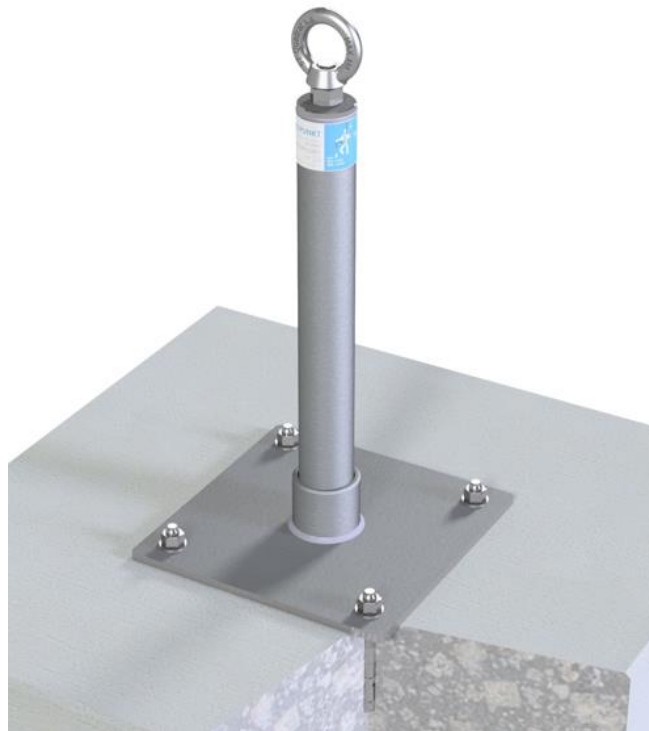


Installation and User Instructions

for the anchor device

LUX-top® RGD



Anchor point for attaching personal fall protection equipment (PFPE) for up to 3 persons

Descent point (abseiling point) for attaching the suspension system to TRBS 2121-3 for 1 person

Tested and certified to DIN EN 795:2012 Type A + DIN CEN/TS 16415:2017 by DEKRA Testing and Certification GmbH

With European Technical Assessment (ETA) and general construction technique permit (aBG) from the DIBt

These installation- and user instructions are supplied with each LUX-top® RGD anchor device. They must be read through carefully before use and must be kept accessible at all times, where possible near the equipment.

Introduction

Before installing the anchor device the load-bearing capacity of the roof/substructure must be checked. In case of doubt seek the advice of a structural engineer! The technical building regulations must be complied with. Do not make any changes to the anchor device and only use original parts of the anchor system.



SAFETY INSTRUCTIONS:

- If using the anchor device as part of a fall arrest system, for safety reasons, before each use it is essential to ensure the necessary clear space below the user at the workplace, so that in case of a fall it is not possible for them to hit the ground or any other obstruction!
- In the event of a fall of a person secured on the **LUX-top® RGD** anchor device the resulting deformation of the anchor device (up to 75 cm depending on the overall height) must be taken into account in the arrest distance.

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

- + Deformation of the anchor device (up to 75 cm)
 - + 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.
 - The anchor device may only be installed and used by trained persons, who are familiar with these installation and user instructions and with handling PPE against falls from a height and are physically and mentally suitable for the task. Health restrictions (e.g. cardiovascular problems, medication) can endanger the safety of the system user when working at heights.
 - Use of the system for purposes other than those for which it is intended, e.g. by hanging undefined loads, is not allowed.

- The anchor device may be used for attaching the PFPE (personal fall protection equipment) to EN 363, consisting, for example of a full body harness (EN 361), lanyard (EN 354) and energy absorber (EN 355).
Alternatively, the anchorage device can be used to anchor the suspension system in accordance with TRBS 2121-3 for rope-assisted access and positioning techniques. Independently of this, a safety system must be used which must be attached to a suitable anchor point in order to ensure permanent, redundant safety.
- If the anchor device is used as part of a fall arrest system the user must be equipped with an energy absorber, which limits the maximum dynamic forces that act on the user during an arrest to 6 kN maximum.
- By combining individual elements of the named equipment, hazards can occur as 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.
- The attachment to the **LUX-top[®] RGD** is made by means of a connector (spring hook/carabiner) of the PFPE, according to its instructions for use.
- The user must visually inspect the anchor device before each use to ensure its proper functional and maintained condition.
- 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[®] RGD** 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 people due to falling
 - **DIN 4426** „Sicherheitstechnische Anforderungen an Arbeitsplätze + Verkehrswege“ / Safety requirements for workplaces and transport routes
 - **DIN 363** „Persönliche Absturzschutzausrüstung – Persönliche Absturzschutzsysteme“ / Personal fall protection equipment - personal fall protection systems
 - **DGUV Vorschrift 38** „Bauarbeiten“ / Construction work
 - **DGUV Regel 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 Regel 101-016** „Dacharbeiten“ / roof work
 - **DGUV Information 201-056** „Planungsgrundlagen von Anschlageneinrichtungen auf Dächern“ / Planning principles for anchor devices on roofs
 - **DGUV Information 212-001** „Arbeiten unter Verwendung von seilunterstützten Zugangs- und Positionierungsverfahren“ / Work using rope-assisted access and positioning techniques
 - **ASR A2.1** „Technische Regeln für Arbeitsstätten - Schutz vor Absturz..., Betreten von Gefahrenbereichen“ Technical rules for workplaces - Protection against falls from a height..., entering danger zones".

Furthermore, the "Safety and Working Guideline for Rope Access and Positioning Techniques" of the Fach- und Interessenverband für Seilunterstützte Arbeitstechniken e.V. (Professional and Interest Association for Rope-Assisted Working Techniques) should be amended. (FISAT) should be taken into account.

- Ensure safe, stable position during use!
- A plan must exist, which takes into account the rescue measures for all possible emergency incidents that can occur.
- Should any doubt occur regarding safe condition (e.g. severe corrosion, lightning strikes) or **following a fall of a person secured on the LUX-top® RGD the system must be withdrawn from further use** and inspected by a competent person.
- After a fall of a person secured to the **LUX-top® RGD** the stability of the surface/substrate must be checked on site before re-installing a new anchor device.
- 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 device 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.**
- Position the anchor device on the building so that in case of a fall over the roof edge, the maximum possible fall factor is 1.
- 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. roof hatch).

Installation spacings:

The distances from the edge are to be chosen in accordance with the national provisions and depending on the roof geometry.

The correct choice and layout of anchor devices provided permanently on the roof must be made depending on the type and use of the anchor device and taking into account the special features of the roof.

Information on the recommended type and positioning of anchor points is provided, for example, in DGUV Information 201-056 "Planungsgrundlagen von Anschlagrichtungen auf Dächern" (Planning principles for anchor devices on roofs), which were drawn up and agreed by the international expert work group D-A-CH-S.

The brochure is available, among other things, under <http://www.lux-top-absturzsicherungen.de> and can be downloaded free of charge.

National provisions are not affected by these recommendations. Where these suggestions differ from national law, the user of these recommendations bears the full legal risk to the scope of the deviation.

Allowable distances between anchor points in the LUX-top® RGD system

As descent point to attach suspension systems to TRBS 2121-3	Maximum 2.0 m, in building corners maximum 1.0 m*
As pure, individual anchor point	Maximum 3.0 m**
With LUX-top® FSE 2003 stainless steel rope systems ***	Maximum 10 m (recommended) Maximum 15 m (to Type Examination Certificate)****
With temporary horizontal anchor devices***	Maximum 7,5 m (recommended) Larger distances are possible depending on the system

If you are at all uncertain, please contact the manufacturer

* Recommendation in consultation with FISAT e.V.

** Results from the problem of falling edges of lanyards for horizontal use. When the user is directly next to the falling edge work should be limited to 1.5 m sideward away from the anchor point.

*** For attaching personal protective equipment against falls from a height when working in areas at risk of falling. **Not as Descent (abseiling) point for attaching the suspension system according to TRBS 2121-3.**

**** When using the system in Germany, the information provided in the national technical approval Z-14.9-789 must be observed. This generally limits the permissible spacing between each anchor point to a max. of 10 m.

Important installation instructions^{*)}:

- The **LUX-top® RGD** may only be installed by qualified installation personnel using the fixing materials supplied according to the installation instructions. The installation must be carried out to the latest state of the art and must be checked appropriately!
- The anchor point must be installed on a substrate with sufficient load bearing capacity in accordance with the manufacturer's specifications. Always ensure compliance with the minimum component dimensions and distances from edges given in the installation instructions!
- The overall construction must be checked on site to ensure it can absorb the transferred forces!
- The installers must ensure that the surface/substrate is suitable for fixing the anchor device.
- All connections of the anchor device must be properly and conscientiously installed and checked according to the manufacturer's specifications. This must be confirmed by the responsible fitter in the installation documentation form attached to these user instructions.
- The installation documentation form must be filled in full following installation and handed over to the building owner/user or kept in a protected place with the parts of the equipment that are not permanently installed.
- We recommend that you also additionally document proper installation by taking photos and with other important installation data. We recommend that you use our documentation app available under www.quick-doku.eu
Additional information to that given in the installation documents is provided in EN 795:2012 (Annex A).
- The installation documents verify to the user that the installation has been carried out properly and provide the basis for subsequent inspections of the anchor device. A copy should therefore be kept in the building.
- You must comply with the relevant national regulations and the accident prevention regulations 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.
- In case of sloped surfaces and roofs, snow guards must be installed to prevent loading of the **LUX-top® RGD** system with snow loads!

^{*)} When using the system in Germany, the information provided in the general construction technique permit (aBG) Z-14.9-888 must be observed.

Use / system description:

It can be installed on diverse load-bearing substrates in accordance with the relevant installation instructions.

LUX-top® RGD is intended for loading in all directions.

If used in accordance with the regulations, the maximum force input into the structure by the anchor device in case of a fall is 12 kN.

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

- Restraint systems
- Fall arrest systems
- Rescue systems
- As part of the suspension system to TRBS 2121-3 for rope-assisted access and positioning techniques

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

The **LUX-top® RGD** anchor device consists of the following components:

- 1 pc. **LUX-top® RGD** anchor point complete with anchor eye and fixings
- Installation and User Instructions

Anchor point material: stainless steel W1.4301 / AISI 304

Application I: Rope Access

For attaching the suspension system to TRBS 2121-3 for rope-assisted access and positioning techniques for 1 person with a maximum Work Load Limit (WLL) of 3 kN (~ 300 kg).



Application II:

As anchor point to secure **3 persons** with full body harnesses to EN 361 and energy absorbers to 355 (**including 1 person for first aid/rescue**).

An anchor point already deformed by a fall can usually be used for the rescue of a person who has fallen from a height.

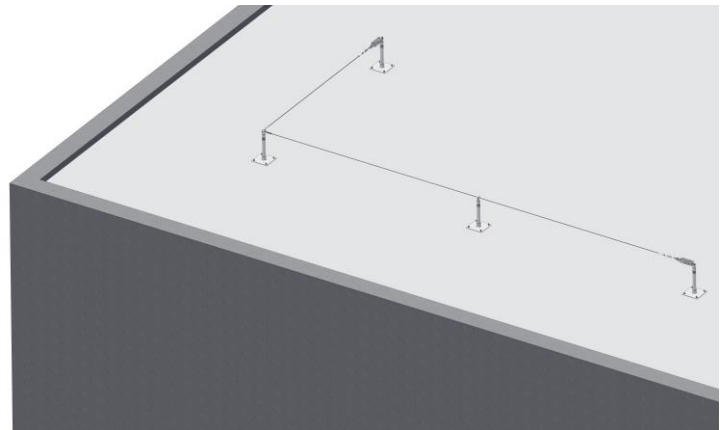


Application III:

As start-/end-/corner- and intermediate anchor in **LUX-top® FSE 2003** cable-based fall-arrest system to EN 795:2012 Type C.

In this application maximum **6 persons (including one person for first aid/rescue)** may attach their PPE against falls to the whole system.

For this please also observe the **Installation and User Instructions** of the system **LUX-top® FSE 2003!**



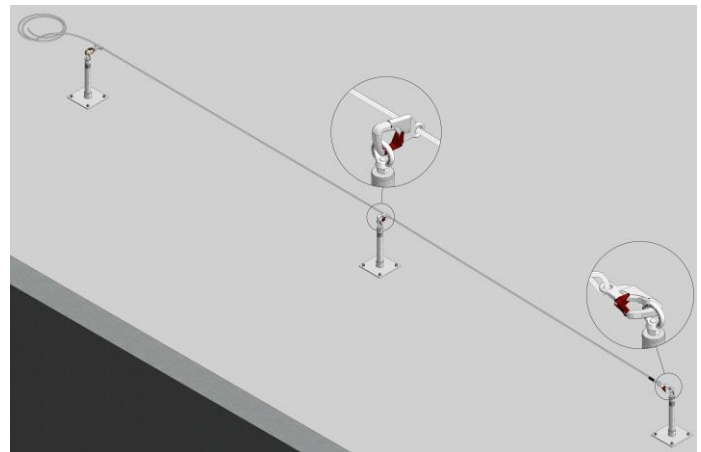
Notice: The maximum rope deflection in the event of a fall is approx. 2.5 m with a distance of 10 m between anchor points.

Application IV:

As start-/end- and intermediate anchor for temporary horizontal anchor devices / temporary horizontal flexible anchor lines to EN 795:2012 Type C.

The maximum allowed number of users depends on the respective used temporary horizontal anchor devices / temporary horizontal flexible anchor lines to EN 795:2012 Type C.

In this case, note and follow the user instructions of the respective temporary system!



Possibilities of simultaneous use		
	Attaching the safety system	Attaching the suspension system
single anchor point (Application I resp. II)	X	-
	-	X
Start-, end- and corner anchor in rope-system LUX-top® FSE 2003 (Application III)	X	-
intermediate anchor in rope -system LUX-top® FSE 2003 (Application III)	X (to stainless steel rope)	X (directly to Abseilpunkt)
combined with temporary horizontal anchor devices (Application IV)	X	-

X = permitted

Maintenance, care and testing:

Before each use, the user must check the system for integrity (see safety instructions).

The owner/operator is obligated to ensure that the anchor device is in perfect and flawless condition at all times. It is therefore recommended, as needed, but at least every 12 months (e.g., within the general roof maintenance), to have the anchor device inspected by one of ST QUADRAT Fall Protection S.A. trained and certified experts.*)

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

The checklist also given in the appendix can be used as an aid.

Loading of the system with any test loads for the purpose of testing is not permitted on the structure!

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

The date of the next scheduled inspection must always be entered on the inspection log card.

Prevent contact between the stainless steel parts of the anchor device and "black" steel (including in the form of grinding dust), as well as chemicals and other aggressive substances as it could lead to corrosion.

The **LUX-top[®] RGD** anchor device is permanently weather-resistant.

Depending on the use conditions, the anchor device must be cleaned occasionally with warm water.

Never use aggressive cleaning products or chemicals!

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 resold to another country, for purposes of user safety, the reseller must provide instructions for use, maintenance, periodic inspections and repairs in the language of the respective country.

*) **Note:** According to the German DGUV regulation 112-198 before anchor devices, which are permanently mounted on a building or structure can be used, it must be ensured that the last professional inspection is not older than one year, if shorter inspection intervals are not specified due to the prevailing operating conditions.

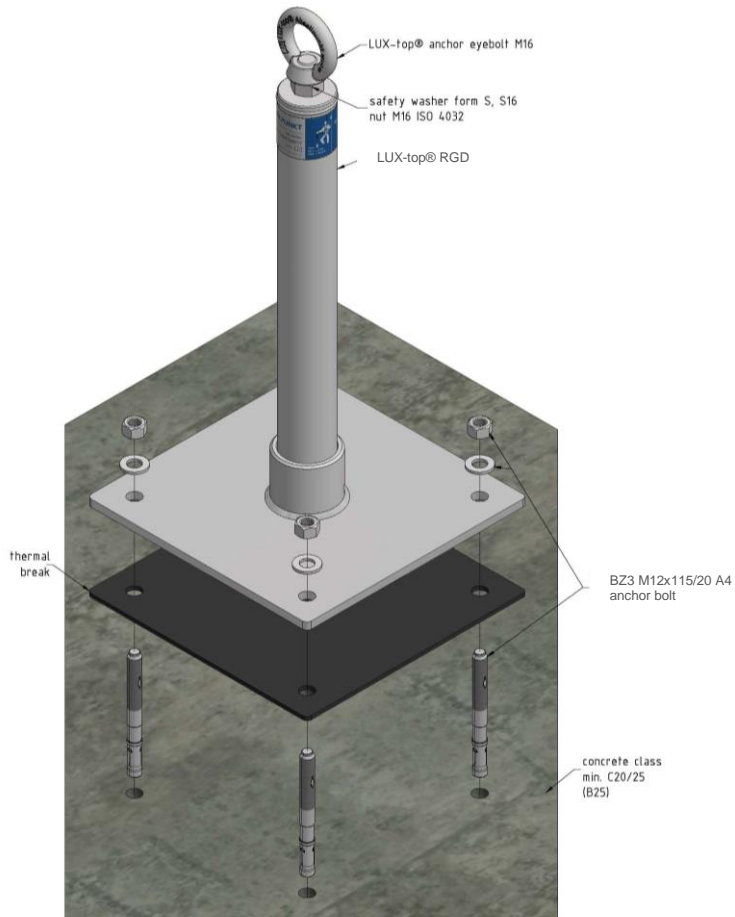
Installation Instructions LUX-top® RGD - Concrete:

Foreword:

Before installing the anchor construction the load-bearing capacity of the roofstructure must be ascertained. Technical building regulations must be observed. Only original parts of the anchor point system must be used.

Approved fixing surface:

Concrete components - minimum concrete class C20/25



Anchor bolt	BZ3 M12x115/20 A4
Drill hole-Ø [mm]	12
Min. drilling depth / depth of anchoring into concrete [mm]	90 / 70
Tightening torque [Nm]	55
Min. component thickness [mm]	120
Min. edge distance anchor bolt [mm]	220

1. Position anchor point parallel to the roof edge at the intended location.
2. Mark drill holes. The base plate can be used as a template for this purpose.
3. Drill the holes. The holes have to be cleaned thoroughly (brushing and blowing)!
4. Drive in the concrete anchor bolts and tighten them with the torque given above.
Use a torque wrench.

The anchor eyebolt must be secured against untwisting after completion of the construction work by tightening it against the counter nut until the safety washer lies flat! Please make sure that the external thread of the rod is flush with the anchor eyebolt.

An installation documentation has to be made (www.quick-doku.eu)!

Installation Instructions

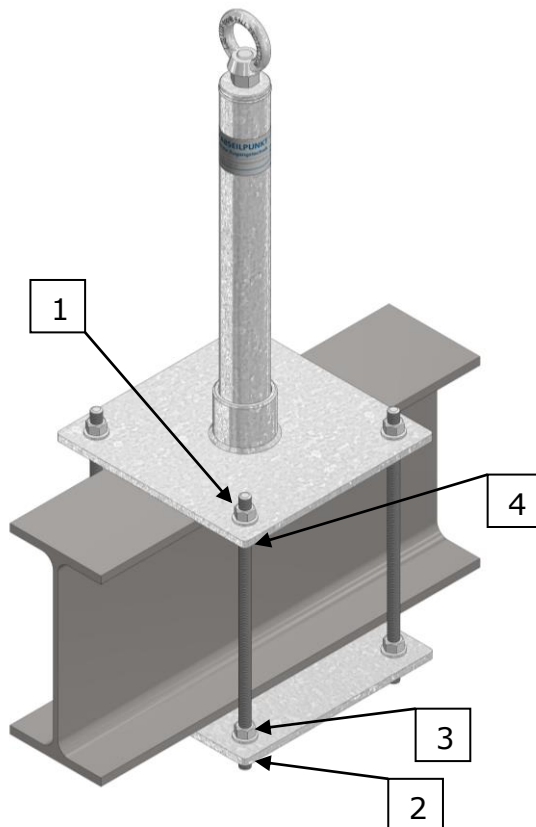
LUX-top® RGD – Counter-plate:

Foreword:

Before installing the anchor construction the load-bearing capacity of the roofstructure must be ascertained. Technical building regulations must be observed. Only original parts of the anchor point system must be used.

Approved fixing surface:

Sufficiently load-bearing and pressure-resistant components



Installation data:

Baseplate dimensions [mm]	250 x 250 x 8 mm (Max. fixation width = 150 mm)
Fixation material	4 x threaded rod M12 + accessories (nuts + washers) A.T.B.R. min. A2-70
Tightening torque	M12: 56 Nm (thread clean + greaseless)
Min. component thickness [mm]	A.T.B.R.
Min. edge distance [mm]	A.T.B.R.

A.T.B.R. = according to technical building regulations.

1. Position anchor point at the desired position.
2. Feed the supplied thread rods, with affixed nuts and washers, through the base plate.
3. Loosely install all washers, hexagon nuts and counter plate.
4. Tighten all hexagon nuts in the order 1 - 2 - 3 - 4 (see figure).
5. Tighten outer nuts with corresponding torque. Tighten inner nuts to counter.

The anchor eyebolt must be secured against untwisting after completion of the construction work by tightening it against the counter nut until the safety washer lies flat! Please make sure that the external thread of the rod is flush with the anchor eyebolt.

An installation documentation has to be made (www.quick-doku.eu)!






LUX-top® RGD

STANDARDS

LUX-top® RGD was tested and certified according to DIN EN 795:2012 Type A + CEN/TS16415:2017

SYMBOLS AND MARKINGS

A label must be attached and must contain the following information:

- Type Designation: **LUX-top® RGD**
- Number of the corresponding standard: **DIN EN 795:2012 Typ A + CEN/TS16415:2017**
- Name or logo of the producer / reseller: 
- Manufacturer's serial number / year made: **XXXXXX/20XX**
- Max. allowable number of users (as pure anchor point): **MAX** 
- Max. allowable number of users (as descent point): **MAX** 
- Symbol, indicating that the user instructions must be noted and followed: 
- CE-Zeichen mit Kennung der notifizierten Stelle: 



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

If the label is no longer accessible following installation, it is advisable to attach additional labelling near the anchor device!

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

Certification body used for the Type Examination:
DEKRA Testing and Certification - Dinnendahlstraße 9, D -44809 Bochum

Leistungserklärung

Nr.: RGD_101402

1. Kenncode d. Produkttyps: **LUX-top[®] RGD (Abseilpunkt) 101402**
2. Verwendungszweck: **Anschlageinrichtung zum Anschlagen d. Persönlichen Schutzausrüstung gegen Absturz von in der Höhe arbeitenden Anwendern. Vorgesehen zur Befestigung auf Flachdächern oder anderen ebenen Flächen, die aus Beton bestehen.**
3. Hersteller: **ST QUADRAT Fall Protection S.A.
45, rue Fuert
L-5410 BEYREN
LUXEMBURG**
4. Bevollmächtigter: **Nicht relevant**
5. System zur Bewertung und Überprüfung der Leistungsbeständigkeit: **System 1+**
6. b) Europäisches Bewertungsdokument: **EAD 331072-00-0601**
Europäische Technische Bewertung: **ETA-20/0601**
Technische Bewertungsstelle: **Deutsches Institut für Bautechnik**
Notifizierte Stelle: **Karlsruher Institut für Technologie
Versuchsanstalt für Stahl, Holz und Steine
Kaiserstraße 12
76131 Karlsruhe
Deutschland
(Kenn-Nr.: 0769)**
7. Erklärte Leistung(en):

Wesentliche Merkmale	Leistung	Harmonisierte technische Spezifikation
Brandverhalten	Klasse A1	Europäisches Bewertungsdokument EAD 331072-00-0601
Statische Belastung	$F_{R,d} = 13,2$ kN (transversal)	
Dynamische Belastung	max. Anzahl Nutzer = 3	
Überprüfung der Verformungsfähigkeit im Fall von Zwangskräften	Verformungskapazität bei 0,70 kN: 0,4 mm bei max. Bauhöhe 700 mm (keine Leistungsbewertung für geringere Bauhöhen)	Europäische Technische Bewertung ETA-20/0601
Dauerhaftigkeit	NPD Keine Leistung bewertet	

Die Leistung des vorstehenden Produkts entspricht der erklärten Leistung/den erklärten Leistungen. Für die Erstellung der Leistungserklärung im Einklang mit der Verordnung (EU) Nr. 305/2011 ist allein der obengenannte Hersteller verantwortlich.

Unterzeichnet für den Hersteller und im Namen des Herstellers von:

Martin Binder

Beyren, den 25.10.2023

Installation documentation for **LUX-top**[®] anchor devices

Object Data

Building/Construction

Street/Zip Code/City

Installation Company

Company

Street/Zip Code/City

Contact person/Phone

Installer

Details for the anchor point and fixing surface

Type/Model/ Overall height

Production year/Serial No.

No. on site sketch

Fixing surface/Construction material

Structural member/Element dimensions

Structural member/Element dimensions

Date of completion

Roof layout/Site sketch (use additional sheet if necessary)

Confirmations by the installation company

- The LUX-top[®] anchor devices were installed by a qualified person according to the installation instructions and guidelines of ST QUADRAT Fall Protection S.A. and, when installed in Germany, in compliance with the national technical approval (aBG) Z-14.9-888
-
- The fixing materials used have been processed according to their manufacturers' guidelines (checking the substrate, proper cleaning of the drillholes, correct tightening torques + distances from edges, etc.)
-
- The installation and use instructions as well as the technical documentation have been handed over to the customer so that they can make them available to the user.
-

(City, date)

(Stamp, signature)

This documentation must be handed over to the building owner.

A detailed installation documentation with pictures can be generated on the website www.quick-doku.eu

This list is available to download from www.lux-top-absturz sicherungen.de

CHECKLIST

for regular inspection of LUX-top[®] anchor devices by a competent person

LUX-top[®] RGD anchor point

1 Corrosion

Is there any visible corrosion on one of the components (bar, footplate, ring bolts, etc.)?

yes, on

no

Can a cause for the corrosion (e.g. chimney nearby) be found?

yes,

no

Is the load-bearing capacity of the anchor device limited?

Yes

no

Is the fixing accessible for examination?

yes

no

If yes, has the fixing been carried out completely and correctly? (if applicable, check tightening torque!)

yes

no

2 Dirt/soiling

Is one of the components dirty (e.g. soiled by bird droppings, moss, algae)?

yes,

no

Does the dirt impair its functionality?

yes,

no

Is it possible to prevent the soiling in future?

yes,

no

3 Appearance

Are the anchor points visibly deformed? (E.g. due to fall load)

yes,

no

On sloped ropes:

Is there any identifiable damage due to snow loads?

yes,

no

Is there any identifiable damage due to lightning strikes?

yes

no

Are there any signs of external effects or tampering?

yes,

no

Is the labelling sticker attached and legible?

yes

no

Are all the components of the anchor point still installed in accordance with the installation instructions and parts list? (e.g. anchor eye, lock washer, lock nut)

yes

no, the following is/are missing:.....

Is the anchor eye secured against turning by locking the lock nut?

yes

no

4 Documentation

Are the user instructions for the anchor point available?

yes

no

Is the installation documentation available and correctly filled out?

yes

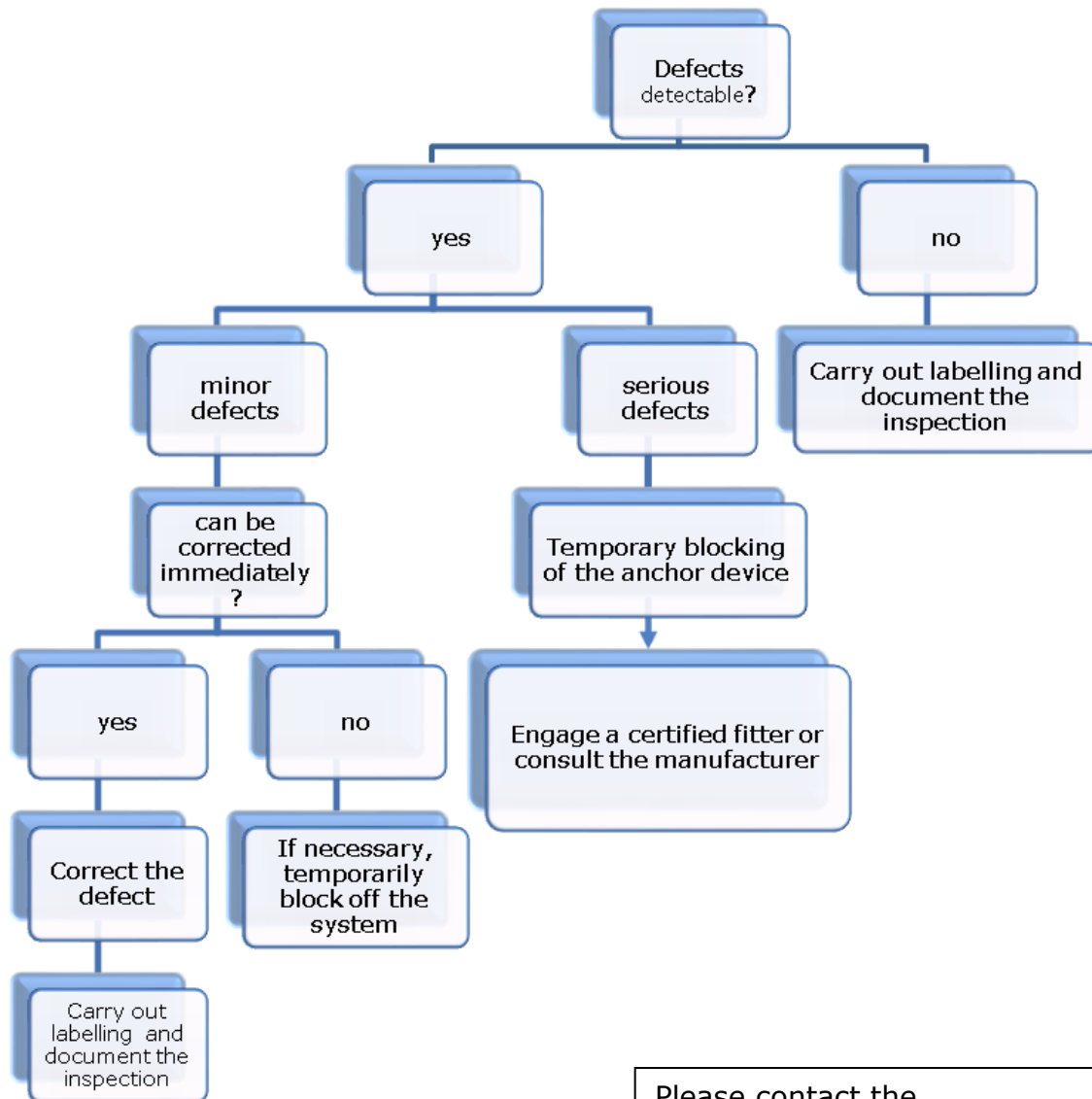
no,

Is the fixing documentation available (if applicable with photos)? Refer to EN 795:2012 (Annex A).

Yes

no,

5 Evaluation of the inspection



Please contact the manufacturer if you are at all unclear or have any questions.

Inspection log card / log book

Anchor device for personal fall protection equipment



LUX-top®

Producer: www.lux-top.com

Type/Model	LUX top® RGD	STANDARD: DIN EN 795:2012 Typ A + CEN/TS16415:2017
Serial number + year of manufacture		
Installation date		
Date of initial putting into service		
Project / property name		
Address of the building owner (user) / customer		

Regular system check, inspection and repair

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

Sketches, information, notes: