

Allukemi Sky™ Self-supporting



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# 1. Introduction.

Preventive and protective measures should be installed for works performed in places exposed to a danger of falls, in order to allow the operator to perform maintenance operations to move easily along the work area.

These protective devices, in addition to being safe, must be ergonomic, or rather "comfortable" to use for the operator, and they must be provided in the Technical Coverage Report (ETC) that is drawn up by the Health & Safety Coordinator at the design phase (CSP), in agreement with the designer, and be an integral part of the project both of the technical dossier and of the works. The ETC is therefore composed of various documents, with relevance to different subjects, in particular:

- Coordinator/technician: graphics with routes and access points to the roofing highlighted, technical report with adopted design solutions, structure support and mounting calculation report.
- Manufacturer: product certification, Manufacturer Instructions - Manual of installation, use and maintenance.
- Installer: declaration of conformity of the works performed.

### From the designer to the consumer 1.1

With regard to the points mentioned above, the objectives of Somain Italia are to create a direct line between the designer of the system and the final user, passing by the manufacturer and installer by means of:

- Study of the line through software with immediately understandable graphical interface and return of the elements that constitute the system (as an alternative to consultancy from our technical office).
- Supply of the elements provided for the entire system directly from Somain Italia or from the chain of Partners and authorised resellers.
- Installation with simple procedures according to the Installation Manual by installers trained by Somain Italia (subject of this document).
- Provision of information necessary for the proper use and maintenance contained in the Manufacturer's Instructions.



# 2. Important warnings.

- Before system use, read the Manufacturer's Instructions - Use and Maintenance.
- All users must be trained and informed about risks and must have carried out the training on 3rd category PPE.
- Users must be in optimal physical conditions for the duration of works.
- Operators must be trained and informed about emergency, recovery and evacuation procedures in the work area in which they operate.
- Making changes and/or additions to the equipment/ system without consent from the manufacturer/ distributor is prohibited.
- Equipment must not be used beyond its limitations or for purposes other than those foreseen.
- Before using the system, verify good equipment conditions as much as possible.
- For safety, it is imperative that use of equipment be suspended immediately in the event of doubts about their safe conditions or if they have been used for fall arrest. In both cases, before restarting operation, you must get written confirmation from a competent person stating that re-use of the system is acceptable.
- · Periodic system review is mandatory. Verify maintenance with the holder of the Technical File.



# 3. Technical information.

### **Product description**

3 1

Allukemi Sky® Self-supporting railings are in compliance with standard EN ISO 14122-3 which includes permanent access safety devices to machinery with ladders, stepladders and guard railings. The standard also applies to ladders, stepladders and guard railings in the part of the building in which maintenance of said machinery must be performed, provided that the main function of said part of the building is to supply a means of access to the maintenance site. It is a collective protection system, so there is a maximum number of operators that can simultaneously access the area protected with railings. The only constraint is that the area not be accessible to the public but only to maintenance personnel.

Allukemi Sky® Self-supporting railings do not need to be mounted in any way to the structure and integrate into the roof, thanks to layers of SBR rubber interposed between the structure and the railing elements. Required resistance to overturning and displacement is obtained with a 25 Kg concrete counter-weight engaged into the base with a horizontal arm. Application is possible whenever the zone to be protected has a perimeter plenum, as it can integrate perfectly into the existing structure, so as to bring the height of the protection to 110 cm from the floor level as provided by law. In the event that the plenum is absent, the railing must be positioned at at least 1.5 m (upon assessment by the Somain Italia Technical Department) from the edge of the building and must be completed with a toe-clip board. It is composed of uprights set every 150 cm, engaged onto a base together with a horizontal lever arm on which the concrete block is mounted.

The handrail is mounted on the top of the uprights and a strut is also inserted in the middle. The footprint of the plan, including the block, is 120 cm. Straight or inclined uprights can be constructed. Railings are available in the following configurations:

**SKAD**: Straight Allukemi Sky™ Self-supporting **SKAI**: Inclined Allukemi Sky™ Self-supporting

Users must be in optimal physical conditions for the duration of works.

Before use, verify the presence of recovery and rescue floors or procedures in the plant location to be implemented in case of need.

The plant is guaranteed for 10 years with no annual maintenance requirement.

All components are made of aluminium with the possibility of coating with epoxy paint as a base and any desired RAL colour paint.

The railings in question have been tested by the Apave Certifying Organisation and the elements used at times are in accordance with those tested.

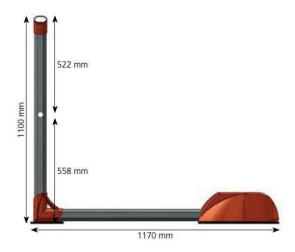
Below is a detailed description of the system.

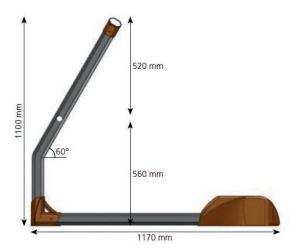


### **Functional diagram**

3.2

3.3





### **Upright/handrail components**

Uprights are mounted at a distance of 150 cm for all types. The elements that characterise them include:

- self-supporting base art. SKA
- SBR rubber for base art. SKAN
- · concrete counter-weight art. SKB
- SBR rubber for counter-weight art. SKBN
- polygonal extrusion art. SK01 to be used for straight or inclined uprights, for handrails and for horizontal lever arms
- polygonal joint art. SK02
- horizontal polygonal corner transmission art. SK03
- vertical polygonal corner transmission art. SK04
- horizontal polygonal joint art. SK05
- polygonal T-fitting. art. SK06
- polygonal L-fitting. art. SK07
- polygonal cap art. SK09
- polygonal cap for fastening art. SK10

### Beam components

3.4

Beams are mounted when the plenum is absent or less than 60 cm. The elements that characterise them include:

- round extrusion art. SK11
- round joint art. SK12
- round corner transmission art. SK13
- round cap for fastening art. SK14
- round cap art. SK15

### **Toe-clip board components**

3.5

- toe-clip board support art. SK17
- toe-clip board joint art. SK18

Other elements used in addition to specific railing components used for closing the system and its identification:

- mandatory sign art. CA00 in the vicinity of every access point
- identifier seal art. C35



# 4. Preliminary operations for use/maintenance.

### By the owner

The owner of the property on which the **Allukemi Sky**™ **Self-supporting** systems are mounted is the first entity responsible for all the operations that take place on this property and which involve the use of particular safety systems.

The owner is authorised to grant access to this type of system only to those operators that he considers suitable, in compliance with certain requirements:

#### Maintaining the certification of the system in good condition and composed of:

- name and number of the system: each system has its own identification number from which it is possible to trace the composition and the data given in the following points
- manufacturer: name and data from the manufacturer (Somain Italia)
- distributor: name and data from the distributor company (Somain Italia)
- reseller: name and data from the reseller company (authorised by Somain Italia)
- installer: name and data from the installing company affiliated to the authorised reseller that signs off the correct installation according to a plan and in the manner according to the Manufacturer's Installation Instructions
- design of the system: drawings with measurements of the system with respect to the structure on which it is mounted and stamp and signature of a technician showing the access points, the position of the system and any non-walkable areas

certification of constituent elements of the system (certification of the system and not of every single element adapted to the particular use)

Making complete certification available to any user.

Making these Manufacturer's Maintenance Instructions available to any user.

If the owner fails to comply, even partially, with the obligations referred to in this paragraph, he endangers the safety of other individuals in addition to invalidating the guarantee on the system.

If the owner does not grant the operator suitability for use of the fall arrest protective devices, he must prohibit the use of this system.



### By the user/ maintenance technician

4.2

The user/maintenance technician preparing to intervene in a place where the Allukemi Sky™ Self-supporting system is mounted must perform the following preliminary operations:

- Request these Manufacturer's Maintenance Instructions from the owner.
- Verify existence of certification of the system composed of the elements mentioned in the preceding paragraph and, in particular, pay attention to the plan with indication of the access point.
- As far as possible, before each use, perform a visual examination of the components of the system.

If the operator does not have all the elements indicated in this point, the user/maintenance technician must refuse to use the system for any operation.

- Verify the date of commissioning of the system and next inspections/maintenance.
- Verify the date of commissioning of the system and next inspections/ maintenance.



# 5. Maintenance.

Allukemi Sky™ Self-supporting systems consist entirely of aluminium components and stainless steel mountings and do not require maintenance but annual inspection.

### **Maintenance**

5.1

Maintenance is mandatory in the case of stress to the system and upon expiry of the 10 year guarantee to obtain extension of the same. It must be performed by a Somain Italia technician who will intervene to assess the extent of any damage caused by the system in its fundamental parts and, especially, check the tightness of mountings.

It will be the responsibility of the assigned technician to carry out all the checks necessary, to complete the appropriate documentation and to record his own interventions by completing the Maintenance Card (SM) and modifying the date of commissioning on system sign art. CA00



# 6. Use.

#### Arrival close to the access point

Reaching the access point as indicated in the plan attached to certification, acknowledgement of the file indicating the system, located close to each access point, in which the following are listed: type of system, serial number, commissioning date, manufacturer name, reseller name, installer name. All of these elements must of course correspond to those already seen in the certification.

#### **Control operations**

Visual inspection of system integrity in the previous working area, as far as possible. In case of doubt, request an inspection from the installing company or from a person who is authorised and qualified for this type of intervention.

6.2

#### Closure of the intervention 6.3

When an intervention is completed in the event of system damage, the system manager or the owner must be notified, who will in turn notify authorised and qualified personnel.



# 7. Manual for Use and Maintenance (SUM)

System no.:
Certification no.:
Date of entry into service

Manufacturer: F.i.s.a. srl - Via Donizetti 109/111 - 24030 Brembate di sopra (BG) Somain Italia S.p.a. - Via Donizetti 109/111 - 24030 Brembate di sopra (BG) Distributor:

Reseller: Installer:

Interventions for Use and Maintenance

Date of use/ maintenance	User/ Maintenance technician	Works performed	Notes



Interventions for Use and Maintenance

Date of use/ maintenance	User/ Maintenance technician	Works performed	Notes



## 8. Guarantees

**Duration** 8.1

A 10 year guarantee is given from the date of the delivery note on all stainless steel pieces making up the Allukemi **Sky™ Self-supporting** system.

**Exclusion** 8.2

#### The guarantee will only be granted if:

the material was installed and has been used in accordance with the installation instructions and the technical instructions of Somain Italia.

#### The guarantee will not be granted in cases where:

- the products are made from galvanised or zinc plated steel
- safety products include parts or accessories of external origin
- in this case the agreed guarantee will be that of the supplier of the above parts

### The guarantee is excluded when the defect is

- by an intervention or a change made to the original system without the written permission of the manufacturer/ distributor
- by use that is irregular or that does not conform to the intended use of the equipment
- by defective installation not in compliance with drawings or performed to code
- by a client's failure to communicate special conditions (pollution, temperature, number of users, etc.) regarding equipment use
- by an underestimation of support resistance generating the destruction or non-compliance of our equipment

- by the adding to our systems of parts produced by the buyer or from other sources other than Somain Italia.
- by an event of force majeure or any event outside the control of the seller such as wars, lightning, etc.

### **Limitations**

In all cases our guarantee is limited to the replacement or repair of elements or equipment that are formally recognised as defective by our technical service. If the repair is entrusted to a third party, this can only be performed after acceptance by Somain Italia of the repair quote.

Any returning of equipment must be undertaken with the consent of Somain Italia.

The guarantee only applies to elements returned and as such does not include the costs of removal and re-installation of the equipment in the group in which it is integrated.

The repair, replacement or modification of parts or equipment during the guarantee period can determine extension of the guarantee.

8.3



### Responsibility

8.4

Somain Italia will be responsible, under the conditions of common law, for the material damage caused by your equipment or by your personnel.

Repair of the material damage attributable to the seller is expressly limited to a sum that does not exceed the value of the equipment involved, subject of the order.

By express convention, the seller and the customer mutually waive requiring the repair of the indirect and intangible damage of any kind, such as operating losses, loss of earnings, costs of delay, reminder, removal and reinstallation of the equipment, loss of future contracts, etc.

Renewal 8.5

This guarantee of 10 years may be renewed at the request of the customer, after a technical inspection carried out, upon payment, by our services of the equipment installed.

#### **Testing and maintenance** 8.6

As far as possible, before each use, perform a visual examination of the components of the system.

In case of doubt, ask the installing company or a maintenance engineer, authorised and responsible for this type of intervention, for an inspection.

Allukemi Sky™ Self-supporting systems do not require maintenance. Should this be deemed necessary there is the option of this annual maintenance being performed by one of our staff authorised and qualified for this type of intervention.

In the event of a fall the system shall be the subject of necessary maintenance by a competent and qualified technician for this type of operation.

#### **Jurisdiction** 8.7

The applicable law is Italian legislation and the place of jurisdiction is in Bergamo (Italy) that will have exclusive jurisdiction over any dispute arising out of, or in some way related to, the products covered by this Manufacturer's Instructions.



# 9. References.

#### **Manufacturer's Instructions** 9.1

Manufacturer's Instructions

#### Regulations 9.2

#### **Technical standards** 9.2.1

#### EN ISO 14122-3:2010

Permanent means of access to machinery - Safety of machinery - Stairs, stepladders, railings.

#### **National regulations**

#### Legislative decree 81/2008 and subsequent additions and modifications

9.2.2

Consolidated text on health & safety

#### Local regulations 9.2.3

#### Circ. 4 /SAN/2004 of the Lombardy Region

Update of Title III of the Local Regulations of Hygiene, transposition of the integration to Title III of the Regional Hygiene Law drawn up by the ASL of Bergamo

#### Decree of the President of the Regional Executive no. 62 of 23.11.2005 of the Region of Tuscany

Implementing regulation of art. 82, paragraph 16 of Regional Law no. 1 of the 03.01.2005 relating to the technical instructions on preventive and protective measures for the access, transit and execution of works at height in conditions of safety

#### Decree of the president of the province no. 7-114/ Leg. of 25.02.2008 of the Province of Trento

Technical regulations for the prevention of accidents as a result of falls from heights during routine maintenance on roofs

#### Decree of the Regional Government no. 2774 of 22.09.2009 in the Region of Veneto

Technical instructions on preventive and protective measures to be implemented in buildings for the access, transit and execution of maintenance works at height in conditions of safety

### Regional law no. 5 of 15.02.2010 of the Region of Lig-

Rules for the prevention of falls from heights on construction sites.

#### Internet sites 9.3

#### www.somainitalia.it

Official site of the exclusive distributing company

#### www.uni.com

Italian national site of unification



# 10. Manufacturer and Distributor.

#### **Manufacturer**

10.1

Fisa srl via Donizetti, 109/111 24030 - Brembate di Sopra - Bg

#### **Distributor**

10.2

Somain Italia S.p.A. via Donizetti, 109/111 24030 - Brembate di Sopra - Bg





#### Genesi Italia

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