



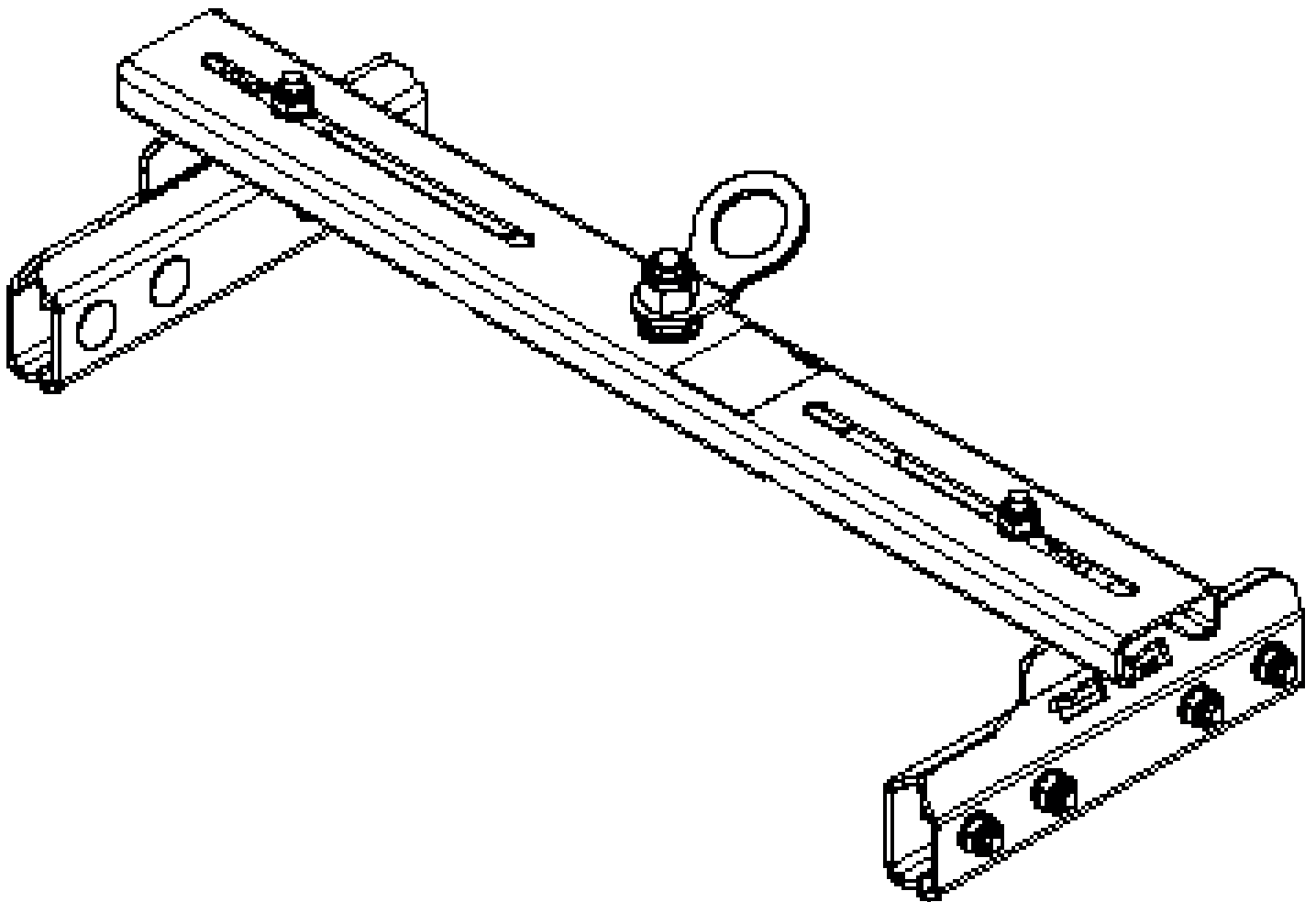
Installation and User Manual

Read the product description carefully



GREEN

INTERNATIONAL



I-KLEMME 250

ENGLISH

V-20.01.20

DE ACHTUNG



Die Montage und die Verwendung der Sicherungseinrichtung ist erst zulässig, nachdem der Monteur und der Anwender die Original Aufbau- und Verwendungsanleitung in der jeweiligen Landessprache gelesen hat.

EN ATTENTION



Assembling and using of the safety product is only allowed after the assembler and user read the original installation and application instruction in his national language.

FR ATTENTION



Le montage et l'utilisation du dispositif de sécurité ne sont autorisés qu'après lecture par le monteur et par l'utilisateur de la notice d'origine de montage et d'utilisation dans la langue du pays concerné.

IT ATTENZIONE



Il montaggio e l'uso del dispositivo di sicurezza è ammesso soltanto dopo che il montatore e l'utente hanno letto le istruzioni per l'installazione e l'uso nella rispettiva lingua nazionale.

ES ATENCIÓN



No está permitido montar ni usar el dispositivo de protección antes de que el montador y el usuario hayan leído las instrucciones de montaje y uso originales en la lengua del respectivo país.

PT ATENÇÃO



A montagem e o emprego do mecanismo de proteção somente serão permitidos, após o montador e o usuário terem lido as instruções de uso originais, no respectivo idioma do país, sobre a montagem e o emprego do mesmo.

NL ATTENTIE



De montage en het gebruik van de veiligheidsinrichting is pas toegestaan, nadat de monteur en de gebruiker de originele montage en gebruikershandleiding in de desbetreffende taal gelezen hebben.

HU FIGYELEM



A biztonsági berendezés felszerelése és használata csak az után megengedett, miután a szerelést végző és a használó személyek a nemzeti nyelvükre lefordított, eredeti használati utasítást elolvasták és megértették.

SL POZOR



Montaža in uporaba varnostnih naprav je dovoljena šele takrat, ko sta monter in uporabnik prebrala originalna navodila za montažo in uporabo v konkretnem jeziku.

CZ POZOR



Montáž a používání zabezpečovacího zařízení jsou povoleny až poté, co si pracovníci provádějící montáž a uživatelé přečetli v příslušném jazyce originální návod k montáži a používání.

TR DİKKAT



Güvenlik tertibatının montajına ve kullanımına, ancak montaj teknisyeni ve kullanıcı, orijinal kurulum ve kullanma talimatını kendi ülke dilinde okuduktan sonra, izin verilir.

NO OBS



Monteringen og anvendelsen av sikkerhetsinnretningene er gyldige først etter at montøren og brukeren har lest den originale oppbygnings- og bruksanvisningen i det tilsvarende landets språk.

SV OBS



Säkerhetsanordningen får inte monteras och användas förrän montören och användaren har läst igenom konstruktionsbeskrivningen och bruksanvisningen i original på resp lands språk.

FI HUOMIO

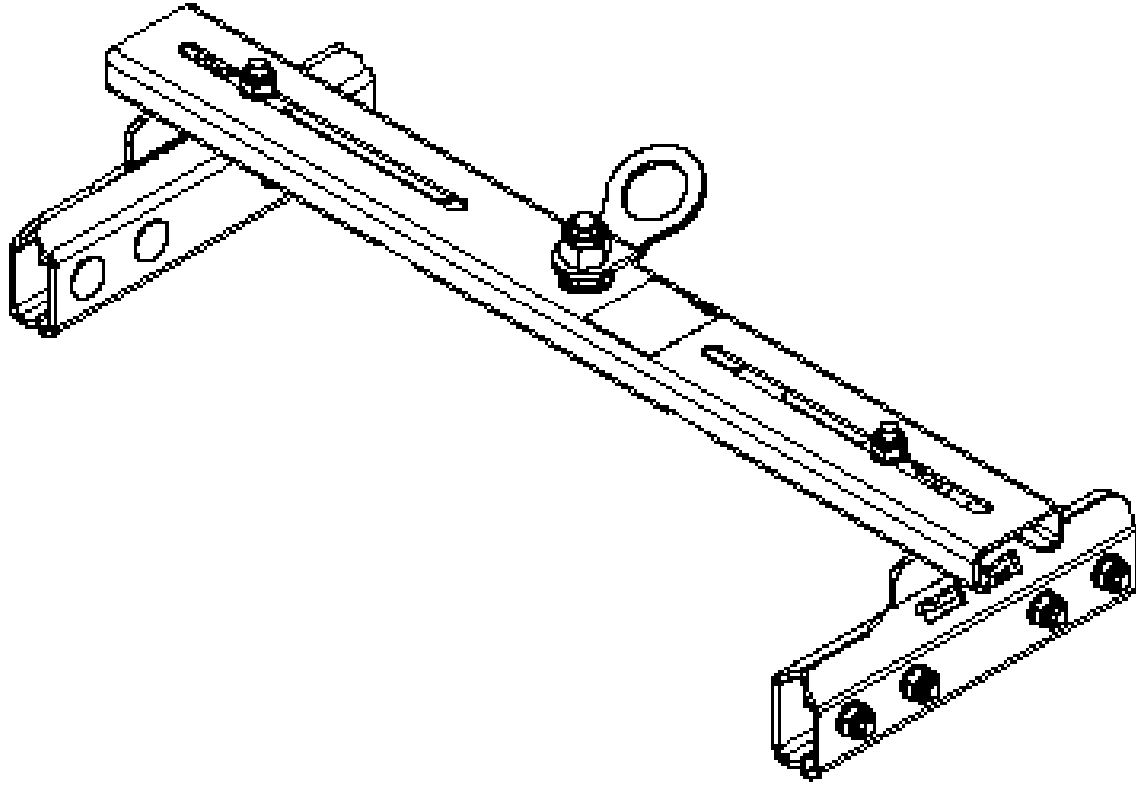


Turvalaitteiden asennus ja käyttö on sallittu vasta, kun asentaja ja käyttäjä ovat lukeneet alkuperäisen asennus- ja käyttöohjeen omalla kielellään.

DA GIV AGT



Montagen og brugen af sikkerhedsudstyret er først tilladt, efter at montøren og brugeren har læst den originale vejledning i samling og brug på det pågældende lands sprog.



PROJECT DATA

SYSTEM DESCRIPTION

INSTALLATION COMPANY

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1. General safety instructions

- The „I-Klemme 250“ anchorage device may only be installed by persons with a proper knowledge of the roof safety system.
- The system may only be installed or used by persons who are familiar with these operating instructions, as well as with the local safety regulations, are physically or mentally healthy and trained on PPE (personal protective equipment).
- Health restrictions (cardiac and circulatory problems, medication intake, alcohol) can affect the safety of the user when working at height.
- The respective accident prevention regulations (e.g.: work on roofs) must be observed during assembly / use of the “I-Klemme 250“ anchorage device.
- There must be a plan covering all rescue measures in all possible emergencies.
- Before commencing work, measures must be taken to ensure that no objects can fall down from the workstation. The area under the workstation (footpath, etc.) is to be kept free.
- The installers must ensure that the subfloor is suitable for the attachment of the anchorage device. In case of doubt, a structural engineer must be consulted.
- The anchorage device on the roof is designed for loading in all directions parallel to the mounting surface.
- If any uncertainties occur during assembly, please contact the manufacturer.
- The proper fastening of the safety system on the structure must be documented in logs and by photos of the respective installation situation.
- Stainless steel must not come into contact with grinding dust or steel tools. This can lead to corrosion.
- All stainless steel bolts must be greased with a suitable lubricant before assembly.
- The anchorage point should be planned, installed and used so that falling over the edge is not possible with appropriate use of personal protective equipment.
- When accessing the roof securing system, the positions of the anchorage devices (e.g.: sketch of roof top view) are to be documented in design plans.
- The minimum clearance from the falling edge to the ground is calculated as:
 - manufacturer specification of the personal protective equipment to be used, incl. rope deflection
 - + body size
 - + 1-m safety margin.
- In case of a fall of a person secured to the anchorage device, the ensuing deformation of the anchorage device must be considered (up to 100 mm) at the catch length (the lanyard slip on the body, tearing of the energy absorber and extension of the rope).
- Children and pregnant women should not use the anchorage device.
- The attachment to the “I-Klemme 250“ is always performed with a carabiner to the anchor point and must be used with fastening elements (in accordance with EN 362) and a personal fall protection equipment (e.g. lanyard with shock absorber (max. 6 kN) according to EN 354 and EN 355, guided type fall arrester including a flexible anchor in accordance with EN 353-2 or height security device according to EN 360).
- **Attention!** For horizontal application, only fasteners suited for this purpose and for the corresponding edge designs (sharp edges, trapezoid sheet, steel beam, concrete, etc.) may be used.
- The combination of individual elements of the equipment referred to can cause risks, because the safe functioning of an element can be impaired. (Refer to the respective instructions for use of the other fall-arrest PPE-devices in use!).
- The entire safety system must be checked before use for obvious defects by visual inspection (e.g. loose screw connections, deformations, abrasion, corrosion, defective roof sealing, etc.).
- If there are doubts as to the safety of the security system, it must be inspected by an expert (written documentation).
- The entire safety product must at least once be subjected to an annual inspection by an expert. The inspection by an expert must be documented on the provided control sheet.
- After a fall event, the further use of the entire system is to be avoided and must be checked by an expert. (Component parts, fastening to the ground, etc.).
- The “I-Klemme 250“ was developed for personal safety and may not be used for other purposes. Never attach undefined loads to the restraint system.
- The “I-Klemme“ system is not suitable for rope-assisted work and for rescue purposes.
- If wind speeds exceed the usual measure, stop using restraints systems.
- After strong storms the tin roof (flooring) should be checked for damage prior to further use of the system.
- Do not make any changes to the approved anchorage device.
- For sloping roofs, roof avalanches (ice, snow) must be prevented by suitable devices to intercept snow.
- If you provide the safety system to external contractors, the instructions for assembly and use are to be provided in writing
- Attention: Snow clearance at the facility required due to snow pressure load.

2. Technical specifications „I-Klemme 250“

Anchorage device „I-Klemme 250“:

Suitable for round seam roofing (e.g. Kal-Zip, Bemo) lock and double standing seam roofing for seam widths of min. 320 mm to max. 640 mm

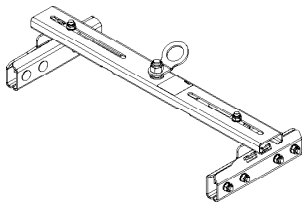
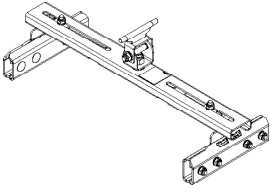
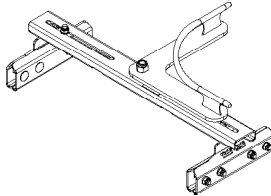
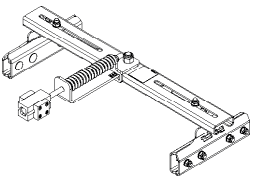
Material:

Clamps and mounting rail VA (A2)

Fasteners: VA (A2)

Possible plastic deflection during a collecting operation: 100 mm

The anchorage device is not suitable for a rope-supported work.

Single anchorage point (Art. 4947 00 00)	Construction types for Greenline - rope system (Art. 4850 62 00)		
	<p>Intermediate holder</p> 	<p>Corner holder</p> 	<p>End holder</p> 

2.1. Identification

The marking on the clamp mounting rail above.

Certification:

I-Klemme 250 has been tested and certified according to DIN EN 795: 2012

Type A + C + CEN / TS 16415: 2013 Type A + C

The test was carried out statically and dynamically at the respective original background.

I - Klemme 250

CE 0123

Attachment according to EN 795-2012 - Type A + C and CEN / TS 16415
Anti-fall protection system made of stainless steel A2
Batch number: XXXXXX

As a single point of contact permitted for max. 2 persons.
Caution: The point of attachment is plastically deformable!
Only CE-compliant and type-tested PSA with shock absorbers (EN355) may be used for the protection against falling.

ATTENTION! Before assembly and use, read the set - up and use instructions!

3. Construction and assembly

Prerequisite for the use of the anchorage device is a roofing that conforms to the standards, a static bearing substructure and the use of the original fastener suitable for the roof profile.

For coated sheets, the coating must not be damaged during assembly!

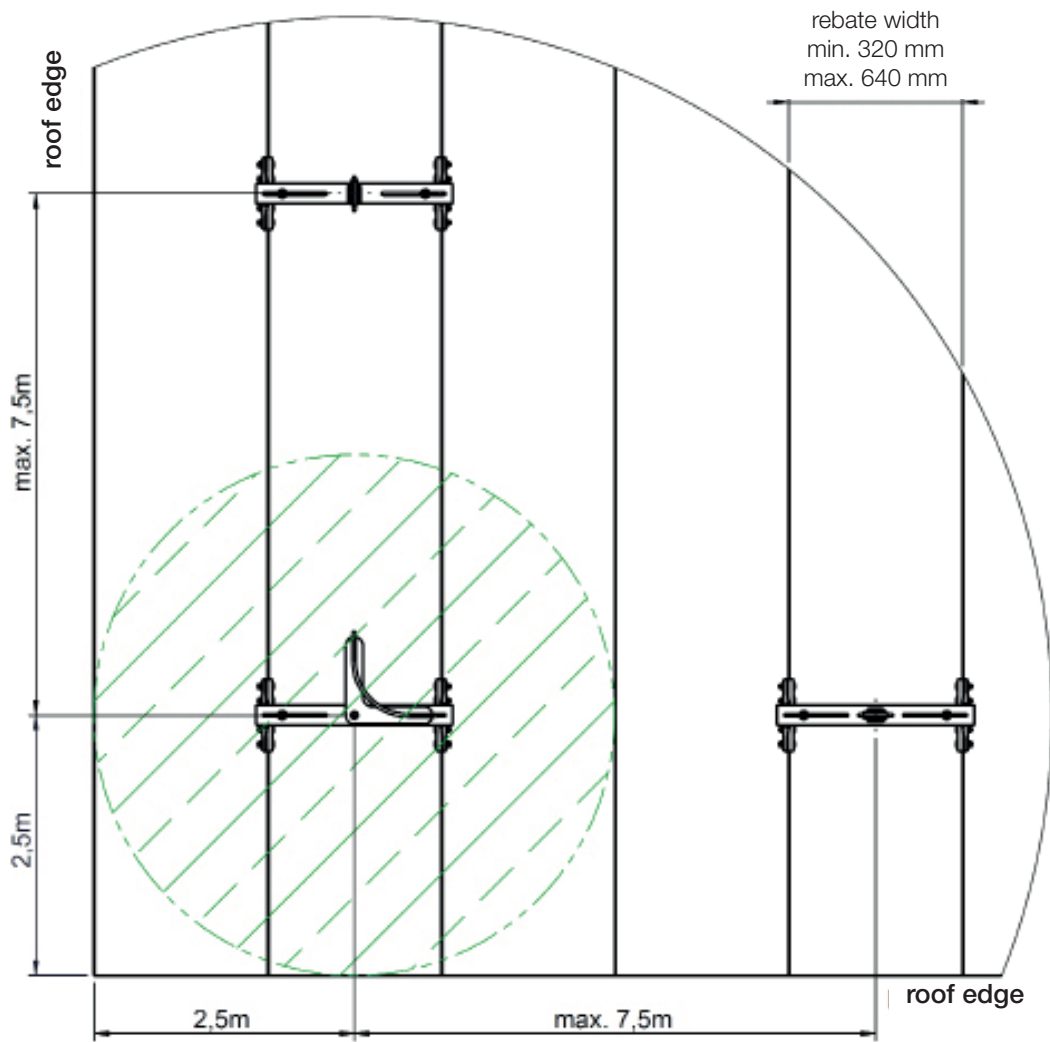
The thermally induced change in length of the coating must not be hindered in principle.

For some roofs made of profile roofing sheets, make sure that the clamp is not mounted on or adjacent to the seams in the sliding area of the tracks (e.g. round seam, RipRoof Evo., etc.).

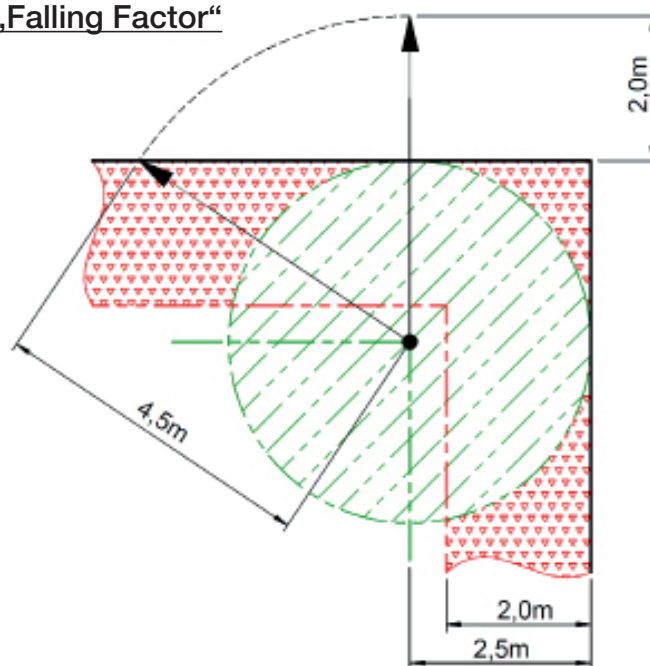
Recommended tool: Torque wrench 15 Nm, wrenchSW17 + SW24

The single anchorage point must be positioned so that in case of a fall over the edge, a maximum fall factor 1 (= max. 2 m) occurs. -> See the sketch „Fall factor“

Position plan „roof“



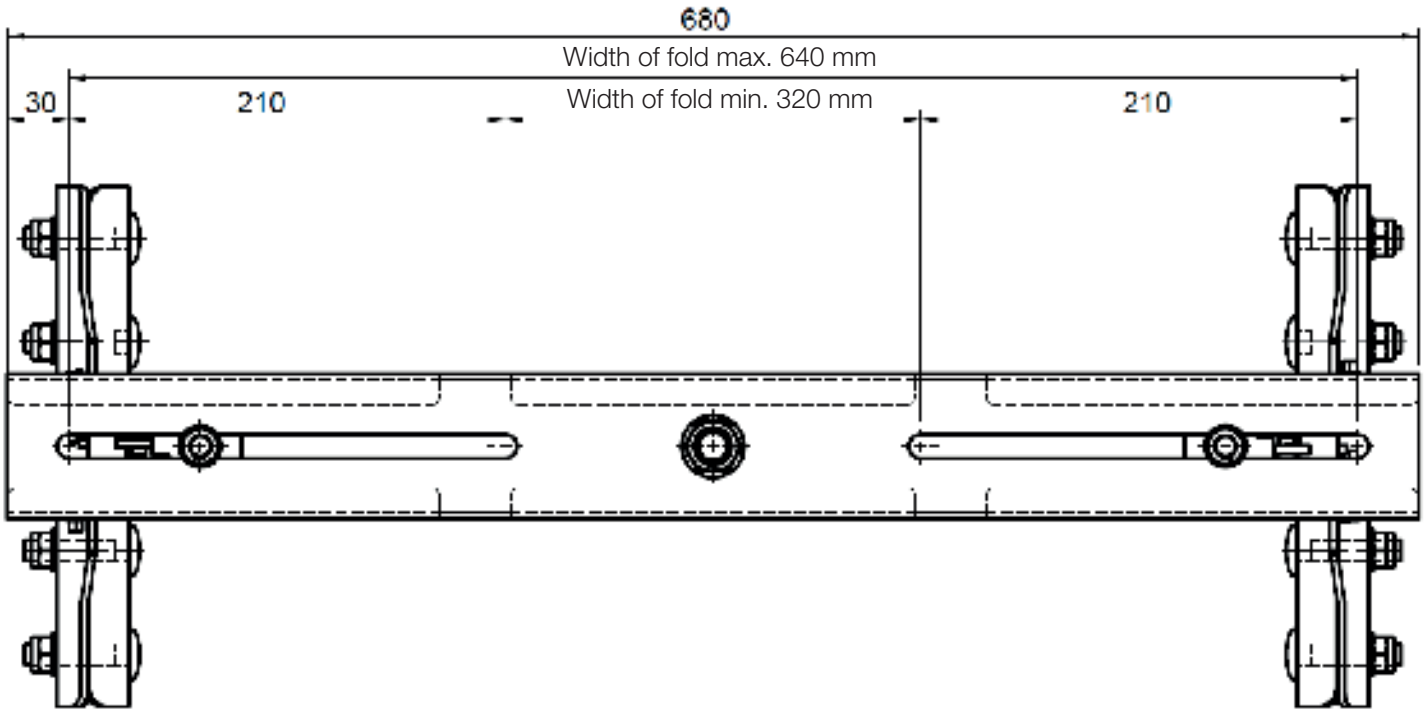
Plan „Falling Factor“



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3.1. Installation on round seam and double standing seam roofs

The installation of the anchorage device is performed with a minimum distance of 2.5 m to the roof edge. The intermediate distances of each anchorage device may amount to 6.0 m when used as an anchorage construction. The deviation from the horizontal may amount to max. 15°. The anchorage device may be attached only to seamed roofing made of titanium zinc, aluminum, stainless steel and Al-Zn coated steel sheets of the respective manufacturer, while an attachment to a band width between 320 mm to 640 mm is possible.



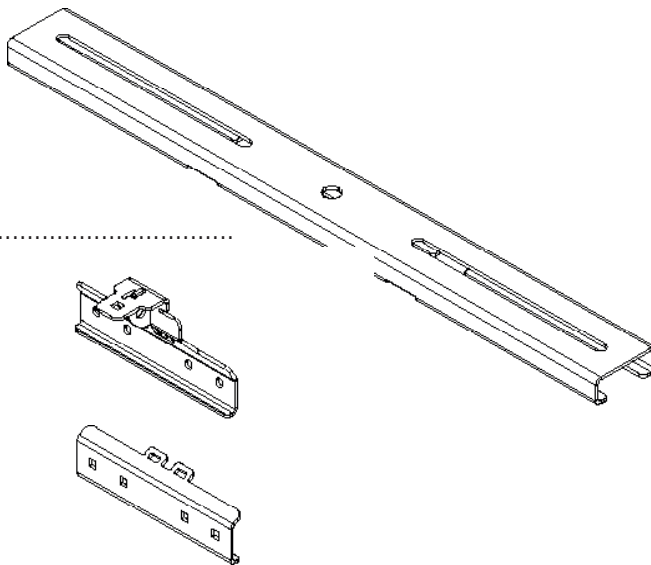
3.2. Construction / Assembly

1 pc. Clamp fastening rail.....

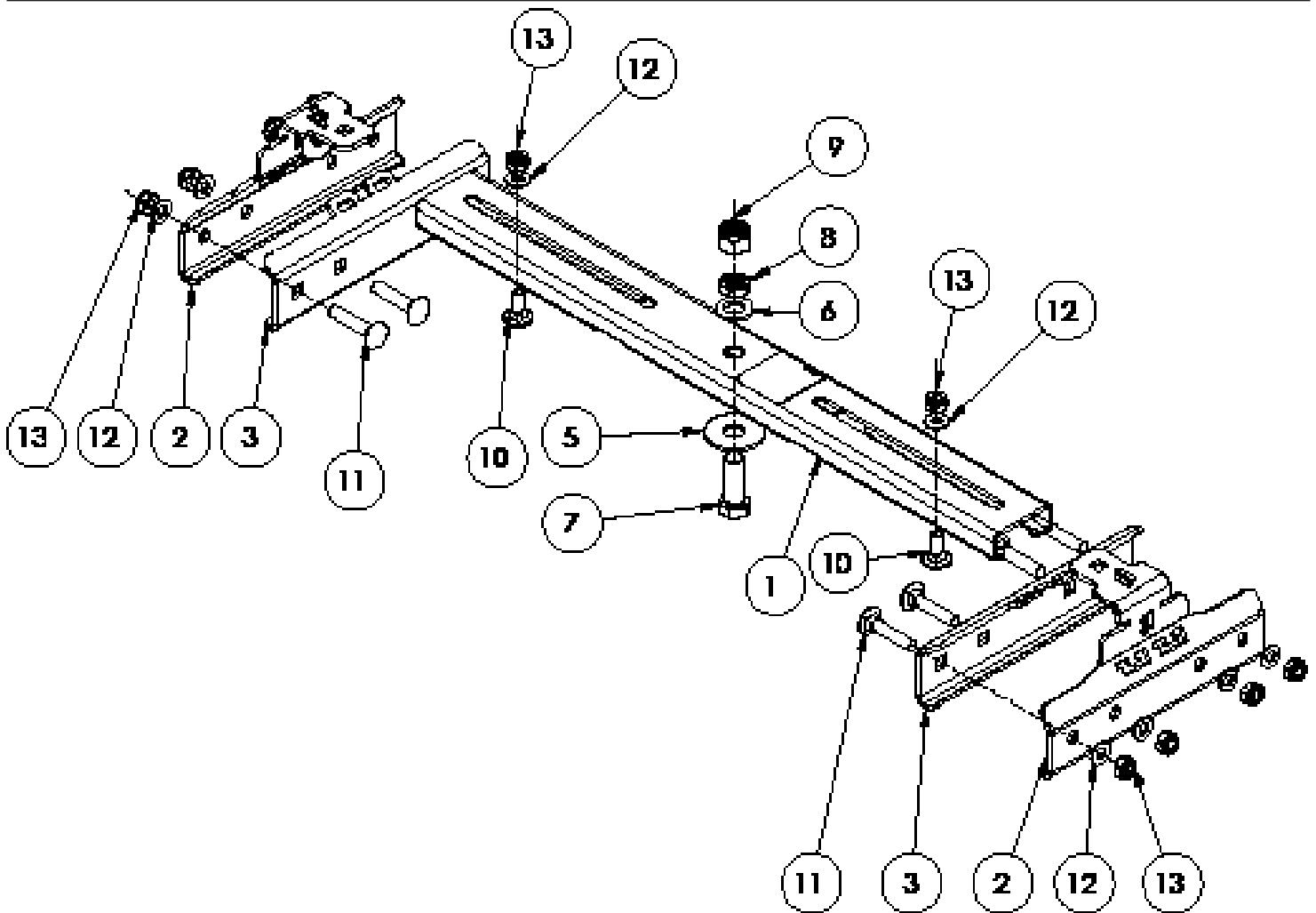
2 pcs. Clamps half inside.....

2 pcs. Clamping half external.....

1 set of fastening material (screws, washers)



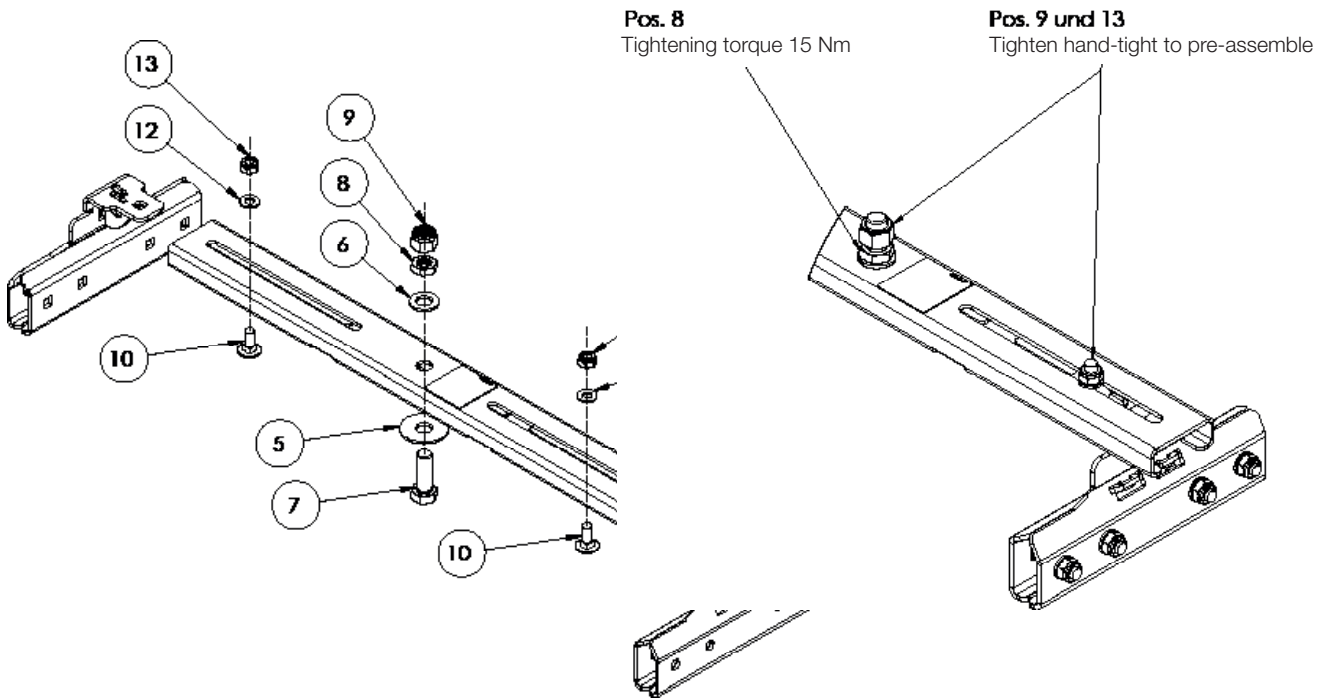
3.3. Overview - Assembly components



Pos.	St.	Designation
1	1	Clamp and mounting rail
2	2	Clamping half external
3	2	Clamping half inside
5	1	Washer 17 - 50 / 17 x 3
6	1	Washer A17
7	1	Hex bolt M16 x 45 mm
8	1	Hex nut M16 - niedrige Form
9	1	Locknut M16
10	2	Carriage bolt M10 x 25 mm
11	8	Carriage bolt M10 x 50 mm
12	10	Washer A10,5
13	10	Locknut M10

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3.4. Assembly steps

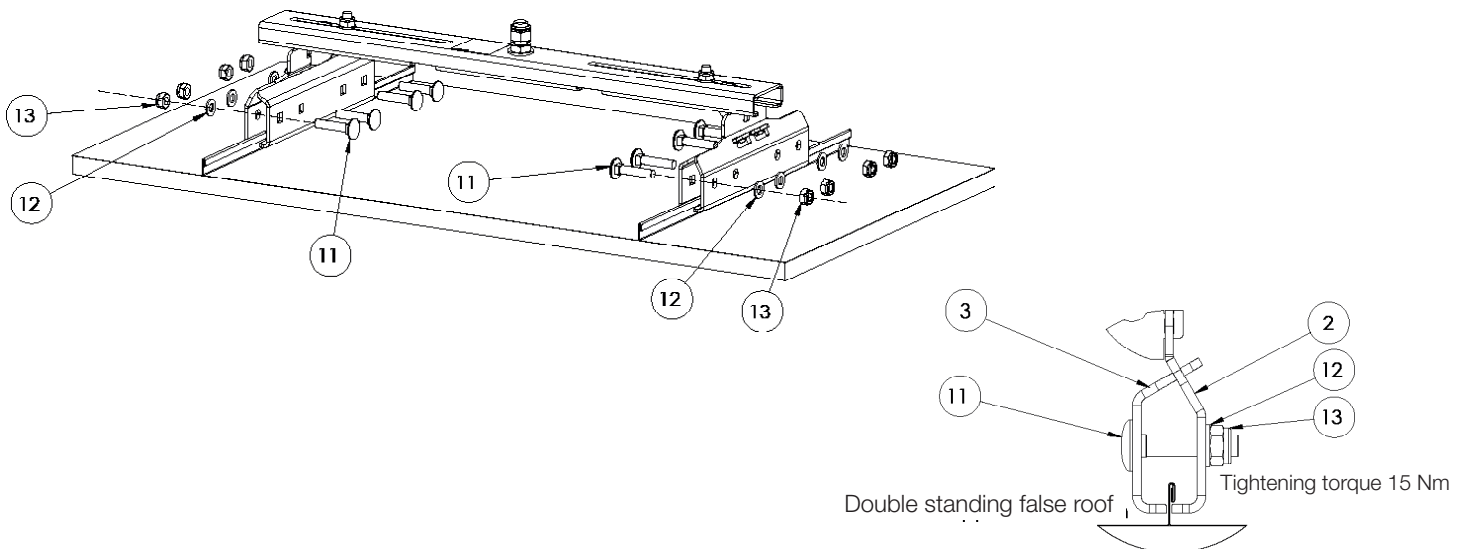


Install the pre-assembled anchorage device with the mounting rail (item 1) and the two clamp halves (items 2/3) on the profile panel from above (see position sketch „roof“ on page 6). Depending on the seam dimensions, it may be appropriate for placement or installation width setting of the clamp halves to dismantle the inner shells (item 3).

The central alignment of the anchorage device to the seam must be respected. Here, the safety distances to the roof edge (falling edge) must be observed! (see chap. 3)

Subsequently, tighten the 8 screws and self-locking nuts (items 11 + 13) evenly with a torque of max 15 Nm, ensuring the uniform seating and alignment of the two seam clamps.

After securing the two clamp halves on the seam tops, tighten the 2 screw connections (items 10 + 13) of the installation width setting with a torque of 15 Nm.



4. Mounting point (eyelet)

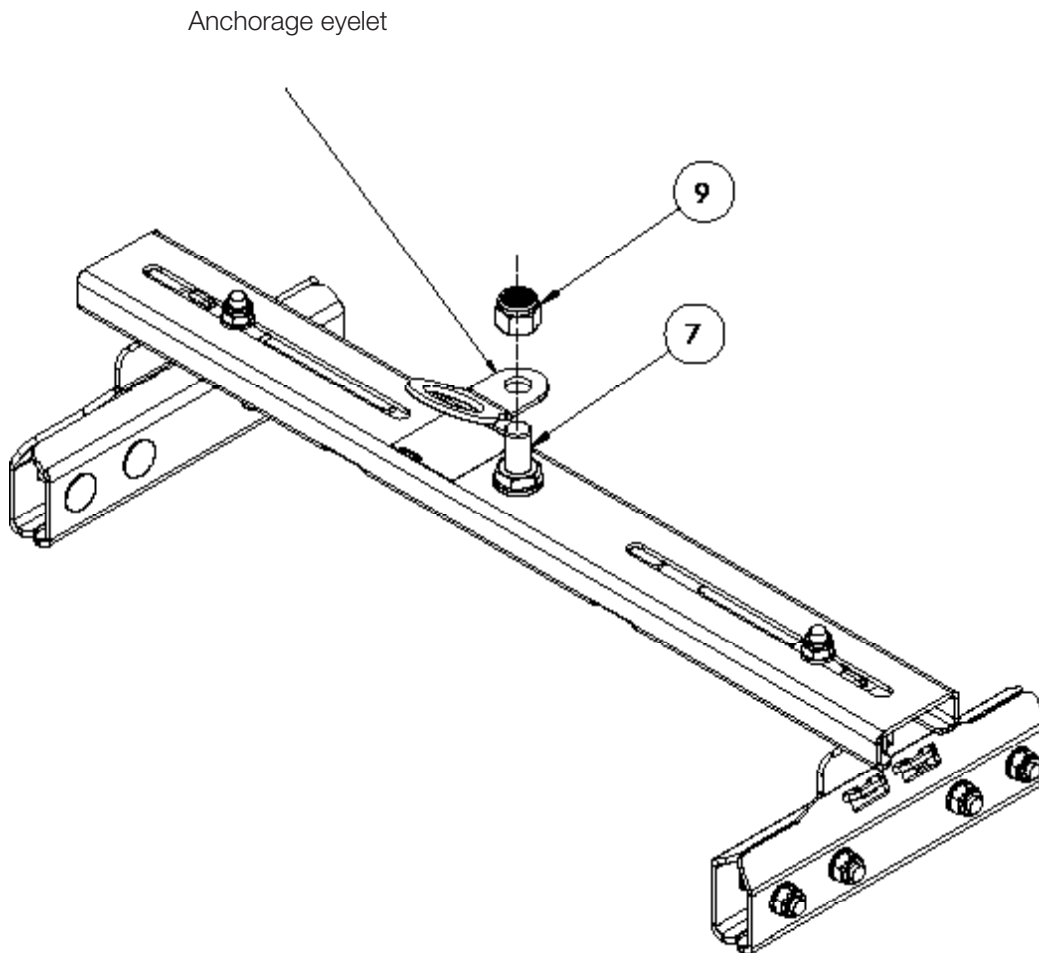
After the installation work, all screw connections of "I-Klemme 250" must be checked for the proper tightening torque of 15 Nm. (Screw connections M10 = tightening torque 15 Nm)

Anbau Anchorage eyelet

The anchorage eyelet is rotatable in all directions after mounting. This prevents looping of the safety rope. The anchorage eyelet must always be used in conjunction with a carabiner.

Install the anchorage eyelet after assembly of the "I-Klemme 250" on the M16 bolt (item 7) and fasten with the lock nut M16 (item 9).

After fastening, turn the lock nut back a quarter (90°-turn), so that a free 360° rotation about the mounting axis of the anchorage is ensured.



Components for a rope system according to EN 795 Kl. C should be installed only by authorized installers! Only the fastening material supplied by GREEN International Absturzsicherungs GmbH may be used! Individual items may not be replaced!

5. Accessories

Connection safety rope „HA 4“ 16 mm Ø with spliced carabiner hook and rope shortener / shock absorber and 1 free-range carabiner hook, 13-m-long	Item No. 4600 16 10
Connection safety rope „HA 4“ 16 mm Ø, design as before, however, 2 free-range hooks, 16-m-long	Item No. 4600 17 10
Connection safety rope 16 mm Ø, design as before, however, 2 free-range hooks, 23-m-long	Item No. 4600 18 10
Storage case with handle and snap locks For the safety harness	Item No. 4289 00 00
Rope container cabinet from painted steel sheets with door and lock for wall mounting indoors	Item No. 4288 00 00

5.1. Accessories - Personal Protective Equipment

Stop - Safety rope 11 mm (EN 353-2) ø with shock absorber and carabiner hook, 5-m-long	Item No. 4600 55 10
Stop - Safety rope 11 mm ø (EN 353-2) with shock absorber and carabiner hook, 10-m-long	Item No. 4600 56 10
Stop - Safety rope 11 mm ø (EN 353-2) with shock absorber and carabiner hook, 15-m-long	Item No. 4600 57 10
Safety harness according to DIN EN 361 with adjustable shoulder straps	Item No. 4293 50 00

6. Instruction manual for the rope system - „I-Klemme 250“ (non dri vable)

- The flat roof anchorage device “I-Klemme 250” may only be used with the horizontally movable guides from the company GREEN International Absturzsicherungs GmbH. Here, the user must be equipped with an instrument which limits the maximum dynamic forces to a maximum of 6 kN during an anchoring process.
- The “I-Klemme 250” can be used as a single anchorage point or as a receiving structure of the cable guide of a Class C anchorage structure.
- The forces routed into the anchorage point initiated by the anchorage point or anchorage construction in case of fall are to be managed on site.
- When using the “I-Klemme 250”, a force of 10 kN can be initiated in parallel to the mounting surface in the constructional structure during an anchorage process.
- In the area of the fall edge it must be ensured that the total required distance below the user is at least 3 m plus the required height headroom of the ailing suspension system according to the instructions. Avoid allowable stress of the components due to sharp edges (roof edge etc).
- The horizontal movable guide (connection security rope) consists of a largely weather-proof rope (available in lengths: 13 m, 16 m and 23 m) with spliced carabiner hooks, 2 loosely guided carabiner hooks and rope shortners. Personal fall protection equipment (safety rope, harness and fasteners) shall always be stored at a dry place after use, for example in the storage case or rope container cabinet.
- Before using the safety device, the anchorage device (post) and the attached suspension or holding system must be verified by visual inspection for proper functioning and damage. Damaged parts or those involved in a fall may not be used and must be replaced with original parts.
- The documents supplied with the system (control sheet) are to be filled in and stored together with the not permanently installed parts of equipment in a safe place (e.g. rope cabinet).
- The horizontal movable guide (temporary connecting rope) is fastened between 2 to 4 “I-Klemme 250” anchorage devices with the fasteners located on the guide and tensioned by the rope shortener. At the horizontally movable guide, the craftsman can hang his suspension or support system. It should be noted that the existing carabiner hooks are locked as intended.
- The horizontally movable guide (connecting rope) is always guided parallel to the roof edge and must not be stretched around corners. At each corner it must be re-connected.
- The anchorages on the GREEN “I-Klemme 250” anchorage point / anchorage construction may only be used with safety harness according to DIN EN 361, fall absorber in accordance with DIN EN 355 and fasteners in accordance with DIN EN 354 as fall protection in accordance with the instructions of the respective manufacturer. The fasteners according to DIN EN 354 must be provided with length adjustment. The opening of the carabiner hook must be more than 16 mm.
- If the possibility of falling is excluded, the anchorage device can also be used with a support system according to DIN EN 358. The information in the corresponding operating instructions are to be considered.
- When using a support system, the fasteners shall be set so long that a fall of the person to be secured is not possible.
- Unauthorized use of “I-Klemme 250” anchorage device is not allowed (e.g. anchorage of lifting tools, etc.).
- The anchorage device may be used only by trained or otherwise competent persons.
- The entire safety product must at least once be subjected to an annual inspection by an expert.

BG rules

The rules for the “use of personal protective equipment against falls”, BGR 198 must be observed! The inspection by an expert must be documented on the provided control sheet. It should be noted that in case of missing or incomplete documentation, claims for compensation of any kind are excluded.

The GREEN „I-Klemme 250“ anchoring point or anchoring construction shall be used exclusively for personal safety and may only be used in accordance with the instructions for use.

Before and during use is to consider how safe and effective rescue operations under the local conditions can be carried out.

7. General notes

7.1. Personal Protective Equipment

Check harnesses, fall absorbers and carabiner hooks before each use (for damage). Do not use the anchorage device if there are doubts about its safe condition. The anchorage device must be checked by an expert or the manufacturer immediately and replaced if necessary. Any anchorage device that experienced a fall case must be taken out of service and replaced by a qualified person or the manufacturer.

7.2. Using the system

When using the anchorage device, it must be ensured that the slings are not exposed to fire or other heat sources. This leads to the immediate destruction of the slings. Furthermore, scraping or slipping over sharp edges should be avoided.

Run a visual inspection before using the system. Check the system for signs of damage, breakage or excessive wear or damaged holders.

During use, secure conditions must be ensured (no trip hazards, etc.)

The system must not be used if the personal protective equipment cannot be connected fully to the system.

7.3. Cleaning of the equipment

Depending on the conditions, the horizontally movable guide (connection cable) must be cleaned occasionally with a brush, warm water and dishwashing detergent.

Although the system is largely weatherproof, contact with acids, bitumen, cement, chloride, paint or aggressive cleaning fluids should be avoided.

Never use aggressive detergents or chemicals!

7.4. Maximum service life

The maximum service life of the anchorage device for occasional and appropriate use without obvious wear and optimum conditions is 20 years from the date of first use.

The service life depends substantially on the type of application and frequency. In extreme cases, the PPE can be damaged already during the first use to an extent that it should be taken out of service immediately.

For this reason, a review of the PPE before and after each use is imperative!

8. Registered notified body



TÜV SÜD Product Service GmbH

Ridlerstrasse 65

D – 80339 München

No.: CE 0123

9. Mounting element „I-Klemme 250“

For roof access (system access), this notice by the owner shall be placed and be clearly visible:

NOTES ON THE EXISTING ROOF SAFETY SYSTEM

The use is restricted to adhering to the assembly and use instructions.

Depository of assembly and use instructions, test records, etc. is:

- Overview diagram showing the position of the anchorage devices:



- Manufacturer and system name: GREEN „I-Klemme 250“
- Date of last audit: _____
- Highest number of persons to be protected: 2 persons
- Need for energy absorbers yes
- The minimum clearance from the falling edge to the ground is calculated as:
Manufacturer specification of the personal protective equipment to be used,
incl. rope deflection
+ body size
+ 1 m safety margin.

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10. Assembly protocol

BV / Object _____ Location of the equipment: _____

Street, house number

Product: _____

Zip code, city

Client: _____

Contractor: _____

Installation firm: _____

Company name / surname, first name

Company name / surname, first name

Company name / surname, first name

Street, house number

Street, house number

Street, house number

Zip code, city

Zip code, city

Zip code, city

Tel. (office, mobile)

Tel. (office, mobile)

Tel. (office, mobile)

Installation protocol

Date	Location	Anchoring ground (Fully assembled)	Fastening material		Tightening torque

The undersigned installation company assures the correct installation according to manufacturer's data (e.g. checking the sub-structure etc).

Foto - Dokumentation

Date	Location	Photos/ File name

- The client approves the performance of the contractor.
- The assembly and use instructions, installation protocols, photo documentation were made available to the client (building owner) and have to be made available to the user. When accessing the safety system, the positions of the anchorage devices (e.g.: sketch of roof top view) are to be documented by the building owner in design plans.
- **The expert confirmed with mechanic responsible for the safety system that the installation work has been performed properly, according to the current state of technology and according to the assembly and use instructions of the manufacturer. The safety technology reliability is confirmed by the installation firm.**

Remarks: _____

Place, date

Signature of client

Signature of contractor / installer

11. Control card

Performed activities	Identified Defects		Date	Company / name / Expert	Description of defect / Activities	Date of the next scheduled review
	Yes	No				
<p>System review</p> <ul style="list-style-type: none"> No deformation of the individual parts recognizable all screws and connections tight Rope guides undamaged <p>Visual inspection of the attachment points and accessories (fasteners, etc.) by an authorized expert.</p>						

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*** In the event of a fall or in case of doubt, the anchorage device shall be withdrawn immediately from use and sent to the manufacturer or a specialized workshop for inspection and repair. This also applies to damage to the slings.

The document must be completed by the person in charge and kept in a safe place together with the instructions for use (e.g. property management)

When accessing the roof safety system, the positions of the anchorage devices are to be documented in plans (e.g. a sketch of the roof-top view)!



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