



Evolution incorporates an energy absorption system of a resolutely new design. It is equipped with the LEAP (Linear Energy Absorption Product) system allowing the precise and linear adjustment of the absorber triggering value and absorption threshold.

The considerable energy dissipating capacity of the **evolution** high capacity absorber means that it is capable of handling several falls simultaneously while maintaining the forces on the building below a threshold of 10 kN (2250 lb/ft).

Its compact design also includes a window displaying the tension on the cable as well as an end clevis compatible with all the **evolution** anchorage points. Swaged definitively to the cable the absorber is installed at the beginning or end of the line, or if necessary at both ends, depending on the results obtained with the **evolution** calculation software.

Protecting the structure, taking up the forces at the anchorage points and guaranteeing the safety of the workers are the goals for the development of this new type of energy absorber. In case of a fall, the LEAP system guarantees constant absorption of forces in a predefined range. The maximum value of the forces permissible along the lifeline is calculated by means of software dedicated to **evolution**. Depending on the constraints represented by the buildings, the activation value and the absorption threshold can be optimised during the production process.

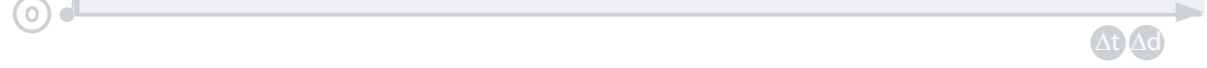
24

Rigid anchorage

12

6

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Absorber - MAIN CHARACTERISTICS



- Integrated LEAP absorber : guarantees the smoothing out of forces to a predetermined value.
- Triggering and absorption level adjustable (in the factory) for specific applications.
- High absorption capacity of more than +60% compared to traditional absorbers.
- Cable tension display window.
- Wide cable tension adjustment range.
- Monobloc, protection housing and force indicator.
- Choice of materials to ensure longlife and durability (stainless steel, anti-UV polymer).
- Supports several falls without any loss of performance.
- Through swaging: guarantees complete swaging for optimum safety.

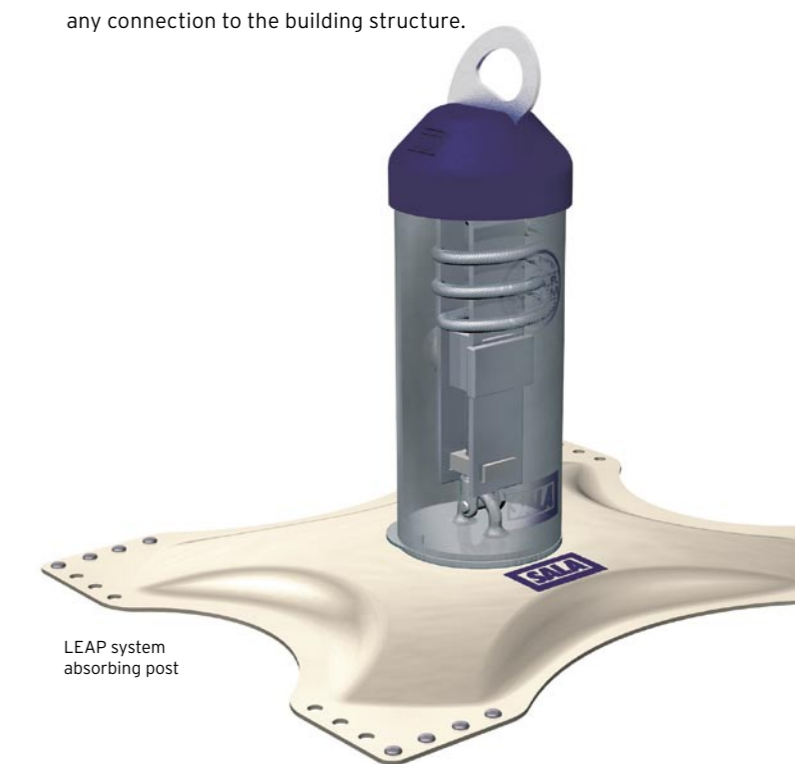
Evolution offers solutions that are ideally adapted to the installation of lifelines on all kinds of industrial roofs (trapezoidal panels, standing seam, membrane etc.) thanks to a combination of **post** and bases that are easily installed on every type of roof without affecting the integrity of their structure in any way.

Integrating LEAP (Linear Energy Absorption Product) guarantees constant absorption of forces through a predefined range. The main objective is to reduce the forces at the anchorage points so as to protect the structure.

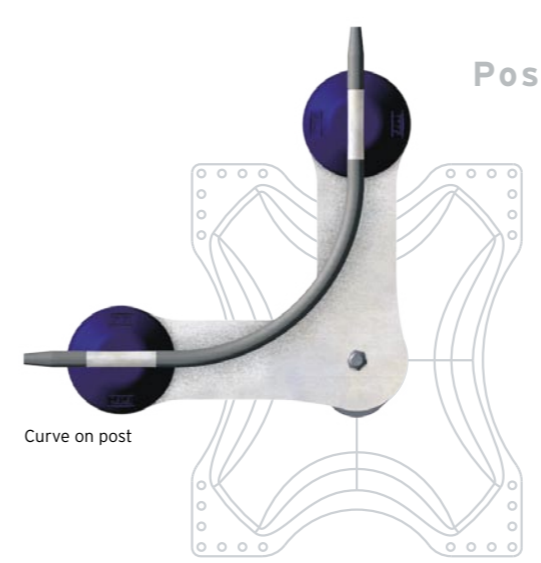
Because of their high energy dissipating capability, it is advisable to install LEAP system absorbing posts in the lifeline at the ends and on the curves. However, use at intermediate points is also possible when the installation calls for a major reduction of the forces. Simulation using the **Evolution** calculation software is indispensable for controlling strength levels and clearances.

The **evolution** post consists of two parts : a post (with LEAP energy absorption or of the tilting type) and a base attached to most modern roofs. As necessary, the post can be equipped with an anchorage point, an intermediate bracket or a curve.

Posts are installed directly to the metal panel roofs quickly, easily and without any drilling into the roof (thus avoiding any problems of waterproofing and thermal bridging). It does not require any connection to the building structure.



Posts - MAIN CHARACTERISTICS



- Integrate the LEAP system guaranteeing smoothing out of forces at a pre-selected value .
- Compatible with most industrial roofs (trapezoidal panels, standing seam, membrane).
- Triggering level adjustable (in the factory) for specific applications.
- Easy installation without any anchorage to the frame and thus preserving waterproofing.
- Reduction of forces in case of fall preserving the integrity of the roof.
- Conforms to international standards: EN795 class A - AISI Z359.1 - CSA Z259.16 - AS/NZ S1891.4 part 2 & 4

Curves



Anchorage

To fulfil to the utmost the installation and safety needs of each site, **evolution** comes with a **range of curve parts** enabling every possible curve to be formed to follow as closely as possible the movements of the users. There are curve solutions for every type of installation (wall, post, or overhead).

With its patented flexible cable guide, it is now particularly easy to use the same curve part to form a curve ranging from 15° to 45° for a short curve or from 45° to 90° for a long curve. The anti-rotation system (also patented) makes it possible to keep the curve totally horizontal in line with the cable to guarantee optimum passage of the shuttle.

The specific shape of the **evolution** short curve is based on the same concepts as the intermediate brackets, allowing the shuttle to pass automatically around the curves without the user ever needing to disconnect from the lifeline.

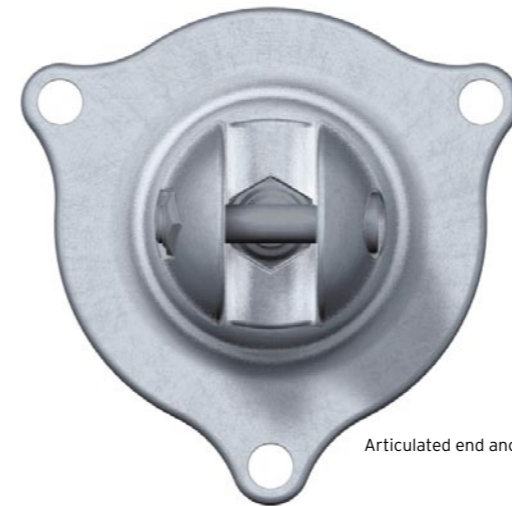


90° overhead curve

To handle the stresses that a possible fall would generate, **evolution** incorporates a reinforcing part to guarantee better resistance to falls. The flexible cable guide ensures that the cable runs smoothly around the curves in order to balance out the forces over the entire lifeline and thus reduce the stresses at the curves.



90° standard curve



Articulated end anchor

To ensure the optimum **anchorage** of the **evolution** lifeline, Sala has developed an articulated anchorage with three attaching points, aligning accurately with the cable whatever the direction or angle, to allow consistent distribution of forces at each attaching point.

The end anchorages are required to take up the greatest forces in case of fall which is why their design and construction makes no concessions. The central articulation means that it can be used in any configuration (wall, floor, post, overhead) and the type of solicitation (shearing or pulling away). **Evolution** triple attachment anchorages are compact and discreet fitting in harmoniously with a metal building or structure. Epoxy finish (in a wide range of colours) is also available on request.

|| MAIN CHARACTERISTICS

- High strength thanks to the ideal distribution of forces at each attaching point.
- The multi-directional articulation gives the end anchorage the same strength whatever the axis of the cable.
- The triple-attachment anchorage is versatile and can be used on the wall or on the floor or overhead.
- The specific shape and mobility of the anchorage allow the automatic alignment of the lifeline cable.
- Modern design incorporated easily into any type of building.
- Compatible with all the Sala end brackets and absorbers.



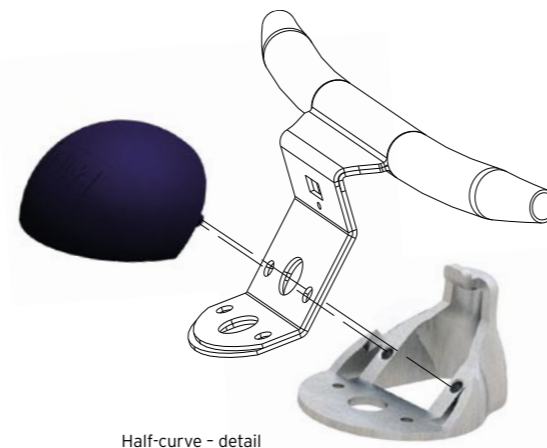
Swaging

To guarantee a faultless link between the cable and the anchorage points, SALA has opted for **swaging** as a technical and safety solution that preserves the full strength of the cable at its connection with the end parts.

Integrated into a tensioner or simply fitted with a clevis, the EVOLUTION end parts are installed by professionals using specially calibrated tools. Swaging guarantees a definitive and unchangeable connection.

- MAIN CHARACTERISTICS

- Installation by single attachment facilitating line assembly (reducing the installation time).
- Monobloc intermediate curve guaranteeing greater strength in case of fall.
- Automatic passage of shuttle either side of lifeline without any need to disconnect.
- Incorporation of polyamide guide-cable reducing friction to the utmost (shuttle passage, installation and tensioning of line made much easier)



Half-curve - detail



End tensioner

- MAIN CHARACTERISTICS

- Definitive swaging guaranteeing faultless safety at the link to the cable.
- Easy and fast installation, compatible with all Sala end parts.
- Possibility of adjusting the pretensioning of the lifeline (tensioner).
- No loss of strength at the connection to the cable.
- Choice of materials to ensure long life and durability (stainless steel).

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Ever higher, farther, faster: you can't stop evolution, you anticipate it

