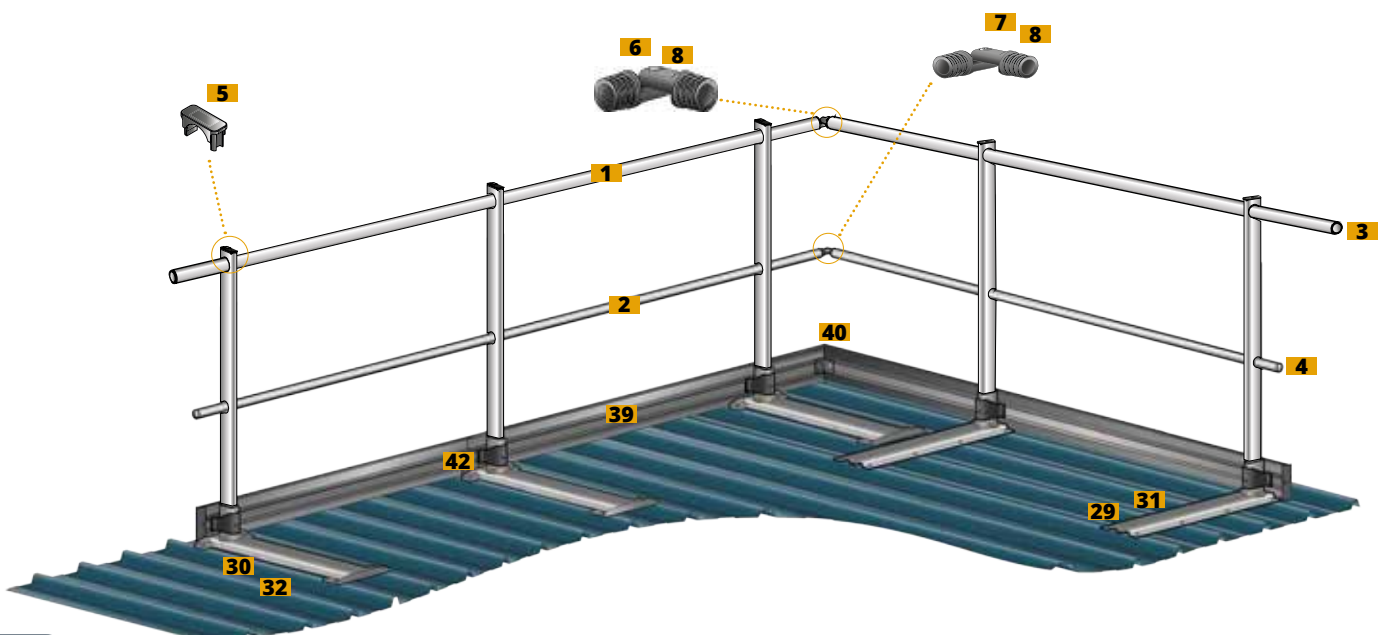
Straight upright



Angled upright



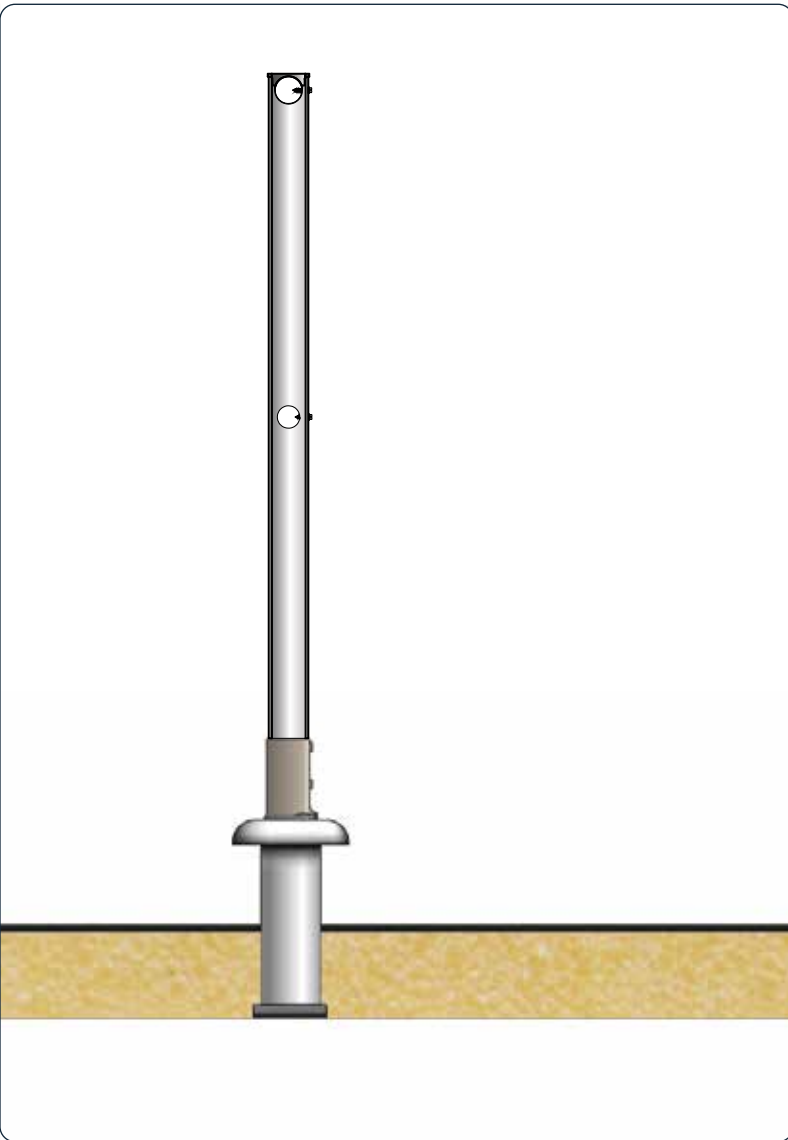
Folding upright





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Guardrail on waterproofed slab



Bases



D shoe post with insulation



D shoe post without insulation

Fasteners

The plate is fastened to the slab (uncracked C20/25 concrete) via 2 dowels (not included). Select from:

- chemical solution such as chemical dowels with injection mortar, HIT-HY 200-A
- mechanical solution of the HSA M10x98 35/25/- segment dowels type



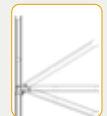
Installation configurations



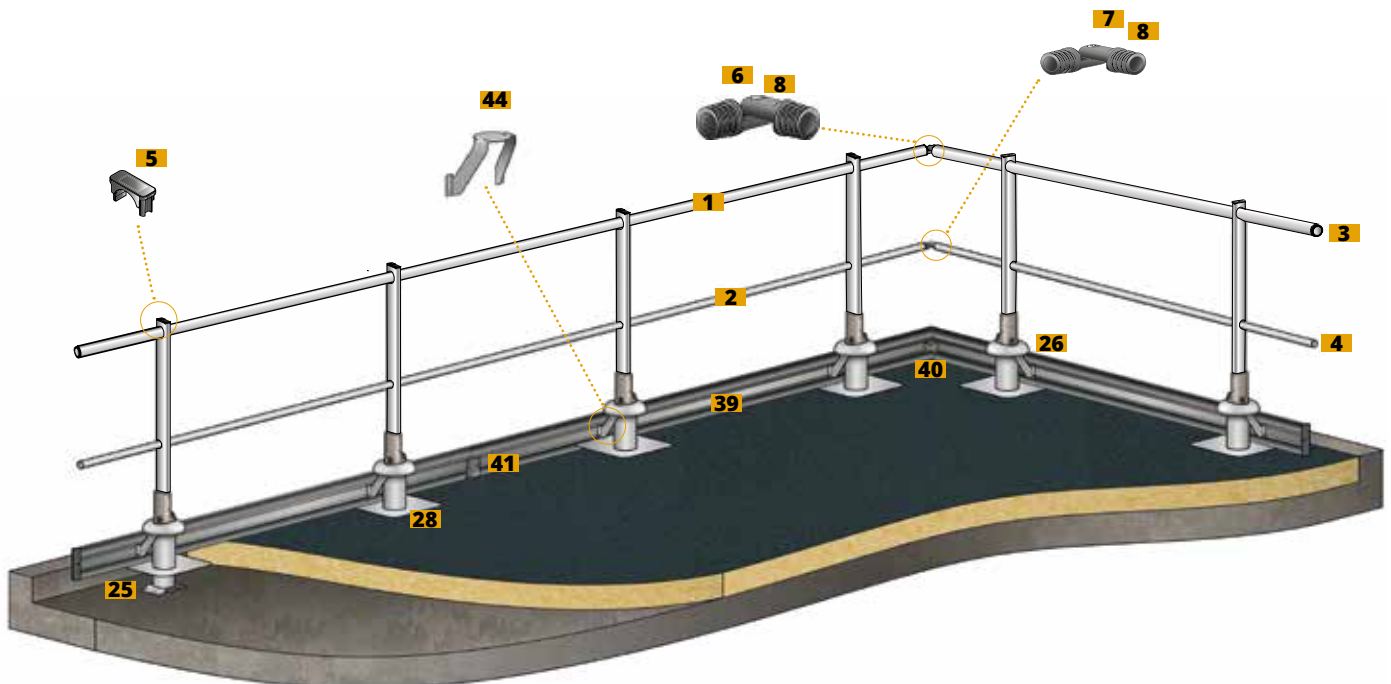
Straight upright

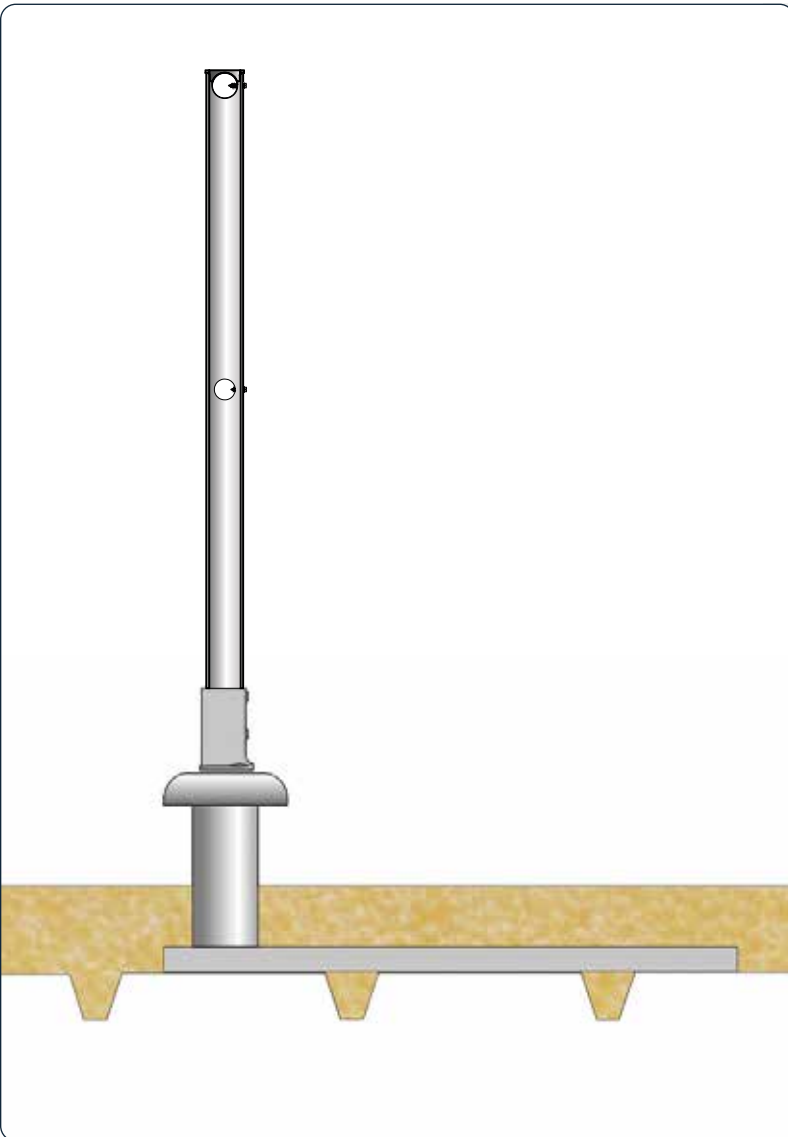


Angled upright



Folding upright





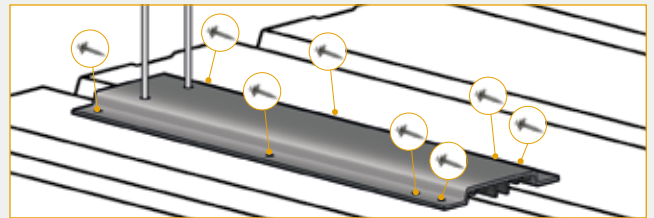
Bases



BE shoe post
Not including fastening to deck

Fasteners

Fastening of bases by 8 self-drilling screws and sealed washers, 6 x 25



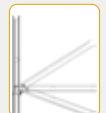
Configurations



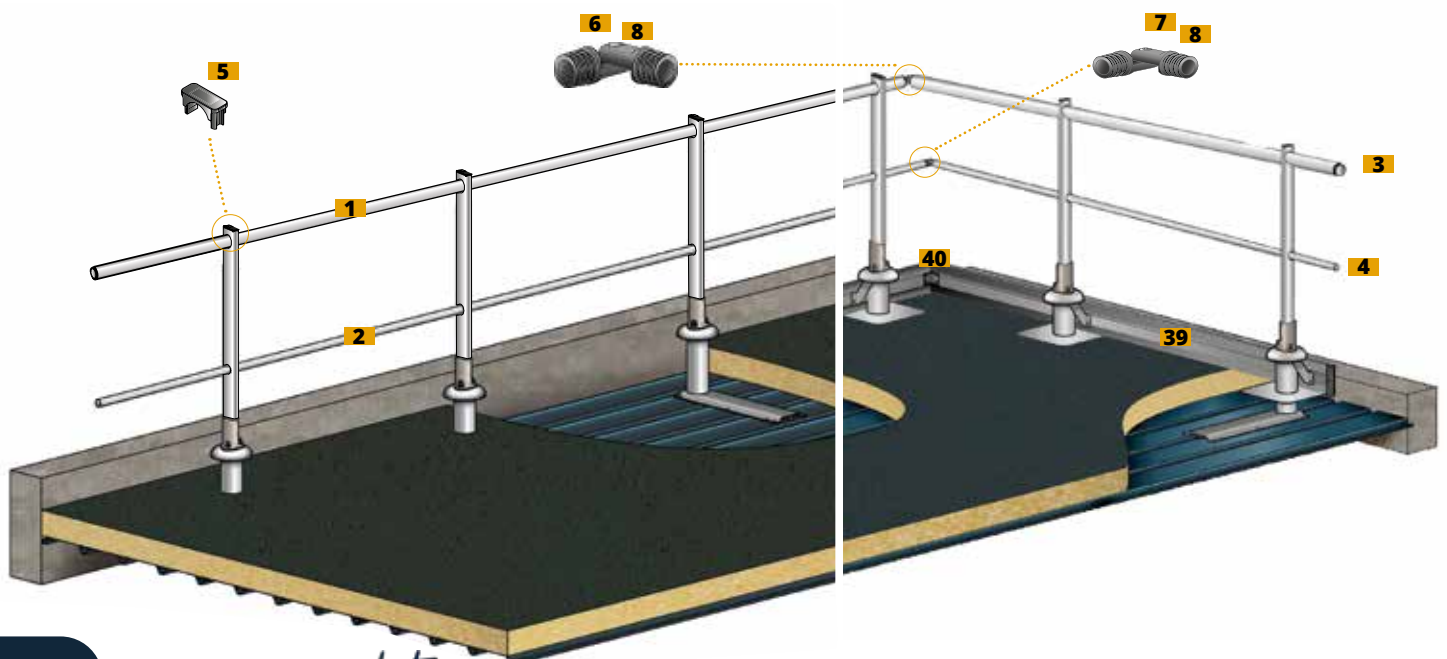
Straight upright



Angled upright



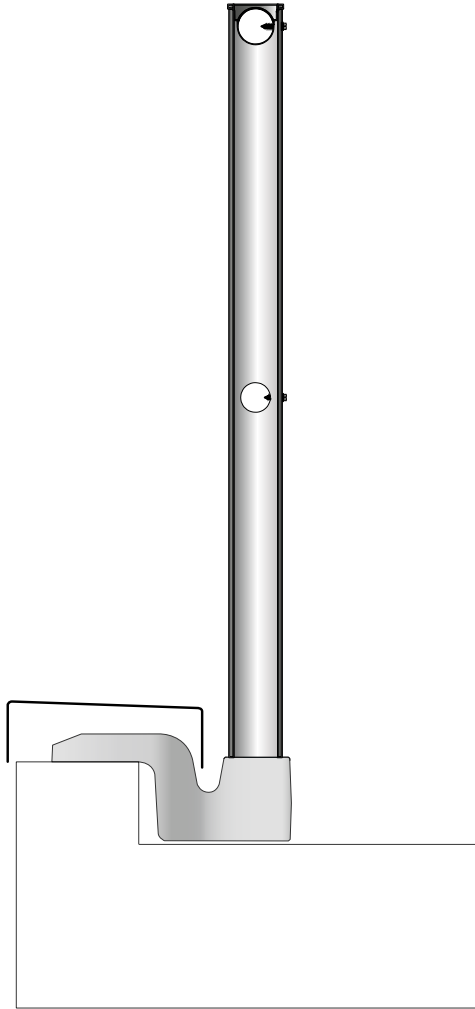
Folding upright



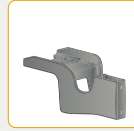


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please enquire

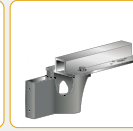
Guardrail on parapet



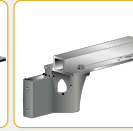
Bases



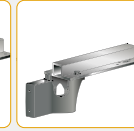
Uninsulated parapet
Fasteners not included



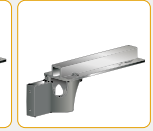
Insulated parapet, up to 70mm
Fasteners not included



Insulated parapet, up to 100mm
Fasteners not included



Insulated parapet, up to 130mm
Fasteners not included



Insulated parapet, up to 160mm
Fasteners not included

Fasteners

Fastening possible on 4 types of substrate:

- on concrete parapet with 1 or 2 dowels
- on concrete parapet with insulation: 3 models up to 160 mm insulation
- on metal parapet : 6 to 8 self-drilling screws
- on wooden parapet: 2 or 3 M10 lag screws.

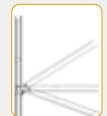
Installation configurations



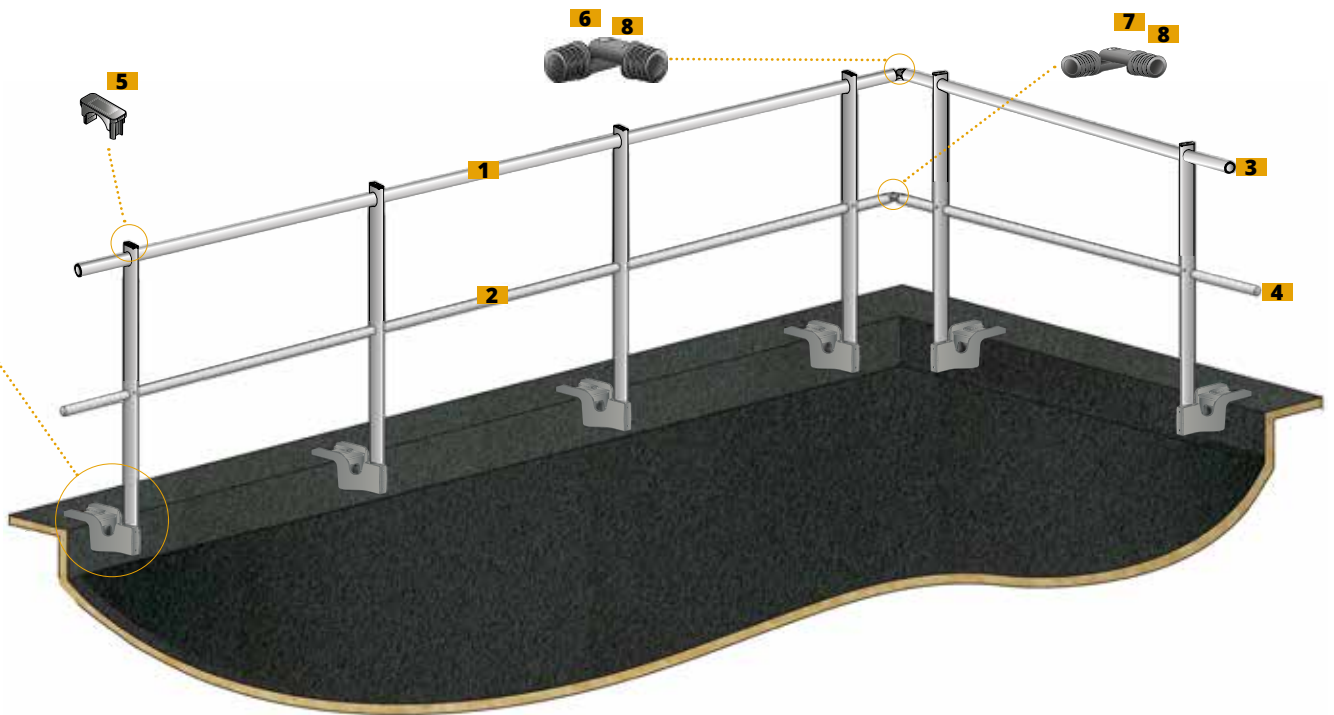
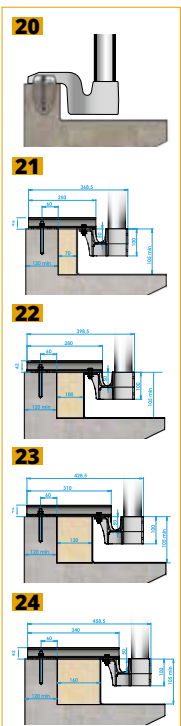
Straight upright



Angled upright



Folding upright





Bases



Flat base
Fasteners not included



Surface mounted base with 60 mm offset
Fasteners not included



Surface mounted base with 95 mm offset
Fasteners not included



Surface mounted base with 116 mm offset
Fasteners not included



Surface mounted base with 116 mm offset
Fasteners not included

Fasteners

The plate is fastened to the slab (uncracked C20/25 concrete) via 2 dowels (not included). Select from:

- chemical solution such as chemical dowels with injection mortar, HIT-HY 200-A
- mechanical solution of the HSA M10x98 35/25/- segment dowels type

Configurations



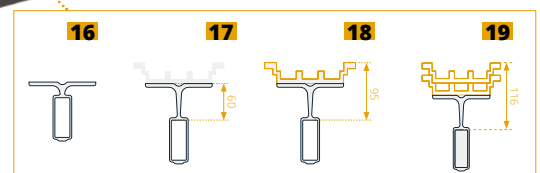
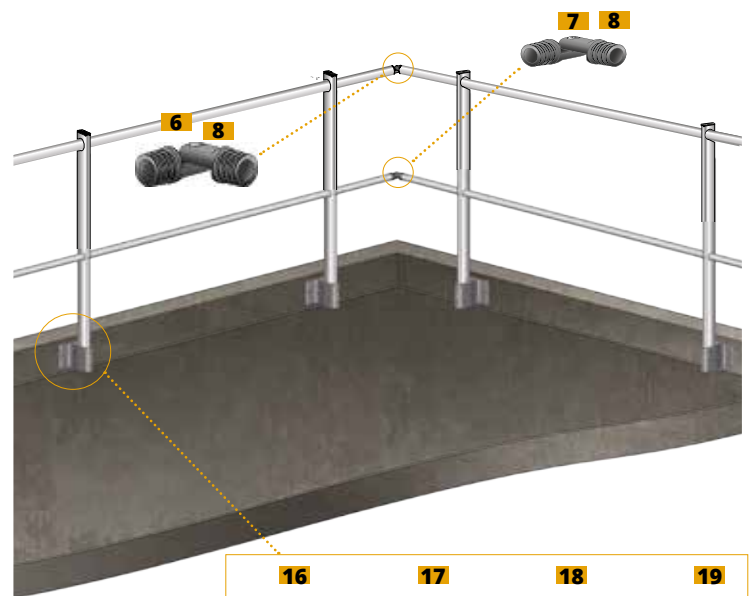
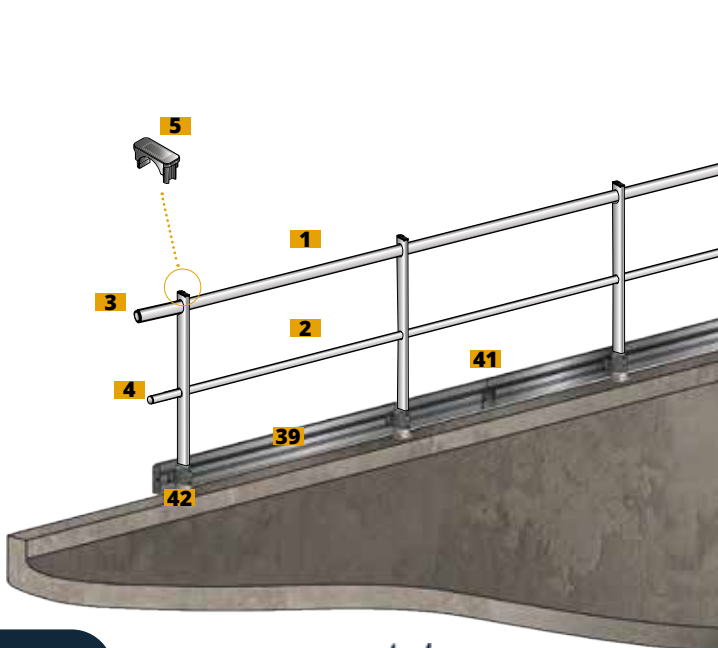
Straight upright



Angled upright



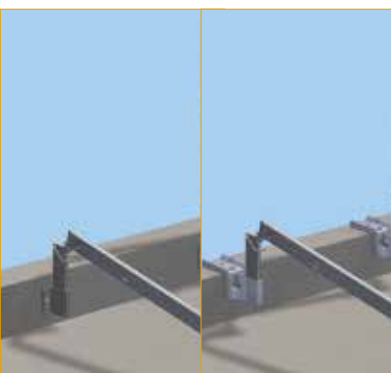
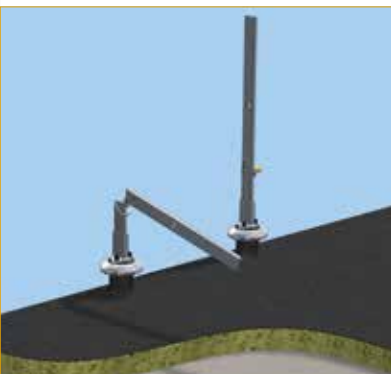
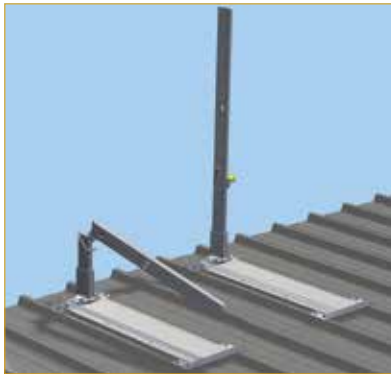
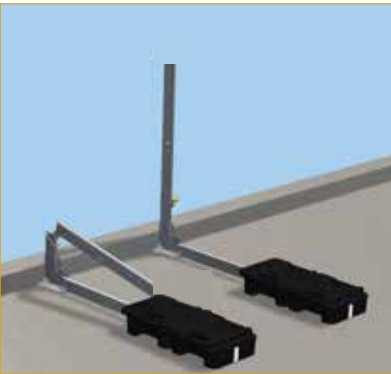
Folding upright





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Folding guardrail



Benefits

The folding system for EVO railings can be installed on our entire collective protection range. It protects the appearance of a building by folding down and being invisible when the edifice is seen from the outside. This module can be folded by a single worker up to 12 metres and can thus make the roof safe in no time for workers.

Versatility

One system, three positions

Folded: aesthetic and unobtrusive, the railing is no longer visible from the outside

Intermediate: the zone to be made safe is visible and demarcated. The risk of tripping is reduced and the railing remains invisible from the outside

Straight: operational position, where the system keeps workers safe.

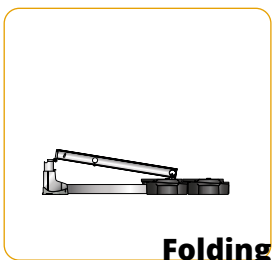
Easy handling

Rails and mid rails in 3 metre lengths supplied in bundles of 7 units

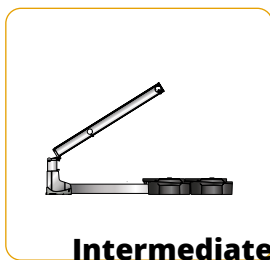
Practical

A folding gate system is also available in the corners as an option

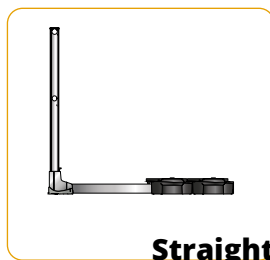
ONE SYSTEM, THREE POSITIONS



Folding



Intermediate



Straight

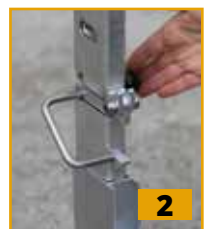
NB

While putting in place or folding the system, when the railing is in the intermediate position, lifeline safety is mandatory to keep workers' movements safe.

WORKING



1



2



3



4



Benefits

Protected waterproofing

No need for drilling the roof.

Safety

Each upright is stabilised by a brace with a sole under the base and two plastic pedestals.

Practical

A gate system is also available for making opening roof lights safe.

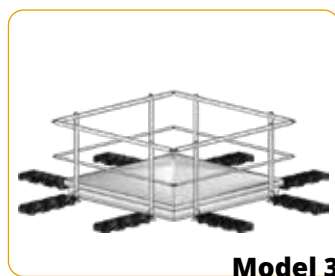
Design and personalisation

The solution may be coated for perfect integration into the receiving structure.



DIMENSIONS

Models	Dimensions of roof light	Dimensions of railing
1	1200 x 1200 mm	4 uprights: 1500 x 1500 x 1180 mm
2	1700 x 1700 mm	6 uprights: 2000 x 2000 x 1180 mm
3	2200 x 2200 mm	8 uprights: 2500 x 2500 x 1180 mm





Grids for rooflights and translucent elements



Benefits

Roof lights

Versatility

Adapts to all roof light openings: universal bar system.

Practical

Fastened directly to the flat part of the metal frame (min thickness 12/10ths).

Ease of installation

Installed horizontally from the outside, inside the opening, after the dome is opened or disassembled.

Safety

Fixed fall-protection grating and fastening brackets (10/10th thick) in galvanised steel.
90 x 90 mm mesh.

Translucent elements

Versatility

Adapts to all configurations.

Practical

Fastened directly from the outside on the steel deck.

Ease of installation

The grating can be cut and adapted directly on the site.

Safety

1200 joules resistance.
Fall-protection grating and fastening brackets in steel.

ROOF LIGHTS: UNIVERSAL BAR SYSTEM



Fixed



Central mechanism



Lateral mechanism

1200 joules resistance

Tested according to the recommendations of MR72 of CRAM, and the test protocol of GIF (March 1997).

TRANSLUCENT ELEMENTS: FASTENING



Fastening on the steel deck corrugation adjacent to the translucent element

The grating dimensions are to be defined by:

- L** = width of translucent element
- e** = centre distance of corrugations
- +** length to cover

Ladder, accessories & PPE



Benefits

Long life

Made entirely in aluminium, alloy series 6000: an aesthetic and lightweight material that offers excellent resistance over time, even in aggressive environments

Enhanced rigidity

Stiles in 65 x 24 mm sections in extruded aluminium

Ease of installation

Clamp system for rapid fastening of elements with just one hand

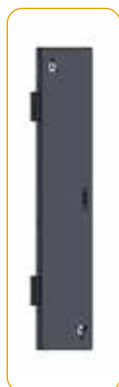
Versatility

Complete range for a number of combinations to adapt perfectly to your site requirements

ACCESSORIES

Locking of access

Recommended to protect access to the ladder



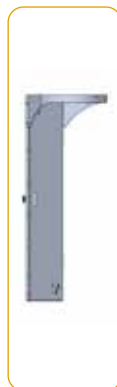
WV650000
Locking door
Symmetrical system, hinges on left or right



WV650001
Locking bar
Intrusion delaying system

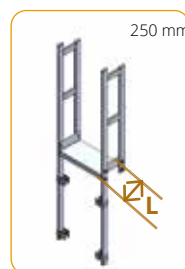


WV650002
Half locking door
Symmetrical system, hinges on left or right

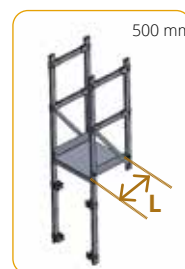


WV650003
Full locking door
Symmetrical system, hinges on left or right

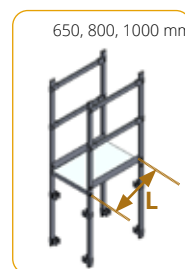
Parapet passage, gate & exits



WV6240250
250 mm landing step, 600 mm wide



WV6240500
500 mm landing step, 600 mm wide



WV6240xxx
Widened exit with parapet descent, width 650 mm, 800 mm & 1000 mm



WV623001
Straight exit
Symmetrical system, left or right



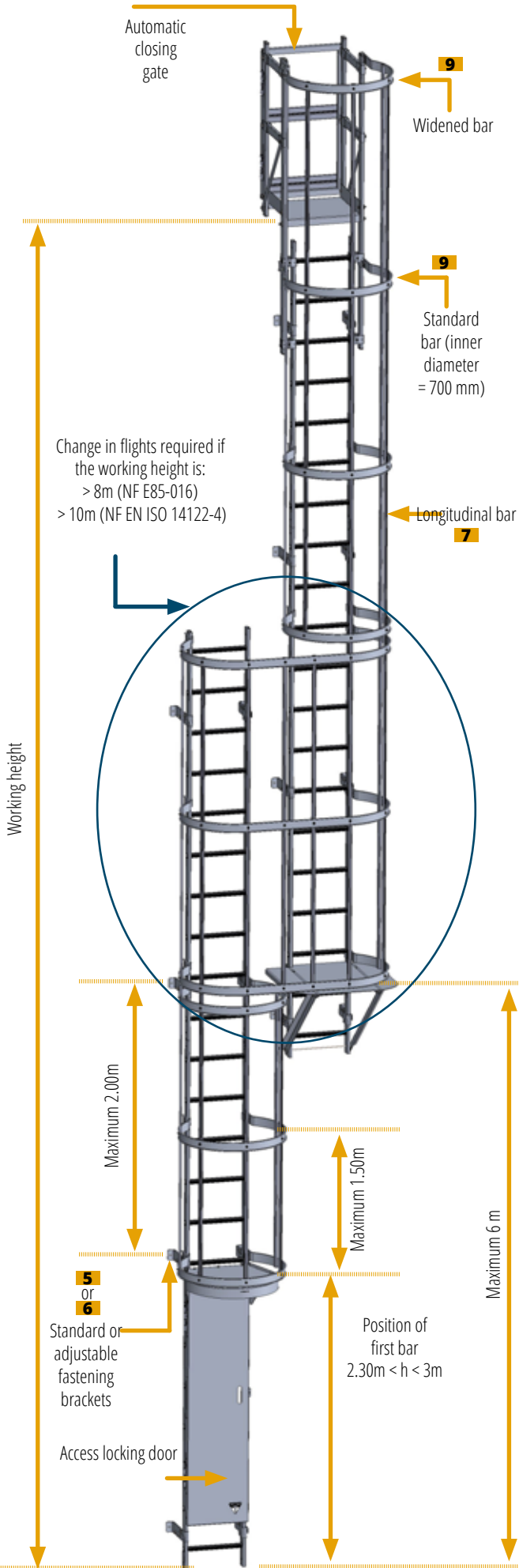
WV620000
Lateral exit
Symmetrical system, left or right



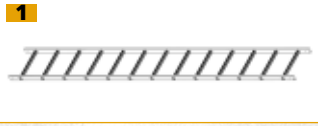
WV6251100
Magnetic automatic closing gate, height 1100 mm. Available in height 580mm



Ladder with safety cage

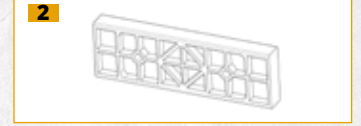


LIST OF PARTS



1

Ladders
 WV6100xxx
 Available in: 900 (3 rungs), 2100 (7 rungs), 3000 (10 rungs), 3900 mm (13 rungs)



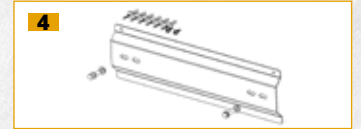
2

Ladder connectors
 WV611000
 Fasteners supplied



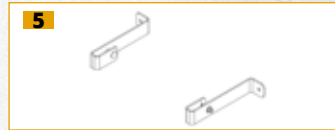
3

Plug
 Z2SYS612000



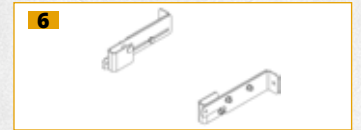
4

Fastening on cladding
 WV630002
 Fasteners supplied



5

Standard fastening brackets
 WV630001
 Length: 2000 mm
 Delivered in pairs



6

Adjustable fastening brackets
 WV630003
 Length 237 to 404 mm
 Delivered in pairs



7

Longitudinal bar
 WV647xxx
 WV6482100/Z2SYS6472100
 Kits of 5 longitudinal bars: length 2100, 3000, 3900mm - Kits of 8 longitudinal bars: length 2100 mm - Single: length 2100 mm



8

Longitudinal bar joints
 WV641001/Z2SYS641001
 Kits of 5 joints or single



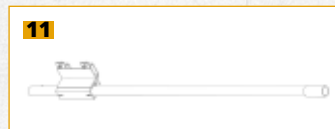
9

Bars
 WV646450
 Standard bar, 450 mm/Widened bar, 600 mm/Flight change bar/Folding landing bar (fasteners included)



10

Adjustable foot for parapet descent
 WV625001
 Up to 300 mm



11

Folding rod
 WV629000
 Fastened to the ladder stile



12

Flight change reinforcement
 WV648001
 Helps climbing a ladder with a flight change

Ladder, accessories & PPE



Benefits

Bases to support all types of technical equipment on roofs and terraces (solar panels, air-conditioning units, extractors, floors etc.).

Modular concept

Standard heights: 500, 800 and 1000mm + may be made to measure

Protected waterproofing

The bases are insulated by polyurethane foam and treated against corrosion by hot-dip galvanisation and closed by a flange ring

Design and personalisation

Other treatments may be added to the bases: powder coating, intumescent coating

Benefits

Special bases dedicated to the maintenance of lights. Once fastened to the sliding system, they can be reached easily for maintenance.

Practical

Easy maintenance that keeps workers safe

Protected waterproofing

Self-supporting base that is independent of the waterproofing complex



Benefits

Structure designed to hold dishes up to 1200 mm in diameter. Entirely independent, can be installed anywhere.

Modular concept

Possible structure lengths: 2, 3 or 5 linear metres

Protected waterproofing

Self-supporting base that is independent of the waterproofing complex

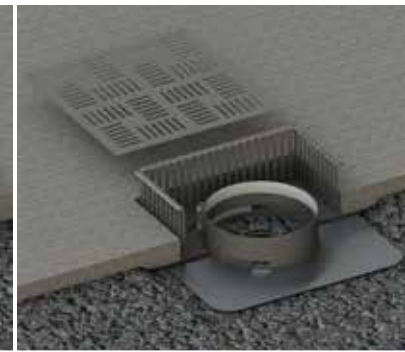
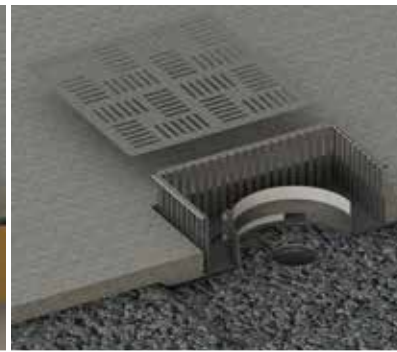
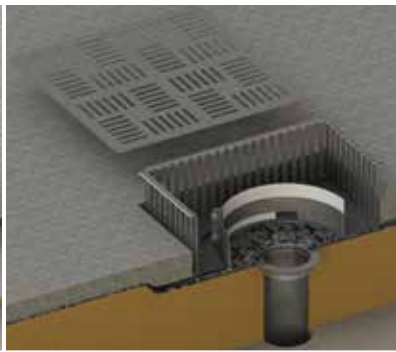
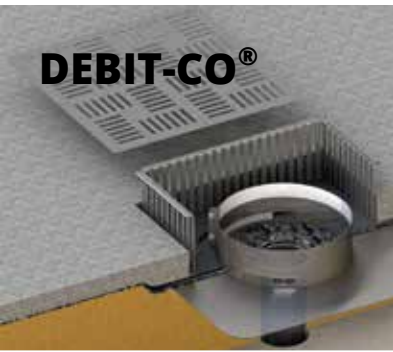
Ease of installation

Totally modular to suit the configuration of the structure





Supports, embellishments & waterproofing accessories



DEBIT-CO®

Benefits

The DEBIT-CO® flow limiter regulates the flow in rain water outlets by ensuring a regular but gradual outflow of water into the sewage system. This accessory is placed directly at the rain water outlet on the roof.

Versatility

Adapts to all types of rain water outlets on roofs and terraces, with diameters up to 230 mm (larger diameters available to measure)

Protected waterproofing

Elastomer waterproofing, or with a synthetic membrane (PVC, TPO etc.) or with an aluminium plate (gravel board as an option)



PARECO®

Benefits

Tailored and independent screen structure dedicated to cladding and protecting roof equipment.

Versatility

Protects, embellishes and clads

Protected waterproofing

Self-supporting base that is independent of the waterproofing complex

Design and personalisation

This personalised screen structure adapts perfectly to your architectural requirements

Benefits

These ladder hooks are practical, cost-effective and versatile, and can be installed on types of structure without any waterproofing connection.

Versatility

Allows you to directly hang all types of ladder

Modular concept

Fastening on all types of roofing or concrete façades, with or without an offset



Ladder, accessories & PPE



1 HARNESES

HAR22HA

Freedom of movement & intuitive donning

Harness with two fall-arrest attachment points (dorsal and sternal)
5 adjustment buckles, 3 of which are automatic.
Integrated fall indicator
Tested up to 150kg



HAR22X

The most lightweight harness in the market

Extremely light: the dorsal system is free from metal parts
Adapts to all builds - Two-colour webbing, which shows that the harness has been put in place correctly
Lateral plates and adjustment buckles with no metal parts
Tested up to 150kg



2 SELF-RETRACTING FALL ARRESTER

AN13006C2

MEDBLOC 6m

25 mm polyester webbing
Swivel with fall indicator
For horizontal use
Easy to carry and put in place
Tested up to 128kg



AN106

MICROBLOC 1.80m

19.5 mm webbing with energy absorber
Tested on sharp edges
Horizontal use & factor 2
Tested up to 140kg



AN18020T

WIDE PROTECTOR 20m

Galvanised steel cable with integrated energy dissipator
Fall indicator
Inertial locking system
Tested up to 150kg



AN14006T or 8T

PROTECTOR TETRA 6m or 8m

Webbing with energy dissipator and fall indicator
Easy to carry and put in place
Tested up to 100kg, horizontal



3 LANYARDS

AN203200ZD

2m lanyard

2m webbing lanyard fall arrester with energy absorber
1 double-acting connector
1 manucroche connector
Tested up to 140kg



AN213200ZDD

2m lanyard

2m webbing double lanyard fall arrester with energy absorber
1 double-acting connector
2 manucroche connectors
Tested up to 140kg

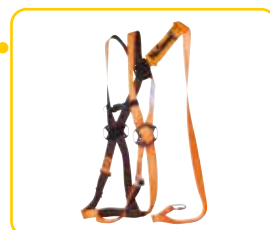


4 KITS

ELARA160V2

Ready-for-use fall arrester kit

Harness: 1 dorsal attachment point; integrated energy absorber
2m energy absorber lanyard & steel connector
Tested up to 140kg
Storage bag



Personal protective equipment

5 RESCUE

TC065 & TC066

Descender device

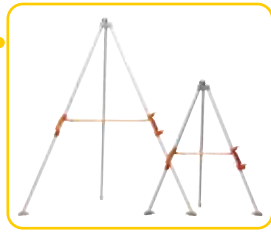
Rescue device with wheel
Approved for 2 workers
Automatic braking system
Length: 300m max
Tested up to 225kg
Rope part no: TC066



TRA22

Telescopic tripod

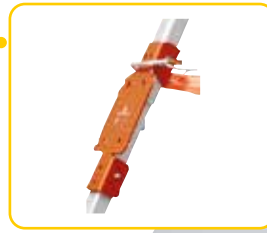
Aluminium tripod adjustable
from 1.20 m to 1.97 m
Certified for 3 workers
Adaptable to all types of surface



TRA102

Fastening plate

Aluminium fastening plate for
hoist and Protector Elevator



6 ACCESSORIES

GRANITEWIND

Safety helmet

Ventilated safety helmet
Lightweight and compact
Rotor tightening system
Integrated chin strap



HA203FS

Pair of femoral anti-compression straps

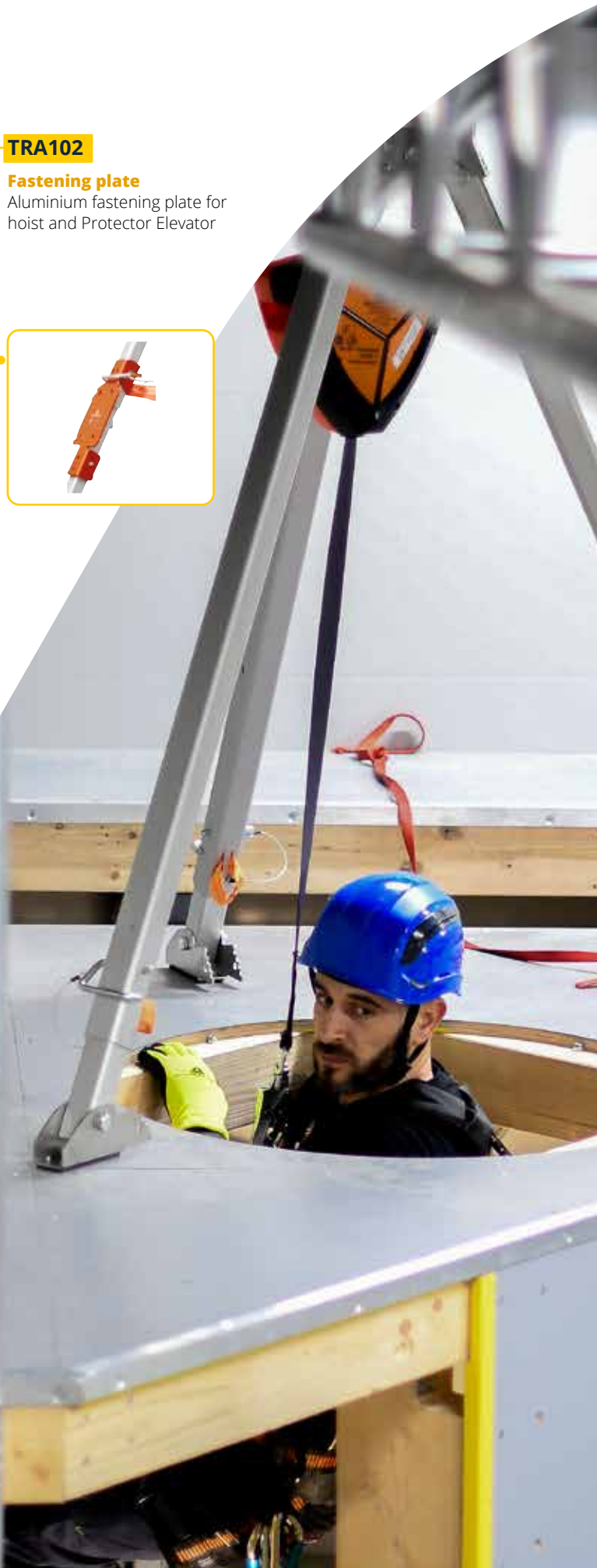
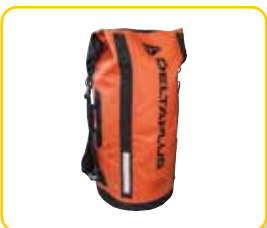
Adaptable to all types of harness
by placing on the lateral
straps
Easy and speedy installation



TC008

Storage bag in PVC 42L

PVC fabric bag for storing
& protecting equipment
Possible extension: 10L
Dimensions: 30x65 cm





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