GENESI
ITALIA

ALU 12

Manufacturer's Assembly, Operation and Maintenance Instructions

Contents.

1. Manufacturer.

Fisa srl
via Donizetti, 109/111
24030 - Brembate di Sopra - Bg
Tel. 035-620380
Fax 0356220438
e-mail:acquisti@fisa.it

2. Type approval.

The anchor device has been tested and approved by:

Apave Sudeurope Sas (N°0082)
Cs60193
13322 Marseille Cedex 16 – France

The device passed the tests required by standard EN795:2012 for devices type A.

3. Description.

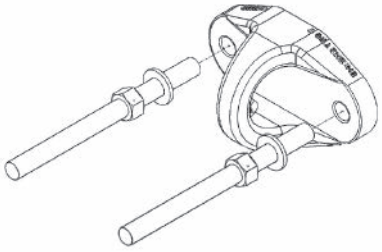
- ALU12 is an anchor device in aluminium alloy EN AB46500.
- It is used for creating safe conditions on roofs
- It can adapt to all all types of civil and industrial environment
- Suitable both indoors and outdoors, in all dangerous places
- The shape and size do not alter the most common roof laying methods and the anchor point is easily reached by the operator.
- Eyelet size allows the snap ring to be conveniently attached.
- Only one single operator may connect to the anchor device.

4. Characteristics.

Dimensions: 133x76x68 mm
Material: die-cast aluminium alloy EN AB46500
Finish: natural
Fixing to concrete: 2 threaded M12 bars in stainless steel and two-component resin
Weight: 0.370 kg

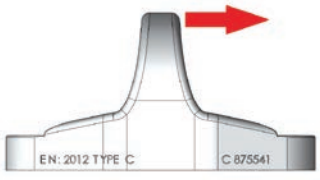
5. Assembly.

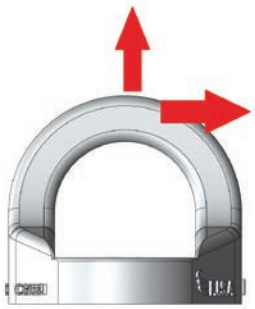
The anchor device can be assembled on any type of support able to withstand the static loads envisaged by standard EN795:2012 (12 kN in the direction in which the load is applied).
It can be fixed to concrete/wooden supports as described alongside:



- Make two Ø14 mm holes in the concrete/wood, down to depth of 100 mm;
- clean the holes by turning the relative hole-cleaner around inside them, then blow them clean with a hand pump so as to eliminate all dust residues from the sides (repeat the operation several times);
- dispense bi-component vinylester resin slowly so as to prevent air pockets from forming;
- now insert the M12 threaded bars by exercising a twisting movement;
- position the anchor point and allow the resin to harden for the time indicated on the package;
- insert the flat washers and nuts on each threaded bar;
- tighten the nuts by applying 70 Nm tightening torque.

Proceed as described alongside to install the anchor device on steel structures:





- make two Ø14 mm holes in the supporting surface;
- position the anchor point;
- insert the M12 threaded bars;
- insert the flat washers and nuts at the top and bottom of each threaded bar;
- tighten the nuts by applying 70 Nm tightening torque.

The device will only break a fall if it has been installed properly and if falling occurs in the indicated direction, or within a +-15° angle in respect to that direction.

After assembly, the installer must issue a duly stamped and signed certificate of installation.

A practical example of a document that could be issued by the installer is illustrated below. The installer can prepare a similar document. However, the schematic installation plan must contain all the information given in the following document.

figura A.1 **Esempio di un piano di installazione**

Piano di installazione schematico

Edificio/Struttura

Indirizzo:
Note:
N° d'ordine:
Tipo di edificio:
Forma del tetto:
Dispositivo di ancoraggio:

Cliente

Nome:
Indirizzo:
Persona di contatto:
Telefono:

Installatore

Nome:
Indirizzo:
Installatore capo:
Telefono:

Dispositivo di ancoraggio

Fabbricante:
Identificazione del modello/tipo:

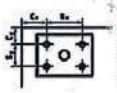
Componente dell'edificio

Componente 1: per esempio soffitto di calcestruzzo — Minimo spessore: per esempio 250 mm
Componente 2: per esempio colonna di calcestruzzo — Minimo spessore: per esempio 500 mm
Materiale dell'edificio: per esempio cemento armato — Qualità: per esempio min. C25/30

Fissaggi/Chiavarde — Fabbricante

Dati dei fissaggi
☐ dati non richiesti se fissato attraverso

Diametro del foro: .....mm
Profondità del foro: .....mm
Coppia: .....Nm



Tipo: .....
Materiale: .....
Distanza minima dal bordo (c): .....
Spaziatura assiale minima (s): .....
Spessore minimo del componente: .....
Forza di trazione ammissibile: .....
Forza di taglio ammissibile: .....

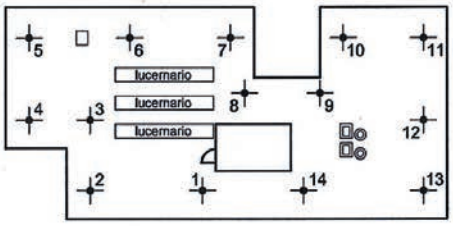
Situazione reale:
Distanza dal bordo Cx: ..... Cy: .....
Spaziatura assiale Sx: ..... Sy: .....

Note: .....

Metodo foratura: ☐ Martello ☐ Rotativo ☐ Chiave dinamometrica ☐ Pulitura del foro ☐ Dispositivo di prova del fissaggio
Dispositivo di prova:
Sistema d'urto ☐ Sì ☐ No ☐ Umido ☐ Secco ☐ Sì ☐ No

LISTA DI CONTROLLO
- ☐ Substrato come atteso (nessun dubbio sulla capacità)
- ☐ Installazione conforme alle istruzioni del fabbricante
- ☐ Fissaggi raccomandati utilizzati
- ☐ Tutti i fissaggi fotografati con numero di identificazione
- ☐ Fissaggi visibili
- ☐ Piano di installazione apposto sul sito
- ☐ Immobilizzazione delle viti mediante tecnica di fissaggio attraversante il foro
- ☐ Informazioni aggiuntive .....

Piano del pavimento del tetto:



Forza di estrazione richiesta (kN), coppia richiesta [Nm] ottenuta?

Punto di ancoraggio 1.....	Punto di ancoraggio 5.....	Punto di ancoraggio 9.....	Punto di ancoraggio 12.....
Punto di ancoraggio 2.....	Punto di ancoraggio 6.....	Punto di ancoraggio 10.....	
Punto di ancoraggio 3.....	Punto di ancoraggio 7.....	Punto di ancoraggio 11.....	
Punto di ancoraggio 4.....	Punto di ancoraggio 8.....	Punto di ancoraggio 12.....	

Fissaggi aggiuntivi:.....
Note da parte dell'installatore capo:.....

Data: Firma:

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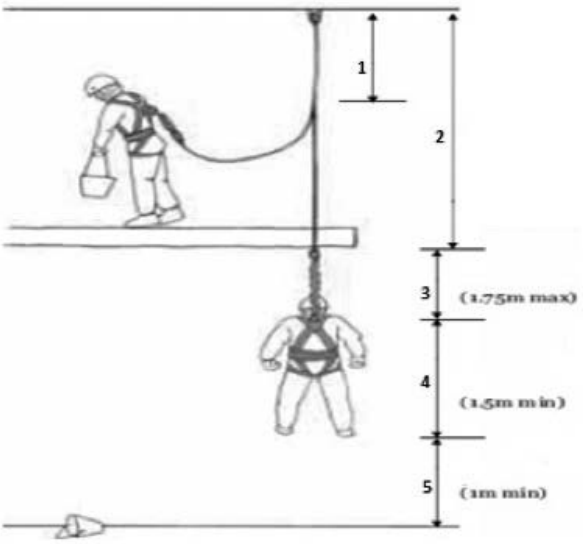
6. Use and minimum operator equipment required.

The device is equipped with an anchor point to which one single operator can connect using a snap ring conforming to EN362.

ALU12 can be used for getting on roofs, ascending them and/or for completing an anchor system to prevent the pendulum effect if the operator rfalls.

Vertical clearance must always be assessed during installation and use.
Vertical clearance must be less than free fall distance so as to prevent the user from colliding with obstacles.

In short:
1 Distance between anchor point and connection point on harness.
2 Length of lanyard.
3 Length of deployed absorber.
4 Distance between connection on harness and feet.
5 Minimum distance between feet and ground.



7. Users.

Since use of category III PPE is required, operators who use this type of system must be specifically trained, as established by Legislative Decree D.lgs 81/2008 - Consolidation Act concerning Safety. Moreover, casualties must only be recovered by specifically trained persons.

8. Personal Protective Equipment (PPE).

This anchor device may only be used by an operator equipped with the required Personal Protective Equipment (PPE) able to limit to 6 kN the maximum force imposed on the operator's body when a fall is arrested.
Remember that PPE maintenance is established by the manufacturer according to the method and frequency indicated in the user manual, after filling a form has been filled out with the date on which the device was put into service, the date of successive maintenance work and the expiry date. Carefully read the PPE User manual supplied.
The choice of PPE best suited to the work required must be assessed for each individual job. Work performed at heights requires the following equipment at least:

Double lanyard with energy absorber 8.2

The maximum length of the lanyard with the absorber compacted should be 2 m, including the connectors. Compliance with the following specifications is also required:

- double elastic lanyard conforming to EN 354, with two connectors for attaching to the line conforming to EN 362;
- energy absorber conforming to EN 355, with connector for attaching to the harness conforming to EN 362;

Harness 8.1

The minimum requirement is:

- equipment conforming to standard EN 361;
- complete with thigh guards and adjustable straps;
- back and/or chest fall-arrest attaching point.

Better, if complete with the following additional equipment:

- padded thigh guards;
- both back and chest fall-arrest attaching points.
- lumbar belt with positioning attachments conforming to standard EN 358;
- central attachment point conforming to standard EN 813.

Connectors 8.3

The connectors are a fundamental part of the system, since they are used for the connections between harness and lanyard or dissipator and between these and the life line. You cannot anchor to the flexible line without using the connector. Connectors must comply with the following specifications:

- they must conform to standard EN 362;
- they must be equipped with double intentional operating device (screw fastening, automatic swivel device or double opening system)

Retractable device 8.4

If work performed at heights requires a lanyard longer than 2 m, one of the retractable devices can be used in conjunction with or instead of the double lanyard with energy absorber.
Before he proceeds with any other action, the operator must always check to make sure that the retractable device:

- conforms to standard EN 360;
- is equipped with internal retractable mechanism, self-locking system and energy dissipator;
- is equipped with two connectors, one for attaching to the line and one for attaching to the harness, conforming to EN 362;
- for use on slopes less than 30%, it is obligatory to use the device in conjunction with asteel lanyard with absorber or some other device ecommended by the manufacturer of the retractable device, to allow this to also be used in the horizontal position.

As required by Standard EN 360, the retractable fall arrest device must be subjected to annual inspection by an organization authorized by the manufacturer since it is equipped with a special arresting system that must be checked by competent persons.

9. Limitations to use and general recommendations.

- The device must not be used beyond its limits or for purposes differing from those for which is has been designed.
- Rescue procedures must be drawn up so that emergency situations that occur during work can be dealt with.
- Take care when using PPE or any other safety device. You are advised to read the operating instructions of any other safety device used to prevent interference between devices and to comply with all the instructions concerning preliminary inspections before using any device.
- Do not use the device if :
  - You have doubts about how to use it.
  - The devices have already been subjected to stress during a fall and have not been examined by a competent person who has certified their fitness for reuse;
- The structure where the device is positioned must be able to withstand the mechanical stress generated by a fall.
- Carefully read the instructions describing how to connect to the device.
- Always check the free fall distance so as to prevent collision with the ground or with any other obstacle.
- The device can be installed at any latitude and its use is not influenced by the outdoor temperature. However, it is inadvisable to work on roofs in cold weather: the risk of falling increases if the surface is slippery owing to ice.
- CE inspection is performed by:

Apave Sudeurope Sas (N°0082)
Cs60193
13322 Marseille Cedex 16 – France

- If the product is sold beyond the borders of Italy, the seller must provide instructions for use, maintenance, routine inspections and repairs in the language of the destination country.
- The anchor device must only be used to protect against the risk of falling and not as a means for lifting materials and objects.
- When the operator reaches the point of access, he must check the date of the last inspection as indicated in the obligatory identification notice (art. CA00) and on the “inspection/maintenance registration form”. If the last inspection dates back more than 12 months, the device must not be used until it has been inspected by a competent person.
- A complete harness is the only acceptable body retaining device that can be used with this fall arrest system. The operator must always check to make sure that the product markings are legible before use.

10. Maintenance.

The ALU12 device must be subjected to the following inspections at least once a year:
visual and mechanical inspection: check the condition of the device (absence of permanent deformation, corrosion). Use a torque wrench to make sure that the tightening torque is correct.

The device must not be used if defects are discovered. Only after it has been repaired by trained, skilled personnel may the device be used again.

The PPE must be serviced after a fall or even when the device has been operated accidentally. Such servicing must be performed by persons who are familiar with the recommendations and instructions provided by the manufacturer and applicable to the components of the system. The operator must be able to identify and assess the entity of the damage and to implement the corrective action required. There is no need to clean the device before, during or after use. Its maximum duration is 20 years. The life cycle of the system runs from the date on which it is put into service.

It is obligatory to record annual maintenance/inspection, supplementary maintenance and uses of the device on the registration form provided here; this to assure future users that the system has been used correctly and periodically serviced.

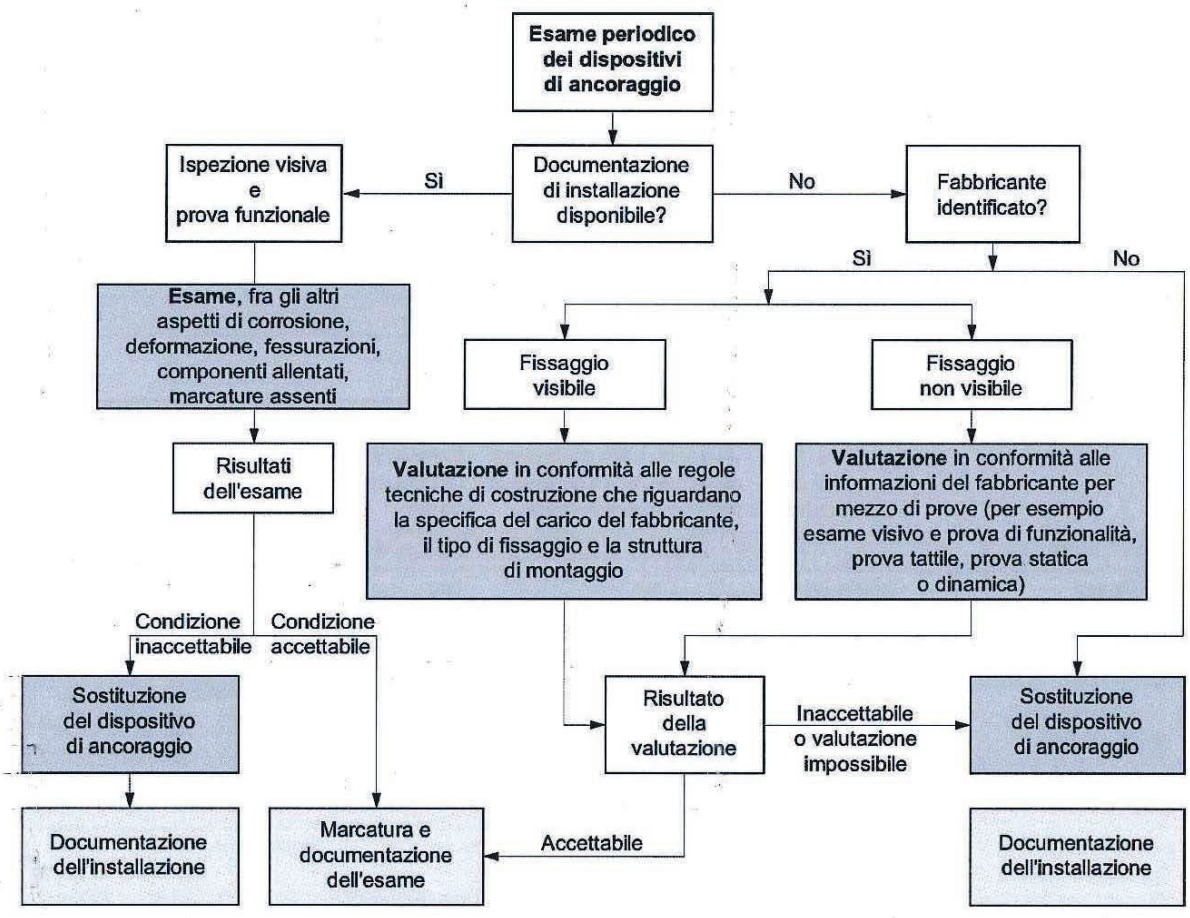
11. Inspection / Maintenance Registration Form

System No.:
Certification No.:
Date of entry into service:
Manufacturer: **F.I.S.A. srl - Via Donizetti 109/111 - 24030 Brembate di sopra (BG)**
Dealer: **Genesi Italia - Via Donizetti 109/111 - 24030 Brembate di sopra (BG)**
Retailer:
Installer:
Use – Maintenance/Inspection – Supplementary maintenance:

Interven-tion date	**Reason: (Routine inspection/ use/supplementary maintenance)**	**Result of inspection/ maintenance**	**Defects noted repairs performed and other pertinent information**	**Name and signature of competent person**	**Forecast date of next inspection/ maintenance**

Interven-tion date	Reason: (Routine inspection/ use/supplementary maintenance)	Result of inspection/ maintenance	Defects noted repairs performed and other pertinent information	Name and signature of competent person	Forecast date of next inspection/ maintenance

Routine inspection/assessment guide:



12. Warranties

Duration 12.1

All parts in stainless steel are covered by a 10-year warranty running from the date on the delivery note.

Exclusions 12.2

The warranty will only be provided if:

- the price of the supplied products has been fully paid;
- the product has been installed and used in compliance with the assembly and technical instructions provided by Genesi Italia.

The warranty will not be provided if:

- our products are made of galvanized or zinc-plated steel;
- our safety products include parts or accessories of out-sourced origin. In this case, the warranty provided will be that of the supplier of such parts.

The warranty becomes void when defects are caused by:

- interventions or modifications to the original system performed without written authorization from the manufacturer/dealer;
- abnormal use differing from the purpose for which the equipment is intended;
- defective installation that fails to conform to the drawings or has not been performed in a workmanlike manner;
- failure of the customer to notify special conditions (pollution, temperature, number of users, etc.) of use of the equipment;
- breakage of the supporting surface that houses the anchor device;
- by parts produced by the purchaser or obtained from sources other than Genesi Italia added to our systems. All lifelines must be obtained from Genesi or from a manufacturer approved by us, on the basis of our projects;
- by unforeseen circumstances (force majeure) or by any event beyond the seller's control, such as warfare, lightning, etc.

Limitations 12.3

In all cases, our warranty merely covers the replacement or repair of parts or equipment formally recognized by our technical service as being defective.
If the repairs are entrusted to third parties, they may only be performed after acceptance by Genesi Italia of the cost estimate for the repairs themselves.
Equipment may only be returned after authorization from Genesi Italia.
The warranty only applies to returned items and does not cover the cost of removing or re-installating the equipment from/into the system in which it is built.
Repairs, replacements or modifications to parts or equipment during the warranty period may extend the warranty itself

Liability 12.4

Genesi Italia shall be liable, under ordinary-law terms, for material damage caused by its equipment or by its personnel.
Repairs of material damage attributable to the seller are expressly limited to a sum that will not exceed the value of the equipment involved, subject of the order.
The seller and the customer expressly agree to reciprocally refrain from requesting compensation for indirect and non-material damages of any nature, such as loss of business, loss of earnings, delay expenses, reminder fees, removal and re-installation of equipment, loss of future contracts, etc.

13. References.

Manuals 13.1

Assembly manual.

Regulatory framework 13.2

Technical standards 13.2.1

EN 353-1:2002
PPE against falls from a height – Guided type fall arresters including a rigid anchor line (on a rail)

EN 353-2:2002
PPE against falls from a height – Guided type fall arresters including a flexible anchor line (on a rope/cable) (implementation of European standard EN 353-2:2002)

EN 354:2010
PPE against falls from heights – Lanyards

EN 355:2002
PPE against falls from heights – Energy absorbers

EN 360:2002
PPE against falls from heights – Retractable fall arresters

EN 361:2002
PPE against falls from heights – Full body harnesses

EN 362:2004
PPE against falls from heights – Connectors

EN 363:2008
PPE against falls from heights – Individual fall arrest systems

EN 364:1992
PPE against falls from heights – Test methods

EN 365:2004
PPE against falls from heights – General requirements for instructions for use, marking, inspection periods, repairs, marking and packaging

EN 795:2012
Personal fall protection – Anchor devices

CEN/TS16415:2013
Personal fall protection – Anchor devices – Recommendations for anchor devices for use by more than one person simultaneously

National laws 13.2.2

Legislative Decree D.Lgs 81/2008 and successive amendments and integrations
Consolidation Act concerning Safety

Websites 13.3

www.genesibesafe.com
Manufacturer's official website

www.uni.com
Website of the Italian Standards Organization (UNI)

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ITALIA

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Genesi Italia, Be **Safe**