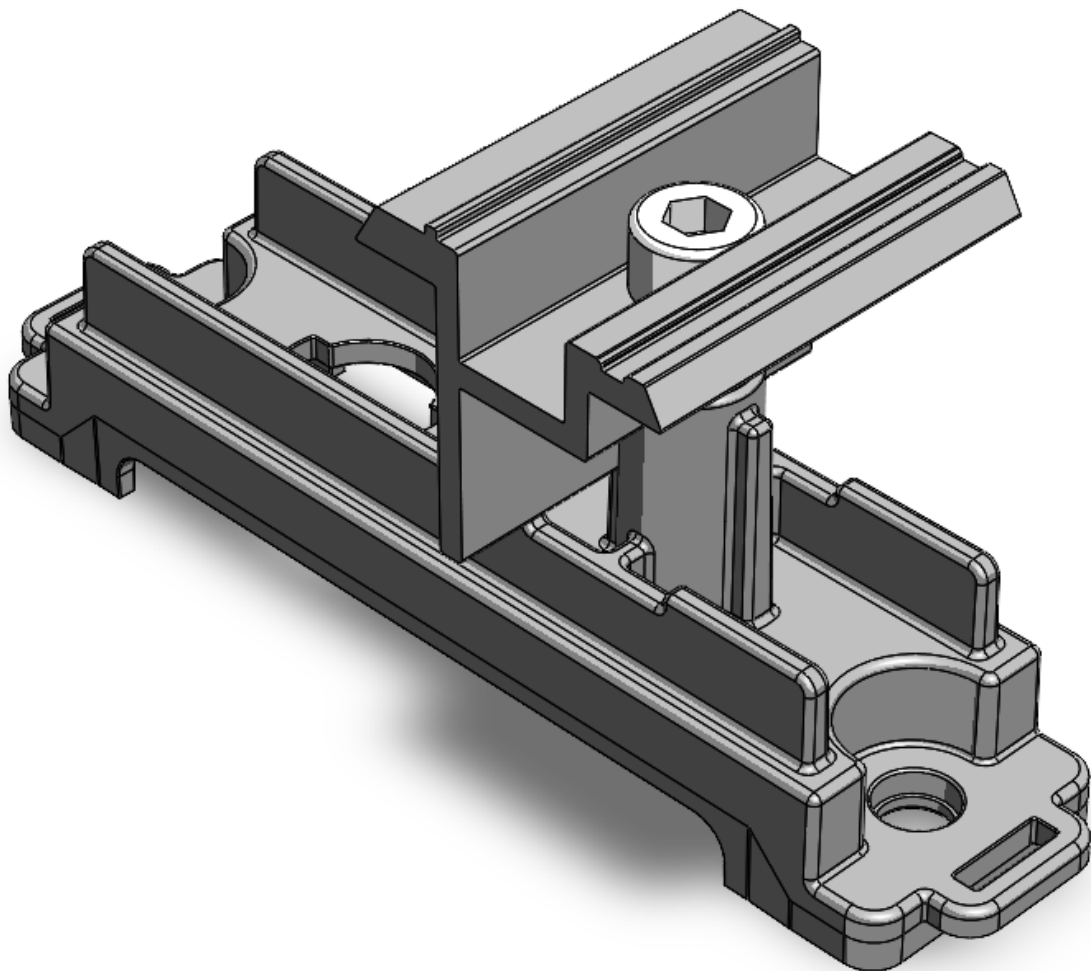


# Instruction de montage TrapFIX



## 1. General safety instructions

**Intended use:** The TrapFIX system is intended exclusively for the mounting of PV modules in landscape orientation on metal roofs made of trapezoidal sheet metal. Any other use of the TrapFIX system is not considered as intended use. Approval from the module manufacturer is always required for the use of the TrapFIX system.

**Mounting instructions:** The specifications in the mounting instructions for the TrapFIX system must be strictly complied with. Always use the latest version of the mounting instructions, which are available on the website ([www.eco-invention.ch](http://www.eco-invention.ch)) or on request by email ([trapfix@eco-invention.ch](mailto:trapfix@eco-invention.ch)). A copy of the mounting instructions must always be available during mounting. The module manufacturer's mounting instructions must also be complied with.

**Personnel requirements:** The mounting work may only be carried out by qualified and competent persons who can ensure that the work is carried out in accordance with the applicable regulations. The specifications in the mounting instructions, the project report, the planning documents and other project specifications must be strictly complied with. Mounting must be carried out by at least two persons to ensure that rapid assistance can be provided in case of an accident.

**Occupational safety:** All relevant occupational health and safety regulations (e.g. accident prevention regulations, occupational health and safety regulations, standards, construction regulations, environmental protection regulations, regulations of employers' liability insurance associations etc.) must be complied with. In particular, personal protective equipment must be worn during mounting in accordance with the relevant regulations (e.g. safety helmet, safety shoes, gloves etc.) and fall protection and/or safety gear must be installed in accordance with the relevant regulations. Mounting work must not be carried out or continued in poor weather conditions, wet conditions, sub-zero temperatures or windy conditions.

**Static requirements:** The static requirements of the project must be checked before mounting, in particular the load-bearing capacity of the building. Weak points (e.g. roof windows, skylights, ventilation flaps etc.) must be secured in a similar way as the edge of the roof. If the roof structure is not sufficiently load-bearing, load distribution aids must be used.

**Environmental protection:** The local and national construction regulations, standards and provisions relating to environmental protection must be complied with.

## 2. Important mounting and maintenance instructions

**Requirements for the trapezoidal sheet metal roof:** TrapFIX may only be used for mounting of modules in landscape orientation on trapezoidal sheet metal roofs. The trapezoidal sheet metal roof must be checked for tightness, rust, delamination and other weak points or on-site problems before mounting. The trapezoidal sheet metal roof must in any case have a minimum metal strength of 0.5 mm (sheet steel) and 0.7 mm (sheet aluminium).

**Requirements for thin sheet metal screws:** The TrapFIX system must be attached to the trapezoidal sheet metal roof using stainless thin sheet metal screws. The minimum length of the thin sheet metal screws is 25 mm. The diameter must be 5.5 or 6 mm. The thin sheet metal screw must be fitted with a sealing washer with a diameter of 16 mm. The instructions of the screw manufacturer must also be observed. The use of EJOFAST JF3-2-5.5x25 or JF3-2-6.0x25 from EJOT or the RP-T2 thin sheet metal screw 6.0x25 from Reisser is recommended.

**Use of a mounting jig:** A suitable mounting jig from the supplier must be used to mount the TrapFIX system. The correct use of such a mounting jig ensures that the required distances and tolerances are maintained. Otherwise, static problems, unfavorable force effects or unstable attachments may occur.

**Requirements for the PV modules:** The frame height of the PV modules must be between 30 - 40 mm. The PV modules may have a maximum width of 1.34 m. The module manufacturer must have approved its PV modules for use with the TrapFIX system and its instructions must be observed. The PV modules must be capable of withstanding the wind/snow loads at the project location. The clamping zones of the PV modules must be strictly adhered to. The clamping zones must be checked manually and are not taken into consideration by the planning software.

**Project planning:** The TrapFIX system must be designed using the Solar.Pro.Tool software from Levasoft (<https://spt.solar/>). The design can be created by us, one of our sales partners or the customer himself. The software only takes into consideration the statics of the mounting system and not those of the building or other effects (e.g. snow guard, clamping zones etc.). **The customer must check the correctness of the system planning on site.** The information in the project report and other planning documents - in particular the minimum number of TrapFIX elements to be used - must be strictly adhered to.

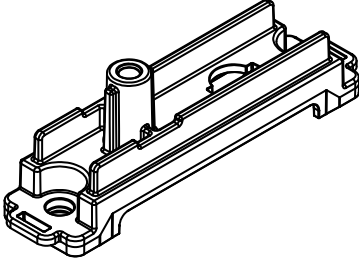
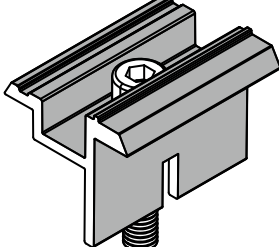
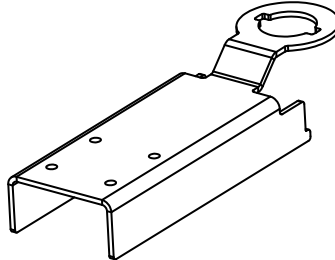
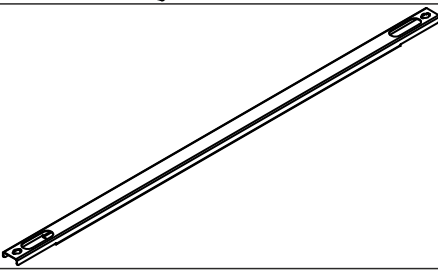
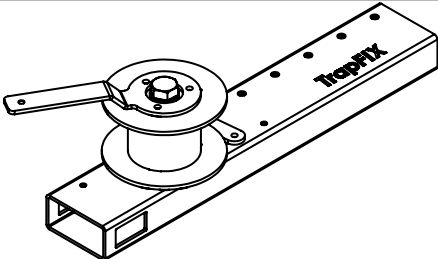
**Maintenance instructions:** An annual inspection of the mounting system (incl. connections) must be carried out. In particular, the mounting system must be checked for function, corrosion, strength of the connections and stability. An inspection of the system is also mandatory after every storm (e.g. storm or gale-force winds). The maintenance work must be carried out by an experienced specialist company. In particular, we recommend a visual inspection of the components and a random check of the connections and the secure and correct position of the individual elements. If the system is impaired, the affected **component must be repaired or replaced immediately. Any defects must be reported to the manufacturer immediately.**

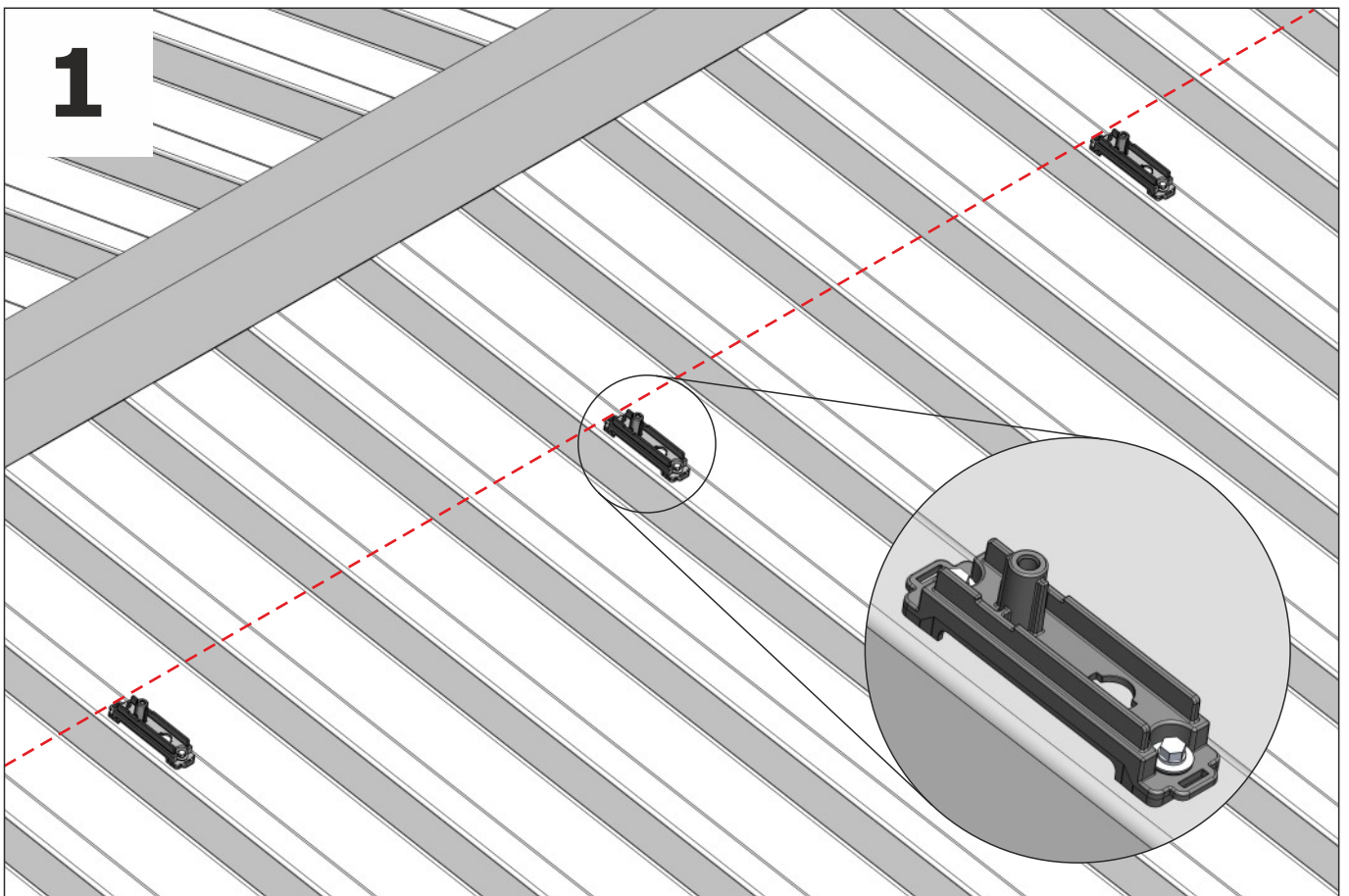
**Disassembly and disposal:** To disassemble the system, carry out the assembly steps in reverse order. Dispose of the components properly for recycling.

# Vue d'ensemble des articles

## Vis à tôle mince pour fixation sur toit

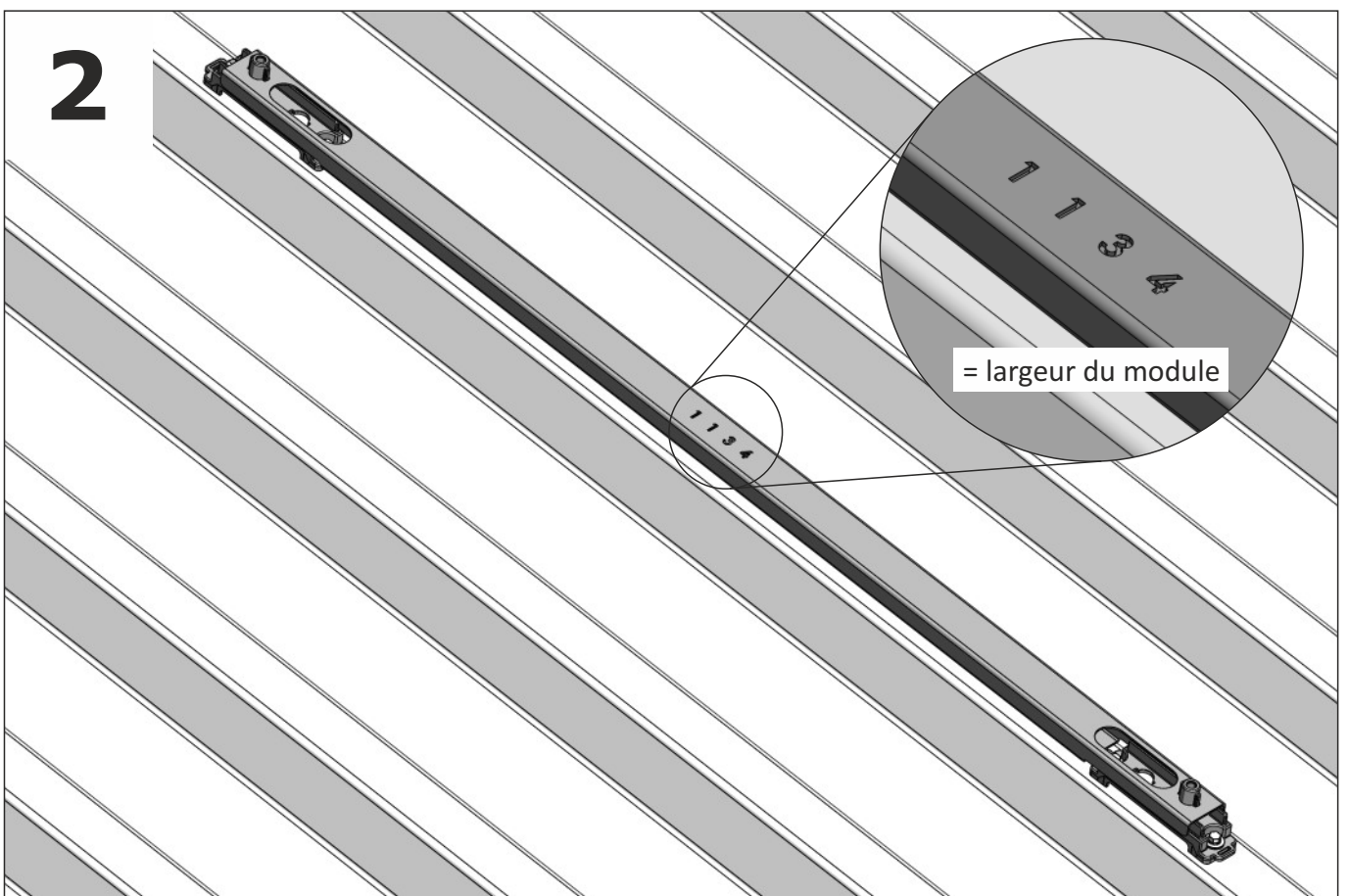
Le monteur choisit la vis à tôle mince (avec rondelle d'étanchéité). La vis doit présenter une longueur minimale de 25 mm. Elle doit également être inoxydable et munie d'une rondelle d'étanchéité (Ø 16 mm). Nous recommandons les vis EJOFAST JF3-2-5,5x25 ou JF3-2-6,0x25 de la marque EJOT ou les vis à tôle mince RP-T2 6,0x25 de Reisser.

	Numéro d'article	Désignation
	1.01	<b>TrapFIX - Base</b> Unité de conditionnement 50 pièces
	1.02	<b>TrapFIX - Attache universelle</b> Unité de conditionnement 50 pièces Noire Pour modules de hauteur de 30-40mm
	1.03	<b>Support pour optimiseur</b> (facultatif) Unité de conditionnement 100 pièces
	2.01-2.09	<b>Gabarits de montage fixes</b> Adaptés aux largeurs de modules Unité de conditionnement 1 pièces
	3.01	<b>Tendeur de câble</b> Unité de conditionnement 1 pièces



**1**

Monter le dispositif TrapFIX sur le bord inférieur ou supérieur du toit, en suivant une ligne droite, à l'aide des vis à tôle mince adaptées de votre choix. Le côté long du TrapFix doit se trouver sous les modules.

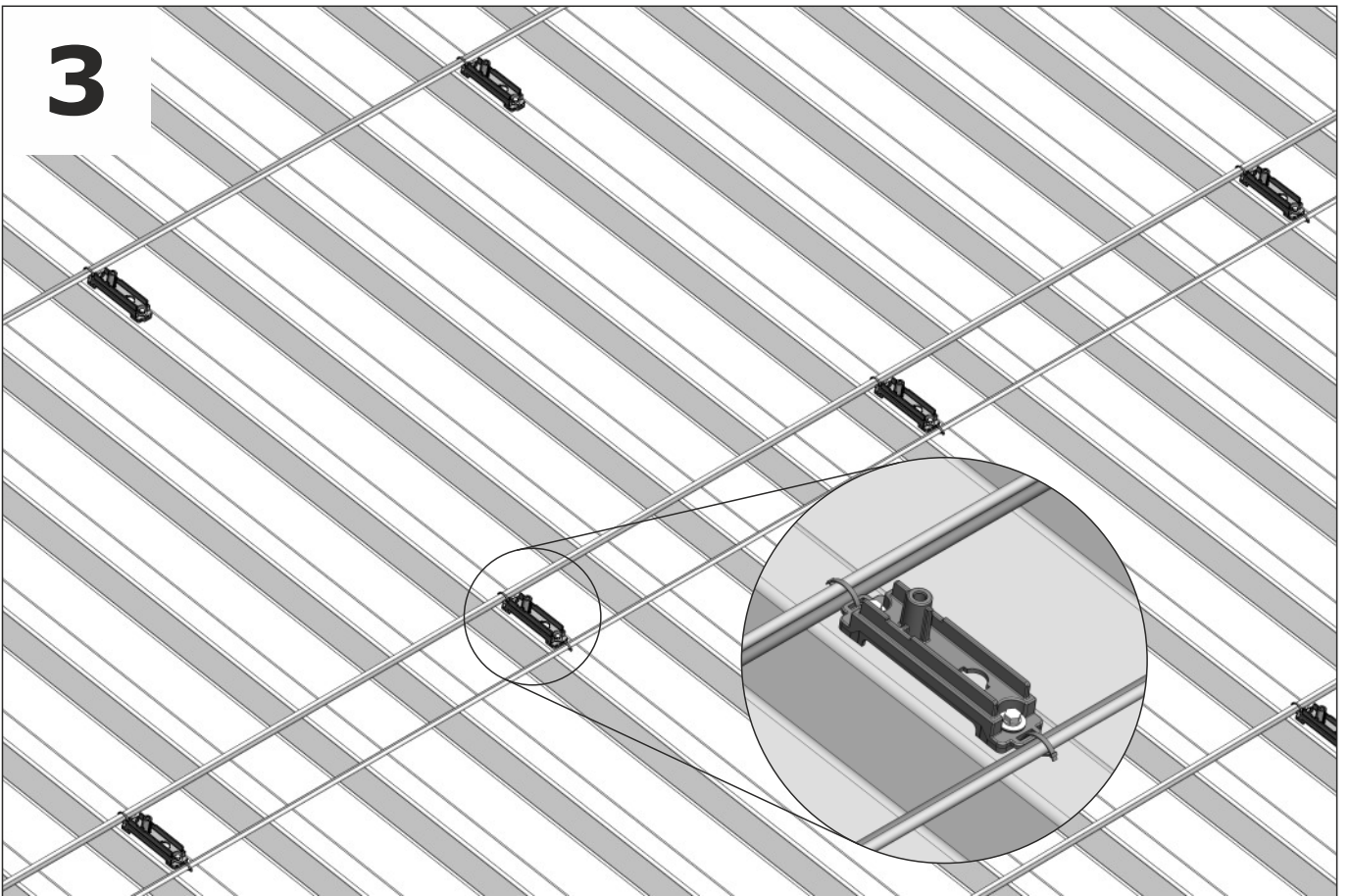


**2**

Monter le TrapFIX de la rangée suivante à l'aide d'un gabarit adapté à la largeur du module. Placer le côté long du TrapFIX en direction de la gouttière. Répéter l'opération 10 fois au maximum ou jusqu'à l'extrémité de la travée. Le système TrapFIX doit être monté exclusivement à l'aide d'un gabarit.

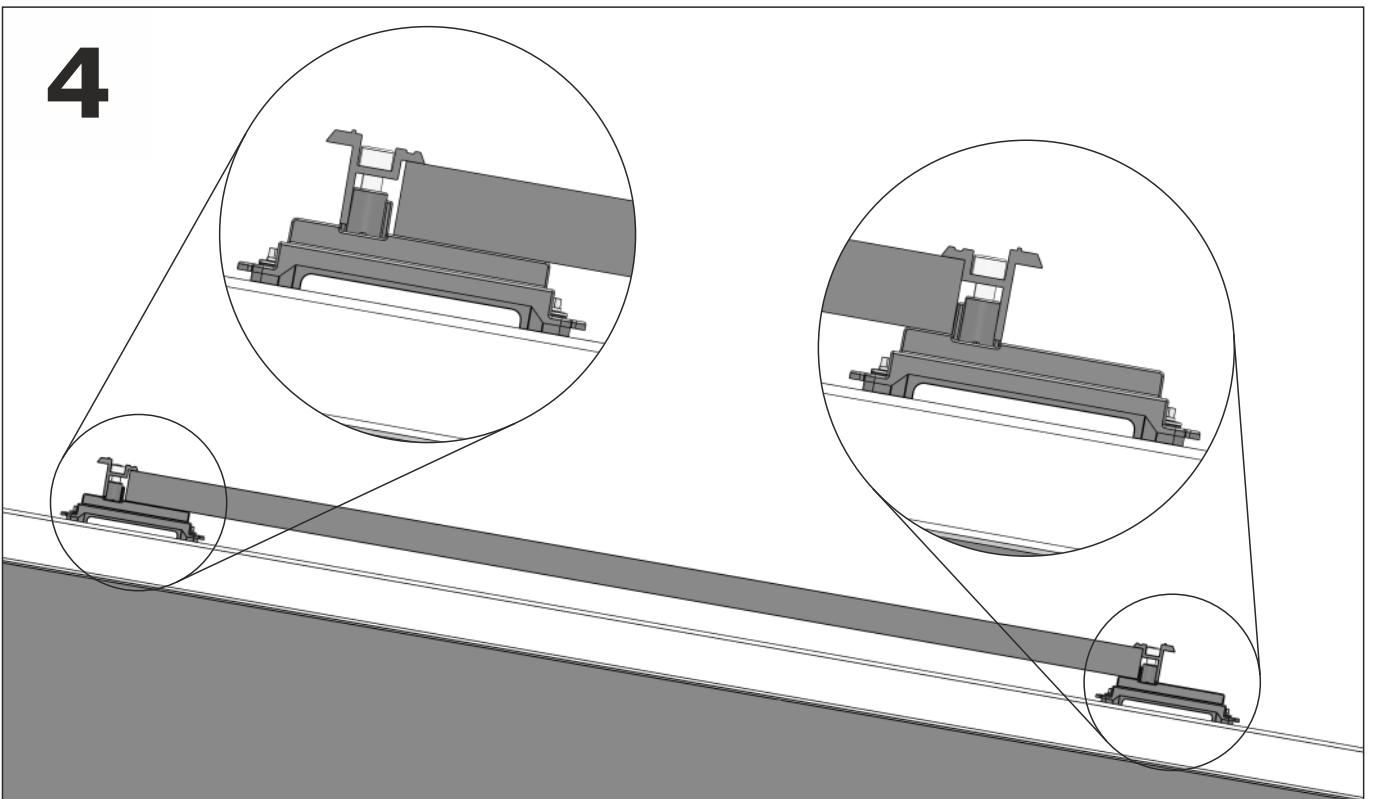


# 3



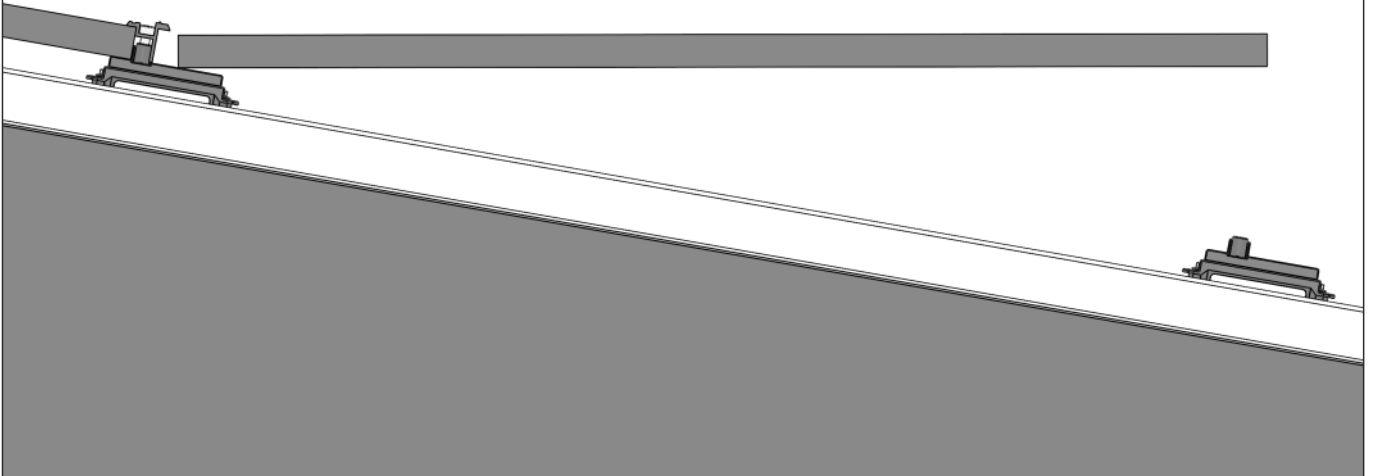
Poser le câble de chaîne et le fixer sur le TrapFIX au niveau des points d'attache prévus à cet effet.

# 4



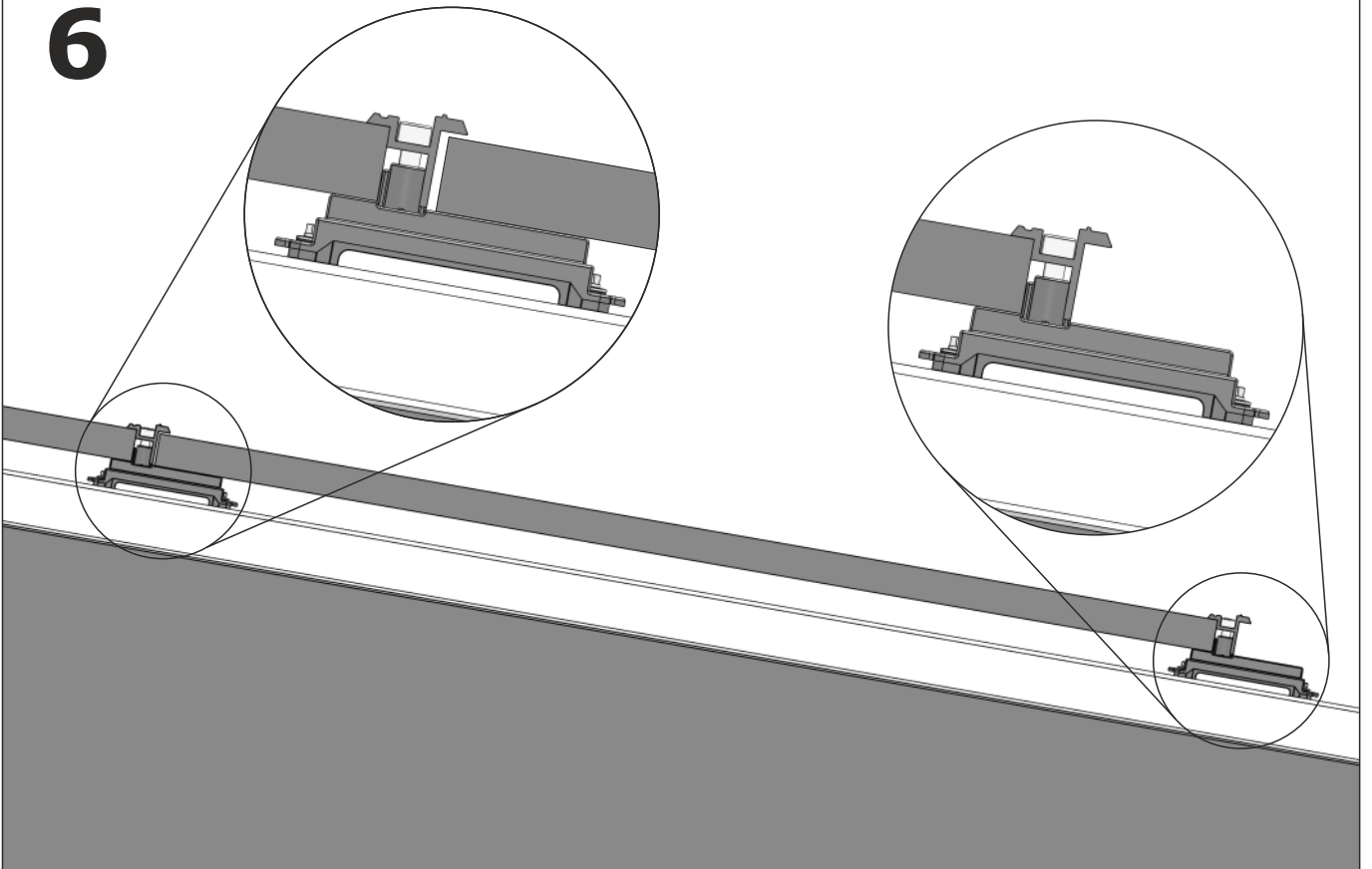
Nous recommandons de poser les modules du faîte vers la gouttière. Placer le module le plus élevé entre les deux TrapFIX les plus hauts et le serrer des deux côtés. Les vis doivent être serrées avec un couple de 16 Nm.

# 5



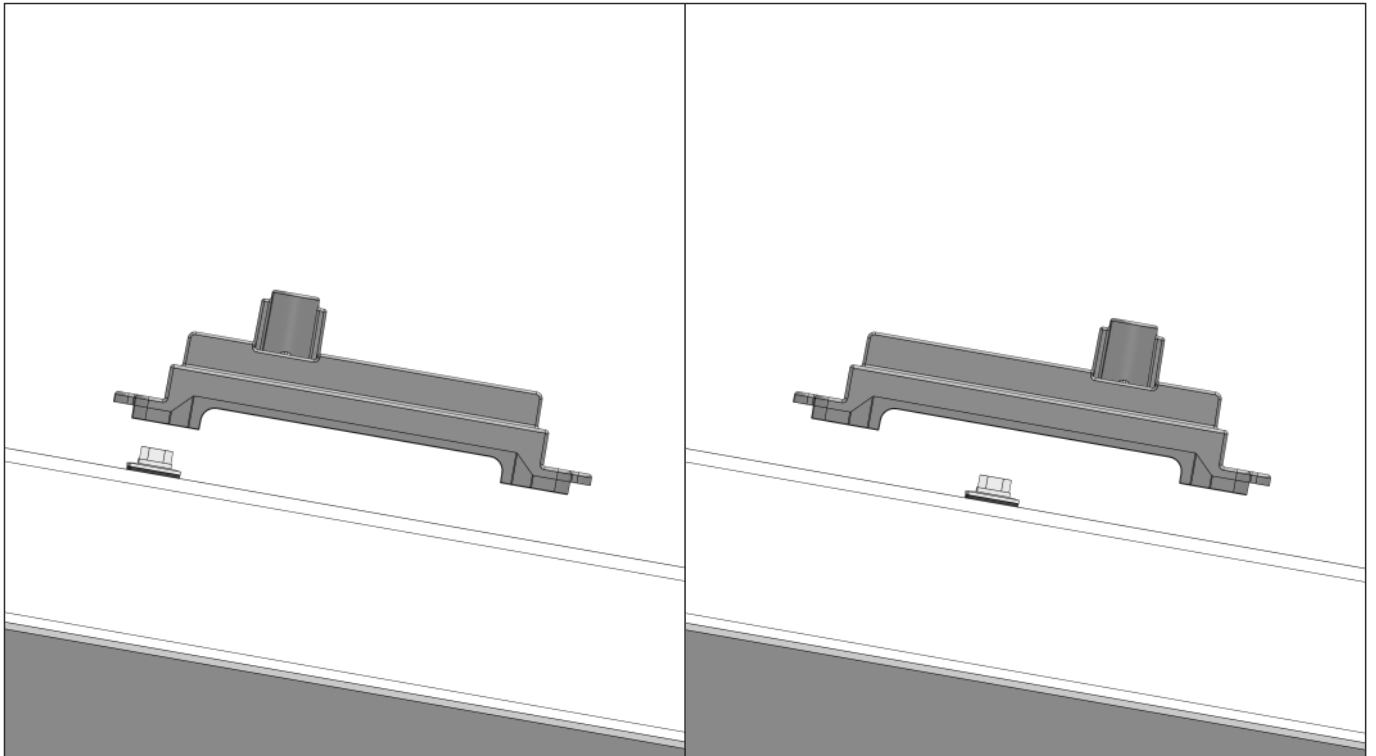
Placer le module suivant sous l'attache d'insertion...

# 6



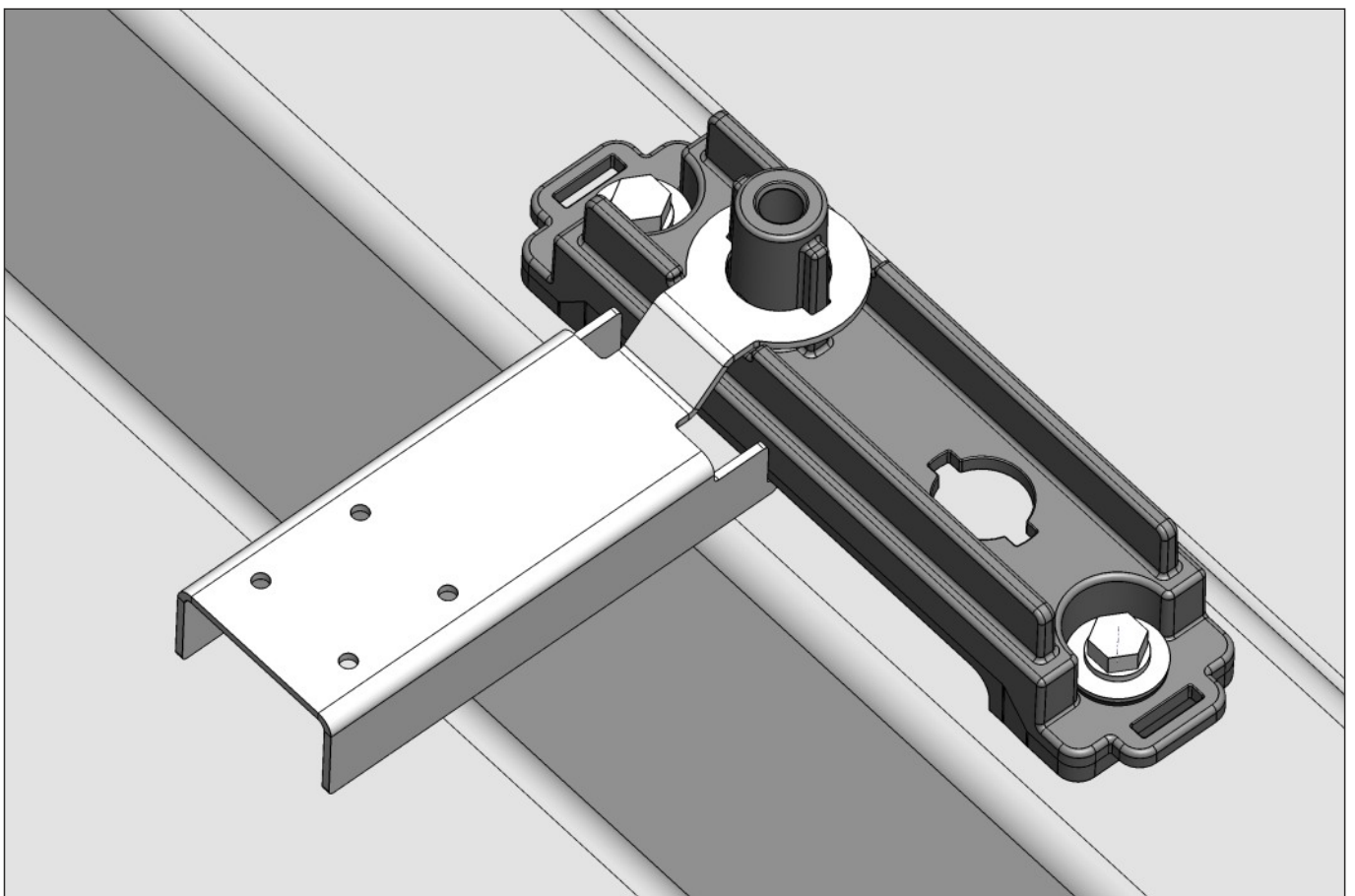
...et le fixer au bord inférieur. Répéter l'opération jusqu'à la fin de la travée.

# Conseils, astuces et aide au montage



## Vis de fixation

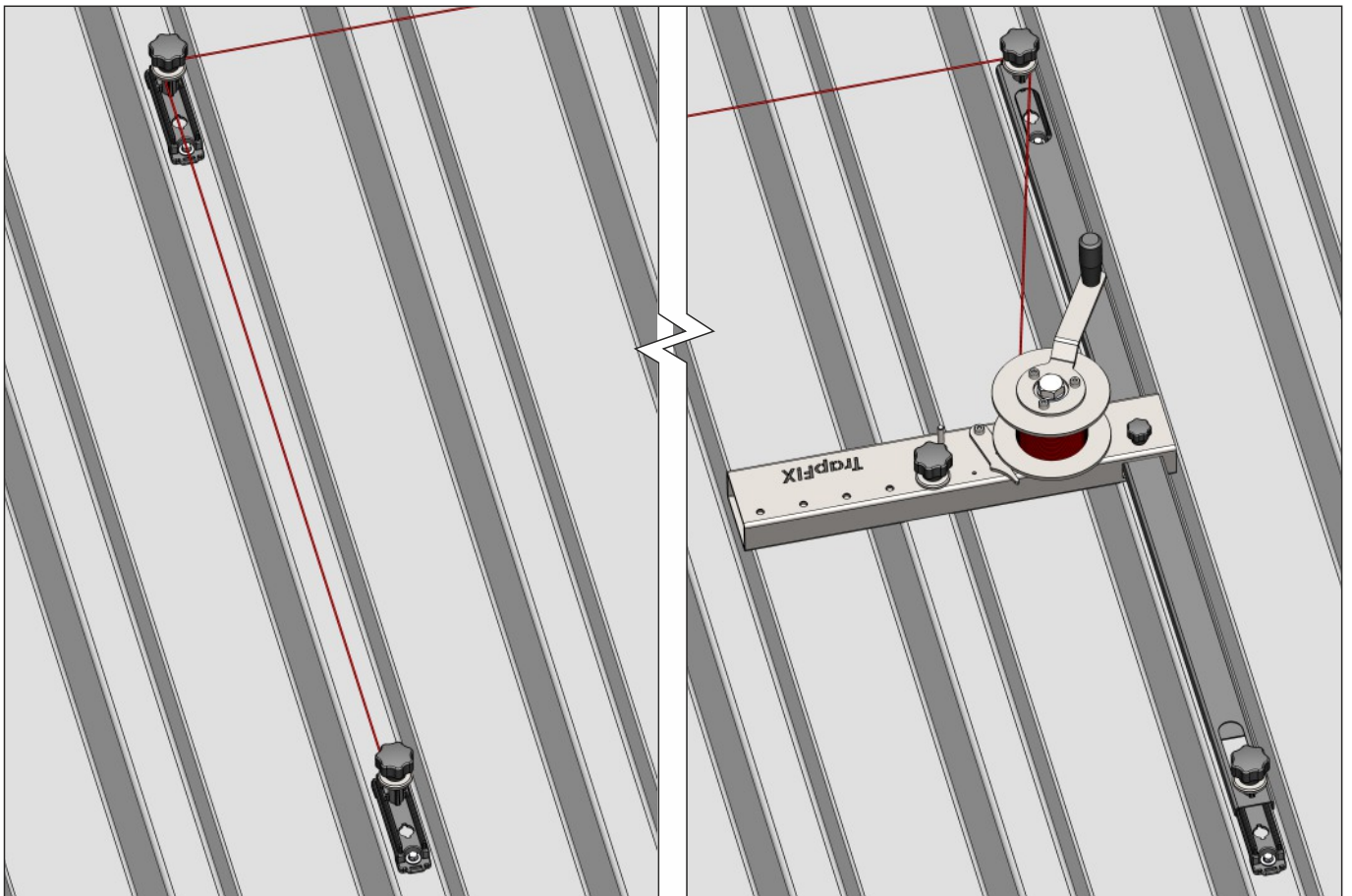
Si la base d'un dispositif TrapFIX se trouve par hasard sur une vis de fixation du toit, il suffit de tourner le TrapFIX de 180°. Retirer le cas échéant les grosses calottes.



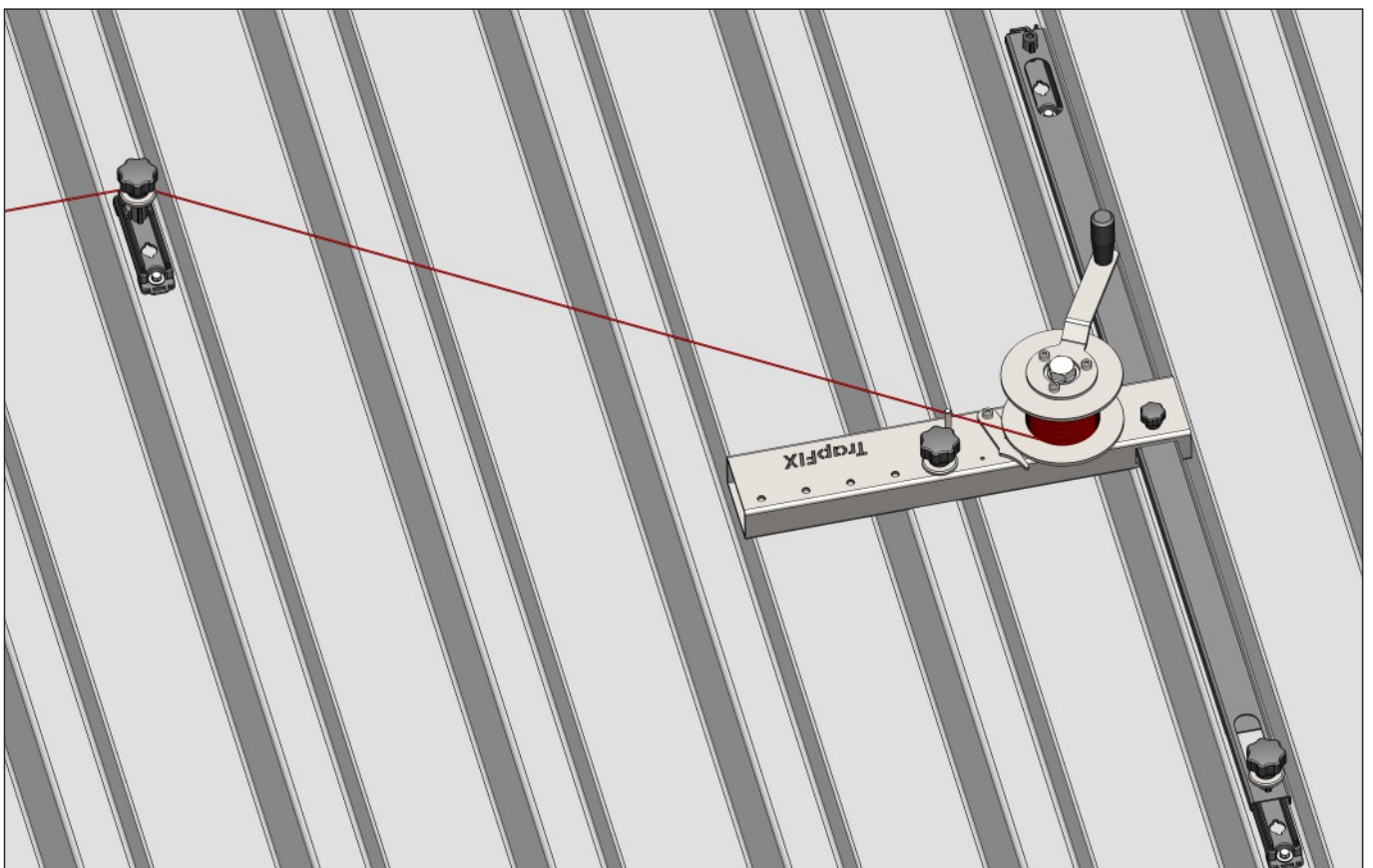
## Support pour micro-inverseur / optimiseur

Il est possible de commander une plaque métallique supplémentaire pour une bonne mise en place des micro-inverseurs et optimiseurs. Cette plaque peut être fixée au TrapFIX avant le montage du module.





**Tendeur de câble** Nous recommandons l'utilisation de notre tendeur de câble pour assurer une mise en place précise de la première rangée de TrapFIX. Pour ce faire, monter le TrapFIX extérieur, fixer le tendeur de câble sur le gabarit et tendre le câble.



Ensuite, placer des deux côtés le deuxième TrapFIX avec le câble en tant que butée et tendre le câble conformément à l'illustration. Augmenter la tension du câble et utiliser ce dernier comme une butée pour la rangée supérieure des TrapFIX.

**Attention** Ne pas déplacer le câble pendant la mise en place des TrapFIX.