

TigaSAFE

ROOF SAFETY SYSTEMS



ASSEMBLY INSTRUCTIONS



TigaSAFE ROPE SYSTEM

Type C according to EN 795 (2012)



Made in **Austria**

TigaTech GmbH

Important assembly instructions

The anchor devices should only be mounted by qualified personnel or qualified companies.

The supplied lugs (eyelets) must be properly mounted on a prop immediately after it has been installed! Otherwise, there is a considerable risk of injury from the support. As soon as a lug (eyelet) has been properly mounted on the prop, it must be used to secure other anchorage devices during assembly!

The assembly must be appropriately checked, e.g., by calculation and testing.

Only the fasteners enclosed by the manufacturer may be used.

The suitability of the material of the fastening elements must be given.

Before mounting, the mounting surface must be checked for its suitability for mounting and the installer must ensure that it can withstand the loads. If there are doubts or no knowledge as to whether the mounting surface meets the load requirements, TigaSafe products must not be mounted or used and, in case of doubt, a structural engineer must be consulted.

If the marking of the anchor device is no longer accessible after installation, an additional marking near the anchor device is recommended.

For type A anchor devices

The deflection of the anchor device and the displacement of the anchor point corresponds to the prop height.

For type C anchor devices

1. The minimum mounting distance between the TigaSafe anchorage points when used as a rope system is 3 m. The maximum mounting distance between the anchor points is 15 m.
2. Warning, Caution! The type C anchor devices must be mounted in such a way that the guide does not come into contact with a sharp edge or any other objects that could damage the guide as a result of its deflection during a fall arrest.
3. The maximum angle at which the guide can enter or exit intermediate fixings or corner anchorages is 10 degrees.
4. Minimum breaking strength of the flexible guide is 36 kN.
5. No use of height safety devices is intended.
6. Only class B or class T fasteners in accordance with EN 362(2008) should be used.
7. The user should be connected to the type C system at all times via the appropriate equipment. If a corner or intermediate anchorage is to be passed, the user should connect to the type C system through a redundant (non-traversable system) belay before the original belay may be removed.
8. In case the safety system is strained, the fall indicator bends or pops out, so that the strain on the TigaSafe impact absorber is immediately recognisable. If this happens, the roof must be closed immediately, and the rope safety system must no longer be used as such.
9. The deflection of the individual anchor points is at least 300 mm, maximum 1000 mm, depending on the prop height and the repositioning of the individual props. When using TigaSafe rope systems, the rope deflection can be up to 4 m. It is, therefore, essential to ensure before each use that there is sufficient clearance below the user and that there is no risk of impact with the ground, protruding building edges or parts, or other objects and obstacles located below the working area. Note that the actual fall arrest distance may vary depending on the height of the user, the displacement of the harness on the body, the rope elongation, and the deflection of the anchor points and, therefore, a sufficient additional safety distance must exist and be taken into account. Therefore, also take appropriate safety precautions.

These assembly instructions and the specified work steps must be followed **without fail!**
The safety regulations and general guidelines must be read and followed carefully before installing the anchor points or the rope system.



The instructions to be followed are shown schematically and explained in writing.
If anything is unclear, please contact our technical department:

TigaTech

Derndorferberg 2, 4501 Neuhausen/Krems, Austria, Tel. +43 7227 21600, Mail: office@tigatech.at

TYPE C TigaSAFE ROPE SYSTEM IN ACCORDANCE WITH EN 795 (2012)

The components of the TigaSAFE rope system

- Type A TigaSAFE props
- Rope: 7x7 / 8 mm thickness or 19x7 / 8 mm thickness
- TS impact absorber FSA
- TS impact absorber FSA I
- TS impact absorber FSA I with force absorber
- TS force absorber
- TS Curve 90° and TS Curver 45° (drive-over system)
- TS intermediate support or TS movable intermediate support (traversable system)
- TS cable glider
- TS Shield
- TS Bracket (non-traversable system)
- TS Rope guide
- TS Angle for impact absorber

Mounting the TigaSAFE rope system

When installing the TigaSAFE rope system, it is essential to ensure that the individual components listed above (start/end supports and/or intermediate supports) are installed in accordance with the TigaSAFE installation instructions.

After the assembly of the initial/end/intermediate supports, an 8mm stainless steel cable 7x7 or 19x7 is tensioned between the supports in accordance with EN 795 by means of two TS interception impact absorbers or by means of an interception impact absorber and a fork terminal.

General requirements

The minimum distance between the TigaSAFE attachment points used for a cable system is 3 m. The maximum distance between the TigaSAFE attachment points used for a cable system is 15 m. The installation instructions for the individual anchor points must always be followed. For anchorage points on trapezoidal sheet metal, which are mounted with rivets as fasteners, a distance of max. 7 m must be observed.

The deflection of the individual attachment points is at least 300 mm, maximum 1000 mm, depending on the prop height and the repositioning of the individual props. When using TigaSAFE cable systems, the cable deflection can be up to 4 m. It is, therefore, essential to ensure before each use that there is sufficient clearance below the user and that impact with the ground, protruding building edges or parts, or other objects and obstacles located below the working area is excluded. Note that the actual fall arrest distance may vary depending on the height of the user, the displacement of the harness on the body, the rope elongation, and the deflection of the anchor points and, therefore, a sufficient additional safety distance must exist and be taken into account. Therefore, also take appropriate safety precautions.

SHOCK ABSORBER TS-FSA

1) Product



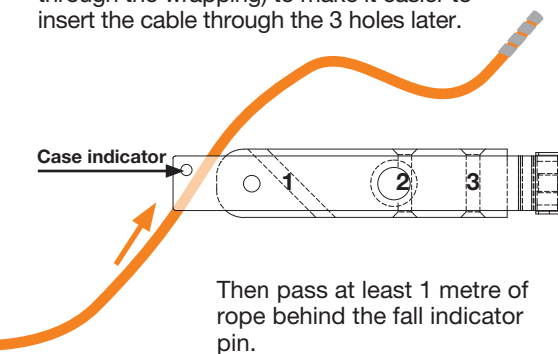
2) Required tools



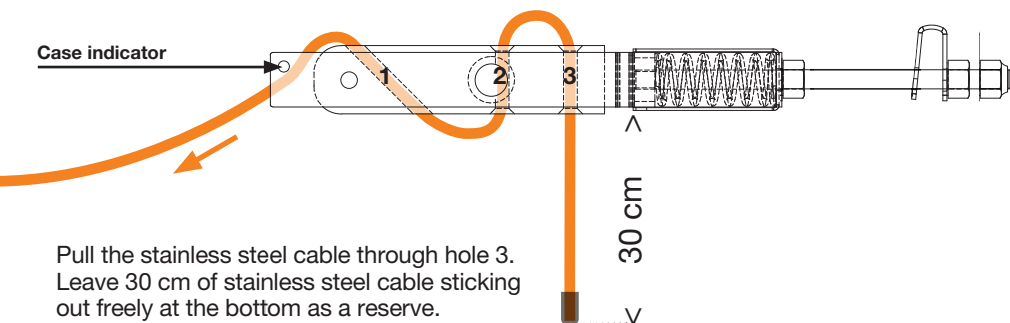
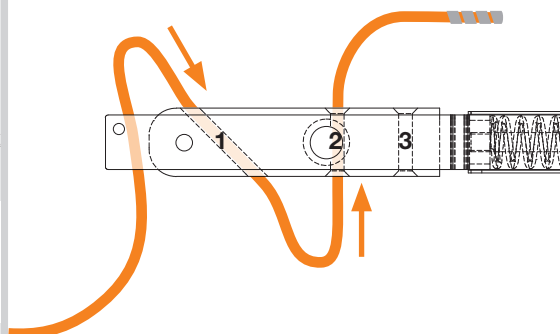
Open-ended ratchet spanner

3) Assembly

Wrap the stainless steel cable with fabric tape (adhesive tape) and cut to length (smooth cut through the wrapping) to make it easier to insert the cable through the 3 holes later.



Pass the rope through hole 1 and hole 2, leaving at least 10 cm long loops as a reserve to allow accurate tensioning.



Pull the stainless steel cable through hole 3. Leave 30 cm of stainless steel cable sticking out freely at the bottom as a reserve.

Then pull the rope back tightly.

Then put on the plastic cap supplied.

For fixing on support,
see in section:

Mounting on support and clamping

FANG SHOCK ABSORBER TS-FSA I

1) Product



2) Required tools



19 mm

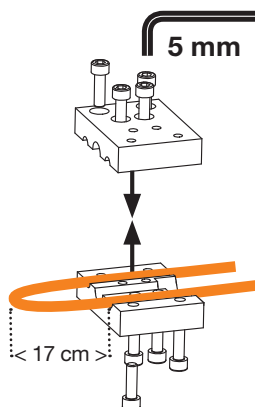
Open-ended ratchet spanner



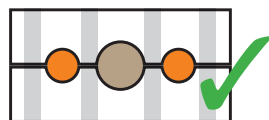
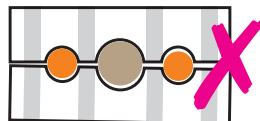
5 mm

Allen key

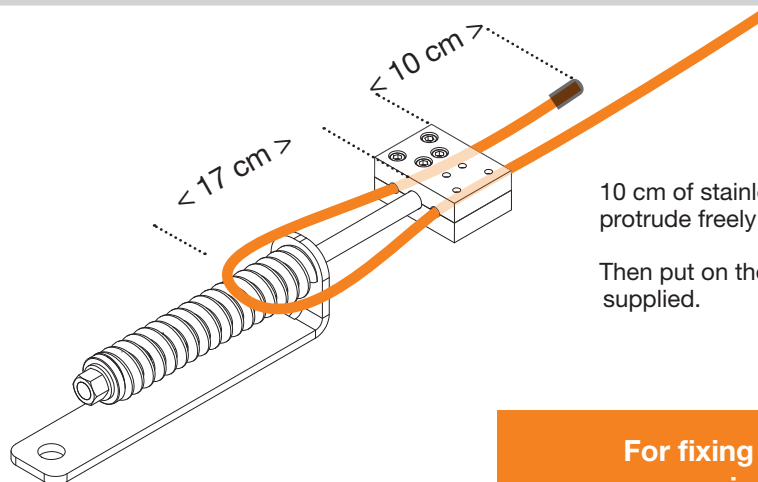
3) Assembly



Tighten the fixing screws of the aluminium clamps with an Allen key to a torque of at least 15 NM.
Guide the stainless steel cable through the aluminium clamps so that they fit snugly in the guides provided.



Clamp the cable so that a loop of approx. 10 cm is formed.



10 cm of stainless-steel cable must protrude freely as a reserve.

Then put on the plastic cap supplied.

For fixing on support,
see in section:

Mounting on support and clamping

TS-FSA I IMPACT ABSORBER WITH POWER ABSORBER

1) Product



2) Required tools



19 mm

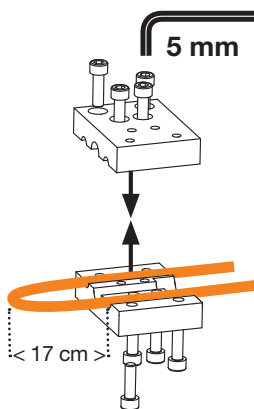
Open-ended ratchet spanner



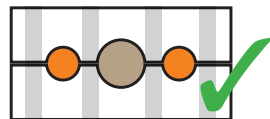
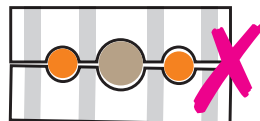
5 mm

Allen key

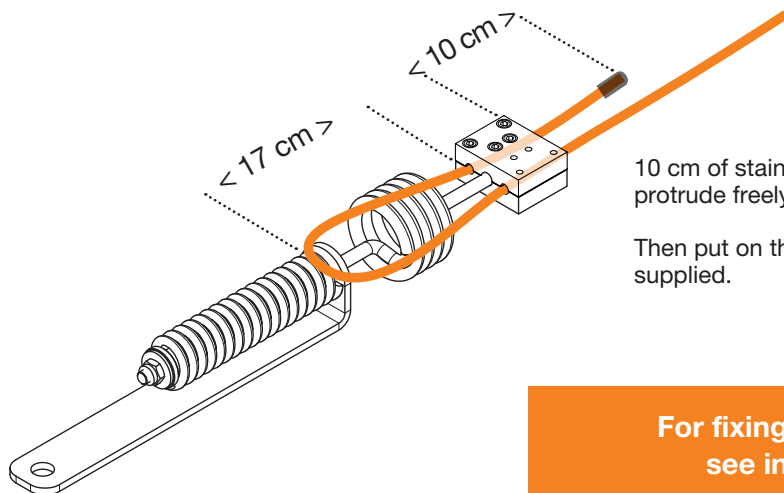
3) Assembly



Tighten the fixing screws of the aluminium clamps with an Allen key to a torque of at least 15 NM.
Guide the stainless steel cable through the aluminium clamps so that they fit snugly in the guides provided.



Clamp the cable so that a loop of approx. 10 cm is formed.



10 cm of stainless-steel cable must protrude freely as a reserve.

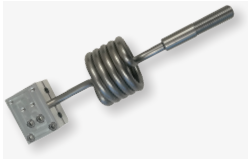
Then put on the plastic cap supplied.

For fixing on support,
see in section:

Mounting on support and clamping

CRAFT ABSORBER

1) Product



2) Required tools

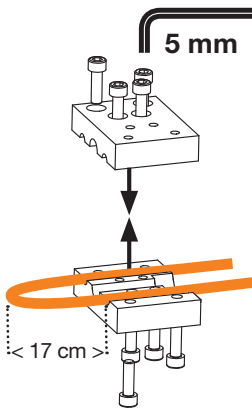


Open-ended ratchet spanner

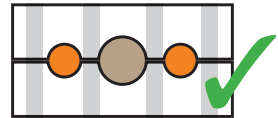
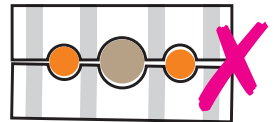


Allen key

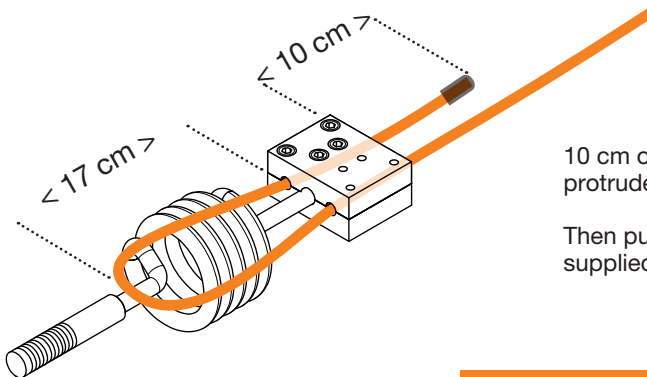
3) Assembly



Tighten the fixing screws of the aluminium clamps with an Allen key to a torque of at least 15 NM.
Guide the stainless steel cable through the aluminium clamps so that they fit snugly in the guides provided.



Clamp the cable so that a loop of approx. 10 cm is formed.



10 cm of stainless steel cable must protrude freely as a reserve.

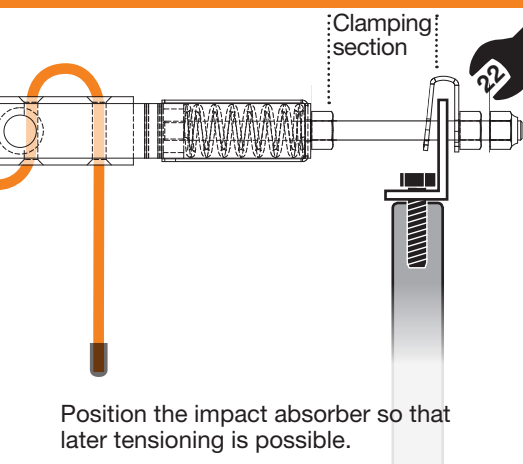
Then put on the plastic cap supplied.

For fixing on support,
see in section:

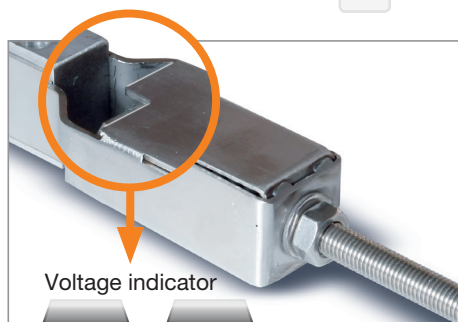
Mounting on support and clamping

MOUNTING ON SUPPORT AND CLAMPING

FSA



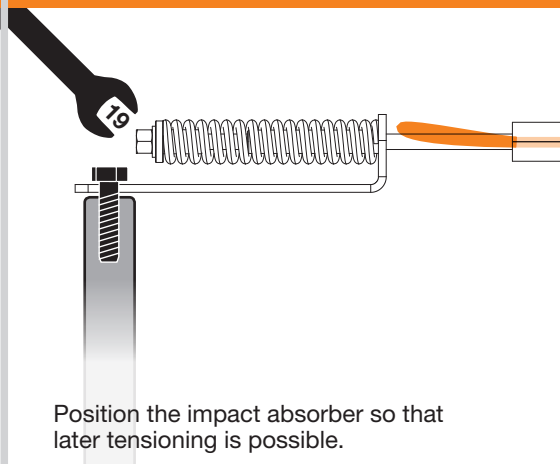
Position the impact absorber so that later tensioning is possible.



Voltage indicator

Turn the nut with an open-end spanner until the tension indicator is level or the stainless steel cable has sufficient slack so that there is enough reserve for later temperature-related shortening of the metal cable at outdoor cold temperatures!

FSA I



Position the impact absorber so that later tensioning is possible.



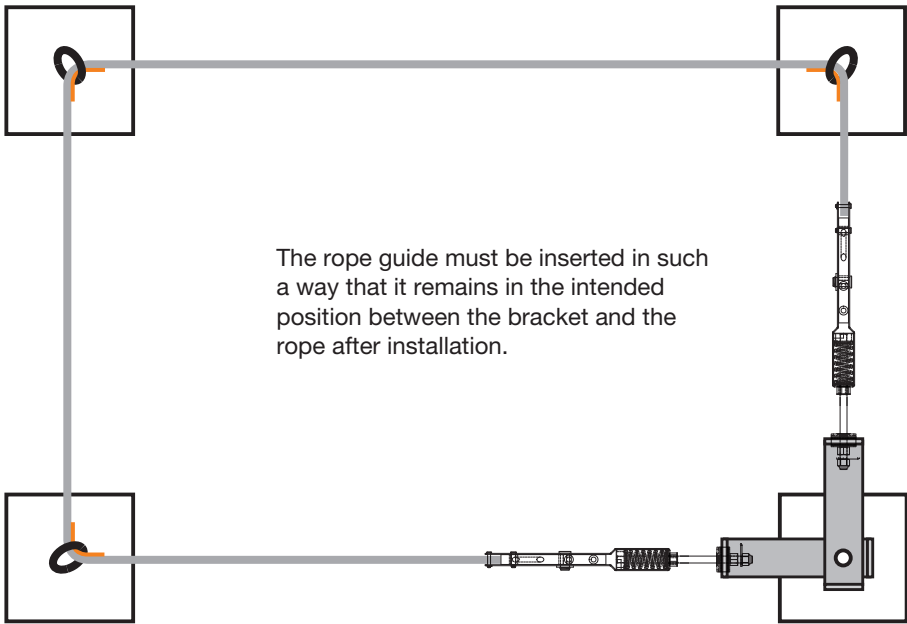
Turn the nut with a spanner until max. 30 kg are set or until the stainless steel cable has sufficient slack so that there is enough reserve for later temperature-related shortening of the metal cable at cold outdoor temperatures!

When **tensioning the rope**, it is essential to observe:

The rope must have sufficient slack during installation so that there is enough reserve for later, temperature-related shortening of the metal rope at cold outdoor temperatures!

FOR ALL-ROUND ROPE SYSTEMS

Mounting with TigaSAFE lug and rope guide

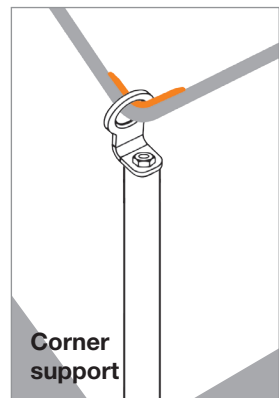
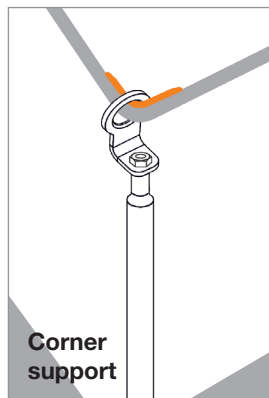


For all-round cable systems, the impact absorbers are to be mounted on a corner/start point with an angle for impact absorbers.

The FSA impact absorbers, FSA I impact absorbers, FSA I impact absorbers with absorbers and force absorbers are compatible with each other and can also be used together without any problems.

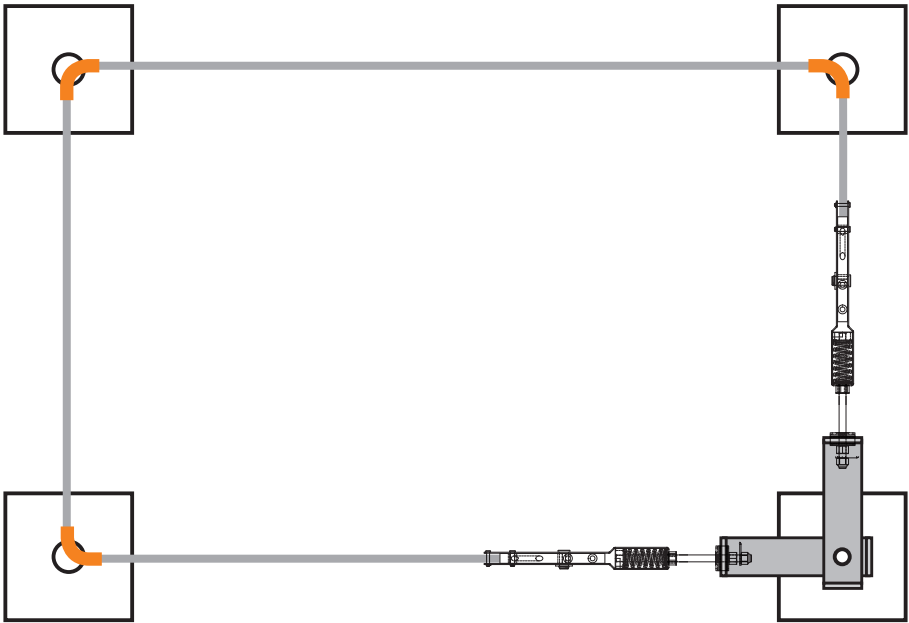
The cable guides are available in 45°, 90°, and 130° angles.

For products with Dibt approval, the force absorber, and the impact absorber FSA I with force absorber can be freely combined.



FOR ALL-ROUND ROPE SYSTEMS

Mounting with TigaSAFE bracket



For all-round cable systems, the impact absorbers are to be mounted on a corner/start point with angle for impact absorbers. The FSA impact absorbers, FSA I impact absorbers, FSA I impact absorbers with absorbers and force absorbers are compatible with each other and can also be used mixed together without any problems. The cable guides are available in 45°, 90°, and 130° angles. For products with Dibt approvals, the force absorber and the FSA I impact absorber with force absorber can be freely combined.

FOR ALL-ROUND ROPE SYSTEMS

Examples for TigaSAFE angles



TigaSAFE

ROOF SAFETY SYSTEMS

Important product information

The anchor device may be used by a maximum of 3 persons at the same time.

When the anchor device is used as part of a fall arrest system, the user should be provided with a means to limit the maximum dynamic forces applied to the user during a fall arrest operation to a maximum of 6 kN.

The maximum force(s) that can be applied in practice by the anchor device to the structure is/ are 12 kN. The anchor devices are designed for a load in all directions parallel to the structure.

Every time a TigaSafe product is installed, an **installation report** must be drawn up in accordance with ÖNORM 3417 (2016).

The installation guidelines and the safety regulations must be observed!

>> See assembly protocol on www.tigatech.at

TigaTech

GmbH

Derndorferberg 2, 4501 Neuhofen/Krems, Austria
Tel. +43 7227 21600, Mail: office@tigatech.at, www.tigatech.at