FALLPROTEC
Height Safety Products
15th anniversary

01

Height Safety Systems

Basics for work at heights 03

→ A. Horizontal Fall Arrest

EN 795:2012 Type C | Type D | Type A
CEN/TS 16415:2013

SecuRope Cable Lifeline
- On ground 06
- Overhead 08

Case Study: Overhead lifeline installation in a packaging company 10

Type of fixations
- On post 12
- On Unipost 14
- On Cold deck brackets 16
- On Standing seam roof 18
- On Hot deck brackets 20
- On Unipost for green roofs 22
- On steel beams 24

Case Study: Complete safety at height solution in The Al-Janoub stadium 26
SecuRail lifeline Classic 28
SecuRail Pro 30
Case Study: Installation in Limoges train station 32
SafeAccess Rail Fall Arrest 34
Case Study: SafeAccess on Flexbow in a cement factory 36

02

Safe Access Equipment

→ E. Works in suspension

EN 795:2012 Type D | CEN/TS 16415:2013
EN 1808:2015
EN 60204-1 | Directive 2006 / 42 / EC

SecuRail Pro for abseiling works 54
SafeAccess Rail 56
Case Study: Complete access solution in an urban complex 58
SafeAccess C Rail 60
Climbing SafeAccess Rail 62

→ B. Vertical Fall Arrest

EN 353-1:2014

SecuRope QuickSet Cable Lifeline 38
SecuRail Pro / MastLadder 40
SafeLadder Pro 42

→ C. Anchor Points

EN 795:2012 Type A | CEN/TS 16514:2013

Abseiling, fall arrest and restraint 44
Fall arrest and restraint 46

→ D. Personal Protective Equipment

EN 362:2005 | EN 358:2003 | EN 361:2003 | EN 355:2003
EN 365:2005 | EN 813:2009 | EN 354:2011 | EN 360:2003

Harness and Lanyards 48
Retractable blocks 50
Case Study: Complete safety at height solution in ArcelorMittal Belval Blast furnaces 52

RopeClimber lifting equipment 64
Case Study: RopeClimber Cradle for facade maintenance in a hotel 66
Davit arms 68
Building Maintenance Units 70

→ Application Icons

Industrial

Housing

Buildings

Potentially explosive atmosphere

Over Trucks

Vertical Structures

Confined Spaces

Fall Arrest

Rope Access

Work in restraint

Ground configuration

Wall configuration

Ceiling configuration

→ Work at height European regulations and standards

EN 795:2012

It is the technical requirements placed on horizontal (up to 15°) fall arresting anchor devices. The EN 795 distinguishes five types of anchorage device, from A to E.

- **Type A** refers to single anchors.
- **Type B** refers to temporary anchorage points.
- **Type C** refers to horizontal flexible systems such as cable lifelines.
- **Type D** refers to rigid systems, usually rail systems.
- **Type E** refers to temporary systems that are stabilized using counterweights.

This standard considers only single-user applications.

CEN/TS 16415:2013

This technical specification certifies anchor devices that allow more than one user to be attached at the same time. Since work at height requires at least two workers, Fallprotec tests all systems for several people.

EN 353-1:2014

This European standard defines the technical requirements for vertical rigid anchor line. The forward-leaning angle and/or sideways leaning angle lies between 85° and 95°. This standard does not consider multi-user applications.

2006/EC/42:2006

This European directive specifies the safety features for machinery. The Annex IV concerns lifting equipment. All height access products of Fallprotec are certified according to the directive 2006/EC/42.

EN 1808:2015

It is a European standard which specifies the safety requirements for Suspended Access Equipment (SAE). It is applicable to both permanent and temporary equipment which may be powered or hand operated. The Fallprotec monorails and cradles are designed according to EN 1808:2015.

EN 60204-1:2006

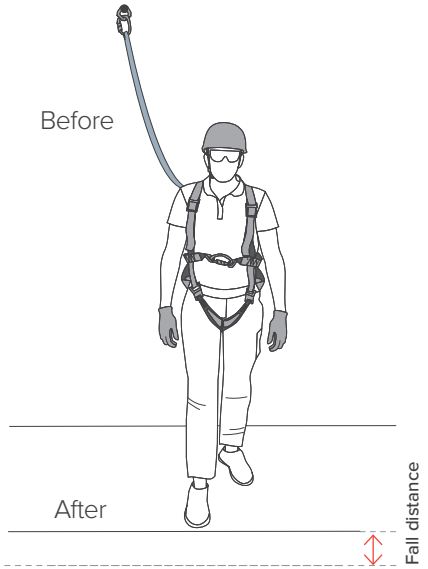
This standard gives safety guidance and recommendations on electrical equipment for machinery. This includes safety requirements for electrical, electronic and computer-controlled equipment – but excludes power circuits where electricity is used directly as a working tool.

Fall Factor

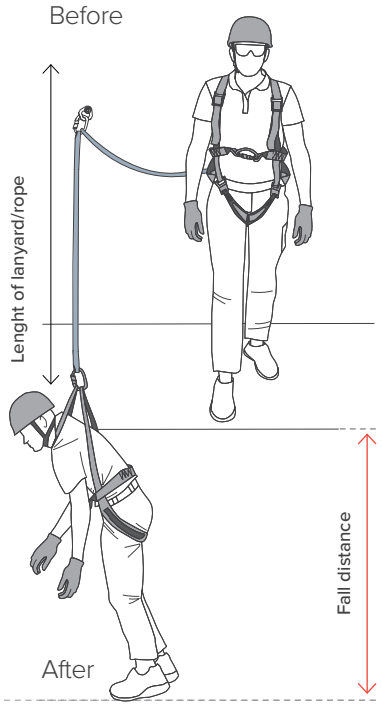
Fall Factor = $\frac{\text{Fall distance}}{\text{Lenght of lanyard/Rope}}$

The fall factor is the distance fallen, divided by the length of the lanyard or rope available to absorb that fall. The fall factor ranges from 0 to 2. Independently on a fall being long or short, the lower the fall factor, the safer the fall.

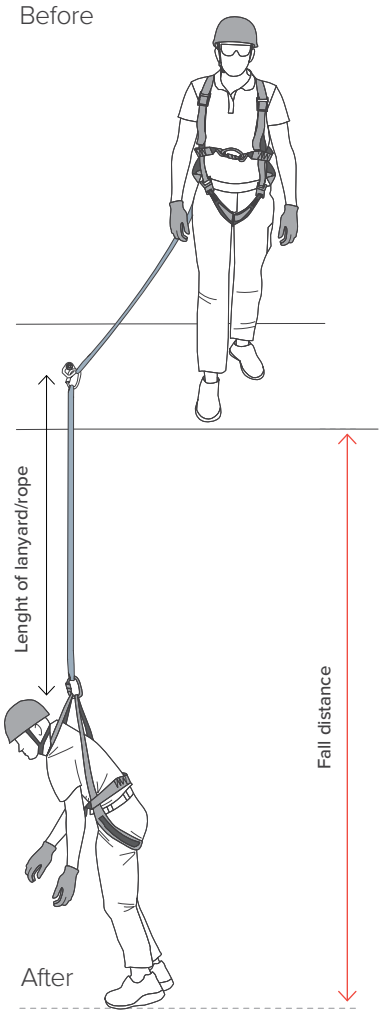
Fall Factor 0



Fall Factor 1



Fall Factor 2



Fall Clearance

The height of fall must be less than the available clearance so that the person falling does not hit an obstacle during the fall.

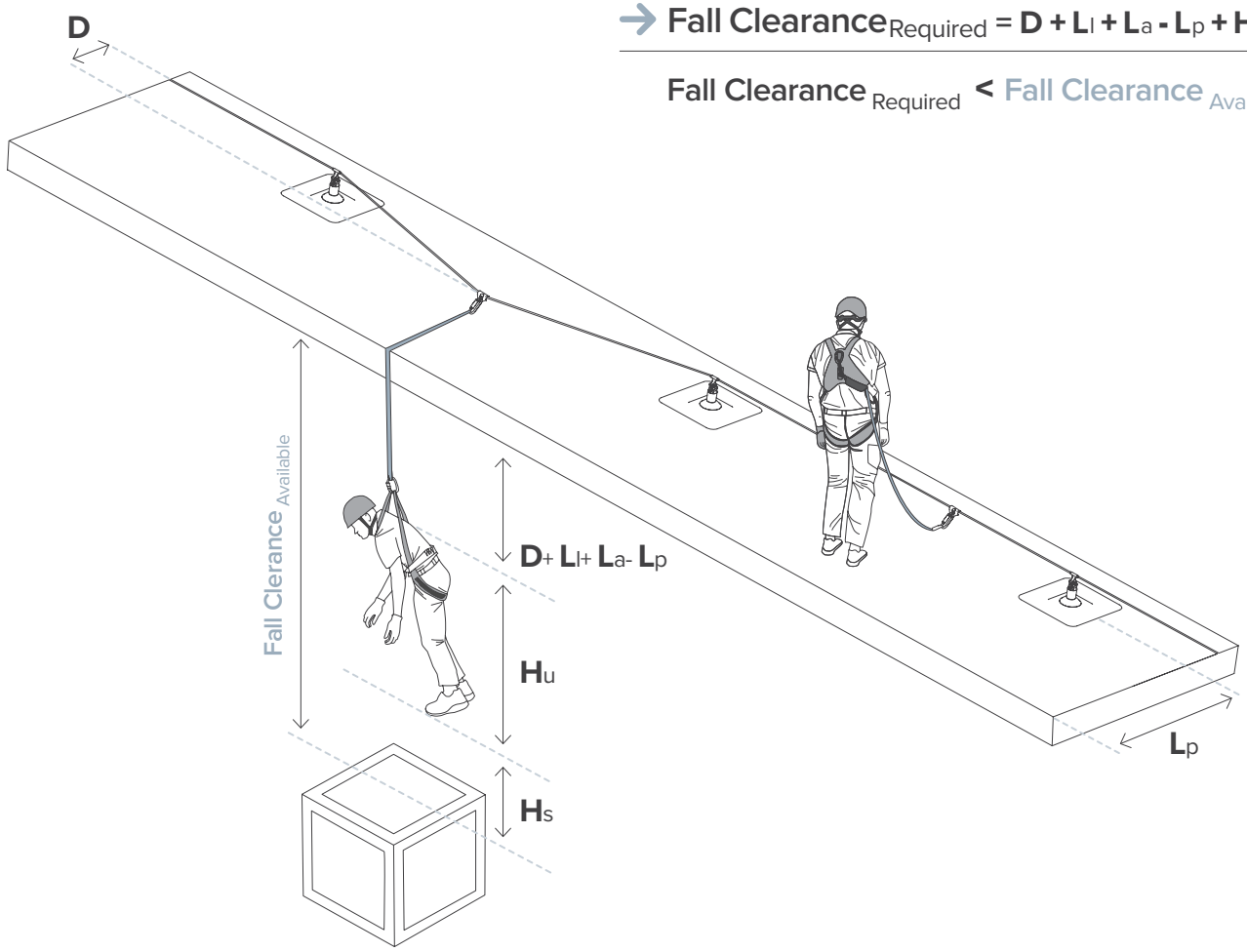
The height of fall is the sum of the terms given below:

- D: the deflection of the lifeline.
- Ll: the length of the lanyard.
- La: the braking distance of the energy absorber.
- Lp: distance between the lifeline and the edge from which the user can fall
- Hu: the user height
- Hs: the safety height

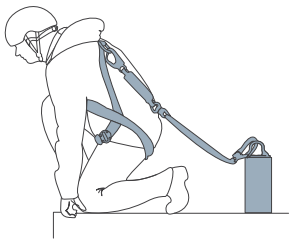
Some types of work at heights may include a risk of pendulum effect, causing the fallen worker to swing into obstacles. A maximum angle of 30° with respect to the anchorage system or anchor point is recommended to minimize that pendulum effect.

$$\text{Fall Clearance}_{\text{Required}} = D + L_l + L_a - L_p + H_u + H_s$$

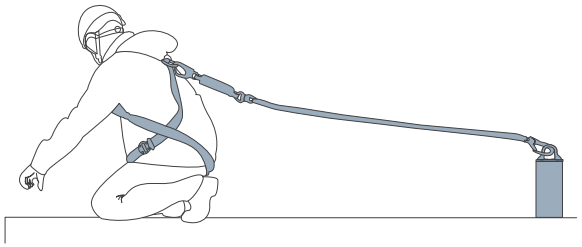
$$\text{Fall Clearance}_{\text{Required}} < \text{Fall Clearance}_{\text{Available}}$$



Fall Arrest



Fall Restraint



Fall restraint system prevents a person from reaching the fall risk and a fall arrest system minimises injury in the event of a fall.

01

Height Safety Systems
Horizontal Fall Arrest

SecuRope®

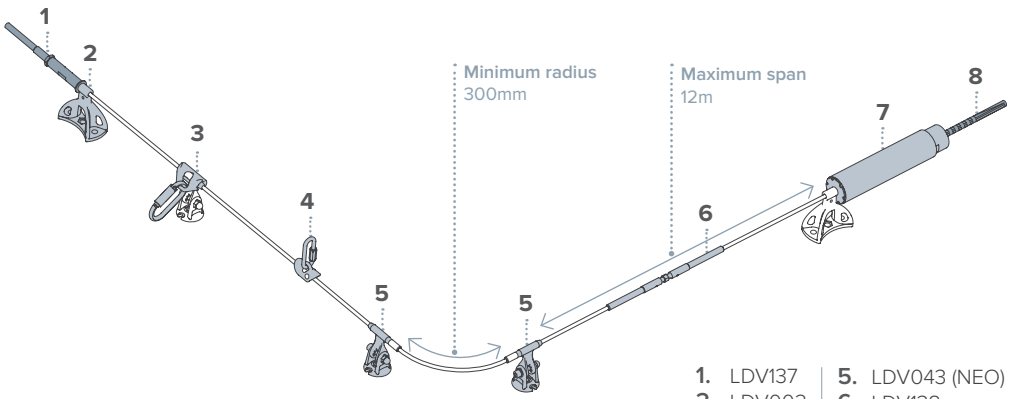
On ground

- For 4 users
- 12m max. between fixations
- Freehand system
- Undeformable
- Energy absorbing on orientable intermediate anchors
- Wide range of brackets for all structures
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 795:2012 Type C
CEN/TS 16415:2013

Applications on

Horizontal SecuRope lifeline directly on concrete



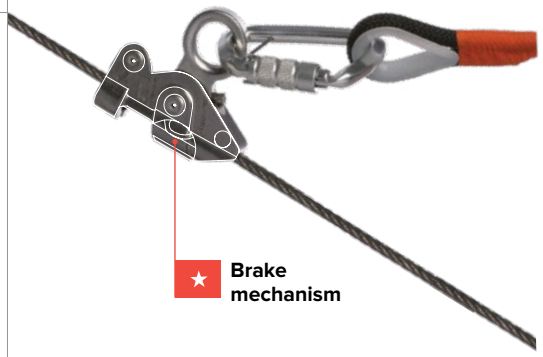
1. LDV137
2. LDV002
3. LDV001
4. LDV060
5. LDV043 (NEO)
6. LDV138
7. LDV032
8. LDV008

★ **No need to approach to pass the intermediates. Surpassable lifeline**

Glider with steel carabiner

Fallprotec offers a wide range of gliders adapted to each type of situation. Delivered with steel carabiners, the glider passes smoothly over the intermediate anchors, letting the user move freely along the lifeline.

1. LDV001 / **2.** LDV043 (NEO)



★ **Brake mechanism**

Fallprotec provides captive gliders (LDV111) and opening gliders (LDV001), gliders for lifelines in every configuration. It also offers a glider for inclined lifelines blocking instantly in case of a fall

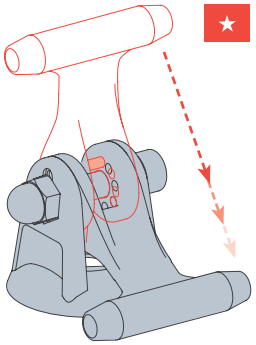
Smooth gliding through the anchors.

LDV075

Intermediate anchors for horizontal lifelines

The NEO anchor is roof protecting thanks to its integrated shock absorbing system. Reusable after stopping a fall.

LDV043 (NEO)



★ **Energy absorption by shear pin breaking**

The EVO anchor, a competitive solution, has been specifically designed for concrete grounds and rigid structures.

LDV083 (EVO)

	LDV043 (NEO)	LDV083 (EVO)
Energy absorbing	•	
Undeformable	•	•
Stainless steel components	•	•
Suitable for fragile structures	•	
Available in copper alloy for ATEX environments	•	

SecuRope®

Overhead

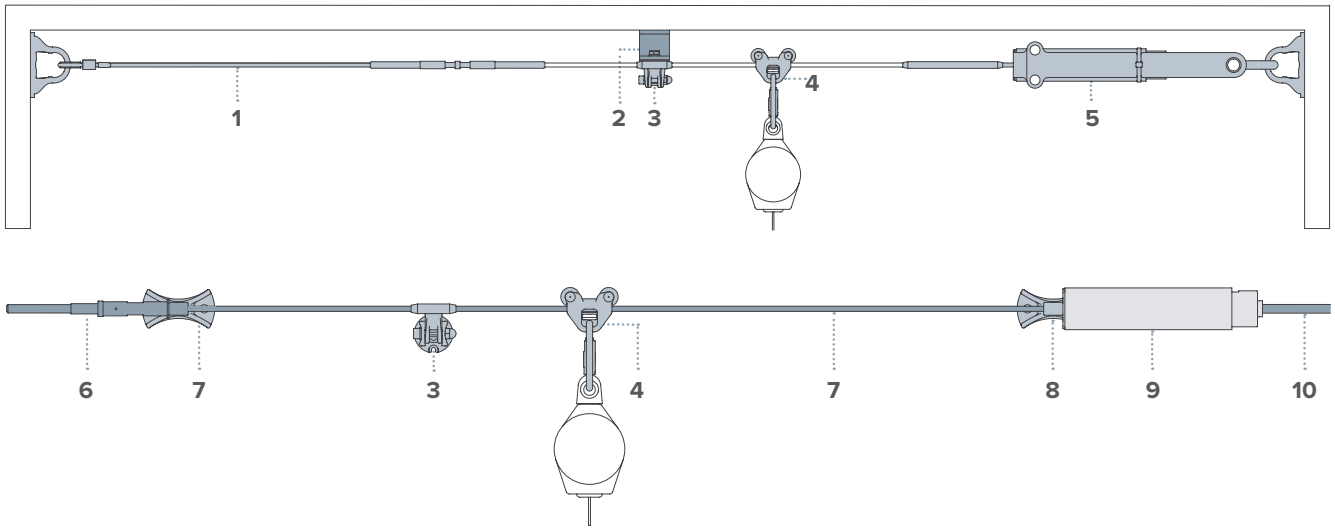
- For 4 users
- Undeformable
- Can be used with retractable fall arresters
- Also for curved sections (minimum radius: 300mm)
- The glider passes smoothly over NEO anchor with a retractable fall arrester
- Often used in the industry for works above machines, recommended for a distance between the lifeline and the walkway up to 7m
- Can be installed in corrosive environments

Compliant with
EN 795:2012 Type C
CEN/TS 16415:2013

Applications on

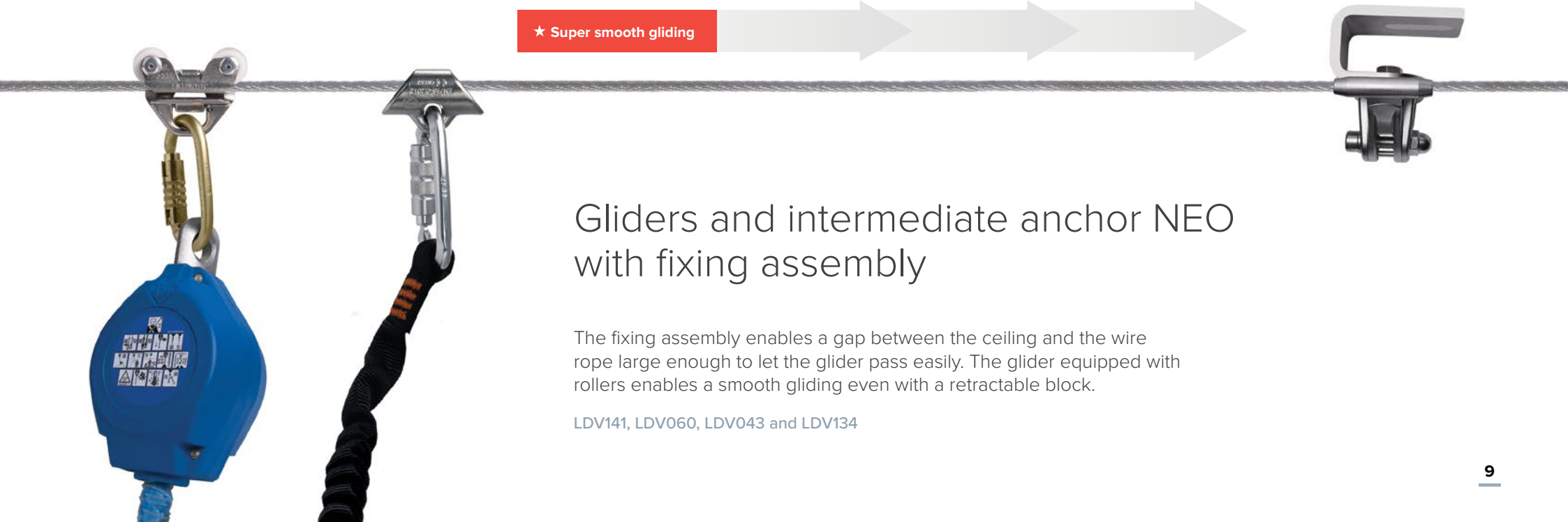
Securope overhead lifeline. Most used configuration for industrial halls as the overhead lifeline reduces the fall distance.

NEO SecuRope Lifeline between two walls and NEO SecuRope Lifeline on wall configuration



1. LDV054
2. LDV134
3. LDV043 (NEO)
4. LDV141
5. LDV139
6. LDV137
7. LDV005
8. LDV002
9. LDV032
10. LDV008

★ Super smooth gliding



Gliders and intermediate anchor NEO with fixing assembly

The fixing assembly enables a gap between the ceiling and the wire rope large enough to let the glider pass easily. The glider equipped with rollers enables a smooth gliding even with a retractable block.

LDV141, LDV060, LDV043 and LDV134

01

Height Safety Systems
Horizontal Fall Arrest

Overhead lifeline installation

in a packaging and unloading company

Case Study

Lille, France

The Brief

In order to secure the DCDIS work lines, Fallprotec's engineering department adapted the SecuRope system to the particular requirements of the factory.

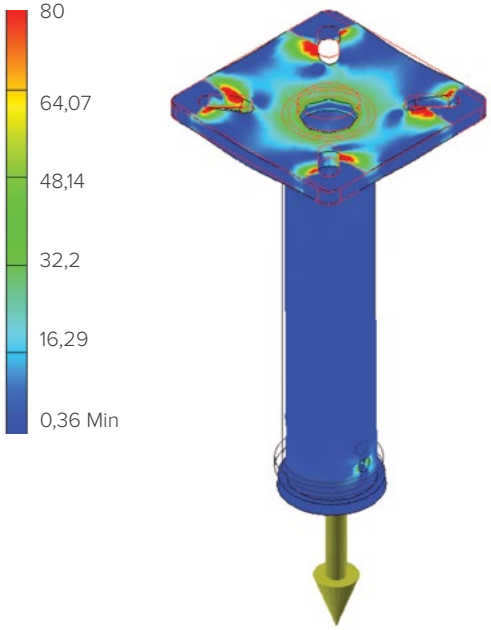
Bespoke fixing brackets

CAD modelling of fixing brackets using clamps to maintain a steady distance between lifelines and walkways.

The Result

- 50m of SecuRope lifeline.
- 6 types of bespoke fixation assemblies, adapted to various beam sizes.

Stress test illustration
Calculation for fixing assembly on beam.



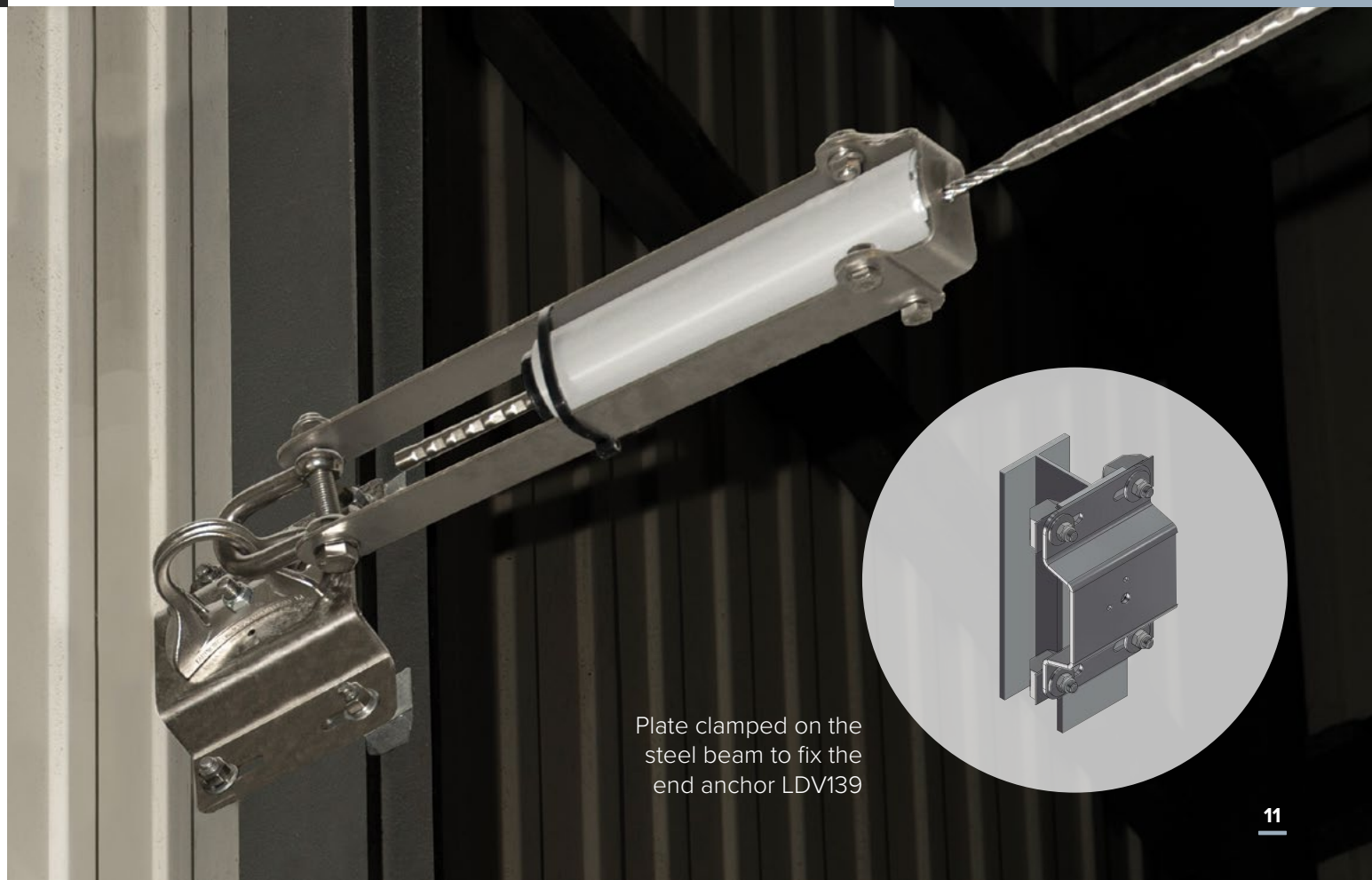


Plate clamped on the steel beam to fix the end anchor LDV139

On post

Type of fixation

- For 2 users
- Undeformable
- Compatible with Securope EVO, Securope 2012, Securail and Securail Pro
- Galvanized steel
- Stainless steel on demand
- Upon request, options for bespoke fixations

Compliant with
EN 795:2012 Type C and D
CEN/TS 16415:2013

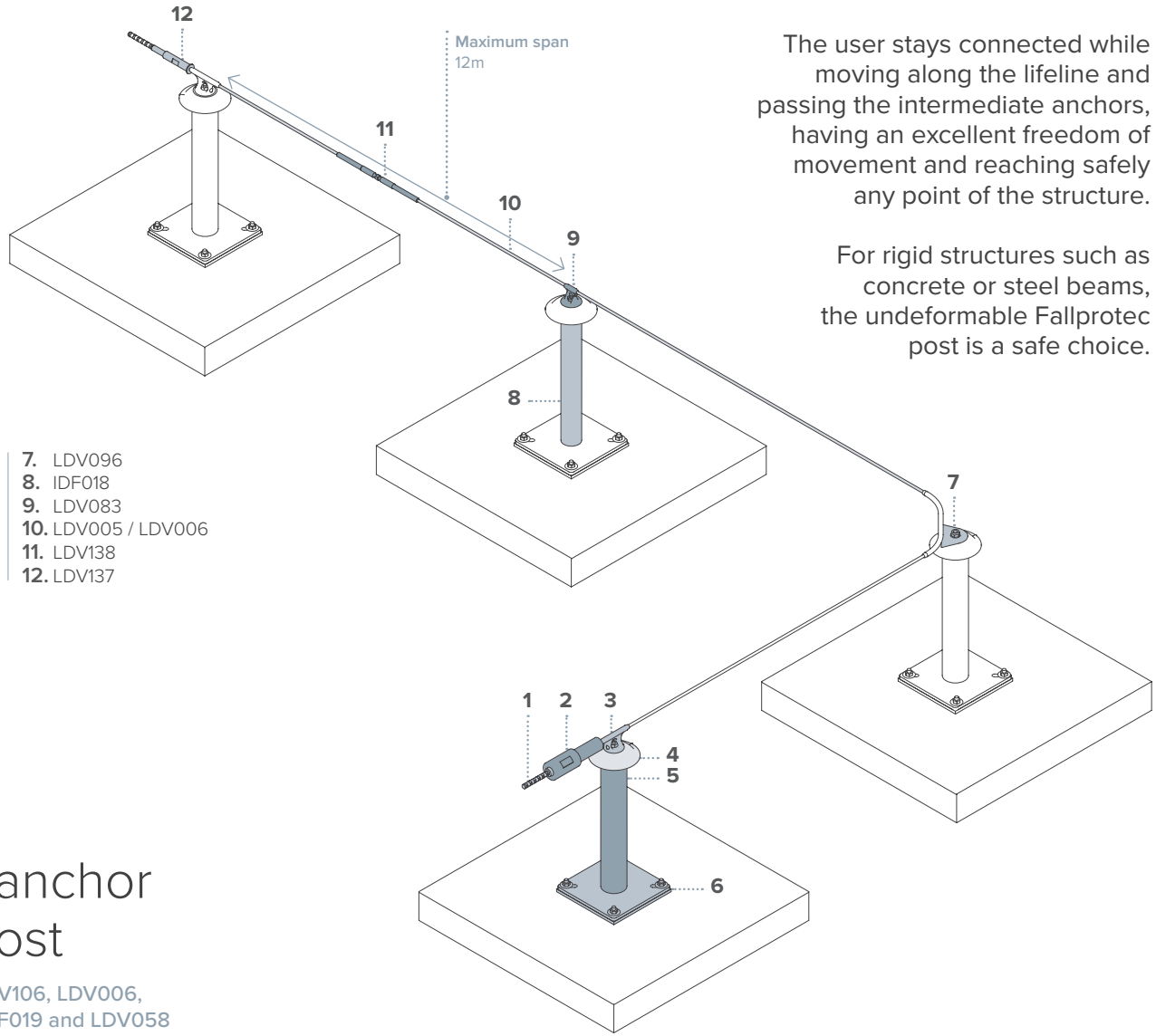
Applications on

The posts can be waterproofed using various techniques:

- LDV081 Waterproofing collar. This collar is set between the post and the lifeline anchor during the mounting of the lifeline. The water drips around the post as the collar deflects it.
- IDF011 IDF012 flashing. This solution requires a pre-installation of the EPDM flashing on the post. Waterproofing is managed by flame-sealing the flashing to the structure.
- The waterproofing can be ensured with flashing pipes or a rubber collar.

(Picture on the left)

SecuRope EVO lifeline on posts



1. LDV008
2. LDV003
3. LDV106
4. LDV081
5. IDF019
6. LDV058
7. LDV096
8. IDF018
9. LDV083
10. LDV005 / LDV006
11. LDV138
12. LDV137

The user stays connected while moving along the lifeline and passing the intermediate anchors, having an excellent freedom of movement and reaching safely any point of the structure.

For rigid structures such as concrete or steel beams, the undeformable Fallprotec post is a safe choice.

End anchor on post

LDV137, LDV106, LDV006, LDV081, IDF019 and LDV058

On Unipost

Type of fixation

- For 2 users
- Deformable post
- Compatible with Securope EVO, Securope and Secura
- Usable on various roof types (concrete, hollow concrete, cold deck, hot deck and wooden roof)
- Energy absorbing
- Can be mounted before the isolation to secure the construction site
- Easy to mount on trapezoidal metal sheet thanks to its self- drilling screws

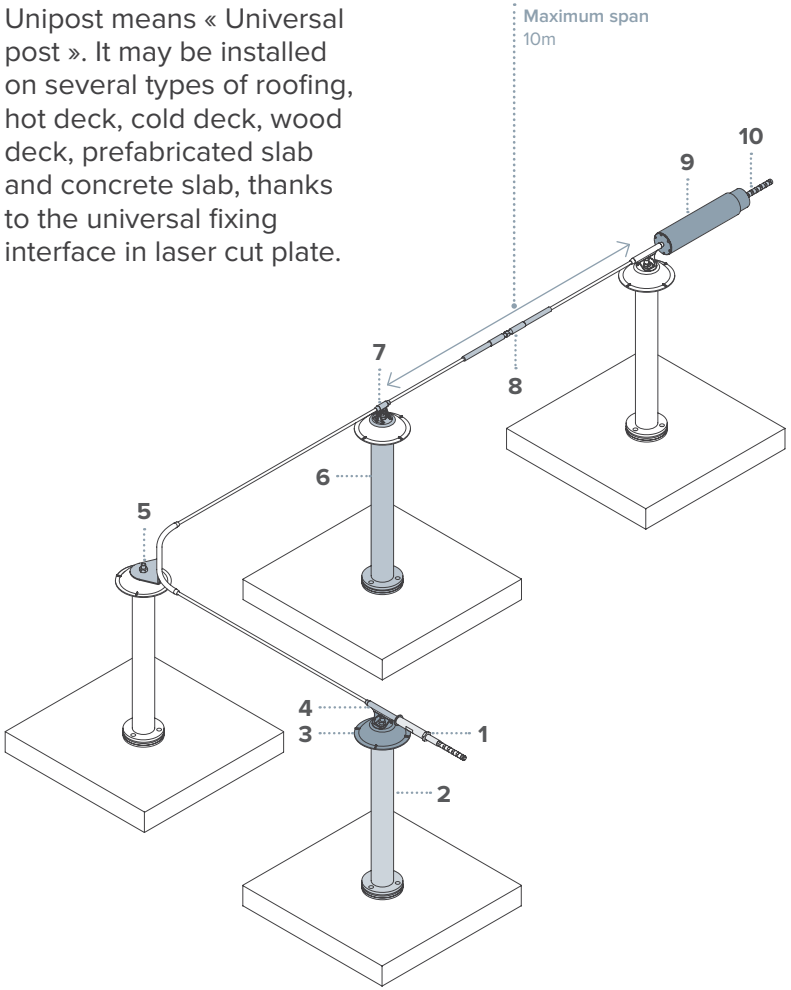
Compliant with
EN 795:2012 Type C
CEN/TS 16415:2013

Applications on

1

SecuRope lifeline on Unipost

Unipost means « Universal post ». It may be installed on several types of roofing, hot deck, cold deck, wood deck, prefabricated slab and concrete slab, thanks to the universal fixing interface in laser cut plate.

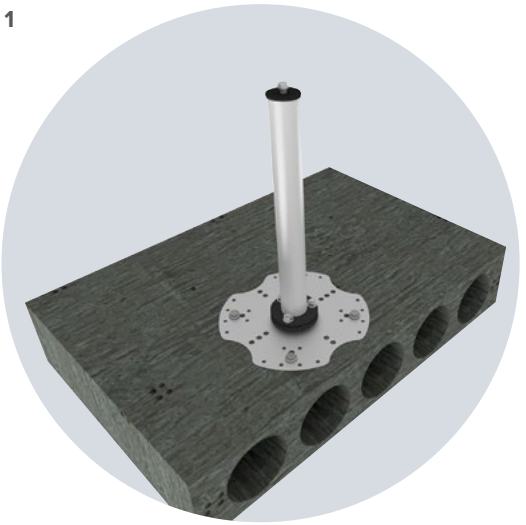


The Unipost protects the roofing from possible damages, when stopping a fall, thanks to an energy absorbing device located at the foot of the post, only the post tube deforms and not the fixing interface.

1. LDV137
2. LDV106
3. LDV081
4. IDF031
5. LDV076
6. IDF033
7. LDV083
8. LDV138
9. LDV032
10. LDV008

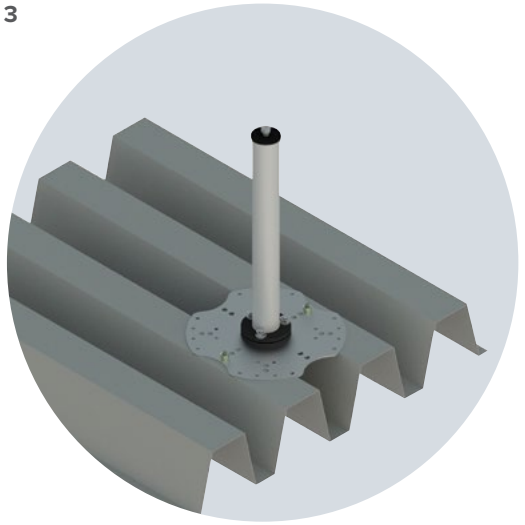
One post for most supports. This reduces the components in stock and simplifies rigging on site. The Unipost can also be used as fixing assembly for an anchor point.

1



2

3



1. PRECAST HOLLOW ROOF
2. WOODEN ROOF
3. METAL SHEET

On Cold deck brackets

Type of fixation

- For 4 users
- Energy absorbing
- Absorbs dilatation and contraction of roof sheets
- Supplied with EPDM roofing tape to ensure watertightness
- Compatible with Securope, Securail and Securail Pro

Compliant with
EN 795:2012 Type C
CEN/TS 16415:2013

Applications on

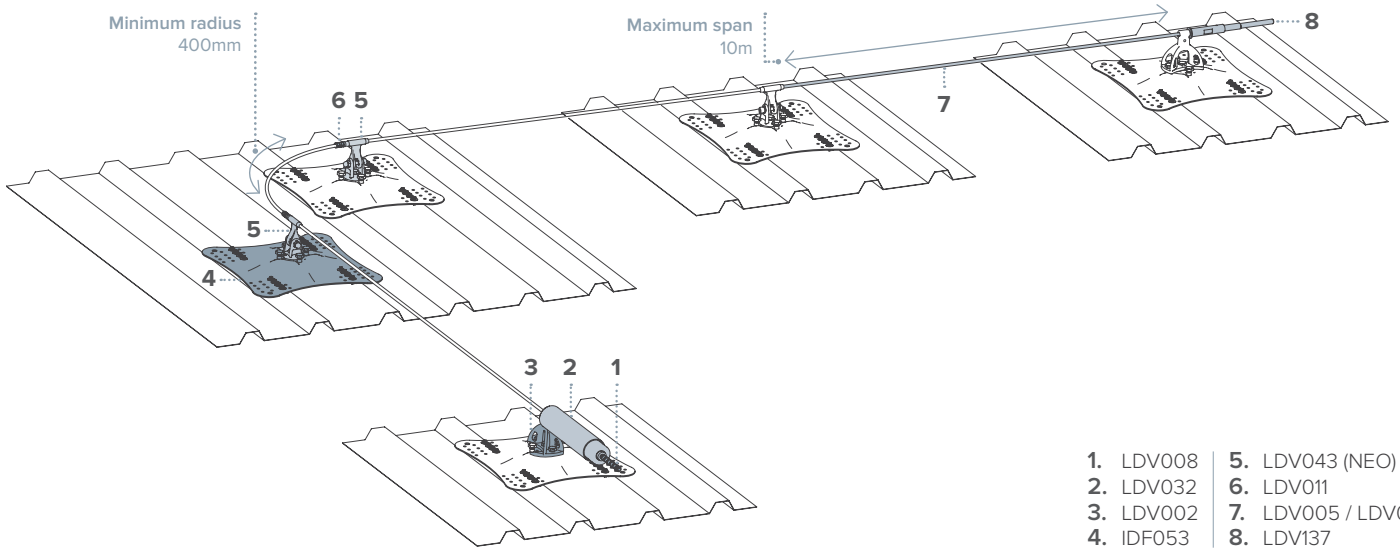
The fixing bracket for cold deck roofs has a unique design that distributes the load evenly.

Combined with the energy absorbing mechanism of the SecuRope NEO lifeline, it is the best system for fragile roofs.

Supplied with self drilling screws specially designed for their high pull out strength.

Ideal for the maintenance and repair of any industrial facility, safe access to solar panels, ventilation outlets, roof skylights and gutters.

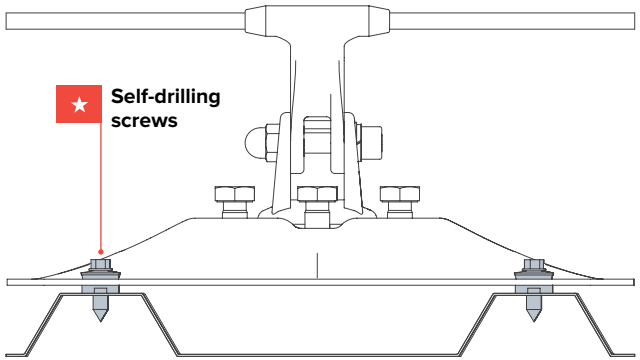
SecuRope NEO on cold deck brackets



1. LDV008
2. LDV032
3. LDV002
4. IDF053
5. LDV043 (NEO)
6. LDV011
7. LDV005 / LDV006
8. LDV137

Fixing detail

The bracket is fixed on the corrugated metal sheet with self-drilling screws. The sealing tape in EPDM ensures the watertightness.



NEO Anchor on fixing assembly

The bracket ensures a homogeneous distribution of the pull-out force on the cold deck roof. Also available in stainless steel.

LDV043 (NEO) / IDF053

On standing seam roof

Type of fixation

- For 4 users
- Energy and dilatation absorbing
- No drilling needed
- Wide range of clamps for seams
- Aluminium and stainless steel components
- Also for copper
- Compatible with Securope, Securail and Securail Pro

Compliant with
EN 795:2012 Type C
CEN/TS 16415:2013

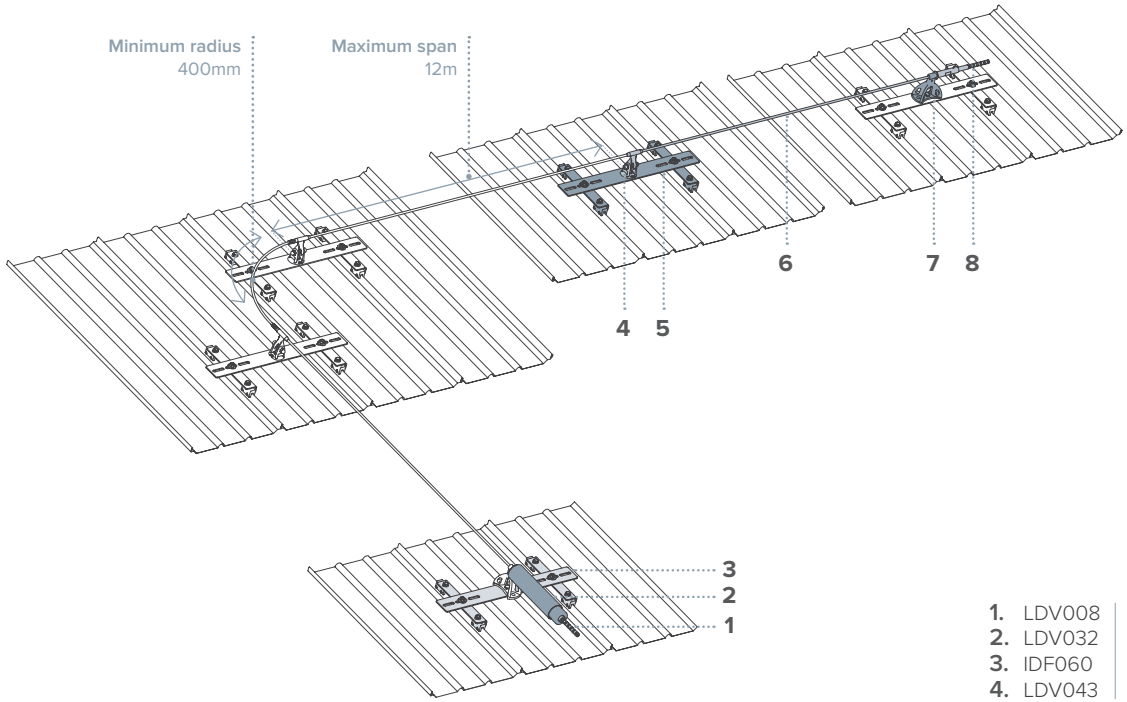
Applications on

The fixing bracket for standing seam roof is clamped on the seam and doesn't require any perforation.
The clamps combine high pull out and shear strength.

Combined with the SecuRope NEO lifeline, the system completely absorbs the dilatation and contraction of the standing seam roof.

Easy to install on new constructions or existing buildings.

SecuRope NEO on standing seam roof



1. LDV008
2. LDV032
3. IDF060
4. LDV043
5. IDF060
6. LDV005 / LDV006
7. LDV002
8. LDV137

Fixing clamps

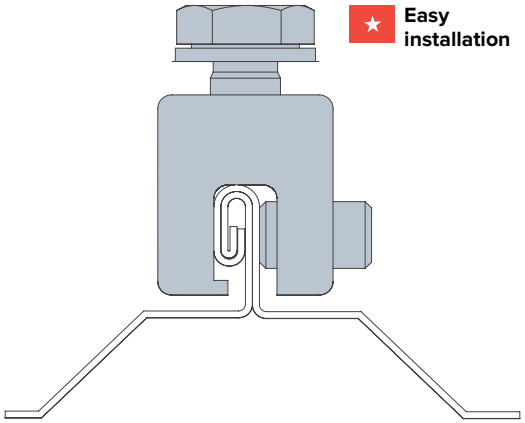
Fallprotec provides different clamp types to match the corresponding standing seam roof:

IDF042 S5-E clamp for standing seam roof with double folds

IDF045 S5-Z clamp for standing seam shaped bulb

IDF043 S5-S clamp for standing seam with double folds

IDF041 Copper S5-B clamp for standing seam with double folds

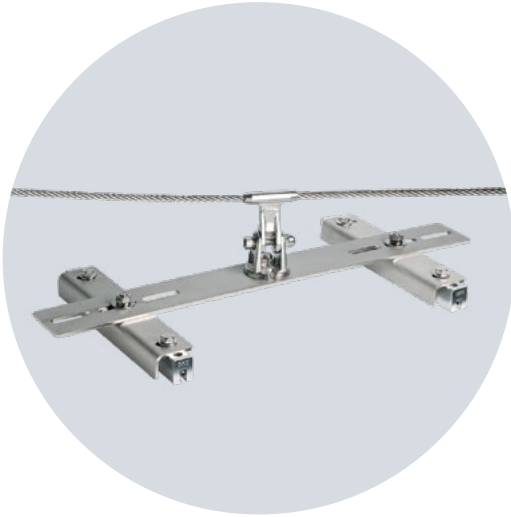


★ **Easy installation**

NEO Anchor on fixing assembly

The cross ensures a proper fixing on the standing seam and load distribution.

LDV043 (NEO)
IDF060



01

Height Safety Systems
Horizontal Fall Arrest

On hot deck brackets

Type of fixation

- For 4 users
- Undeformable
- Energy absorbing
- Can be retrofitted
- Compatible with all bituminous structures
- Compatible with most EPDM
- Reinforced toggle bolt
- Available with bituminous or PVC-P membranes
- Compatible with Securope 2012, Securail and Securail Pro

Compliant with
EN 795:2012 Type C
CEN/TS 16415:2013

Applications on

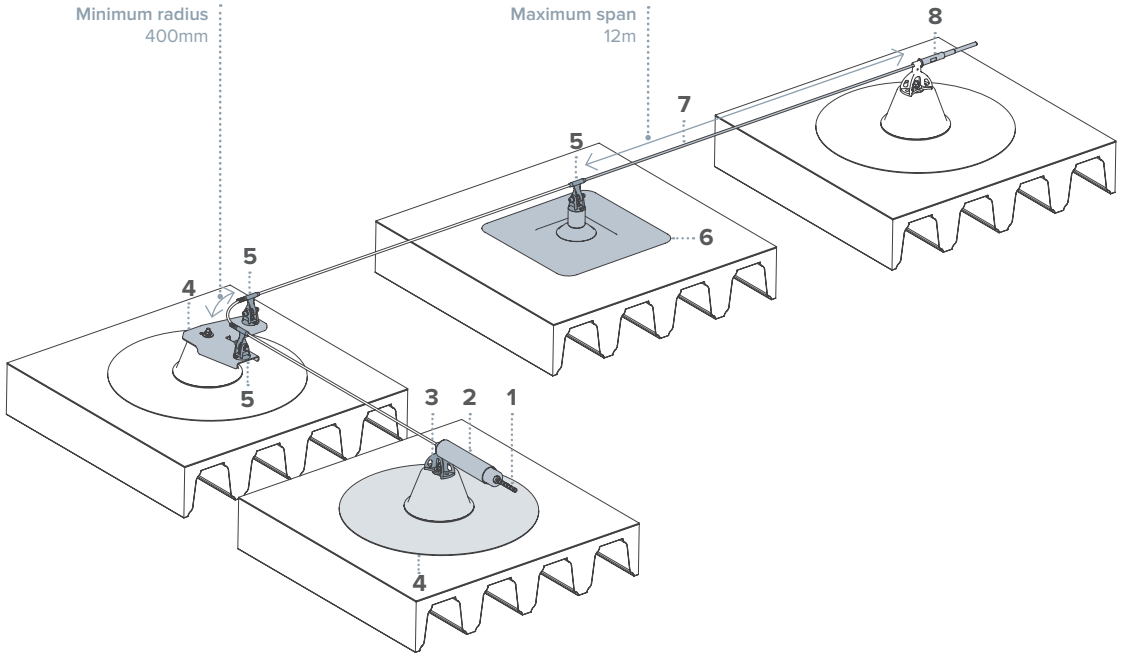
The Multipost and SpotAnchor are designed for hot deck roofs.

High resistance toggle bolts enable the fixation on corrugated metal sheets, wooden panels or precast concrete.

Only the toggle bolts passes through the isolation, then thermal bridges are minimized. The roofing collar, in bitumen or PVC-P, is prefitted in the factory to guarantee the waterproofness.

Easier to retrofit on existing buildings.

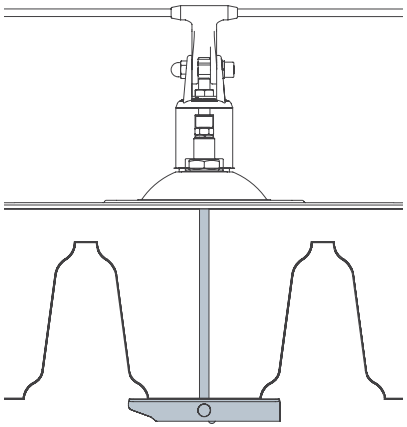
SecuRope NEO on hot deck brackets



1. LDV008
2. LDV032
3. LDV002
4. IDF022 / IDF023
5. LDV043
6. LDV091 / LDV092
7. LDV005 / LDV006
8. LDV137

Fixing detail of SpotAnchor

The SpotAnchor is fixed by a reinforced toggle bolt FAS005. This allows a distribution of forces on a large surface.



NEO Anchor on fixing assembly

For modern constructions with wooden panels, the SecuRope lifeline is installed on MultiPost.

LDV043 (NEO) / IDF022

On Unipost for green roof

Type of fixation

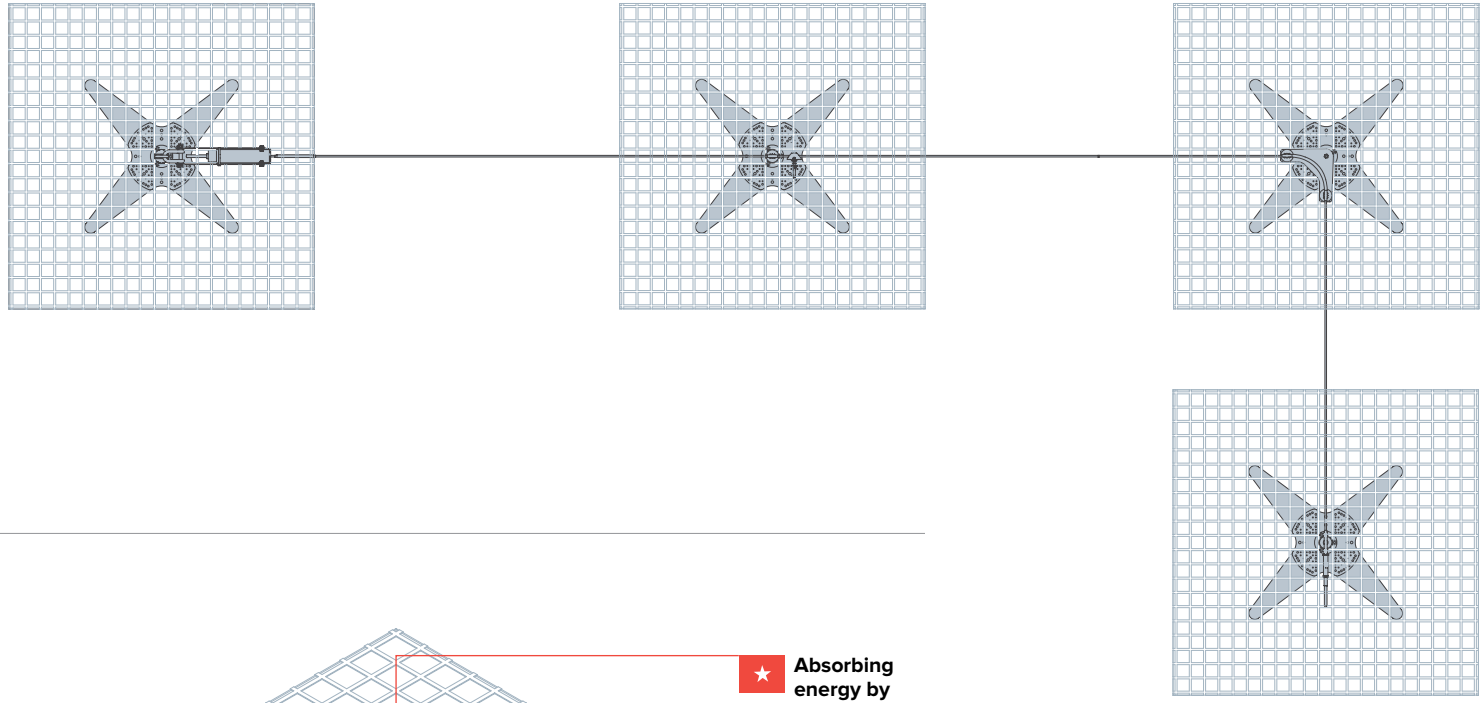
- For 2 users
- Compatible with Securope
- Easy installation
- Preserves the roof's isolating properties
- Stainless steel anchor point
- No perforation of roofing membrane
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 795:2012 Type C & Type A
CEN/TS 16415:2013

Applications on

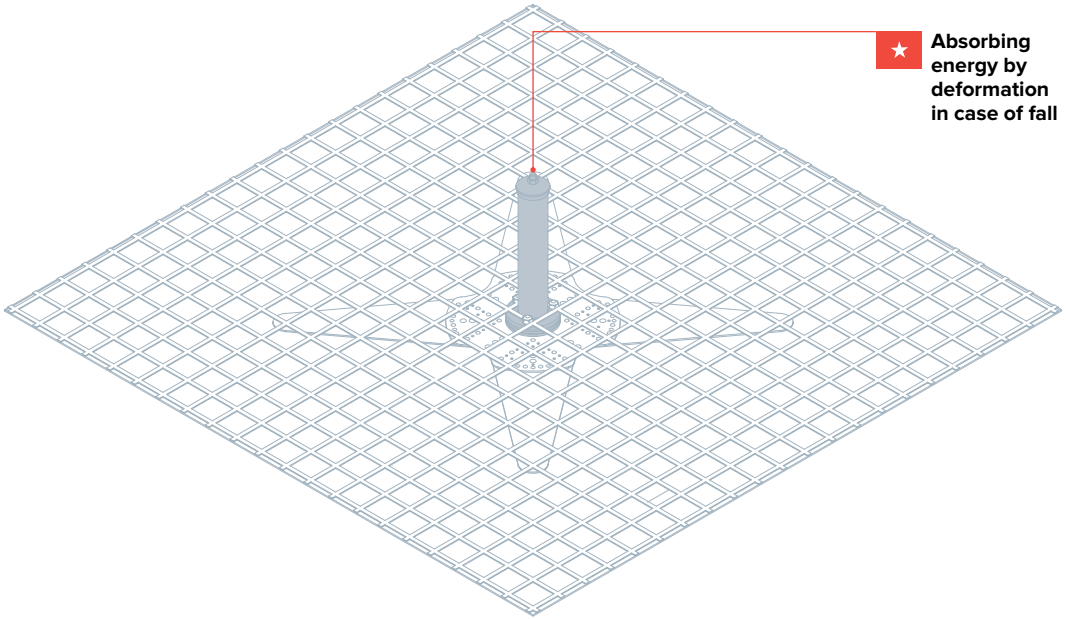
The Unipost for green roof is either used as anchor point for one or two persons or as support for the lifeline. It can be used on horizontal roofs up to a slope of 5°. The waterproofing, roof insulation and roof structure remain intact.

Horizontal Unipost lifeline for green roofs



Unipost on fall arrest mat

The M12 threaded bolt allows the attachment of an anchor point for one or two persons or a Securope anchor.



01

Height Safety Systems
Horizontal Fall Arrest

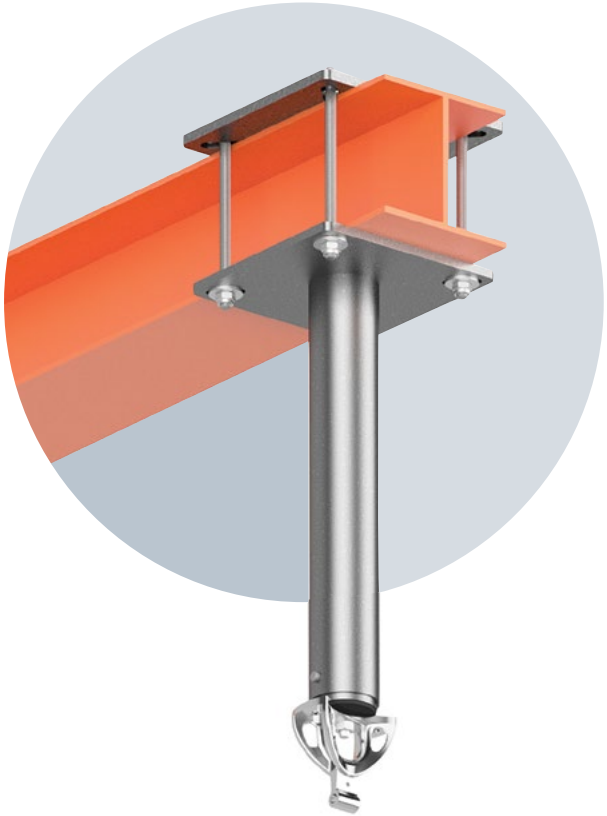
On steel beams

Type of fixation

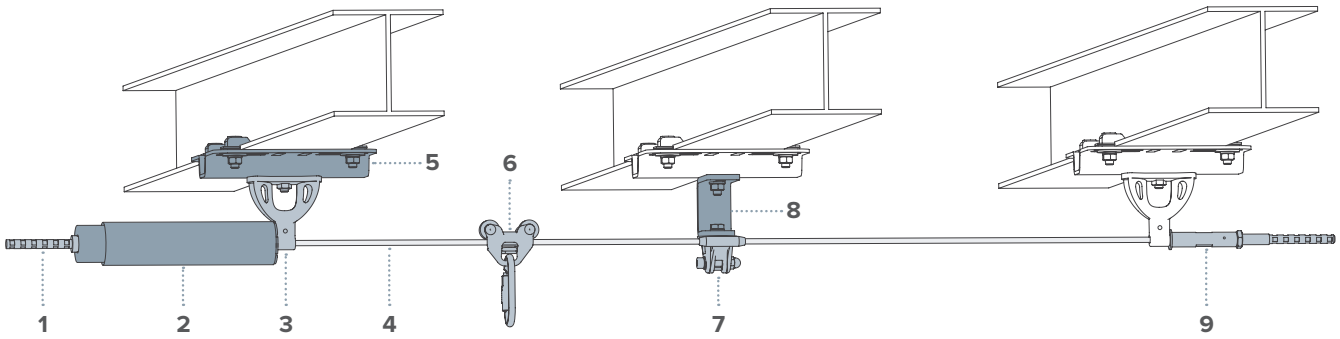
- For 4 users
- Easy and quick installation
- Undeformable
- Smooth movements along the lifeline
- Stainless steel
- Harmonized design for standard beams with a flange from 50 to 300mm
- Clamping perpendicularly or in parallel to the axis of the exerted force
- Compatible with SecuRope, SecuRope EVO, Secura, SecuRail, SecuRail Pro and SafeAccess

Compliant with
EN 795:2012 Type C
CEN/TS 16415:2013

Applications on



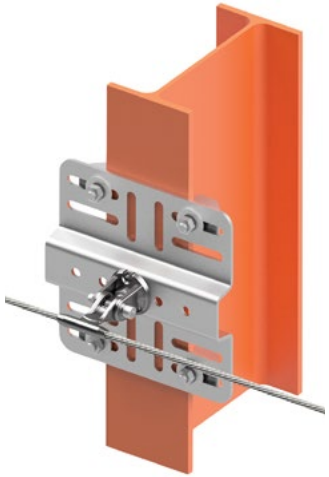
SecuRope horizontal overhead on steel beams



The NEO SecuRope lifeline can be attached to beams through a system of clamps. Using this type of fastening enables a solid fixation of the lifeline without drilling.
Particularly useful for industrial configurations, the SecuRope NEO lifeline with crimping rings can stop a fall with very low cable deflection.

1. LDV008
2. LDV003
3. LDV002
4. LDV005
5. IDF050
6. LDV141
7. LDV043
8. LDV134
9. LDV137

Fallprotec's engineering department adapted the SecuRope system to cope with any particular requirement of a project.



Fixing assembly for a vertical fastening on a steel beam using clamps. Compatible with all types of Fallprotec anchoring devices for horizontal or inclined lifelines.

IDF051

Fixing assembly for fastening on a steel beam using a counter plate. Compatible with all types of Fallprotec anchoring devices for horizontal or inclined lifelines. Usable on wood and on concrete.

IDF055

01

Height Safety Systems
Horizontal Fall Arrest

Al-Janoub Stadium

Complete safety at height solution Inaugurated in May 2019

Case Study

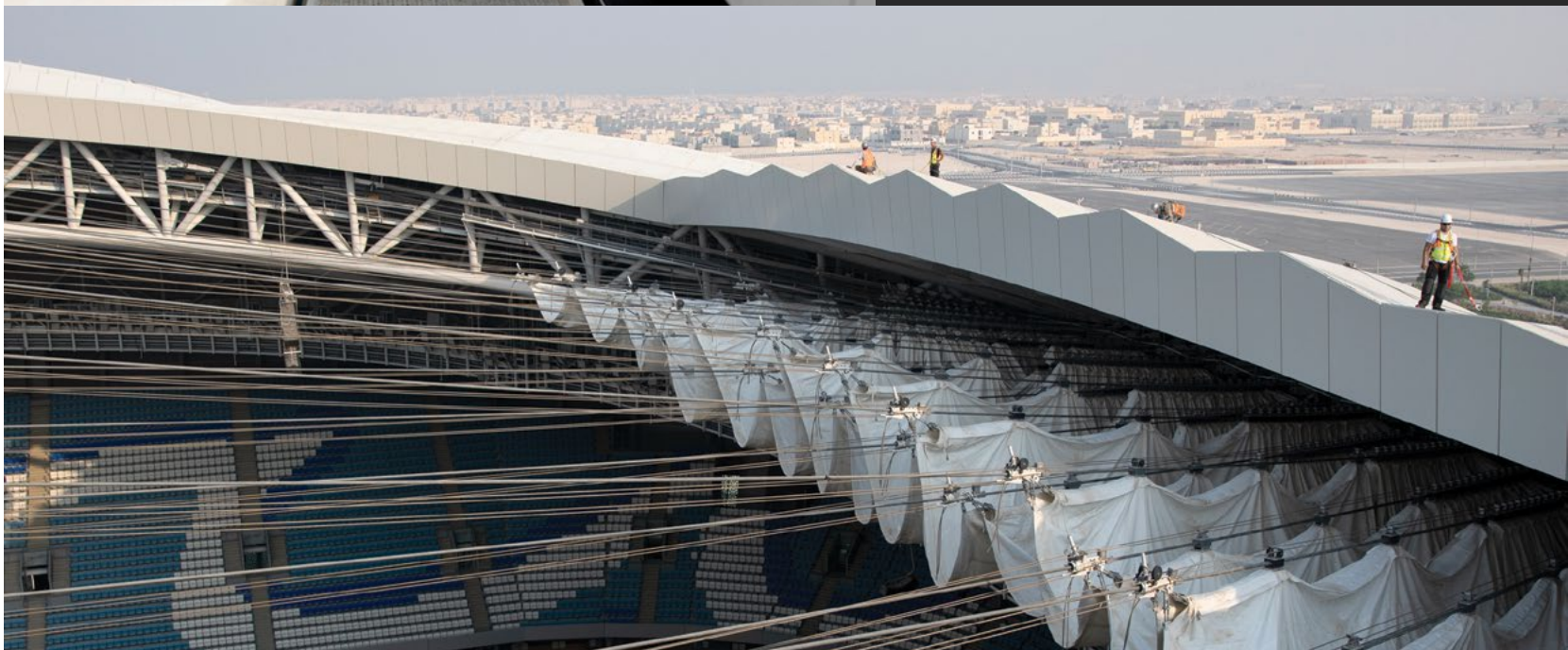
Al-Wakrah, Qatar

The Brief

The Al-Janoub Stadium in Al-Wakrah has been designed by Zaha Hadid Architects in the perspective of the 2022 Football World Cup. Imitating the shape of the typical Qatari fishing boats – called dhows – that can be seen in the city's harbour, its roof is fully retractable, allowing the interior to be cooled

Fallprotec provided a full system to allow the cleaning and maintenance of its immaculate roof. Special mounting plates were developped in order to match the shape of the roof the most precisely possible.

The walkways were designed using the 3D model of the stadium as BIM and Virtual Reality, delivering the components custom tailored, from different shapes to different slopes.

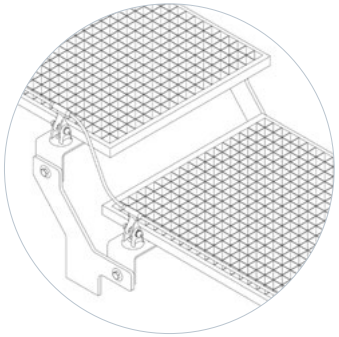


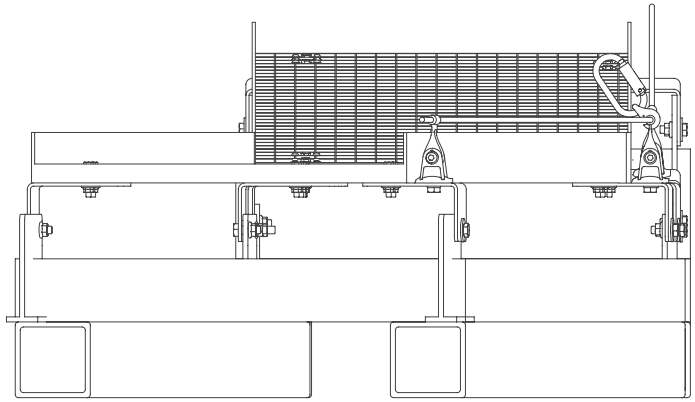
The Result

- 1600m of Self standing walkways with cable lifeline attached directly reducing the weight and the risk of water leakage.
- 3700m of lifeline on bespoke fixing plates
- 4 SafeLadders
- 150 anchor points

All powder coated in customer's custom RAL code

The glider passes smoothly over the intermediate anchors without disconnecting.
Can be removed anywhere along the lifeline.





SecuRail® Classic

- For 2 users
- Span of 3m to 5m with reinforcement
- Anodized Aluminium
- 1,4 kg/m
- Low deflection
- Absorbs dilatation and contraction of roof sheets
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 795:2012 Type D
CEN/TS 16415:2013

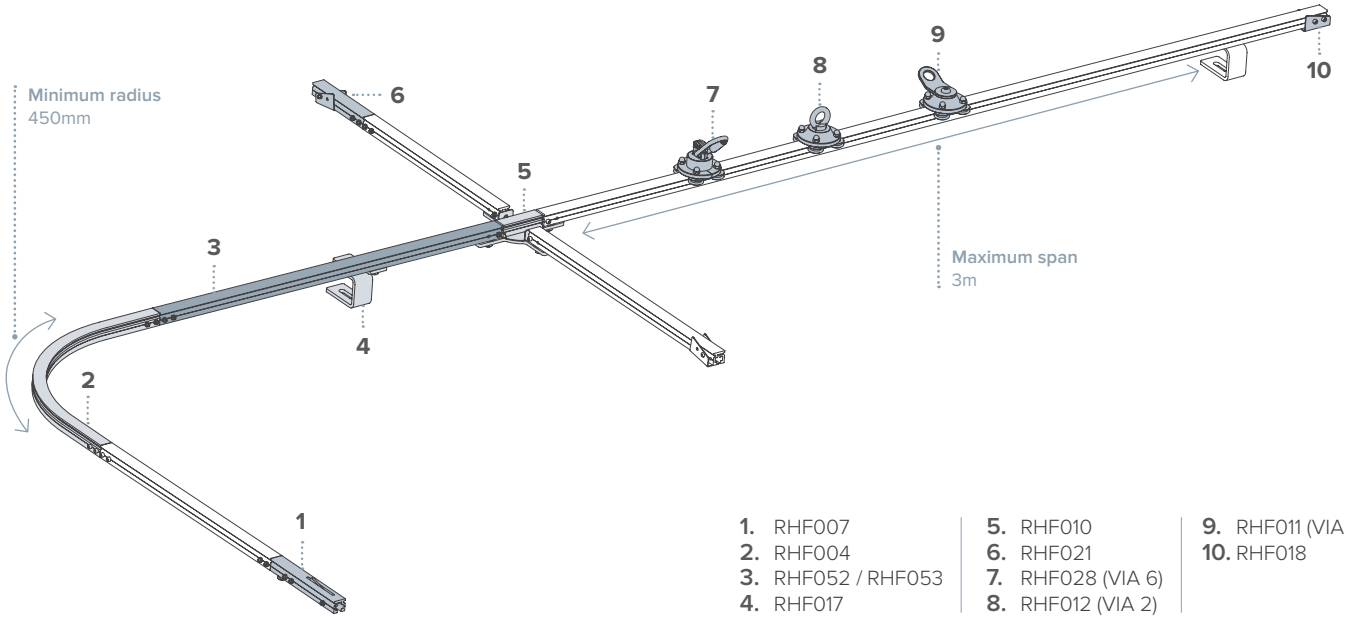
Applications on

The SecuRail is a rigid fall arrest rail that can be installed on ground, wall and ceiling configuration. Its rectangular shape integrates well in the aesthetics of buildings. The cross shaped junction absorbs the dilatation as a result of temperature variation.

A variety of 6 fall arrest trolleys makes this rail highly versatile. The openable trolley VIA 6 enables the end user to connect and disconnect the trolley at any point of the rail.

The Multivia trolley or the VIA 4 trolley are recommended for sloped roofs.

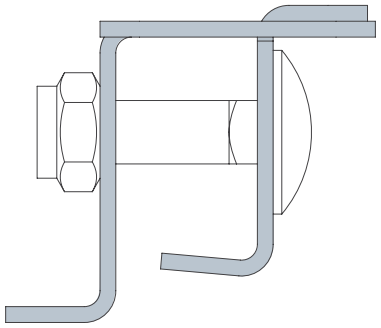
Horizontal SecuRail lifeline on ground



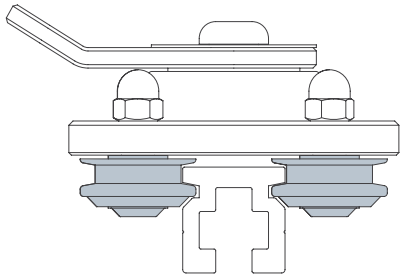
1. RHF007
2. RHF004
3. RHF052 / RHF053
4. RHF017
5. RHF010
6. RHF021
7. RHF028 (VIA 6)
8. RHF012 (VIA 2)
9. RHF011 (VIA 1)
10. RHF018

SFU010 Anchoring device for standing seam roof

The SAFE U product range is specifically designed for common roofs such as tile, slate, cold deck and standing seam roofs. This system is designed to guarantee waterproofness.



Trolley VIA 1



The rollers are in stainless steel with bashings to improve their movement along the rail.

Trolley VIA 5

Trolley for wall configuration. Different VIA trolleys are available depending on the system configuration.

RHF015

SecuRail® Pro

- For 2 users
- Span up to 6m
- 1,7 kg/m
- Low deflection
- Anodized aluminium
- Absorbs dilatation / contraction
- Possibility of custom-made solutions with the Fallprotec's engineering department

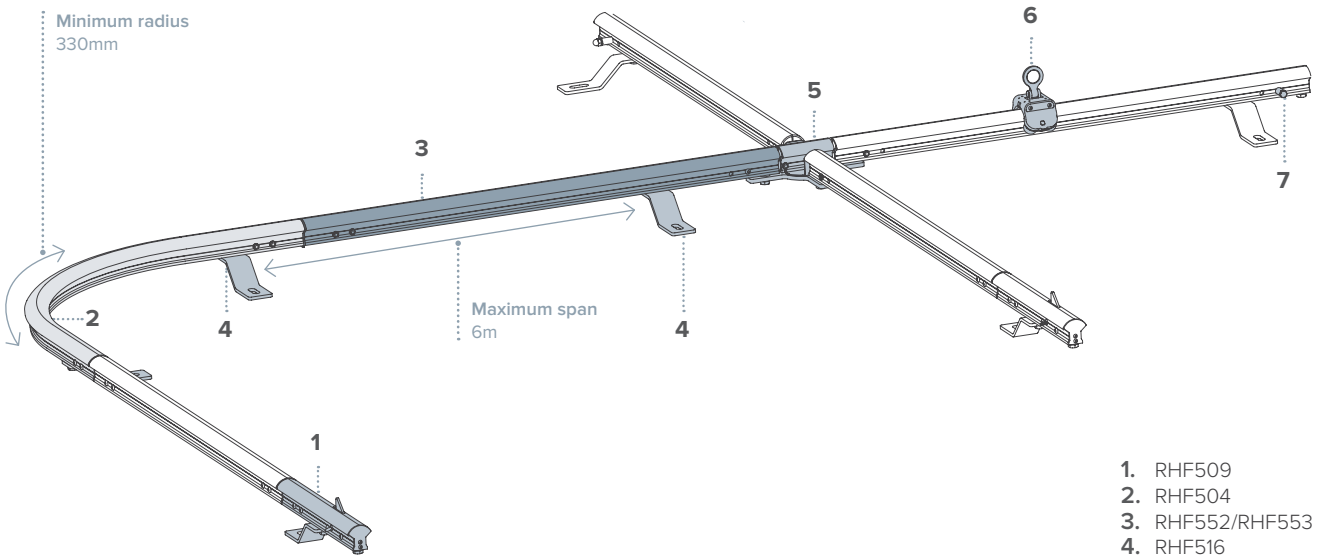
Compliant with
EN 795:2012 Type D
CEN/TS 16415:2013

Applications on

The SecuRail 2016 is a rigid and versatile fall arrest rail. This unique profile has a high inertia that enables a 6 meter span between supports.

It is ideal for work sites with low fall clearance.

Horizontal SecuRail 2016 lifeline on ground



1. RHF509
2. RHF504
3. RHF552/RHF553
4. RHF516
5. RHF510
6. RHF511 (GRANVIA)
7. RHF514

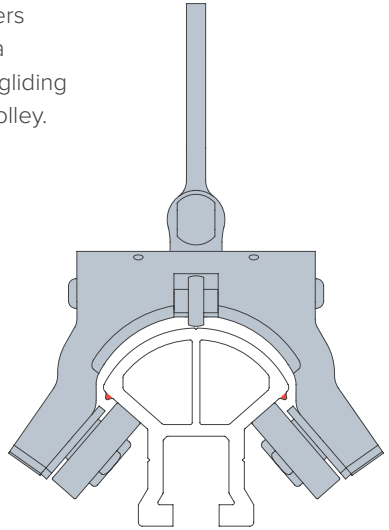
Trolley GRANVIA

The GRANVIA fall arrest trolley equipped with rollers glides smoothly along the track following the user's movement. Anti-derailment claws mounted between the rollers keep the trolley firmly on the track. The same trolley is used for ground, wall and ceiling configuration.

RHF511 (GRANVIA)

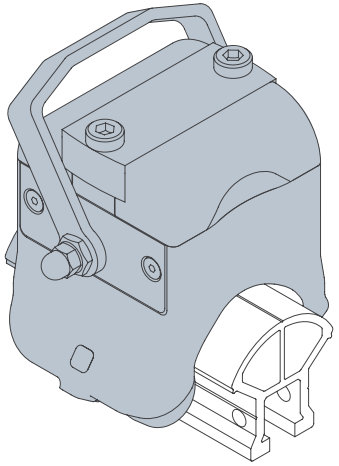
Trolley GRANVIA

The rollers enable a smooth gliding of the trolley.



Overspeed trolley

The new trolley works either for inclined and horizontal lifelines. This allows the assembly of horizontal lifelines with inclined span, all in one, avoiding the user's disconnection.



01

Height Safety Systems
Horizontal Fall Arrest

SecuRail® Pro

Gare de Limoges

Case Study

Limoges, France

The Brief

The Limoge train station was build in 1929 and is a landmark of the city. Built with stones, steel and precious copper roof, the historical building has been brought up to code.

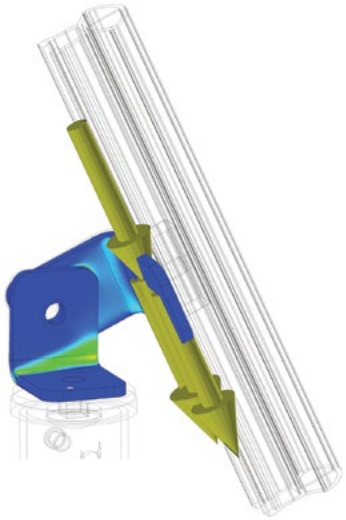
To ensure the safe maintenance of the central dome and roof, Fallprotec designed and supplied fall arrest rails and anchor points.

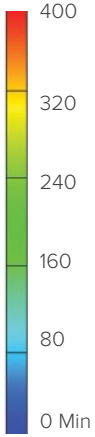
Thanks to this customized solution, workers can now evolve safely even on strong sloped surfaces.

The Result

- 14 powder coated bended rails on demand of 6m each
- 25 standard fixing assemblies
- 10 anchor points LDV029

Bespoke fixing bracket





Stress test illustration
Calculation for fixing assembly

SafeAcess® fall arrest

- For 4 users
- For 2 users with Flexbow system
- 5kg/m
- Span of 6m
- Undeformable
- ATEX certified
- Aluminium 6060T6
- Possibility to fold away the Flexbow and SafeAccess system when not in use
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 795:2012 Type D
CEN/TS 16415:2013

Applications on

The SafeAccess is an undeformable fall arrest rail for industrial applications. Installed in overhead configuration, it is the most suitable system when the fall clearance is low.

ATEX certified for potentially explosive atmospheres, this rail is also ideal for petrochemical industries.

The aluminium rail is protected by a high-quality powder coated surface treatment that resists to marine environment.

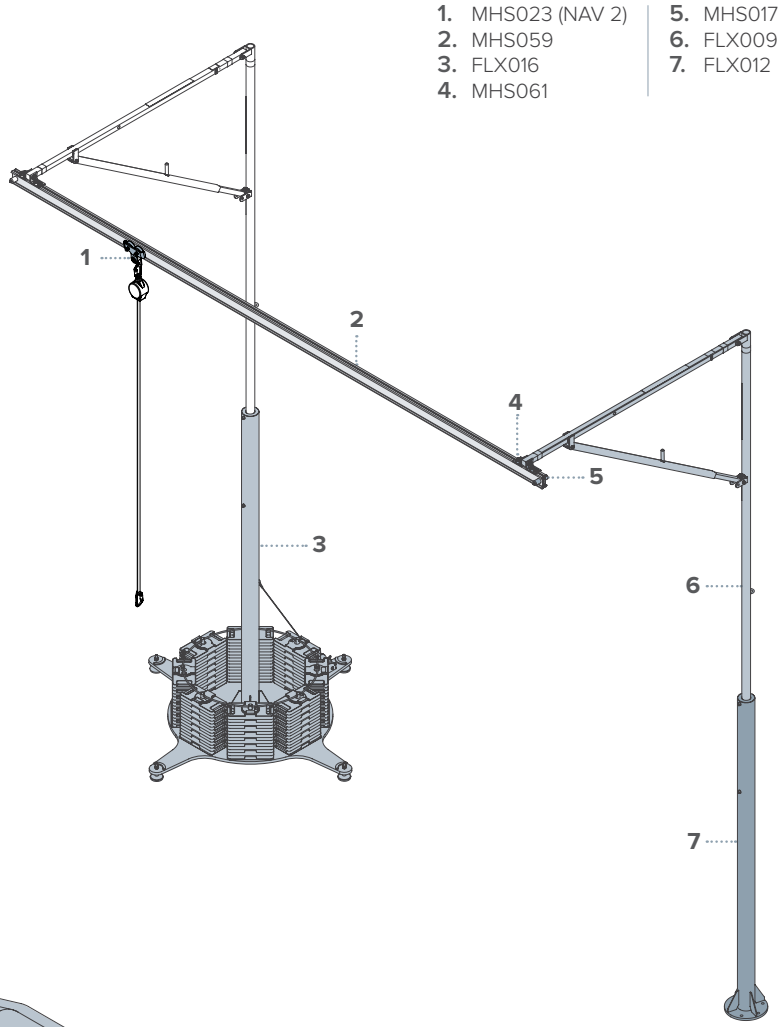
The NAV 2 trolley equipped with rollers follows smoothly without any action from the end user.

Horizontal fall arrest

The Flexbow is a standardized outrigger beam to secure loading bays and machinery. Equipped with an integrated energy absorber, it is a lightweight and yet robust design for industrial applications with a minimum fall clearance of 4m.

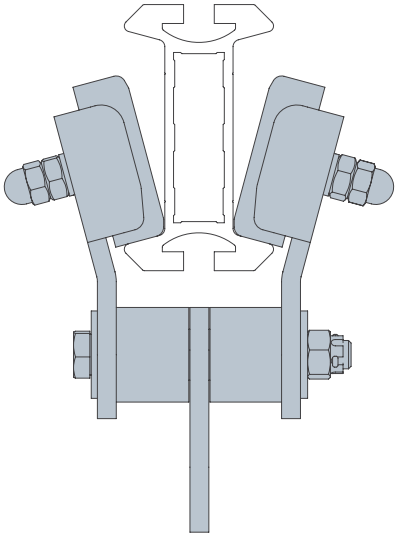
Combined with the SafeAccess fall arrest rail for access on top of vehicles.

Several configurations (mobile, fixed on ground, fixed on wall...) are available.



1. MHS023 (NAV 2)
2. MHS059
3. FLX016
4. MHS061
5. MHS017
6. FLX009
7. FLX012

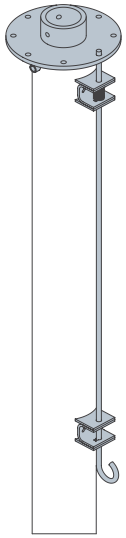
Trolley NAV 2



The SafeAccess rail combined with a safety block enables the safest possible fall arrest.

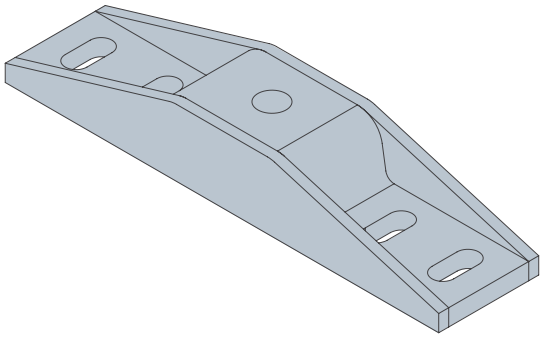
MHS023

Products for foldable system



Rotatory lock kit

FLX017



Rotatory Junction Flexbow-SafeAccess

FLX018

01

Height Safety Systems
Horizontal Fall Arrest

SafeAcess® on Flexbow

Cement factory

Case Study

Madrid, Spain

The Brief

The loading of trucks with cement is a delicate task.

In order to carry it out safely and effectively, Fallprotec provided systems of SafeAcess on Flexbow.

Located at 6m height, the SafeAccess track is fixed to the ground using Flexbow jibs on 3m posts. The user walks along the rail, connected through a retractable type fall arrester.

Fixing brackets on steel beams

The metal column clamp made in steel is a lightweight accessory, easy and quick to assemble.

The Flexbow & SafeAccess system is a durable choice even in tough, dusty environments:

- Easy installation
- Lightweight service
- Safe and free movements of the user, as the fall arrester only blocks in case of a fall

SecuRope® QuickSet

- Opening glider with safety lock
- Easy mounting
- Overpassing anchors
- Cable vibration absorption system
- Swagless system
- No deformation of the intermediate anchors
- Two options: Absorber integrated in the glider or on top of the lifeline

Compliant with

CE

EN 353-1:2014

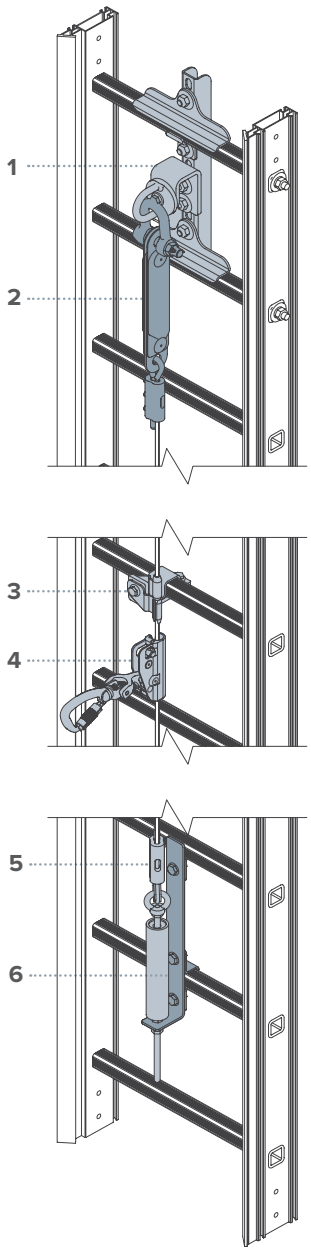
Applications on

The SecuRope QuickSet is designed for wind turbines, pylones, masts or industrial sites.
This flexible system is used with stainless steel cables. The glider is openable and can be inserted or removed at any point of the cable.

Two types of fall arrest systems are possible with this lifeline.

Type 1: Energy absorber fixed on the top anchor. It is permanently fixed on the lifeline.
Type 2: Energy absorber fixed on the opening glider. The glider locks instantly in case of a fall, triggering the energy absorption device.

SecuRope QuickSet Vertical lifeline type 1 with absorber on line



Ladder lifeline

1. LDV230
2. LDV235
3. LDV240 & LDV245
4. LDV250
5. LDV265
6. LDV260

New ZIP! fall arrest opening glider fitted with energy absorber

Passing smoothly through the anchors, the glider locks in case of a fall.

LDV255

SecuRail® Pro MastLadder

- Light aluminium rail
- Undeformable
- Freehand system
- On ladder or with fixed rungs (MastLadder)
- Easy use
- Trolley equipped with an energy absorber
- Possibility of custom-made solutions by the Fallprotec's engineering department

Compliant with

CE

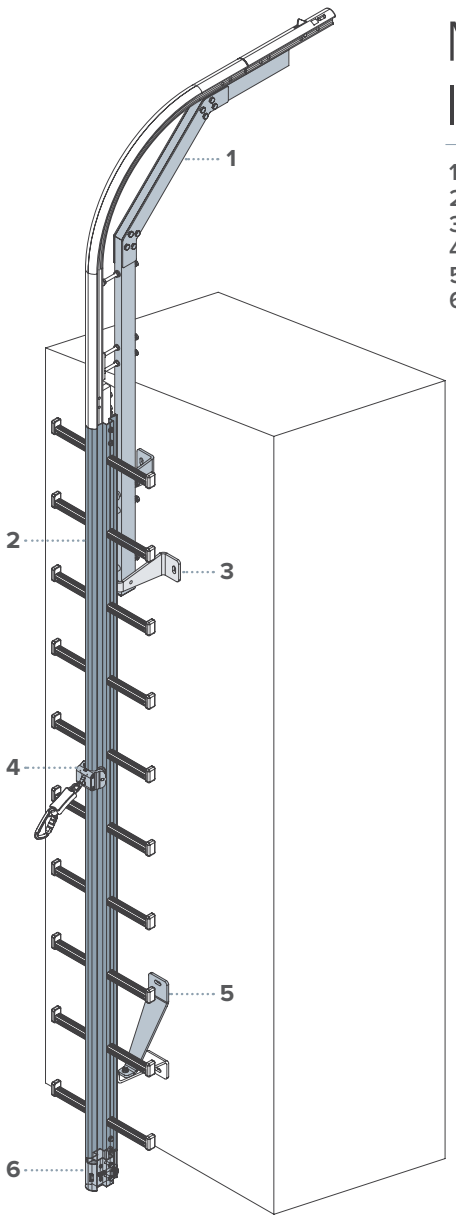
EN 353-1:2014

Applications on

The SecuRail Pro Vertical is a rigid lifeline to secure access on any structure. When clamped on an existing ladder it secures the end user much better than the regular safety hoops.

A MastLadder fitted with fixed rungs is designed for confined spaces, for industrial halls or for telecommunication towers. Undeformable stainless steel brackets connect the MastLadder to the structure.

SecuRail MastLadder and SecuRail Pro Vertical 2016 lifeline clamped on a ladder

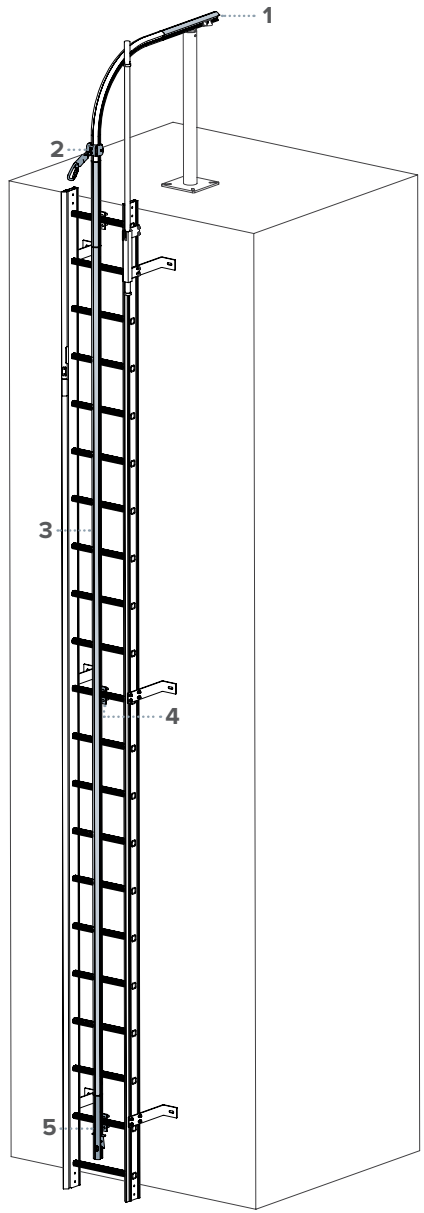


MastLadder lifeline

1. RHF715
2. RHF700
3. RHF712
4. RHF518 (GRANVIA 4)
5. RHF710
6. RHF708

SecuRail Pro

1. RHF520
2. RHF518 (GRANVIA 4)
3. RHF552 / RHF553
4. RHF521
5. RHF522



SafeLadder® Pro

- Easy use
- Ergonomic
- Integrated rigid fall arrest
- Rigid and stable ladder
- Standard brackets in various lengths
- Anodized aluminium
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with

CE

EN 353-1:2014

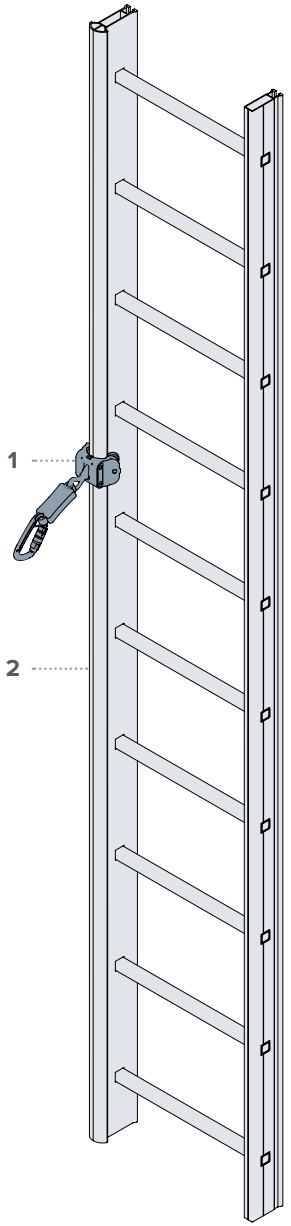
Applications on

The SafeLadder works with the same rail system as the MastLadder.

A Securail Pro is integrated to the frame of a ladder. A GRANVIA 4 trolley is inserted on this frame, which means that the user can comfortably climb the ladder up while being secured at all times.

Various SafeLadder types and accessories are available to fit any situation:
temporary SafeLadder, platform to cross the parapet, fold-up section for confined spaces, telescopic SafeLadder and traversing SafeLadder along a SafeAccess rail.

This ladder type is much safer than traditional safety hoop ladders. A foot rest is installed every 10m.



1. RHF518
2. SAL001

GRANVIA 4

Trolley equipped with energy absorber.

RHF518

Anchor points

Abseiling, fall arrest and restraint

- Anchor points for every application
- 1 or 2 users depending of model
- Undeformable
- Compatible with Fallprotec fixing brackets
- Stainless steel
- Abseiling solutions
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 795:2012 Type A
CEN/TS 16415:2013

Applications on

Twinfix anchor point for 2 users

With a breaking strength above 50kN it can stop a fall without any permanent deformation. Reliable model for suspended rope access. Can be installed on ground, wall or ceiling configuration.

LDV057

Twinfix XL anchor point for 2 users

With a breaking strength above 50kN it can stop a fall without any permanent deformation.

Reliable model for suspended rope access. The large opening of the anchor point facilitates the connection of big carabiners. Can be installed on ground, wall or ceiling configuration.

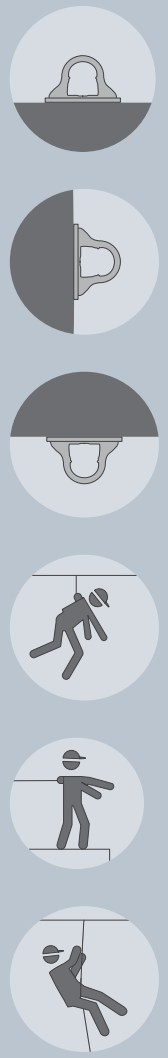
On concrete or slab, the anchor point can be fixed with two independent bolts. On a metallic structure, it can be fixed with one central bolt.

PTA016

Secura anchor point for two users

The Secura anchor point is permanently installed on a building or other structure to protect people that are at risk of falling when carrying out maintenance work. Certified for 2 users, this solution in robust stainless steel can be used on ground, wall and ceiling as well as for abseiling.

LDV140



Anchor points

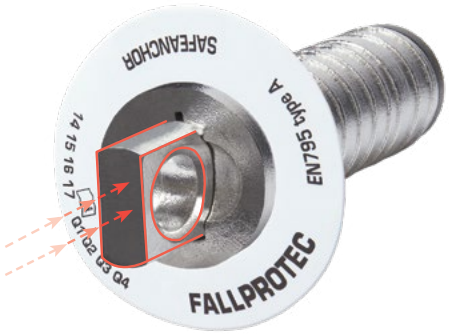
Fall arrest and restraint

- Anchor points for every application
- 1 or 2 users depending of model
- Undeformable
- Compatible with Fallprotec fixing brackets
- Stainless steel
- Possibility to retrofit on installation
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 795:2012 Type A
CEN/TS 16415:2013

Applications on

SafeAnchor



Hidden anchor point

The SafeAnchor is a spring loaded and discreet anchoring point to be fitted in aesthetic facilities.

The anchor is embedded in concrete and the anchoring eye appears by a simple pressure on the device.

Can be installed on ground and wall configuration.

Neat system to secure openable windows.

LDV055

Rotating high visibility anchor point

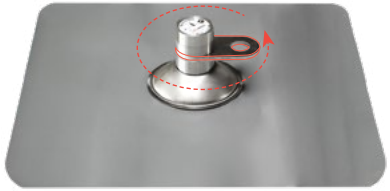
Yellow anchor point for 2 users in stainless steel and powder coated to increase visibility. Fixed by one M12 bolt the anchor point is rotative to follow the end user. It can be installed on ground and wall configuration.

LDV029

Anchor point with large opening for two users

The XL eyeplate enables the connection of big connectors thanks to its large opening. Usable on ground and wall.

PTA026



SpotAnchor

The SpotAnchor is installed on hot deck roofs to secure specific areas such as access zones, building corners or smaller roofs.
The high resistance toggle bolt ensures long-lasting fixing to the corrugated metal sheet and minimises potential thermal bridges. The roofing collar, in bitumen or PVC-P, is pre-fitted in the factory to guarantee the waterproofness.
The rotating anchor point follows the movement of the user.

LDV052

Harnesses and Lanyards

- Easy and quick to put on
- Two type “A” anchoring points
- Made in EU

Compliant with

CE

EN 362:2005 I EN 358:2003
EN 361:2003 I EN 355:2003
EN 365:2005 I EN 813:2009

Applications on

Multifunctional full body harness and single elastic lanyard with energy absorber

5 anchor points, suited for rope access and rescue, it is the typical companion of many industrial climbers and service technicians. The single elastic lanyard of 2m with energy absorber connects safely the user to any Fallprotec fall arrest system. The integrated energy absorber reduces the forces transmitted to the user to max. 6kN. Since it is elastic, the lanyard adapts to the movements of the user, letting him/her evolve freely along the lifeline or in the vicinity of an anchor point.

HAR066 / HAR067 / HAR068
HAR010

Prolight Harness

The emblematic harness of Fallprotec is lightweight and equipped with pads for the highest level of comfort. The operator can work all day without feeling any pressure point.

HAR001 / HAR002 / HAR003

Working seat, automatic braking descender and secondary fall arrest device

This assembly enables a safe and comfortable work at height for rope access specialists.

The harness and seat are ergonomic, maintaining the position of the user without straining the muscles. The harness follows the movements of the user, giving him/her more freedom. The fall arrest equipped with an energy absorber blocks automatically in case of a fall. The descender gives full freedom of movement in the vertical axis.

HAR014 / HAR023 / HAR095

Retractable blocks

- Energy absorbing
- Made in EU

Compliant with

CE

EN 354:2011 I EN 355:2003
EN 360:2003 I EN 362:2005

Applications on

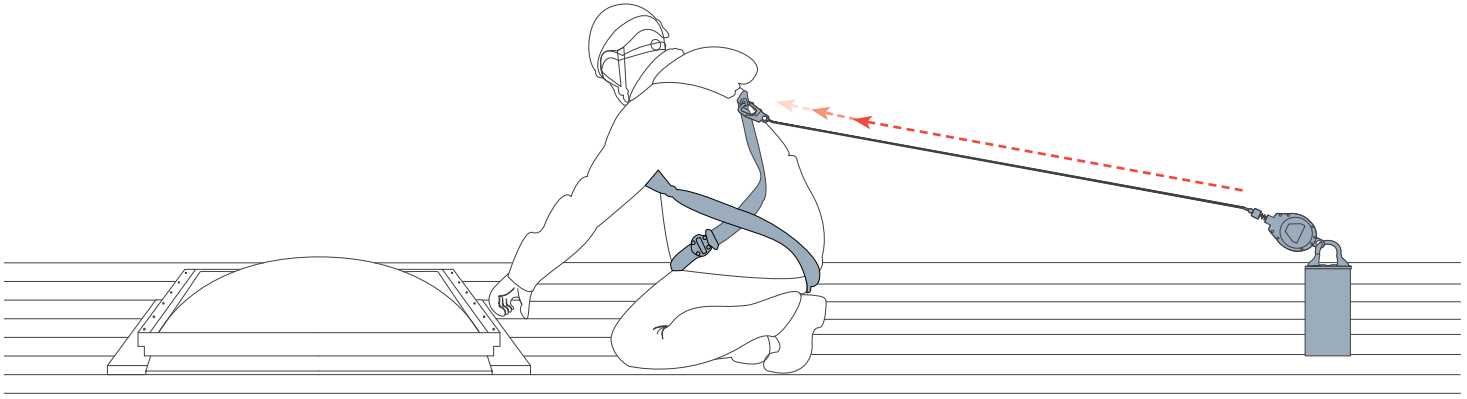
These sturdy blocks are certified for ceiling, wall and ground configuration.
The overspeed system stops a fall in a very short distance. The integrated energy absorption mechanism ensures that the maximal force transmitted to the end user is 6kN.

The ultra-compact block is a user-friendly device. In areas with limited fall clearance the retractable is installed in overhead configuration. When installed on the ground it also enables the user to reach areas further away from the Fallprotec lifeline.

Ultra-compact blocks

Complete range of retractable fall arresters from 2 to 60 meters. Available with webbing strap or galvanised steel cable. The spring mechanism keeps a constant tension on the lanyard, thus facilitating the movement of the end user.

IHWB2 / IHWS9 / IHRA



When installed on the ground it also enables the user to reach areas further away from the Fallprotec lifeline. In case of fall, the connection ensures a quick fall arrest, which is especially valued on roofs with skylights.

01

Height Safety Systems
Horizontal Fall Arrest

ArcelorMittal Belval Blast furnaces

Complete safety at height solution

Case Study

Esch-Sur-Alzette, Luxembourg

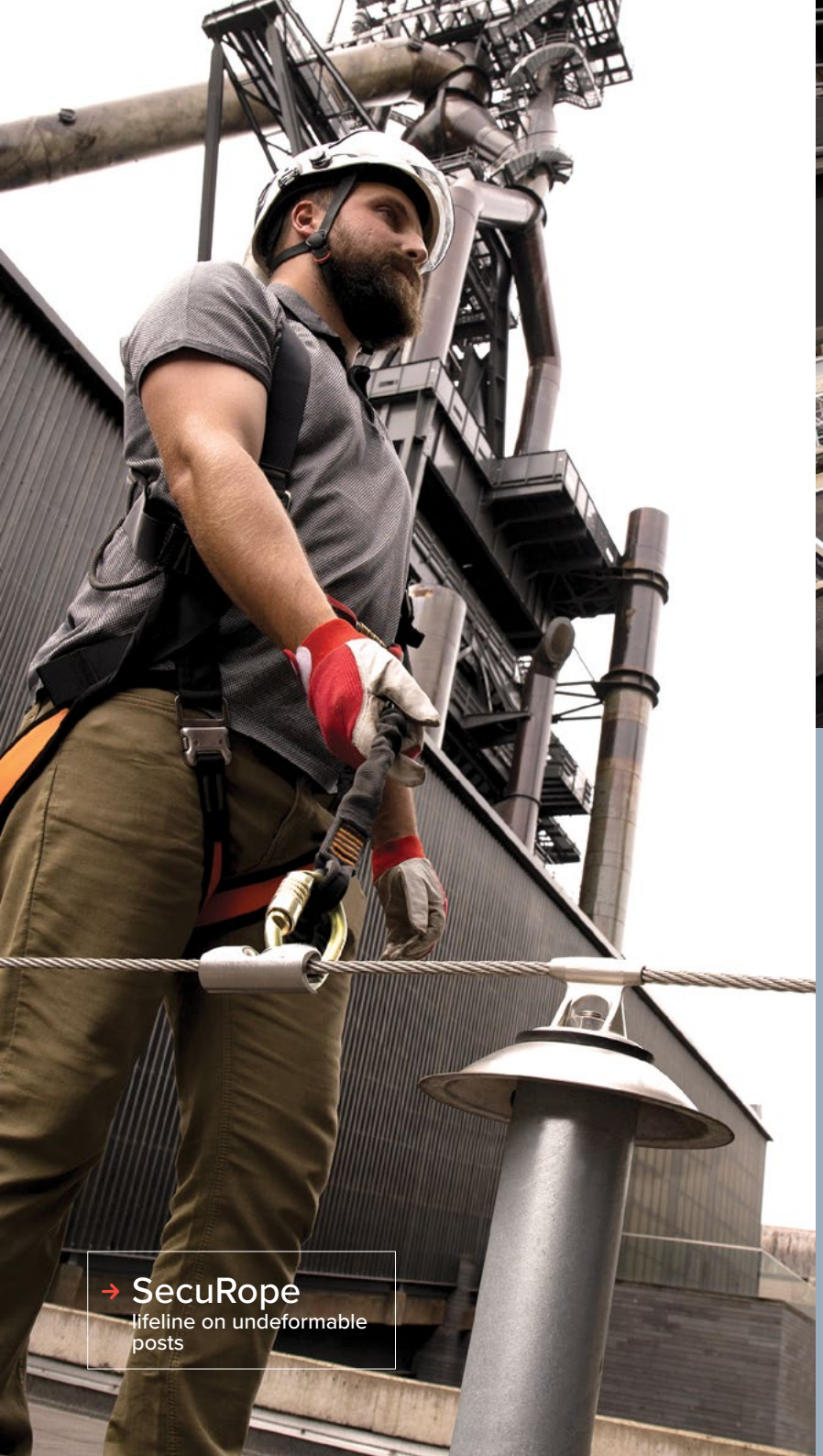
SecuRope
overhead lifeline

The Brief

The industrial wasteland at Belval is the former site of the Arbed, Luxembourg's steel group which was founded in 1911 and merged with Mittal Steel in 2006 to form ArcelorMittal, one of the most important industrial steel companies globally.

When Luxembourg's last operational blast furnace was shut down in 1997, part of the site remained as an exhibition area about the history of the Steel industry.

Fallprotec has been commissioned to design and produce the fall arrest and safe access solutions to maintain this big steel manufacturing city, from anchor points to suspension systems on the blast furnaces.



SecuRope
lifeline on undeformable posts

SafeAccess
rail for suspension

The Result

- 100m of SafeAccess rail for suspension
- 40m of SecuRope lifeline on undeformable posts
- 200m of SecuRope overhead lifeline
- 100m of SecuRope on cold deck lifeline
- 60 Twinfix anchor points for suspension

SecuRope
on cold deck lifeline

SecuRail® Pro for abseiling works

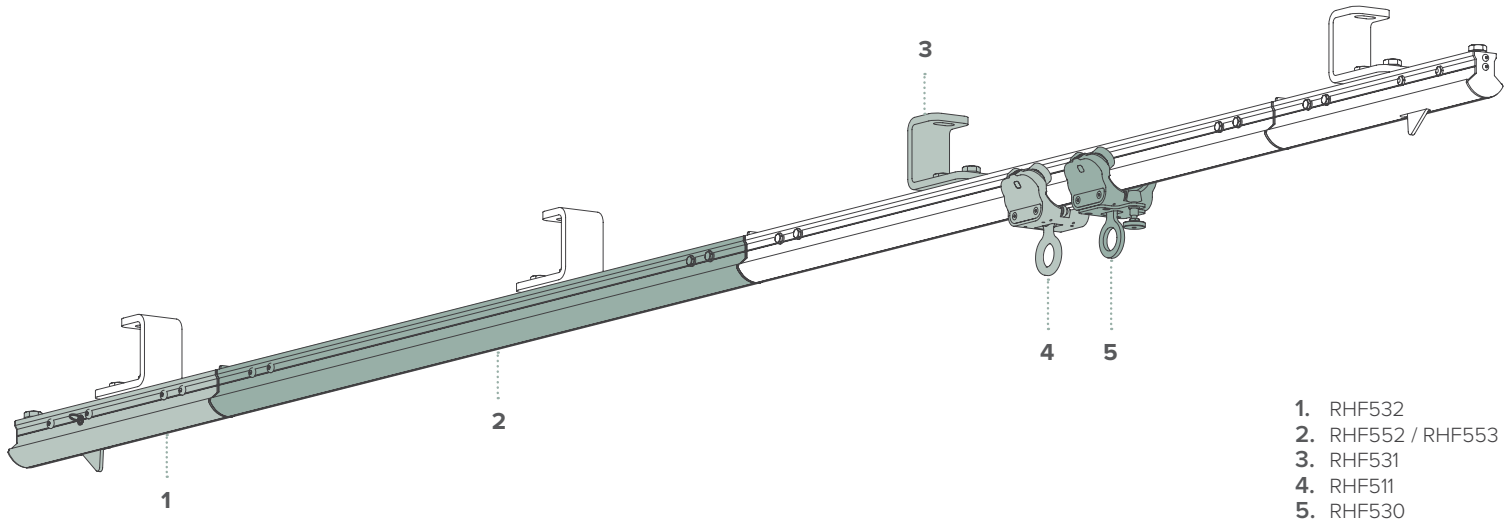
- For 2 users
- Span of 1,5m for abseiling
- 1,7kg/m
- Low deflection
- Anodized aluminium
- Absorbs dilatation / contraction
- Can be powder-coated in custom-chosen RAL colours
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 792:2012 Type D
CEN/TS16415:2013

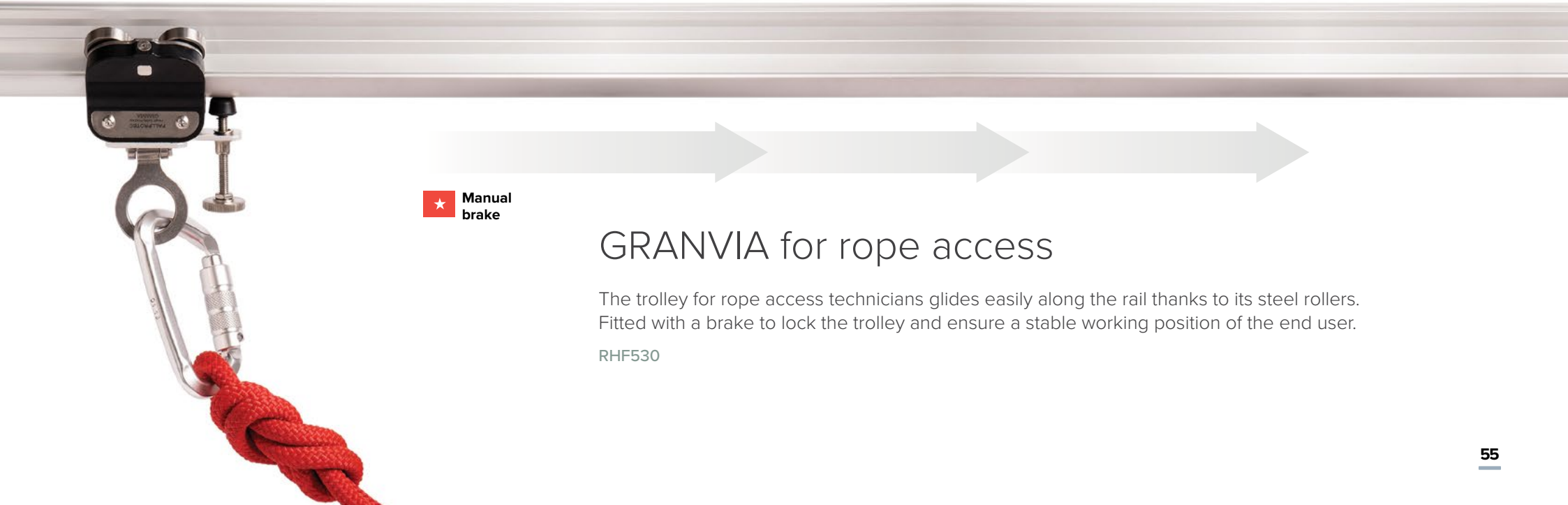
Applications on

The SecuRail Pro is a rigid and versatile suspension rail. A light-weight solution that keeps the aesthetic of the building.

Horizontal SecuRail Pro for abseiling



1. RHF532
2. RHF552 / RHF553
3. RHF531
4. RHF511
5. RHF530



★ **Manual brake**

GRANVIA for rope access

The trolley for rope access technicians glides easily along the rail thanks to its steel rollers. Fitted with a brake to lock the trolley and ensure a stable working position of the end user.

RHF530

SafeAccess®

- Lighter rails (5,25kg/m)
- Discreet system which underlines the shape of the building
- Compatible with traversing ladders, rope access technicians, RopeClimber and suspended platforms
- Powder coated
- Custom-made brackets
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 1808:2015

Applications on

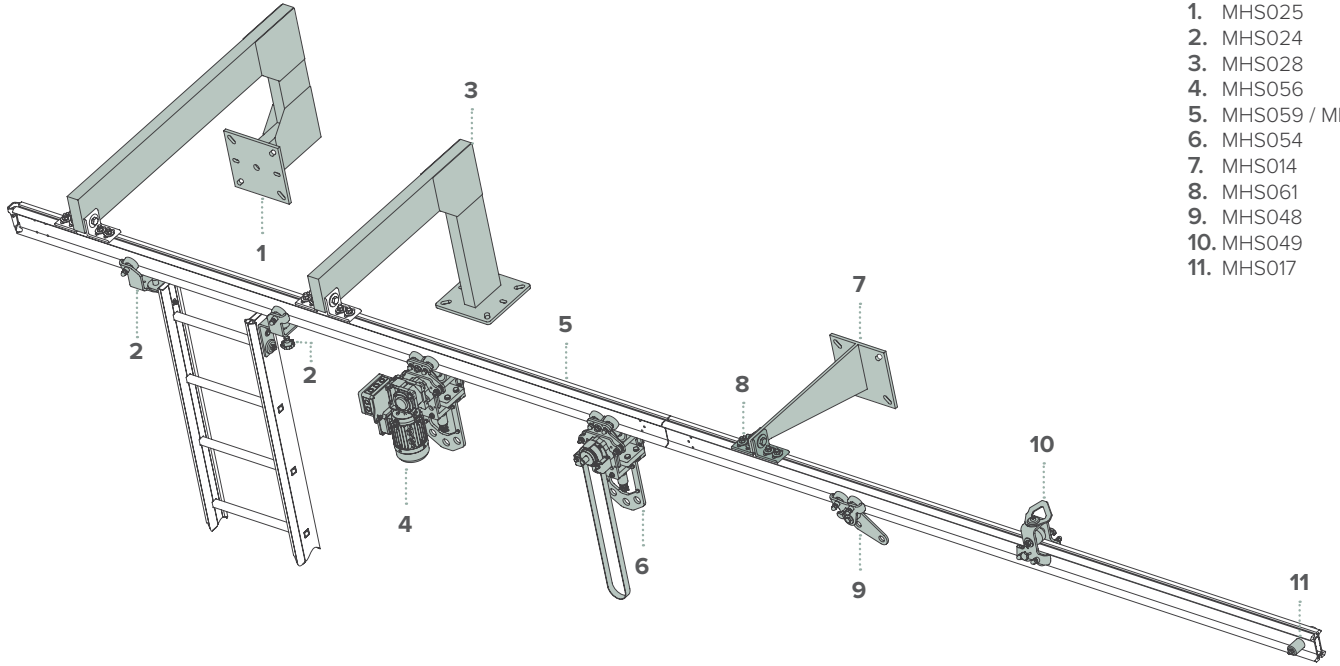
The SafeAccess for suspension work is an efficient height access system for facade maintenance and cleaning.

Highly versatile, it can be installed in building entrances, atriums, courtyards and on the building main facades. Suspended access on structures of 5 to 300m height.

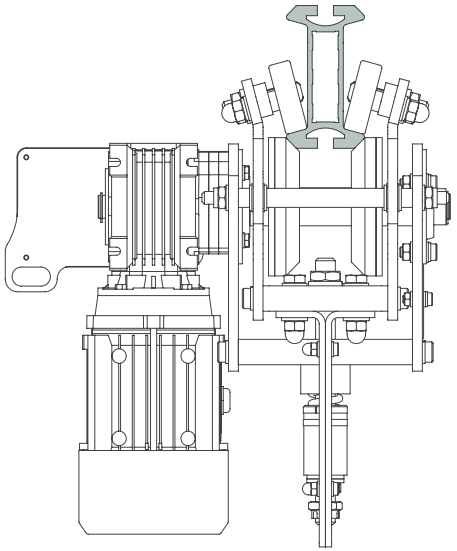
The track can be curved and powder coated in any RAL colour.

The trolleys roll on the flange of the rail. Manually, motorized or battery operated trolleys are used for horizontal movements.

SafeAccess Horizontal and trolleys



1. MHS025
2. MHS024
3. MHS028
4. MHS056
5. MHS059 / MHS060
6. MHS054
7. MHS014
8. MHS061
9. MHS048
10. MHS049
11. MHS017



Trolley NAV 4

Motorised trolley for the suspension of cradles and RopeClimber lifting machine. The trolley is controlled from the suspended equipment.

MHS056

NAV 1 Trolley manually operated by drive belt

Compatible with the RopeClimber.

MHS054

02

Safe Access Equipment
Works In Suspension

Urban Complex

Complete safe access solution

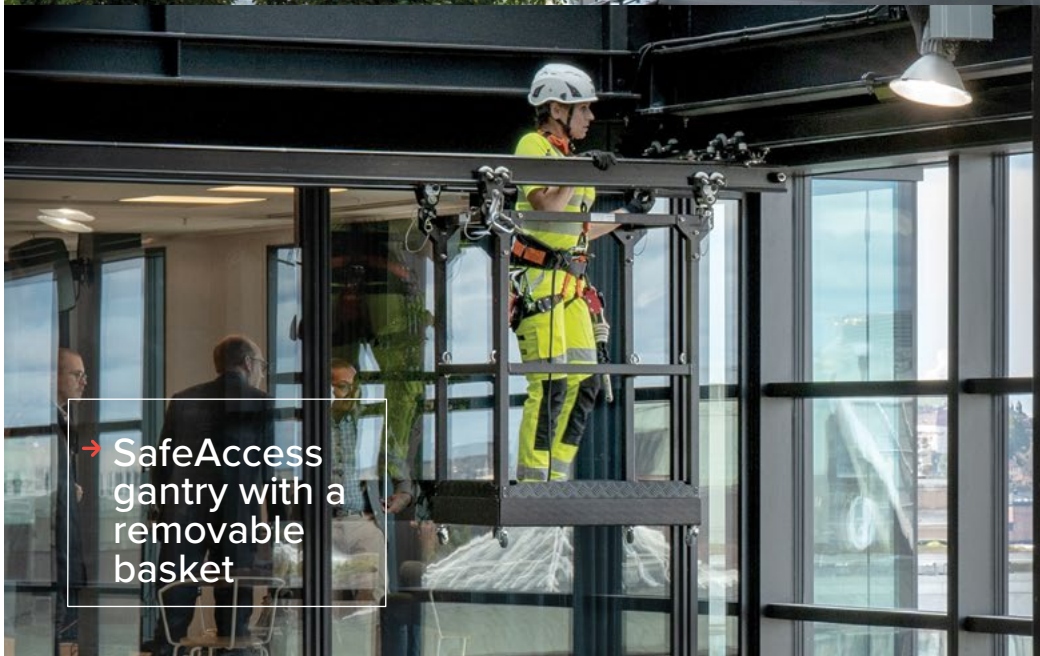
Case Study

Stockholm, Sweden

The Brief

This architectural building is harboring coworking spaces, offices, shops and hotels. Located in the capital of Sweden, it reflects the concern of the country for sustainable development and the preservation of nature by including trees inside open atriums and shared spaces.

Fallprotec designed and provided bespoke systems to service its inside glass walls, facades and trees.



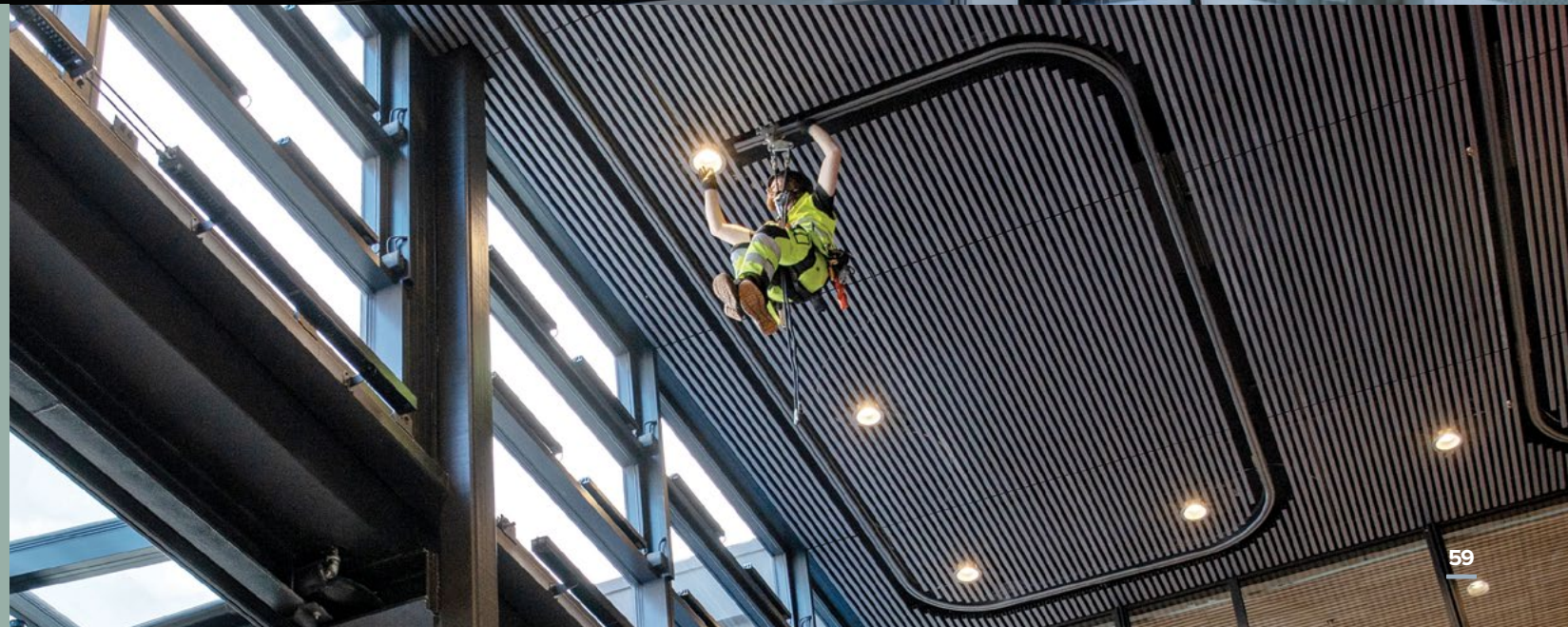
SafeAccess gantry with a removable basket

SafeAccess casted in the ceiling

The Result

- 8 Bespoke Safeaccess gantry with a removable basket
- 375m of Safeaccess casted in the ceiling

RopeClimber compatible system



SafeAccess®

Type C

- Discreet solution hidden in the ceiling, well suited for architectural buildings
- Compatible with rope access technician, RopeClimber and suspended platforms
- Aluminium mill finished or powder coated on demand
- Possibility of custom-made solutions with the Fallprotec's engineering department

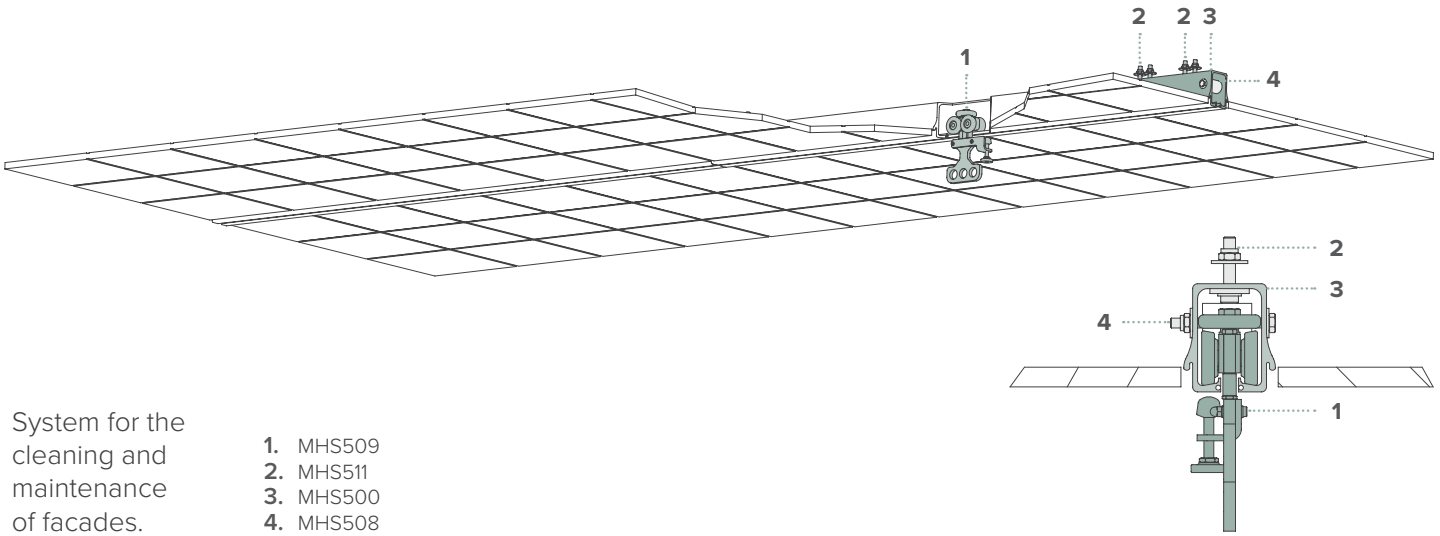
Compliant with
EN 1808:2015

Applications on

The SafeAccess C is a discreet access system that is concealed in a technical ceiling or a soffit. The rail integrates harmoniously the aesthetics of the building. The track can be curved and powder coated in any RAL colour. Custom-made brackets enable to align the rail and the ceiling. The trolleys roll in the inner channel of the rail.

Manually, motorized or battery operated trolleys are used for horizontal movements. Compatible with rope access technicians, the RopeClimber and suspended platforms.

SafeAccess C Horizontal concealed in ceiling with abseiling trolley



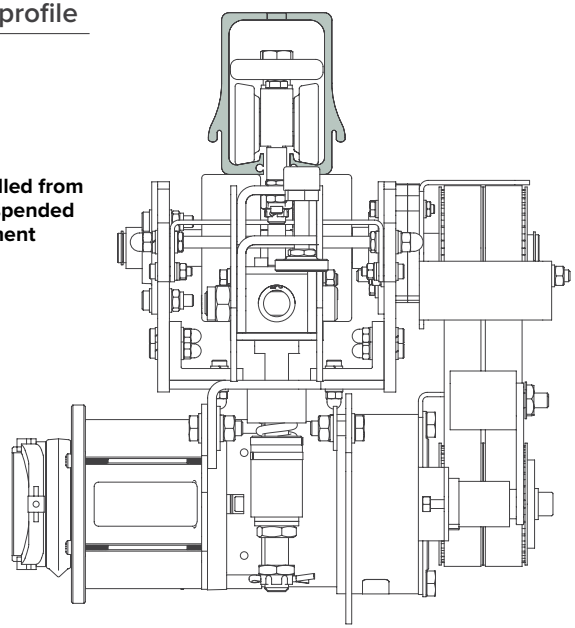
System for the cleaning and maintenance of facades.

1. MHS509
2. MHS511
3. MHS500
4. MHS508

Pilot 2 attached to SafeAccess C rail profile

Motorised trolley for the suspension of cradles and RopeClimber lifting machine.

★ **Controlled from the suspended equipment**



Pilot 1 Trolley manually operated by drive belt

Compatible with the RopeClimber.

MHS503

SafeAccess®

Climbing

- Active drive system
- Slopes up to 70°
- Span of 3m between supports
- Compatible with rope access technician, RopeClimber and cradles
- Bespoke solutions by Fallprotec engineering department

Compliant with
EN 1808:2015

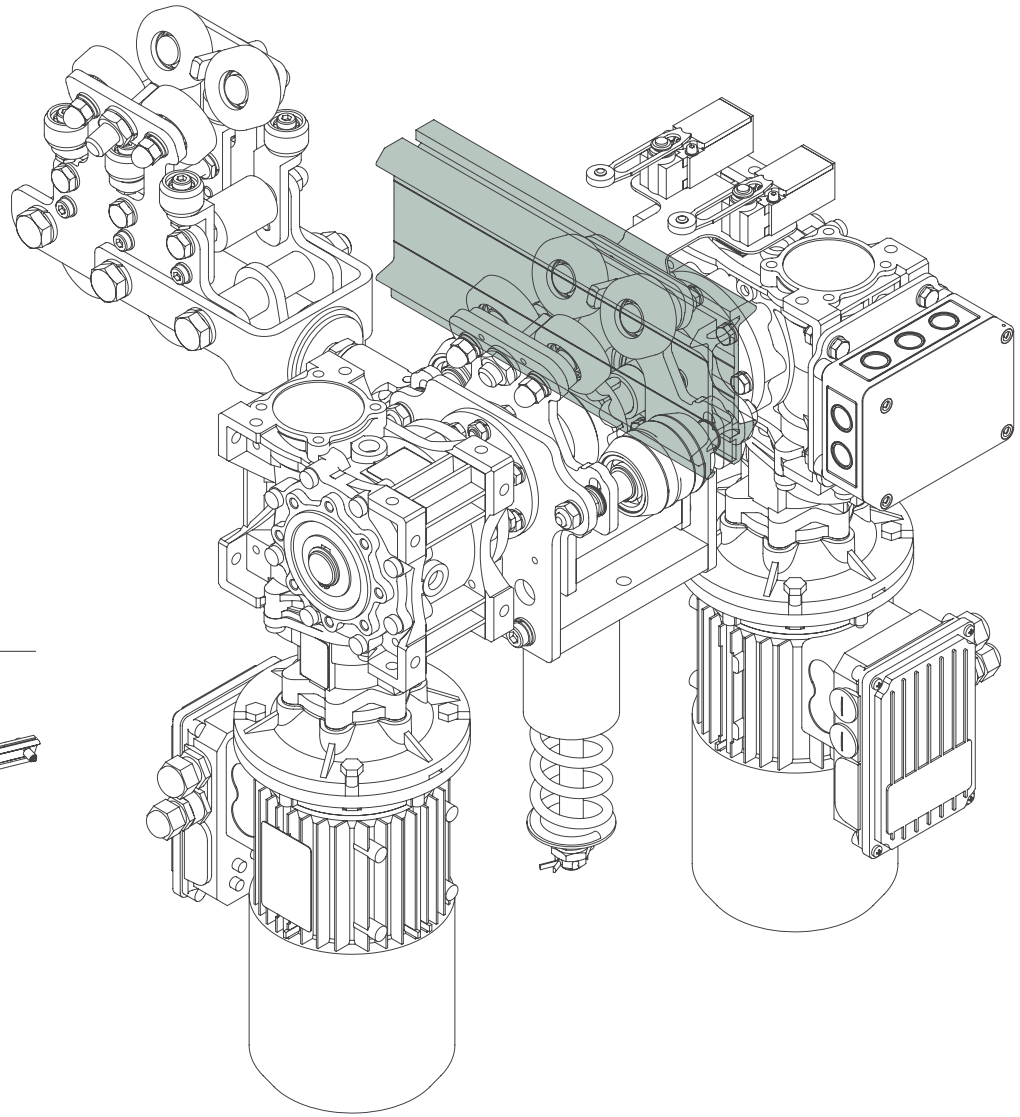
Applications on

The Climbing SafeAccess is installed on sloped facades or atriums for the maintenance and cleaning of the building. A high resistance stainless steel chain is inserted through the bottom channel of the rail.

The climbing trolley with pinion can climb slopes up to 70°. A chain based design is the most reliable system for installations with an important slope.

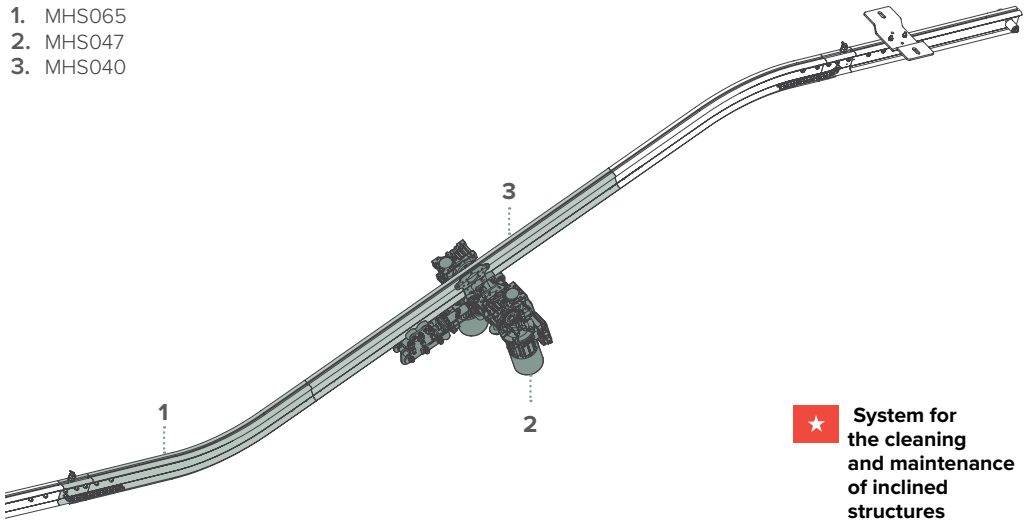
Trolley NAV 6

The trolley equipped with 2 independent electric engines for the highest level of safety. WLL 400Kg



Climbing SafeAccess and trolleys

1. MHS065
2. MHS047
3. MHS040



System for the cleaning and maintenance of inclined structures

02

Safe Access Equipment
Works In Suspension

RopeClimber®

Lifting Equipment

- ø12mm textile cable 79kN breaking strength
- Weight of textile wire: 112 gr/m
- Lifting speed up to 8m/min with a working load of 240kg
- Lifting speed up to 12m/min with a working load of 160kg
- Can be used jointly with any system with a minimum WLL of 240kg, like the SafeAccess suspension rail or a davit system
- Autonomy up to 8 hours depending on use
- Usable by anyone with half-day training

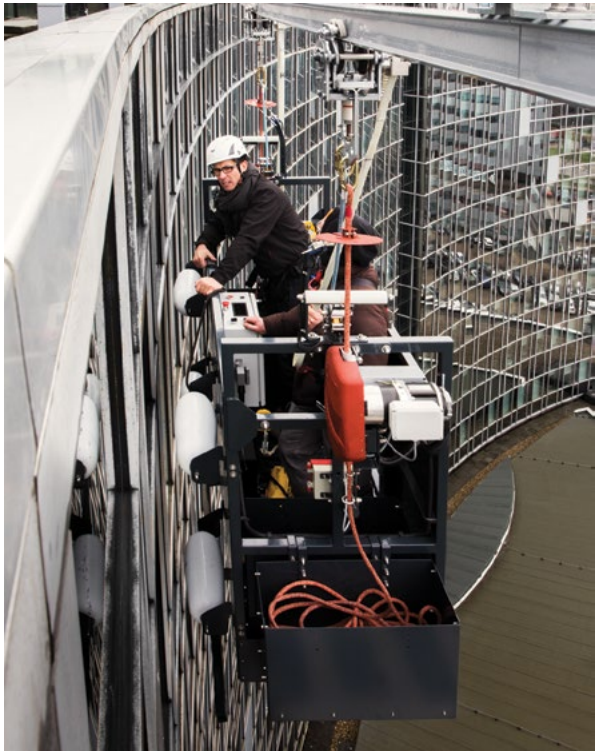
Compliant with
EN 1808:2015 I EN60204-1
Directive 2006 / 42 / EC

Applications on

RopeClimber Standing chair
(picture on the left)

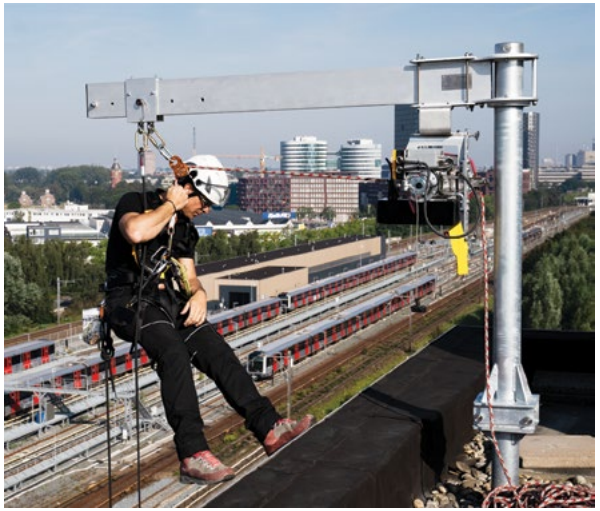
The standing chair is a hybrid system allowing the user to work seated as well as standing, so the worker has a wide range of motion and of reach, including over his head. The position of the RopeClimber hoist, below the centre of gravity of the person, increases their “in air” stability. A set of wheels makes it easy to transport. Can be used also with a SafeAccess C rail.

- Safety features: fall arrest device on the secondary rope, overload and top limit switch
- Push buttons control box with emergency stop
- Easy use, training as professional climber is not required
- LED that informs about the state of charge of the battery as well as safety features
- Versatile equipment
- Cost-efficient solution
- Battery powered
- Lightweight and compact
- Optimized time of installation
- Ergonomic and comfortable for people working at height
- All accessories are according to EN1808:2015



Cradle

It is one of the lightest cradles available on the market (deadweight 188kg). Battery driven, the RopeClimber hoist solves the hassle linked to control cables and electric cables. This system also works on textile wires, which are easier to handle than cables. The RopeClimber cradle is available for one or two persons (rated load of 120 kg or 240 kg).



Hoist

The hoist can be mounted on any Fallprotec suspension point designed according to EN1808. The suspension rope will then go up and down. Combined with radio control, it’s a great tool for facade or industrial maintenance.

02

Safe Access Equipment
Works In Suspension

RopeClimber cradle

Ven Amsterdam Hotel

Case Study

Amsterdam, Holland

The Brief

The Ven Amsterdam is designed as a conceptual building with workspaces, hotels, appartments and restaurants under the same roof.

For the cleaning of the windows of this complex construction, Fallprotec provided a RopeClimber 2 person cradle. Installed permanently, this cradle allows the cleaning team to move upwards and downwards using RopeClimber hoists.

The RopeClimber was chosen for this application because of its advantages compared to standard cradles with steel wires:

- BMU certified lightweight cradle weighting only 188kg
- Battery powered hoists don't require cumbersome power supply cables
- High resistance textile wire

Davit arms

- Discrete solution, easily hidden Lightweight solution
- Usable by rope access specialists, RopeClimber hoists and cradles alike
- Bespoke designs upon request
- Possibility of custom-made solutions with the Fallprotec's engineering department

Compliant with
EN 1808:2015

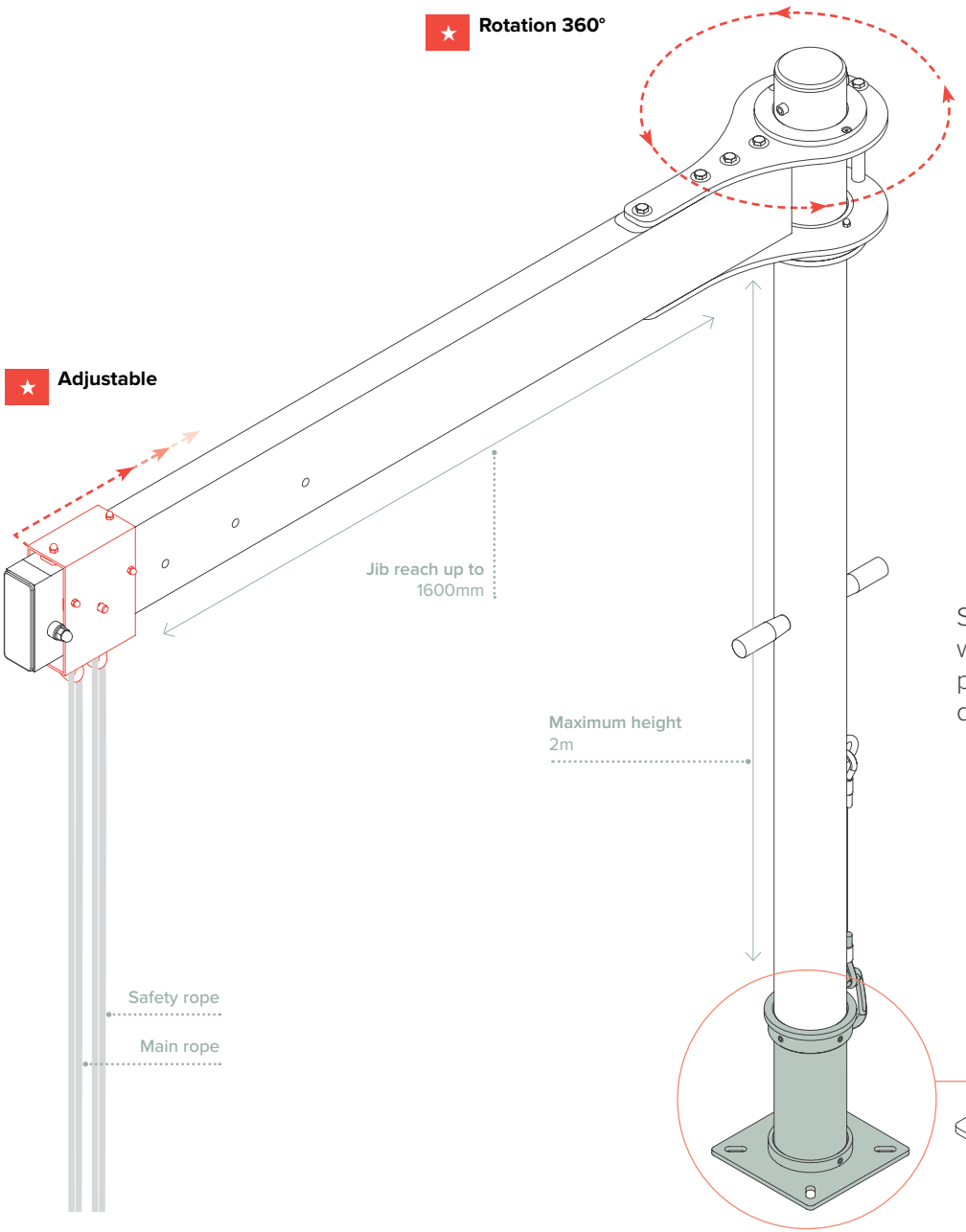
Applications on

Removable davit designed to suspend a worker to carry out maintenance or cleaning work on a facade. The davit can be used by a rope access specialist, by a RopeClimber chair or by a single Ropeclimber cradle. The davit is fixed to the roof with sockets installed permanently on the perimeter of the building. At the end of the work, the davit is dismantled and stored.

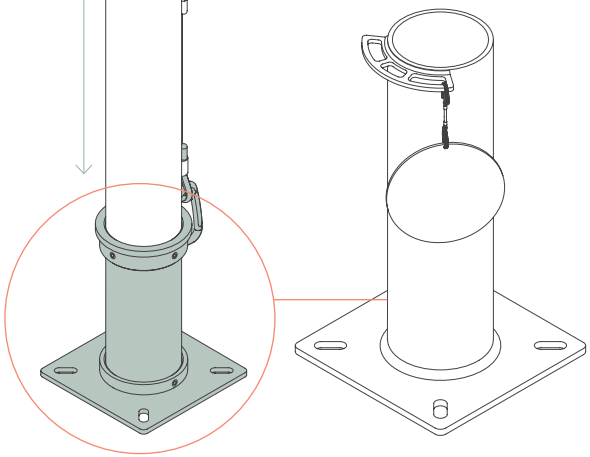
The davit is made of:

- An aluminum rotating jib, two anchor points, the main rope and the safety rope
- Adjustable anchor points
- An aluminum mast
- Stainless steel sockets fixed on the roof slab, a cover closes the socket when not in use.
- Stainless or galvanized steel sockets fixed on the wall or on parapet

Davit on roof socket



Socket 260mm height with cover and anchor points to be used during Davit installation.



BMU

- The BMU can be equipped with an auxiliary hoist for glass changing, and other heavy-duty maintenance works
- Made of standardized components in a customized way to ensure that all unique facades of the building can be reached and maintained/ cleaned
- The solution for tower building maintenance
- Easily operated. A Rope Access Technician Certification is not required
- Modular system, which allows augmentation or exclusion of elements
- Tailored design to all complex facade geometries

Working at height legislation
EN 1808:2015 | EN60204-1
Directive 2006 / 42 / EC

Applications on

A Building Maintenance Unit – BMU – is a mechanical and electronic crane suspended from the roof with a safety platform, which moves systematically over a structure while carrying human window washers or any other specialist for the maintenance of the facade. Architects, constructors, and consultants are often faced with facade challenges and trust Fallprotec & FBA Gomyl since it provides a broad range of BMUs; from machines with standard features to elaborate modular structures which respond to the functional requirements and any building facade design and the growing sustainable architecture building.

The design of the machine and its components are calculated with the latest generation software and tested according to both European and North American standards.

Luxembourg
FALLPROTEC SA

43-45, ZA Op Zaemer
4959 Bascharage
T: +352 26 55 09 30
F: +352 26 55 09 30 55
E: marketing@fallprotec.com

Spain
FALLPROTEC SL

C/ Eduard Calvet i Pintó 4
Pol. Ind. Vallmorena
08339 Vilassar de Dalt
T: +34 93 114 22 31
E: info@fallprotec.es

Chile
FALLPROTEC LATAM

Avda. Alcalde Carlos Valdovinos 2199
Santiago de Chile
Región Metropolitana
T: +56 2 2512 6133
E: latam@fallprotec.com

www.fallprotec.com