

Installation and User Instructions

for the anchor device



LUX-top® mobile

Anchor device for fixing personal protective equipment against falls from a height (PPE against falls from a height) held by its self-weight /imposed load and free from roof penetration.

**Tested and certified as a single anchor point to EN 795:2012 – Type E
and as a fixing point in LUX-top® FSE 2003 rope systems to EN 795:2012 - Type C.**



Introduction

Before assembling the anchor construction the load-bearing capacity of the roof structure must be checked. In case of doubt seek the advice of a structural engineer! The technical building regulations must be complied with. The customary national lightning provisions must be complied with. Do not make any changes to the product and only use original parts of the anchor point system.

These installation and user instructions must be read through carefully before installation / use of the anchor device and must be kept accessible at all times, where possible near the equipment.

Assembly / use and installation conditions

- In general, the **LUX-top® mobile** system may only be installed by qualified installation personnel using the system components supplied by the manufacturer, according to the installation and user instructions! The system must be installed to state-of-the-art standards and must be checked appropriately!
- **LUX-top® mobile** may only be used by trained persons, who are familiar with these user instructions and with handling the PPE against falls, and are physically and mentally suitable for the task. Health restrictions can endanger the safety of the system user when working at heights.
- Use on snow, gravel and other slippery substances is strictly prohibited!
- Use when there is a risk of frost or frost conditions, **which result in a hazard**, is prohibited! If the **LUX-top® mobile** is surrounded by a gravel, soil or vegetation layer at least 5 cm high, use during frost conditions is allowed.
- Use prohibited if the roof surface and/or anchor device is contaminated, e.g. with oil, lubricating grease, etc. or infested with algae growth!
- Avoid installing the anchor device in areas in which water can accumulate and cause a hazard!
- Use only permitted on roof pitch up to max. 5°.
- An adequately load-bearing parapet / thrust protection (min. 2 kN) with minimum height = 150 mm must be present.
- The anchor device may only be used if fully weighted according as specified in these instructions (total weight incl. frame construction at least 355 kg).
- **LUX-top® mobile** is intended for horizontal loading (~ parallel with the roof surface) in all directions.
- Before assembling, remove any loose stones, etc. within the area of the system footprint!
- Can be used on concrete, wood and bitumen and plastic roof waterproofing membranes
- To protect the roof waterproofing membrane, we recommend placing a protective layer made of material identical to the roofing membrane beneath the **LUX-top® mobile**. The protective layer must be friction locked (i.e. inseparably joined) with the roof waterproofing membrane.
- The upper section of the inspection log card supplied with the system must be fully completed following installation and handed over to the building owner / operator or stored in a protected place together with the other equipment!
- We recommend that you document proper installation, e.g. by taking photos and in the form of detailed installation documentation!

Installation spacings

LUX-top® mobile must be installed at sufficient distance (at least 2 m from front edge) from each edge, opening or other hazards, which could cause a fall (ask manufacturer for details of exceptions)!

Spacings between each other according to the national regulations and depending on the building geometry; however, not exceeding 7.5 m.

Further safety instructions

- The respective latest state of the art standards must be taken into consideration when using the **LUX-top® mobile** system.
- If using the anchor device with fall arrest systems, for safety reasons, before each use it is essential to ensure the necessary clear space at the workplace below the user, so that in case of a fall it is not possible for them to hit the ground or another obstruction!
- In the event of a fall of a person secured on the **LUX-top® mobile** anchor device, the resulting deformation or movement of the anchor device (up to 1m) must be taken into consideration in the arrest distance.

The minimum clear space required below the system user is calculated from:

Deformation or displacement of the anchor device (up to 1m)
+ fully open length of the energy absorber according to its instructions for use
+ elongation of the connection rope or cable due to extension
+ displacement of the full body harness on the body
+ height of the user
+ safety clearance of 1.0 m

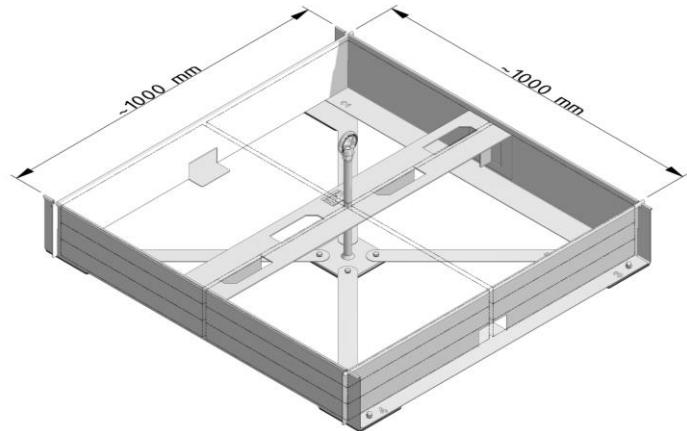
- **If there is insufficient clear space below the user, the anchor device may only be used with a restraint system and must be labelled accordingly.** To this end, also note and follow the instructions for use for the other personal fall protection equipment (PFPE).
- In case of horizontal use, only use lanyards, which are suitable for this type of use and which are tested for the applicable loading and stressing due to the corresponding edge design.
- Use of the system for purposes other than those for which it is intended, e.g. by hooking on or attaching any loads not approved in these instructions, is not allowed.
- **LUX-top® mobile** may only be used to safeguard persons, i.e. for attaching the PPE against falls from a height (PFPE - personal fall protection equipment) to EN 363 consisting of, for example: Full body harness (EN 361), lanyard (EN 354) and energy absorber (EN 355). Alternatively, use a restraint system to EN 358! Users should always contact the manufacturer of the PFPE to obtain advice about the suitability of the respective PFPE.
- If this anchor device (type E) is combined with retractable type fall arresters to EN 360, the safe function of the named equipment can be impaired. This is therefore not permissible, unless they have been tested together. Always consult the relevant manufacturers first.
- By combining individual elements of the named equipment with the **LUX-top® mobile** system, potential fatal hazards can occur, in which the safe function of one of the elements can be impaired. Therefore, always ensure that the equipment parts put together to form a system are compatible with each other.
- The components of the personal protective equipment against falls from a height must be checked to ensure that they are in proper condition and that they comply with these user instructions.
- All connections of the construction must be properly and conscientiously installed and checked.

- Equipment is attached to the **LUX-top® mobile** at its anchor eyebolt by means of a connector (spring hook/karabiner) of the PPE against falls from a height in accordance with its user instructions.
- For the safety of the user of the **LUX-top® mobile**, it is essential that they only detach the connector of the PFPE from the anchor eye if they are not in the area where there is a risk of falls.
- The relevant national laws and health & safety regulations (in Germany the accident prevention regulations of the "Berufsgenossenschaften" - trade associations responsible for industrial safety) must be complied with during installation of the anchor device.
- The installers must take measures so that neither components of the anchor device nor tools can fall from the work area.
- The relevant national regulations and the health & safety regulations (in Germany the accident prevention regulations of the trade associations responsible for industrial safety) and any other relevant regulations must be complied with when using the **LUX-top® mobile** system. For Germany these include, among other things:
 - **TRBS 2121** "Technische Regeln für Betriebssicherheit - Gefährdung von Personen durch Absturz" / Technical rules for health & safety at work - risk to persons due to falling
 - **DIN 4426** "Sicherheitstechnische Anforderungen an Arbeitsplätze + Verkehrswege" / Safety requirements for workplaces and transport routes
 - **EN 363** "Personal fall protection equipment - Personal fall protection systems"
 - **DGUV Regulation 38** "Bauarbeiten" / construction work
 - **DGUV Rule 112-198** "Einsatz von persönlicher Schutzausrüstung gegen Absturz" / Use of personal protective equipment against falls from a height
 - **DGUV Information 201-008** "Dacharbeiten" / roof work
 - **DGUV Rule 101-016** "Dacharbeiten" / roof work
 - **DGUV Information 201-056** "Planungsgrundlagen von Anschlageinrichtungen auf Dächern" / Planning and design principles for anchor devices on roofs
 - **ASR A2.1** "Technische Regel für Arbeitsstätten - Schutz vor Absturz und herabfallenden Gegenständen, Betreten von Gefahrenbereichen" / Technical rules for workplaces - protection against falling and falling objects, accessing danger zones
- A plan must exist, which takes into account the rescue measures for all possible emergency incidents that can occur during the work.
- Should any doubt occur regarding safe condition (e.g. severe corrosion, lightning strikes, other damage) or following a fall of a person secured on the **LUX-top® mobile**, the product must be withdrawn from further use (Exception: provision of first aid or rescue) and it must be inspected by a competent person and if applicable released for use in writing.
- The lanyard must always be set as short as possible, even when fall arrest systems are used, in order to reduce any free-fall height in case of a fall to a minimum. It is essential for safety that the position of the anchor point and the plan of work be chosen so that the free fall and the fall height are limited to a minimum. **Ideally, a fall over the edge should be completely prevented by appropriate use of the PPE against falls from a height.**
- Please note that failing to follow these user instructions, and if the documentation is incomplete, all claims for compensation are excluded.
- The manufacturer must be contacted in case of any uncertainty during installation or use of the system!
- A standard operating procedure with information on the location and use of the anchor devices should be attached at the access to the safety system (e.g. at the roof hatch).

General product data

LUX-top® mobile is made up of the following components:

- 4 x stainless steel feet with anti-slip coated contact surfaces and welded on threaded bolt M8 x 15 mm
- 4 x stainless steel side piece
- 1 x LUX-top® ASP (length 300 mm, Ø 20 mm) with anti-slip coated footplate including fastenings (4 x bolt M8x10 mm with lock washer)
- 1 x stainless steel load distribution plate
- 4 x cap nuts M8 with lock washer



In addition, before use the construction must be weighted with 6 standard concrete pavement slabs, in the following:

- **12 slabs size 50 cm x 50 cm x 5 cm, or**
- **16 slabs size 50 cm x 50 cm x 4 cm**

These are not included in the scope of supply.

Construction weight: approx. 21 kg

Total weight: approx. 355 kg equipped with concrete paving slabs

Material: Stainless steel W1.4301/W1.4307 (AISI 304/AISI 304-L)

Use/product suitability/number of users

LUX-top® mobile can be used in the following fall protection systems to EN 363:2008:

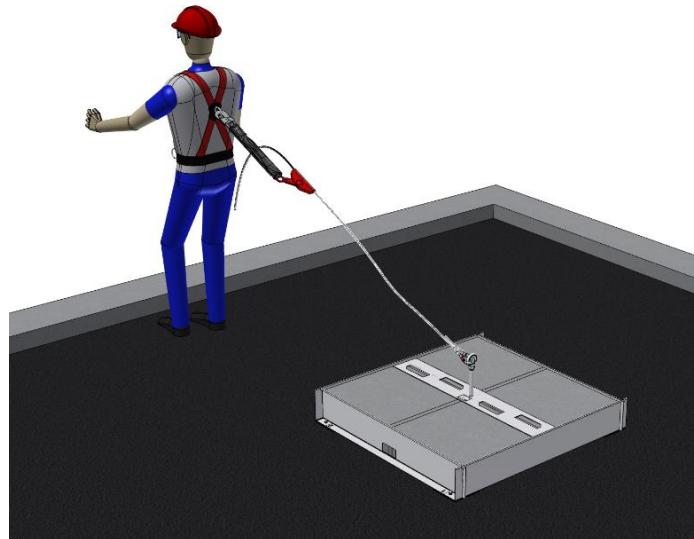
- Restraint systems
- Work positioning systems
(Only retention function or work in tension! No rope access techniques!)
- Fall arrest systems
- Rescue systems

The respective user instructions of the other PFPE and abseiling (descent) and rescue equipment used must also be noted and followed!

LUX-top® mobile is not suitable as an anchor point for suspension systems for rope-assisted access techniques (abseiling work, etc.)!

Use case I:

As an anchor point for securing **two persons (includes one person for first aid or rescue)** with full-body harness to EN 361 and energy absorber to EN 355.

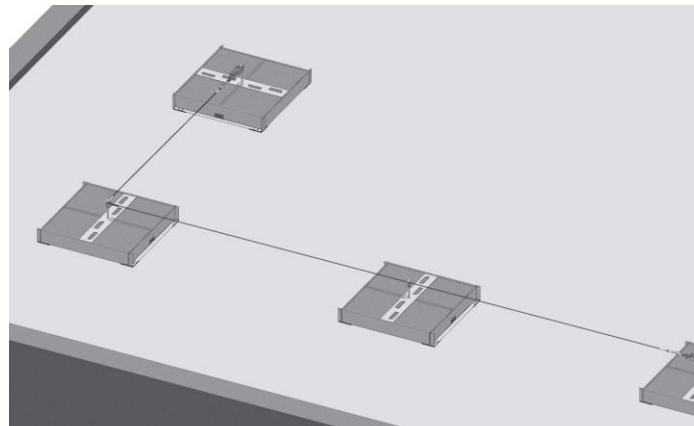


Use case II:

As start/end/corner and intermediate point in **LUX-top® FSE 2003** rope-based fall arrest (lifeline) systems to EN 795:2012 Type C.

In this use case also, **maximum 2 persons (includes one person for provision of first aid or rescue)** may anchor onto the entire system.

To this end, also note and follow the installation and user instructions for the **LUX-top® FSE 2003** system!



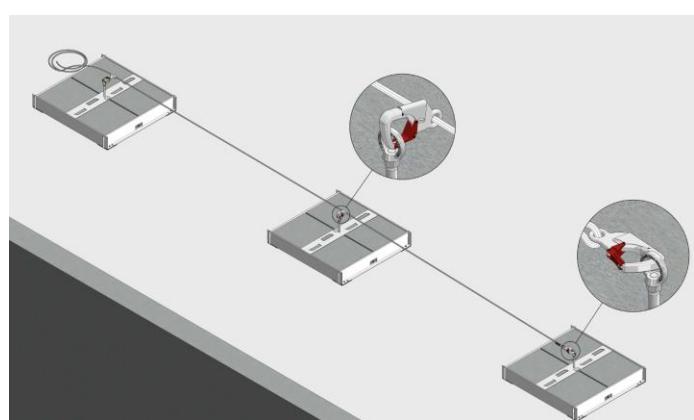
Note: The maximum rope deflection on retaining is approx. 0.7 m for support spacing 7.5 m.
The maximum rope deflection in case of a fall is approx. 1.9 m at support spacing 7.5 m.

Use case III:

As a start/end and intermediate point in combination with temporary horizontal anchor devices / temporary horizontal flexible anchor lines to EN 795:2012 Type C.

In this use case also, **maximum 2 persons (includes one person for provision of first aid or rescue)** may anchor onto the entire system.

To this end, note and follow the instructions for use of the respective temporary system!



Testing, maintenance and care

Before each use the user must visually inspect the anchor device to ensure its proper functional and maintained condition, i.e. that it is ready for use and functions properly.

The **LUX-top® mobile** anchor device must be tested as and when necessary, however, at least once a year, by a competent person precisely following the manufacturer's instructions.

This inspection is essential, as the safety of the user depends on the effectiveness and durability of the anchor device.

The inspection must be arranged by the owner/operating company.

An inspection log card is included in the appendix to these user instructions, on the bottom section of which the inspection by the competent person must be documented.

The anti-slip covering of the feet and of the anchor point of the anchor device must be checked and if necessary cleaned carefully each time the construction is installed and dismantled (except for the initial installation).

The **LUX-top® mobile** anchor device is weather resistant. Depending on the use conditions, the anchor device must occasionally be cleaned with a brush, hot water and washing-up liquid.

Avoid contact between the stainless steel anchor device and "black" steel, acids, cement, chloride, paint or aggressive cleaning liquids.

Miscellaneous

Changes or additions to the anchor device may only be made with the prior written consent of the manufacturer. Equally, all repairs may only be carried out in agreement with the manufacturer. If sold on to a country with a different language, to ensure the safety of the user the instructions for use, maintenance, the regular checks and repairs must be available in the respective language.

Assembly instructions

NOTE:

To protect the roof waterproofing membrane, we recommend placing a protective layer made of material identical to the roofing membrane beneath the **LUX-top® mobile**. The protective layer must be friction locked (i.e. inseparably joined) with the roof waterproofing membrane.



Start of the assembly with **LUX-top® ASP** anchor point

Fig. 1: *LUX-top® ASP*

Arrangement of the feet on the footplate of the **LUX-top® ASP** by means of number sequence 1 – 4.



Fig. 2: *Arrangement of the feet*



Fixing of all four feet on the **LUX-top® ASP** by means of bolts M8 x 10 and lock washers.
Lock washers must be in a flat position after tightening the bolts.

Fig. 3: *Bolting the feet*

Push the edging (consisting of four side pieces) onto the threaded bolts of the feet **according to their numbering**.



Fig. 4: *Mounting the side pieces*

Position bottom side pieces opposite each other. Then place upper side pieces on top of them.



Fig. 5: Pushing in the top side pieces

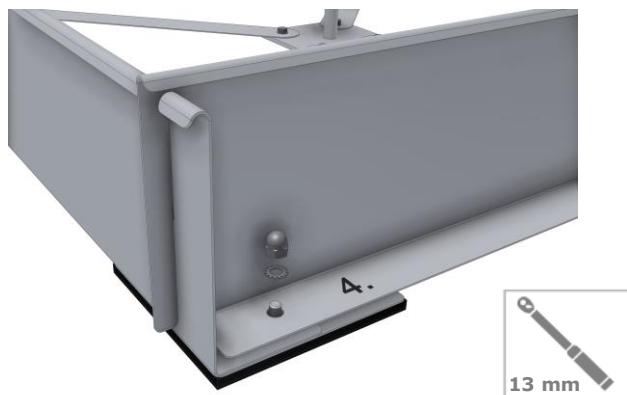


Fig. 6: Fixing the edging

Use 4 cap nuts M8 and lock washers to fix the edging on the feet.
Lock washers must be in a flat position after tightening the nuts.



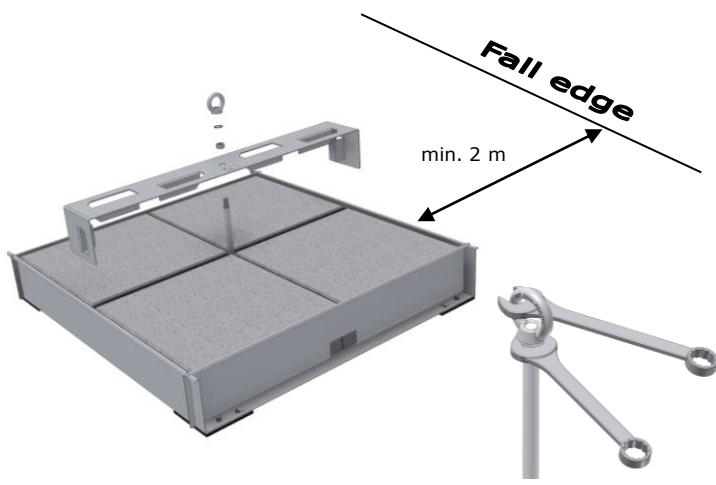
Fig. 7: Completely installed edging

Fig. 8: Inserting the concrete pavement slabs

The **LUX-top® mobile** must
be filled with 12 concrete
pavement slabs 50x50x5 cm
or 16 slabs 50x50x4 cm.



Fig. 9: Completely filled anchor device



Attaching the load distribution plate.

Then screw on lock nut, lock washer and anchor eyebolt and secure by means of locking (tightening) until the lock washer is in a flat position.



Fig. 10: Mounting the load distribution plate & secure the anchor eyebolt

After proper installation
the **LUX-top® mobile**
anchor point can be used
immediately.



Fig. 11: LUX-top® mobile ready for use

In case of combination with **LUX-top®** stainless steel rope systems, note and follow the installation and user instructions of the **LUX-top® FSE 2003** system!

LUX-top® mobile

STANDARDS

LUX-top® mobile has been tested and certified as a single anchor point to EN 795:2012 – Type E, and as a fixing point in **LUX-top® FSE 2003** rope systems to EN 795:2012 Type C.

SYMBOLS AND MARKINGS

A PPE notice must be attached and must contain the following information:

- Type designation: **LUX-top® mobile**
- Number of the relevant standard: **EN 795 : 2012 Type E**
- Maximum allowable number of users: **MAX **
- Name or logo of the producer/seller: 
- Manufacturer's batch number and year of manufacture: **xx-xx/20xx**
- Symbol indicating that the user instructions must be noted and followed: 
- CE marking with code of the notified body: **CE 0408**
- Note on use of an energy absorber

Example - Product labelling:



The product label is on the load distribution plate.

The legibility of this product labelling must be ensured at all times and must be checked following installation and during the specified mandatory annual inspection!

Manufacturer: ST Quadrat S.A.
11, rue Flaxweiler
L-6776 Grevenmacher/Potaschberg
Luxembourg

Notified body used for the type test:
TÜV Austria Services GmbH, Deutschstrasse 10, A - 1230 Wien / Austria, CE 0408

Inspection log card / log book

Anchor device for personal fall protection equipment



LUX-top®

Manufacturer: www.lux-top.com

Type/Model	LUX top® mobile	STANDARD: EN 795:2012 Type E
Batch number / year of manufacture		
Installation date		
Date of the initial putting into service		
Project / property name		
Address of the owner (user) / customer		

Regular system check, inspection and repair

Date	Reason for entry (regular inspection or repair)	Damage + defects found (description / actions, etc.)	Released for safe use (yes/no)	Name + signature of the competent person	Date of the next test

Project data

Building/Construction

Street/Post code/Town or

Contractor

Company

Street/Post code/Town or

Contact /Phone number

Installer

Details of the anchor device and surface/substrate

Type/Model/Overall height/Installation

Batch No./ Year of manufacture

No. on site sketch

(Fixing)surface or substrate

Date of completion

Roof layout/site sketch (if necessary on additional sheet)

Confirmations by the installation firm



The LUX-top® anchor devices were installed by a qualified person according to the installation instructions and

The installation and use instructions as well as the technical documentation have been handed



The installation and use instructions as well as the technical documentation have been handed over to the owner/customer so that they can make them available to the user.

(Place, Date)

(Stamp, signature)

This certificate is to be handed over to the owner.

Detailed installation and photo documentation can be drawn up at www.quick-doku.eu.

Sketches, information, notes: