

Installer Manual

SecuRail Pro vertical



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1. Description

The Securail Pro Vertical is installed permanently on an existing ladder, or on any other structure, to secure people exposed to the risk of falling. The Securail Vertical lifeline system is composed of an aluminium rail fixed to the hoist structure at regular intervals. The end user equipped with a fall arrest harness complying to the standard EN361 and/or ANSI Z359.1 connects to the Securail Pro Vertical with a mobile anchoring point named Granvia 4 (ref RHF518) that moves along the rail.

2. Declaration of conformity

Frontline certifies that the guided type fall arrester Granvia 4 including rigid anchor line Securail Pro Vertical, designed for protection of one person against falling from height is proved by competent engineer to comply the ANSI A14.3 and OSHA1910.29 Subpart D.

Frontline certifies that the guided type fall arrester Granvia 4 including rigid anchor line Securail Pro Vertical, designed for protection of one person against falling from height, to receive the CE mark:

- Is subject to the PPE Directive
- Has been certified by APAVE:



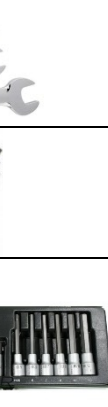
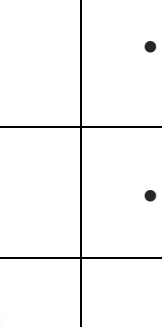


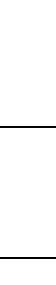

APAVE SUDEUROPE SAS
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13322 MARSEILLE CEDEX 16

The fall arrest system Securail Pro Vertical meets the tests prescribed by the standard EN353-1: 2014. The C.E. conformity certificate for Securail Pro Vertical + Granvia 4 trolley bears the number:

0082/1084/160/09/17/0531

The notified body APAVE SUDEUROPE, bearing the number CE0082, carries out the manufacturing control.

3. Tools needed

Description	
	<ul style="list-style-type: none"> • Flat key set
	<ul style="list-style-type: none"> • Allen key set
	<ul style="list-style-type: none"> • Torque wrench & set of sockets
	<ul style="list-style-type: none"> • Axial saw with blade for aluminum
	<ul style="list-style-type: none"> • Measurement tool
	<ul style="list-style-type: none"> • Level
	<ul style="list-style-type: none"> • Loctite glue
	<ul style="list-style-type: none"> • Drilling template

4. Components of the system

4.1. Rail

The rail is made from anodized aluminum alloy 6060 T6. This alloy withstands a marine environment, and thanks to the anodized treatment, no electrolytic corrosion will take place between the steel structure and the rail.

Rail is available in 9,8' (3000mm) lengths. The rail weights 1.23 lbs /ft.



Fig. 1. 13649 Rail SecuRail Pro

4.2. Fixing

4.2.1. Fixing nut

The rail is fixed to the hoist structure by a nut in aluminum 6082T6, made of the same profile as the junction. The fixing nut is inserted in the inner channel of the rail. The rail is fixed at each extremity as well as regularly along the track. The span between two fixings is maximum 2800mm.

The fixing nut is tightened with a bolt 25/64"x1,18" (M10x30) quality A2.

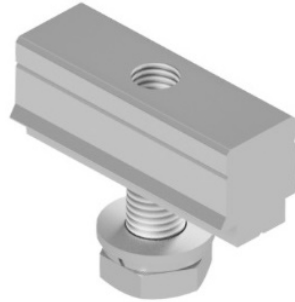


Fig. 2. RHF505 Fixing nut

4.2.2. Fixing assembly for ladder rungs

The Securail Pro system is clamped on existing ladders to prevent fall from heights. The distance between fixings is maximum 110,2" (2800m).

An aluminum counter-plate is fixed by the means of two bolts \varnothing 25/64"x3,5" lengths. (M10 x 90)
The head of the bolt is inserted in the channel of the track. The counter-plate is tightened by a nut with notched base.

This counter plate can be mounted on rungs up to 1,9" (48mm)

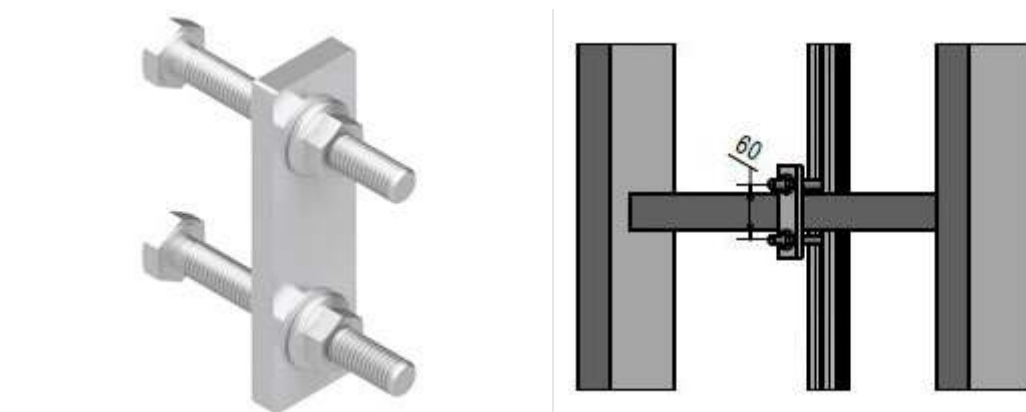


Fig. 3. 13618 Fixing assembly for ladder rungs

4.3. Junction

Each section of rail is connected to the next one by a junction and four bolts $\varnothing 1/4'' \times 1,57''$ (M6x40). To adapt to temperature variations, a gap of $1/8''$ (3 mm) is maintained between two lengths of rail. The clearance between the bolts and junction section allows for a $1/8''$ (3mm) gap. The junction can be mounted all along the track, even at $55''$ (1400mm) distance from the nearest bracket. The four $1/4''$ bolts are tightened with a torque of 5,2 ft-lbs (7Nm).

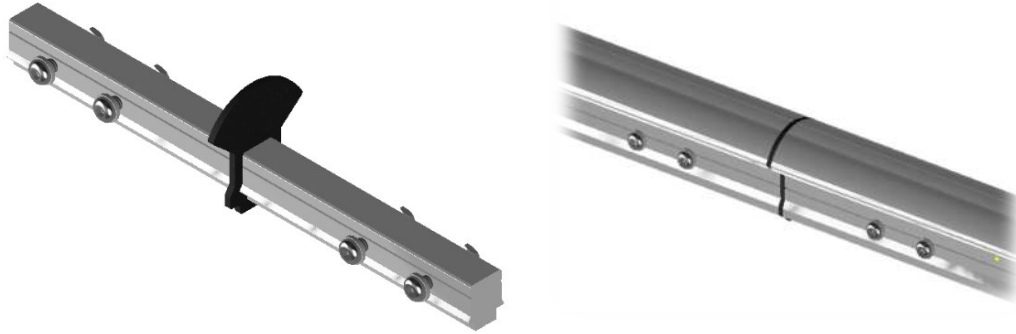


Fig. 4. 13611 Junction

4.4. Tilting end stops

At each end of the track is installed a tilting end stop. The end user must operate the tilting end stop mechanism to insert or remove the GRANVIA 4 trolley of the rail. The tilting end stop kit includes a junction 13611 and a keyed plate RHF519.

Caution: The keyed plate is pre-fitted on the tilting end stop, the distinction is made between the upper stops and the lower stops. See next chapter to locate them.

Caution: The top tilting end stop should protrude max of 1' compared to the last rung when mounted directly on the ladder.



Fig. 5. RHF520 Top tilting end stop and 13617 Bottom tilting end stop 13619

4.5. Keyed plate

A keyed plate with rivets must be installed at each end of the rail to ensure that the user is inserting the GRANVIA4 trolley in the correct direction. The keyed plate must always be installed on the right side of the rail, in the upward direction. When pre-installed, a sticker indicates the correct orientation.

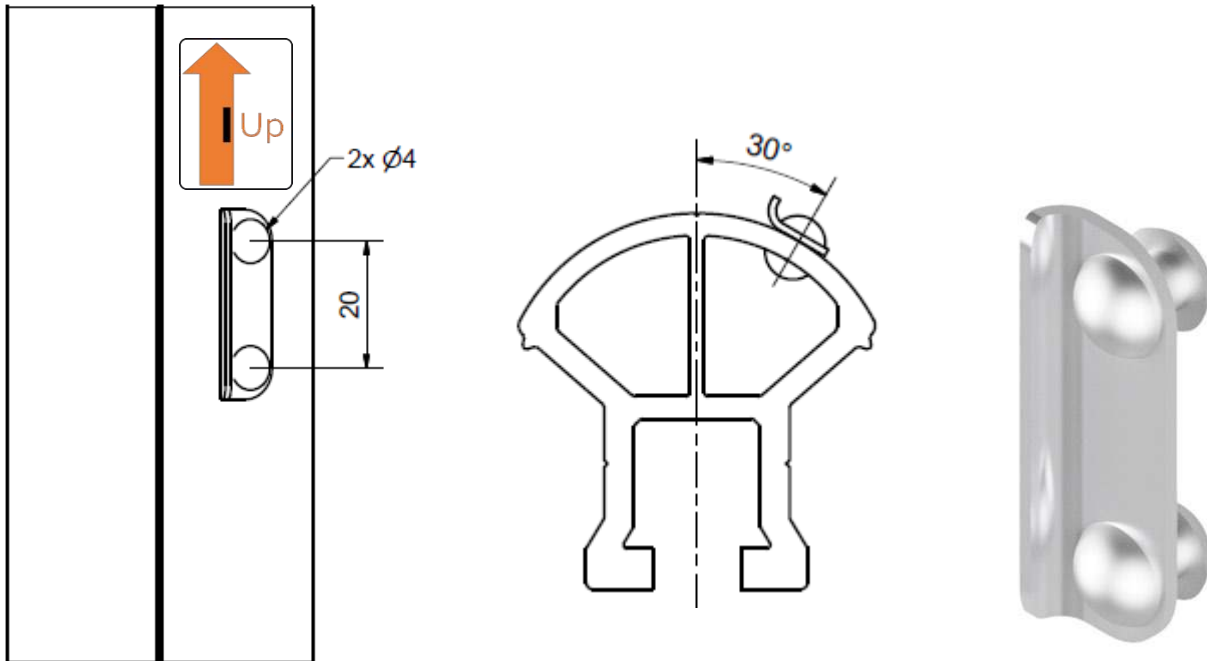



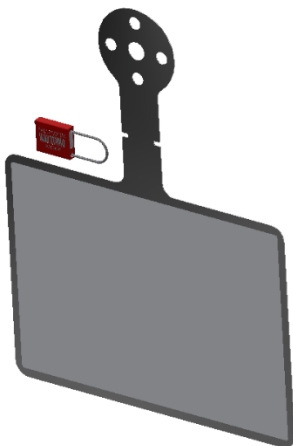
Fig. 6. RHF519 Keyed plate

4.6. Warning plate

An identification plate is installed near to the zone where the users attach themselves to the line. Our web portal Fallprotec Assistant generates the plate. It can be printed on a sticker provided by Fallprotec (climate proof). The commissioning date must be on the warning plate.

Manufactured by:		Installed by:	
			
FALLPROTEC SA T: +352 26 55 09 30 F: +352 26 55 09 30 55 www.fallprotec.com		 COMPANY NAME	
SecuRope EVO horizontal/inclined		EN795-C:2012 TS16415:2013	
 BEYOND THIS AREA WEARING A HARNESS AND SECURED BY A FALL ARREST SYSTEM ARE MANDATORY		DUMMY DEALER FALLPROTEC TE:	
Company G Tech		This is where the address comes nr. 1 _____ Some Town _____ Luxembourg _____ +971 (6) 74 80 84 2 _____ www.businessname.online	
Location Project1		  	
Number of users 1 x max. 100 kg		Installation date 2019-02-12	
Serial # 123453			

- 1 Manufacturer informations and a QR code to get direct access to all the informations related to the installation
- 2 Equipment type and applied standards.
- 3 Logo and installer name
- 4 Symbol indicating that it is mandatory to use a fallarrest harness according to EN355/ANSI Z359.13
- 5 Maximal number of users and their weights
- 6 Information about the installation place.
- 7 Commissioning date
- 8 It is mandatory to read the user manual before use.
- 9 The serial number of the self-locking tag



The sticker will be fixed on a bendable plate. A self-locking Tag with a serial number has to be fixed on the plate

4.7. Fall arrest trolley GRANVIA 4

The GRANVIA trolleys for Horizontal Securail Pro are made of aluminum alloy and stainless steel. In the event that a user falls, the trolley locks on the rail.

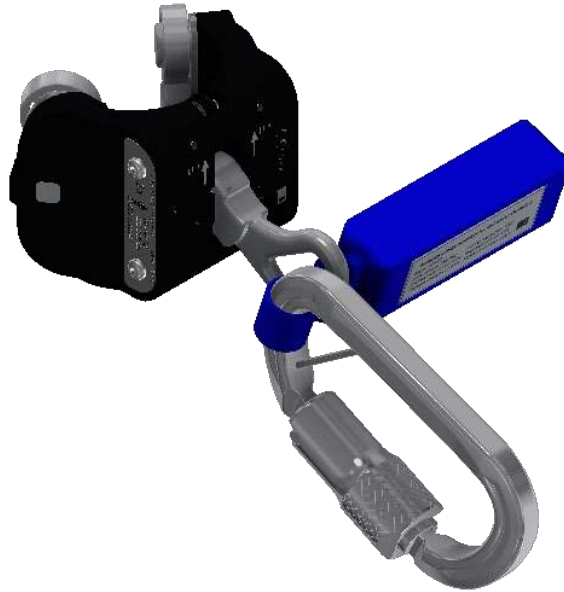


Fig. 7. 13616FL Granvia 4

4.8. Drilling template

If the rail is cut on site, the installer uses the drilling template RHF512 drilling template, to redrill the holes for the junctions

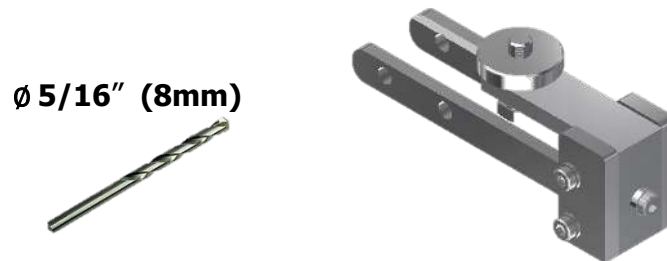


Fig. 8. RHF512 Drilling template

4.9. Tightening torque of components

Fontline recommends the tightening torques below for the different elements of the Securail Pro Vertical.

Equipements	Tightening torque	Reference in document
Nut RHF505 - M10	5,1 lbs-ft	3.2.1 Nut
Fixing assembly RHF521 - M10	22 – 30 lbs-ft	3.2.2 Fixing assembly
Junction - M6	5,1 lbs-ft	3.3 Junction
Tilting end stop - M6	5,1 lbs-ft	3.4 Tilting end stop

(1) Depends of type of ladder rung, do not overtighten and deform it.

5. Installation

- The anchoring device must only be installed by competent people and organizations. The installation must be accordingly checked by calculation or tests.
- Specific control measures must be implemented when the fall arrest trolley and rail are installed in highly corrosive atmospheres where compatibility is not established.
- The installer ensures that the hoist structure on which the rail is fixed is dimensioned to withstand a 1320 lbs vertical force with a safety factor of 2.
- The Securail Pro is designed for vertical applications with a tolerance of +/- 5°.
- Each track must terminate with an end stop and a keyed plate.
- The Securail Pro + Granvia 4 system forms a whole: no component can be removed or replaced without the agreement of Frontline.
- The place of engagement of the trolley must be chosen where there is no risk of falling.
- The user must be able to access and leave the entry / exit point safely.

6. Configurations

6.1. Fixations and Junction

The rigid lifeline SecuRail Pro Vertical is fixed every 110,2" (2800mm) on a ladder or other rigid structure. The junction is installed all along the track, even in the middle of the span.



Fig. 9. 13618 Rail SecuRail Pro

6.2. Curved exit on post

A curved rail allows safe access to the roof as long as the end of the rail is fixed to a post. The user is standing on the roof when attaching or detaching the trolley from the rail. The extension is connected to the ladder by a junction.

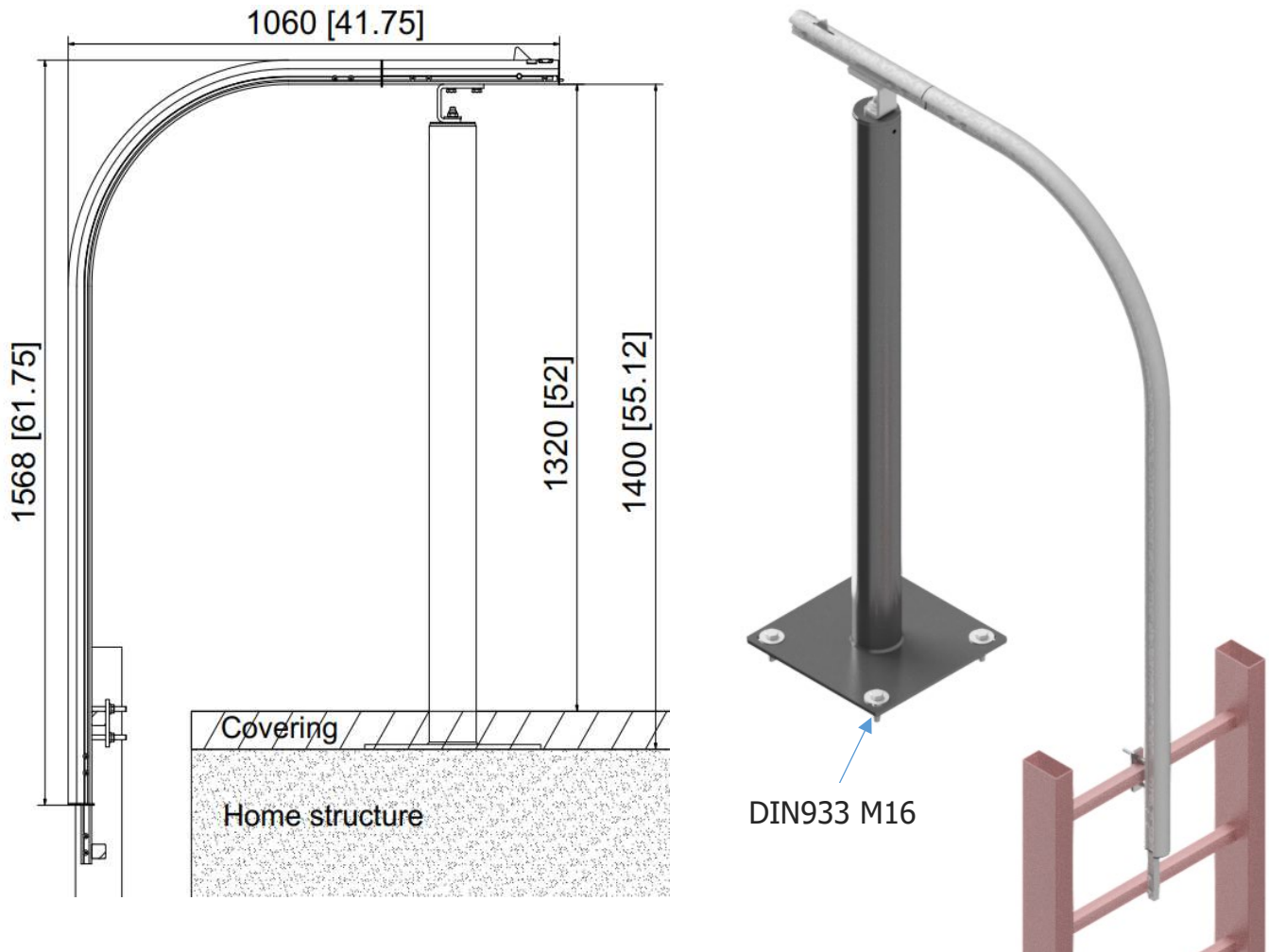


Fig. 10. Curved rail RHF525 fixed on post

The post is fixed on the concrete by four bolts 5/16 x 5,5" (M16x140). The maximum pull-out force for one bolt in the worst case of fall is 2800lbs.