



## Manual for system installation on a flat roof

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# KDP-CLICK

### Materials:

- Stainless steel A2
- Aluminum 6060 T66
- Structural steel with magnelis coating S320 ZM430

The structures can be used on the ground, but between the structures and the ground must be Geotextile must be used.

**Carefully read the instructions and use as intended.**

## Information about the security

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Before starting the assembly work, you should familiarize yourself with the following safety instructions, which will reduce the risk of an accident.



**Attention!** The setup and connection should be performed by qualified personnel with the appropriate authorizations. The general safety rules must also be observed.



**Attention!** During the work, it is necessary to observe the applicable national and European standards, especially the electrical installations. It is also necessary to follow the instructions of the other components, e.g. the inverter.



**Attention!** Danger of falling from heights. The rules for working at heights and the necessary safety equipment such as harnesses and safety ropes must be observed.



**Attention!** Danger of falling objects. Special care must be taken. Before starting work, the assembly area must be appropriately secured to avoid hazards.



**Attention!** Warning of electric current. Be particularly careful when performing electrical work, especially when connecting modules and when setting up and connecting the inverter to the modules.



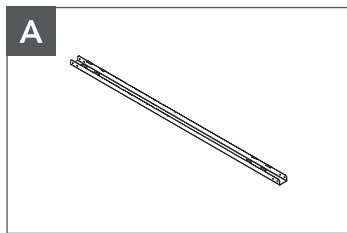
**Attention!** Warning about highly flammable materials. Photovoltaic modules, inverters and other electrical equipment should not be used near easily flammable materials.



**Attention!** The assembly work must not be carried out by persons under the influence of alcohol or other intoxicating substances.

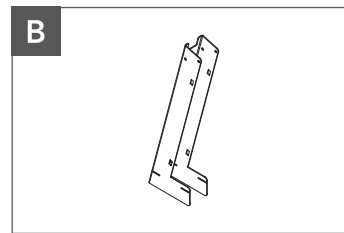
# Elements list

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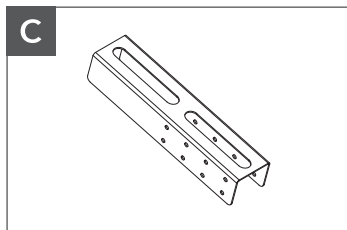
**A** Mounting triangle base

Material: coated steel magnelis



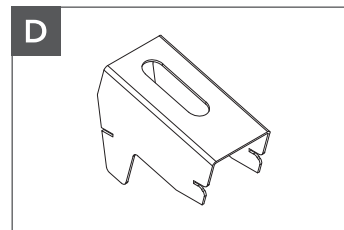
**B** Rear foot

Material: coated steel magnelis



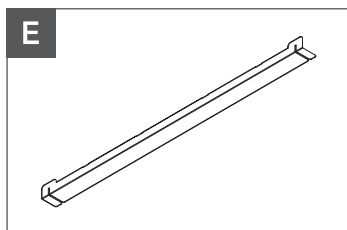
**C** Top mount adjustable

Material: coated steel magnelis



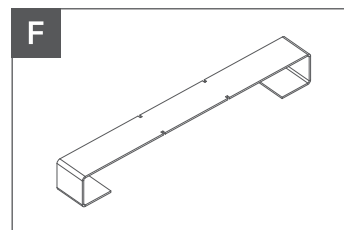
**D** Bottom mount

Material: coated steel magnelis



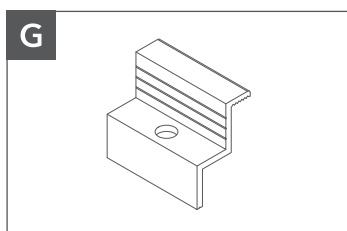
**E** Base under concrete block

Material: coated steel magnelis



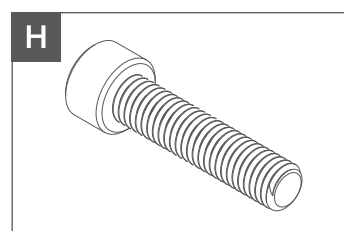
**F** Base under concrete block

Material: coated steel magnelis



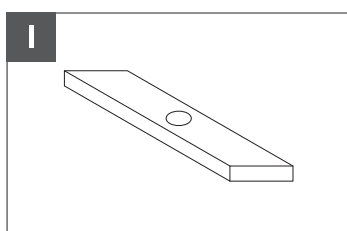
**G** End Clamp

Material: Aluminium



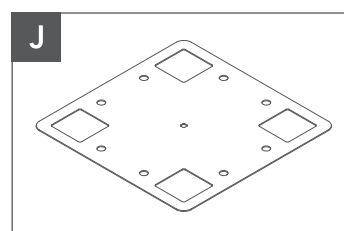
**H** Allen bolt M8

Material: Stainless steel



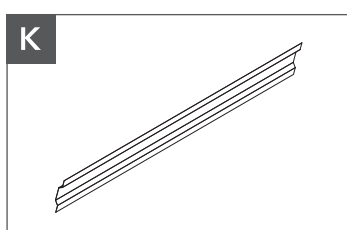
**I** T-nut elongated M8

Material: Stainless steel



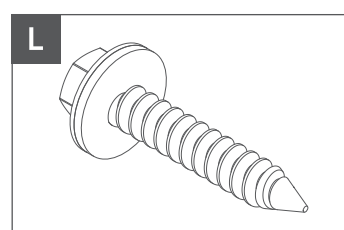
**J** Mounting plate

Material: coated steel magnelis



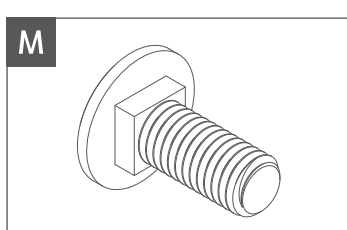
**K** Windmill

Material: coated steel magnelis



**L** Sheet metal screw

Material: Stainless steel



**M** Lock bolt M10

Material: Stainless steel

# Assembly instruction

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## Necessary tools:

- Allen wrench (size 5)
- Ring wrenches (size 13, 15 and 17 mm)
- Cordless screwdriver with Torque adjustment
- Cross-recess bits / attachments for the cordless screwdriver (PZ)
- Membrane welder



## Staffing for assembly:

- At least 2 persons



## Tightening torques:

- Tighten middle and end clamps with a tightening torque of 8.5 Nm
- Tighten M8 bolts and nuts with a tightening torque of 18 Nm.
- Tighten M10 bolts and nuts with a tightening torque of 36 Nm



## Assembly time:

- About 2 hours

# Control and maintenance

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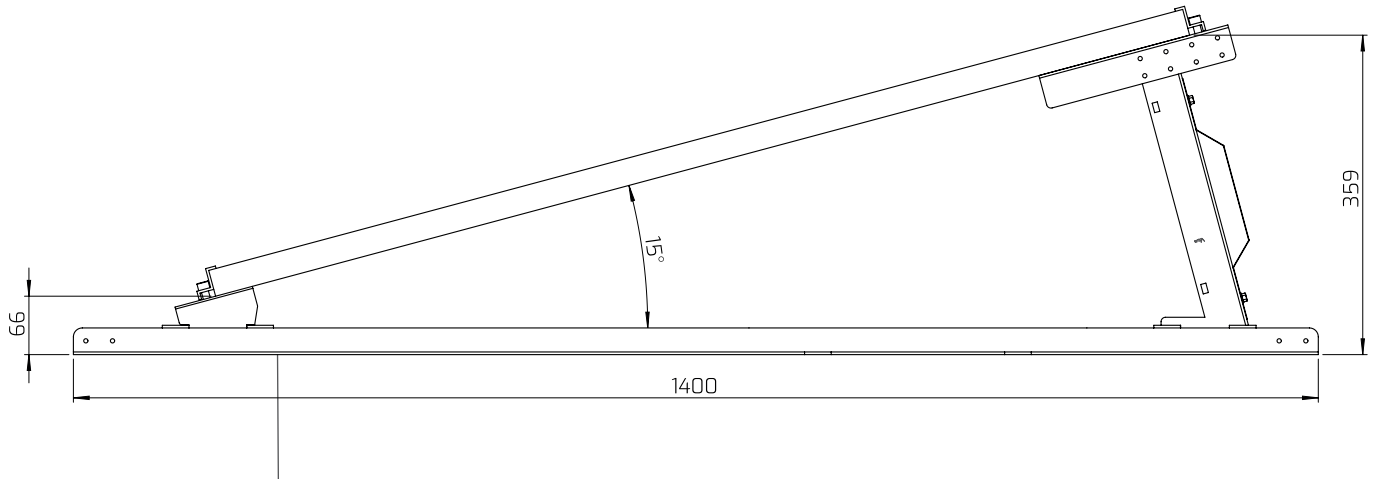
During the installation work, it must be ensured that the photovoltaic system is used according to its intended purpose. All changes in the use of construction elements, including connection with elements that do not come from IVENDO Solar, the modification of the construction by welding, shortening, lengthening, drilling, etc., and increasing the load on the systems will result in the loss of warranty claims and may have a direct impact on the life of the systems and their safe use.

The technical inspection and maintenance of the mounting system should be carried out at least once every six months, special attention should be paid to:

- Bolted connections,
- The condition and connections of the electrical cables are checked,
- the visual condition of the PV modules (contamination, mechanical damage) is checked.

# Assembly of the set

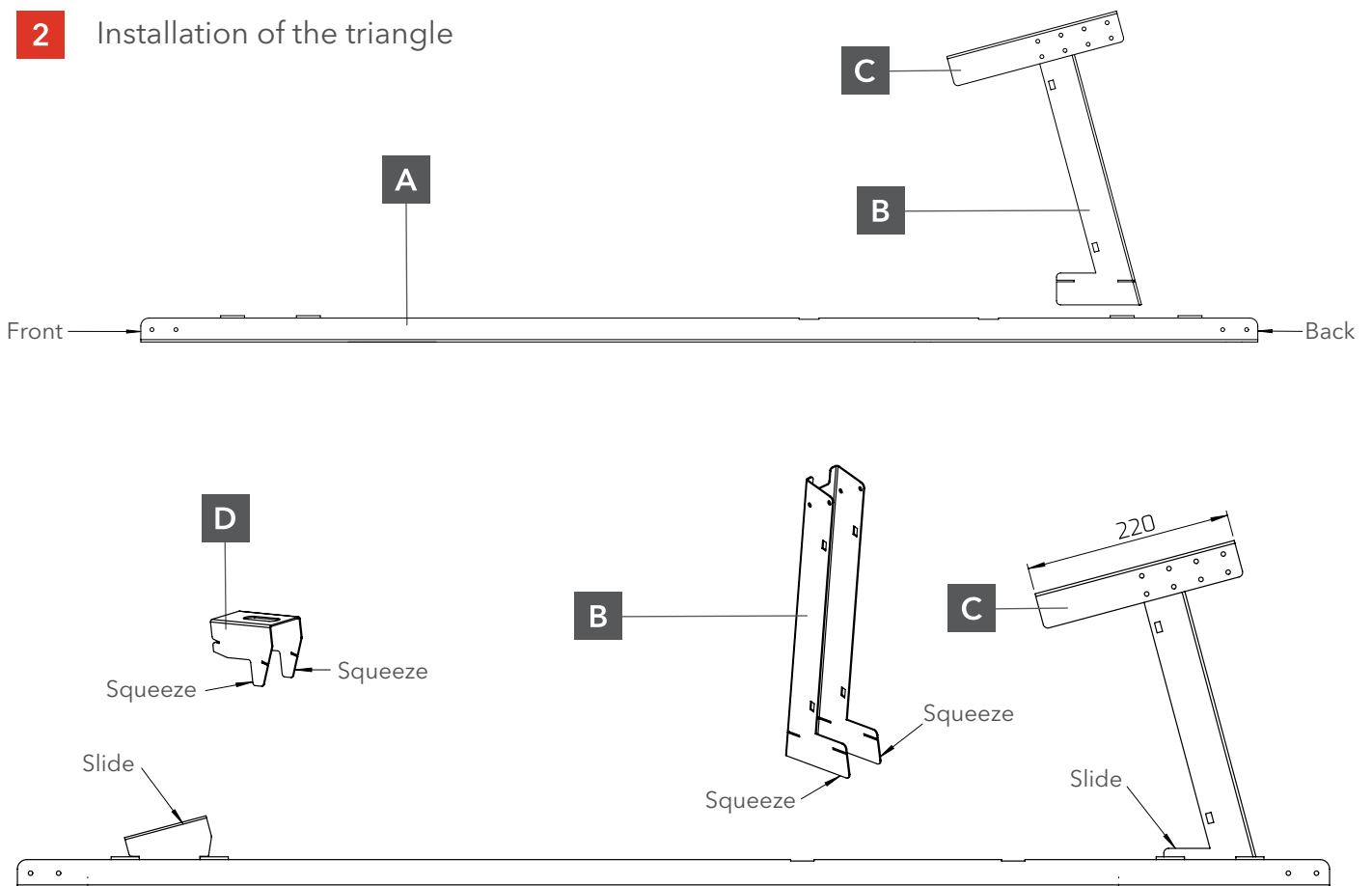
- 1 Prior to assembly, determine the plan for module placement and assembly quantities. SBR rubber should be placed under the lower base of the mounting tripod

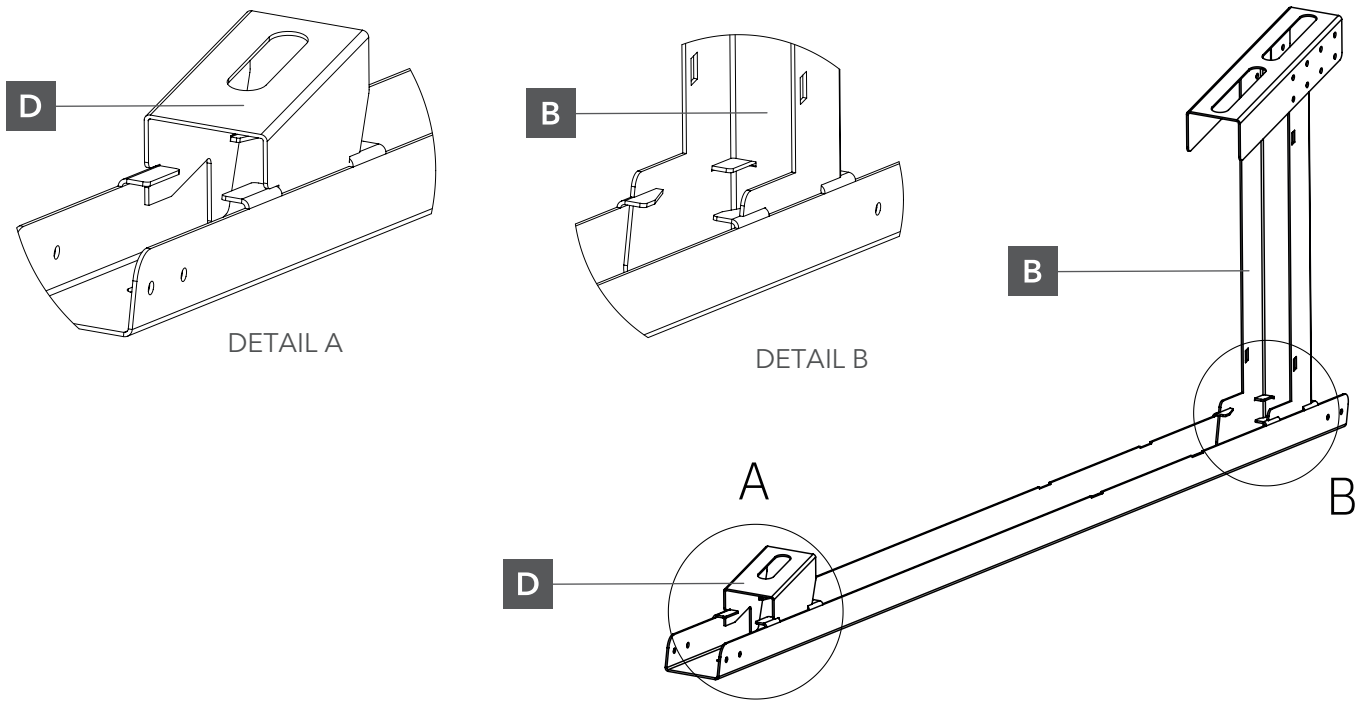


Put 1400 mm long SBR rubber under the tripod base

SBR rubber is not required to be placed throughout the structure

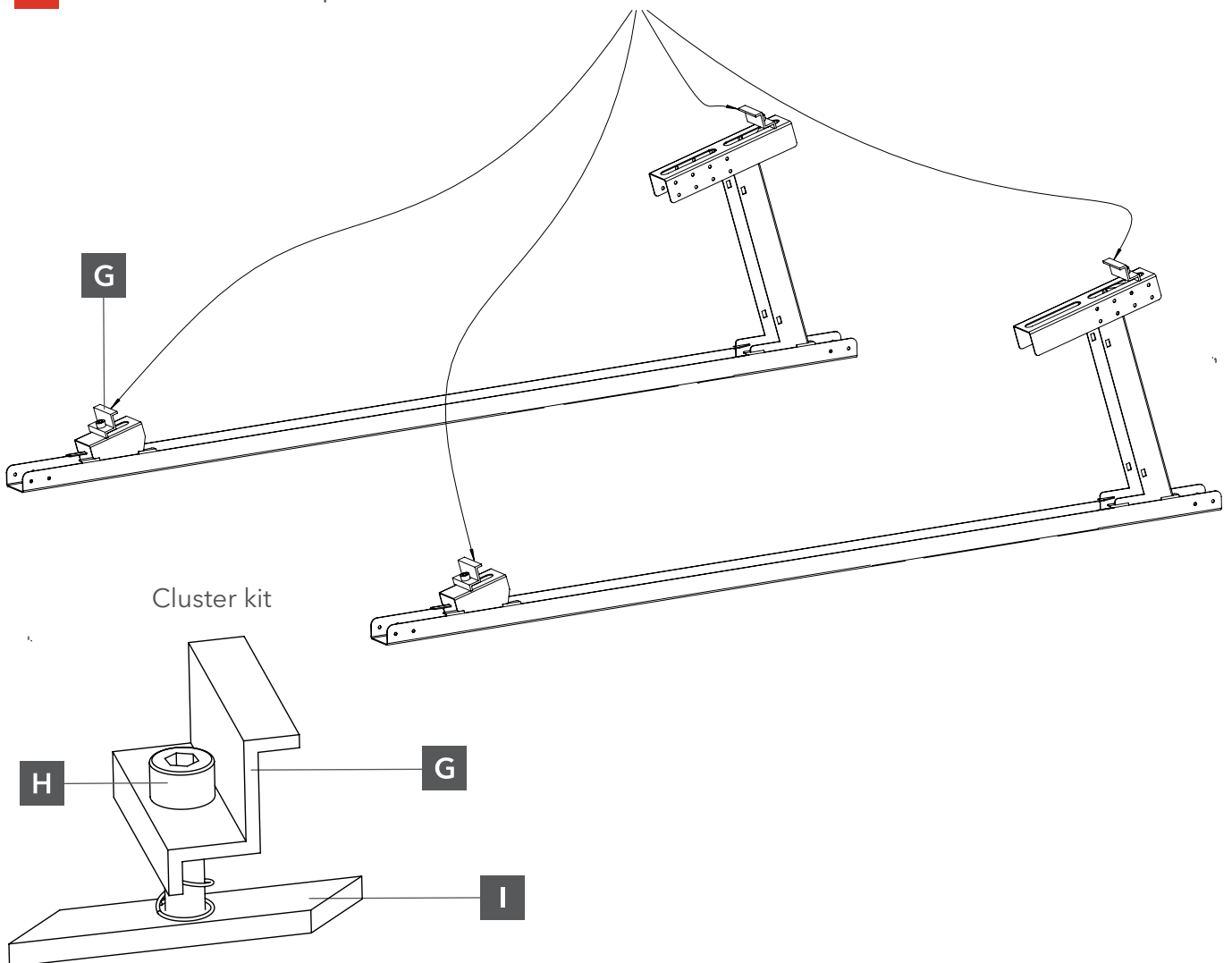
- 2 Installation of the triangle



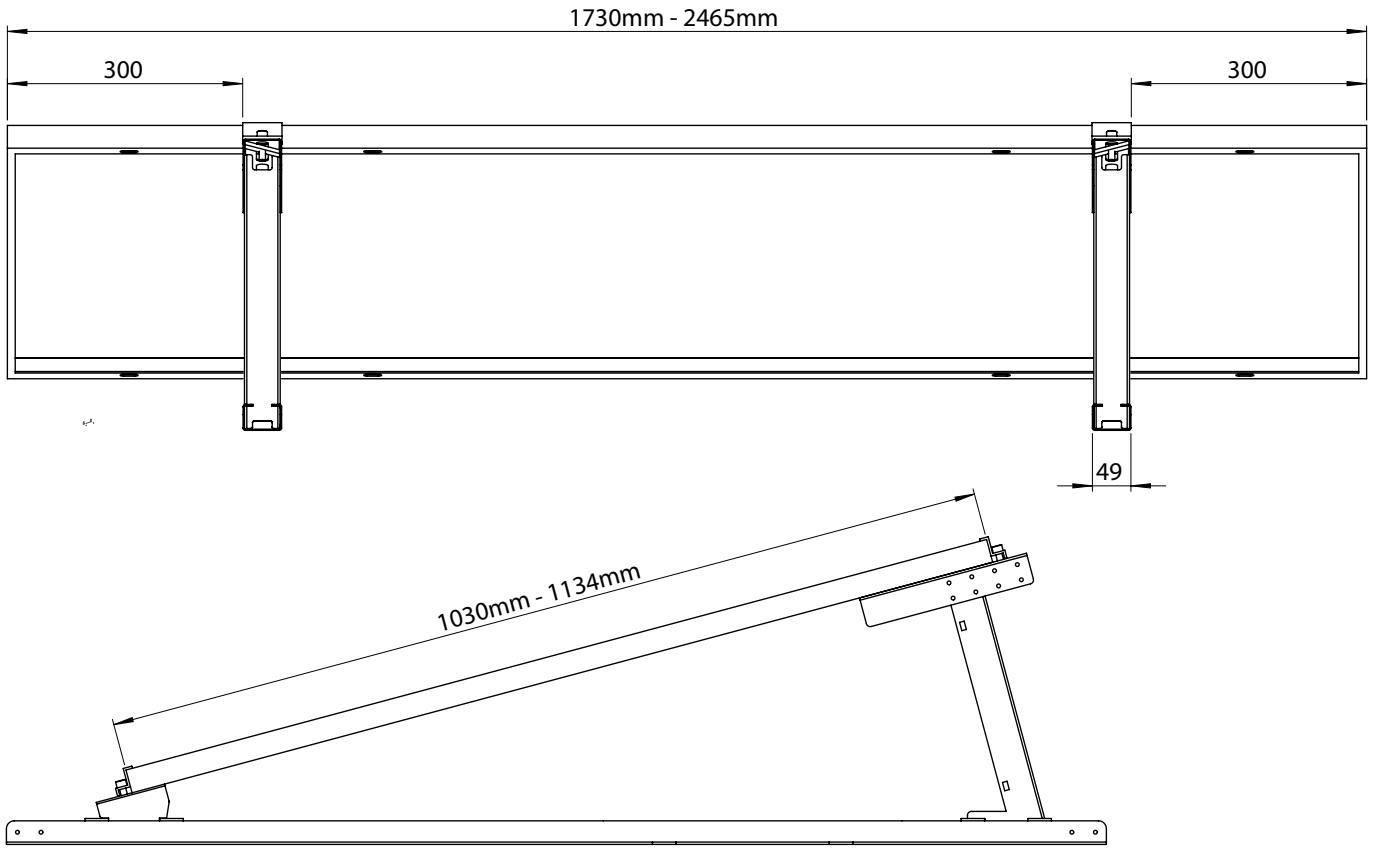


### 3 Installation of clamps

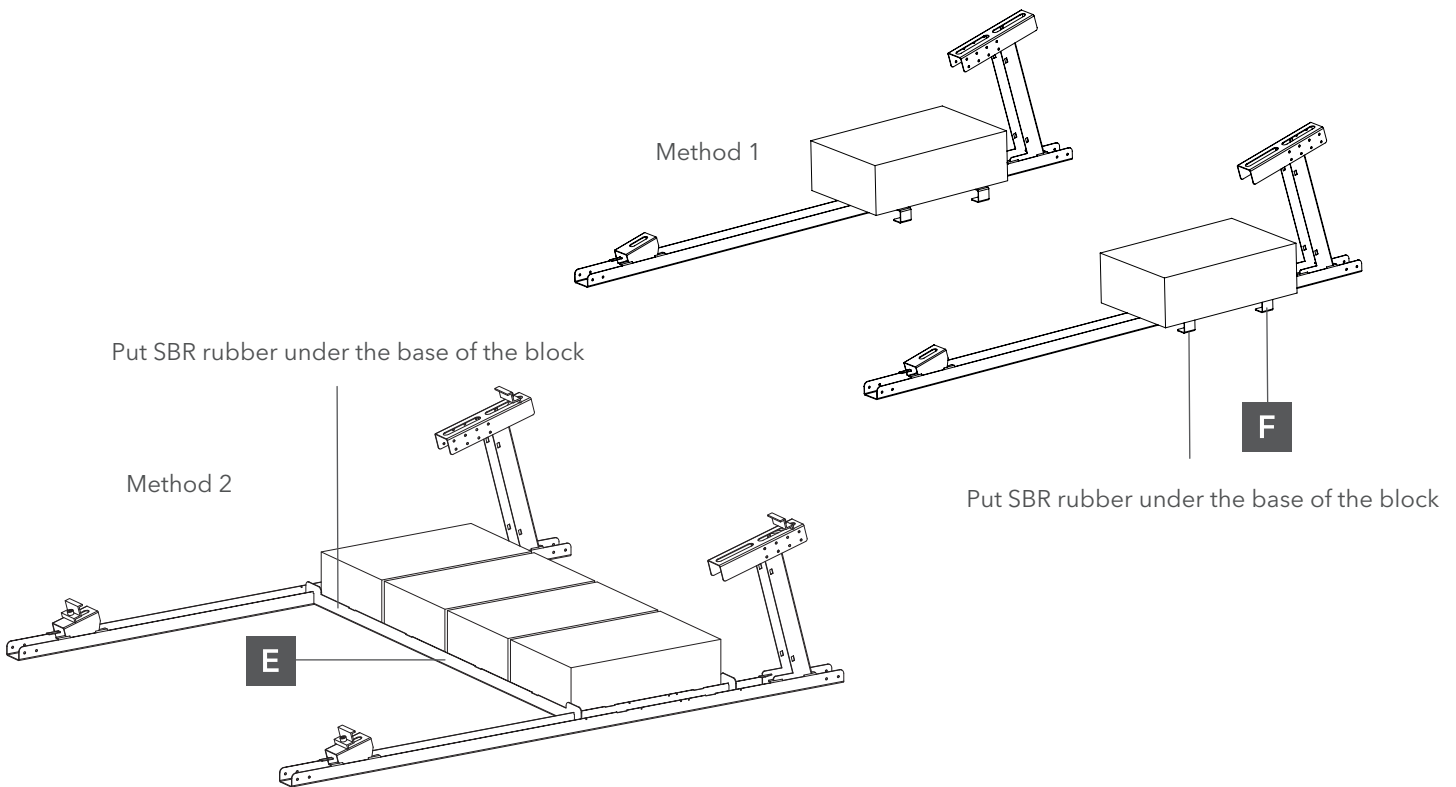
Mount the cluster kit



## 4 Installation of photovoltaic panels



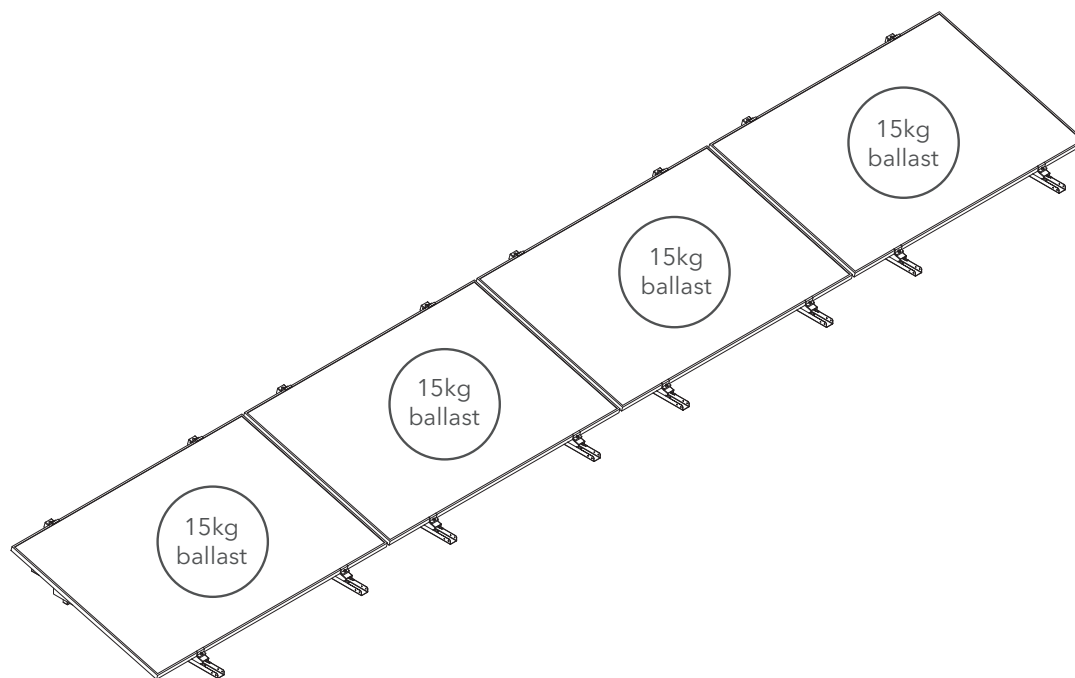
### Ballast loading of the structure



## Distribution of ballast in wind zone I

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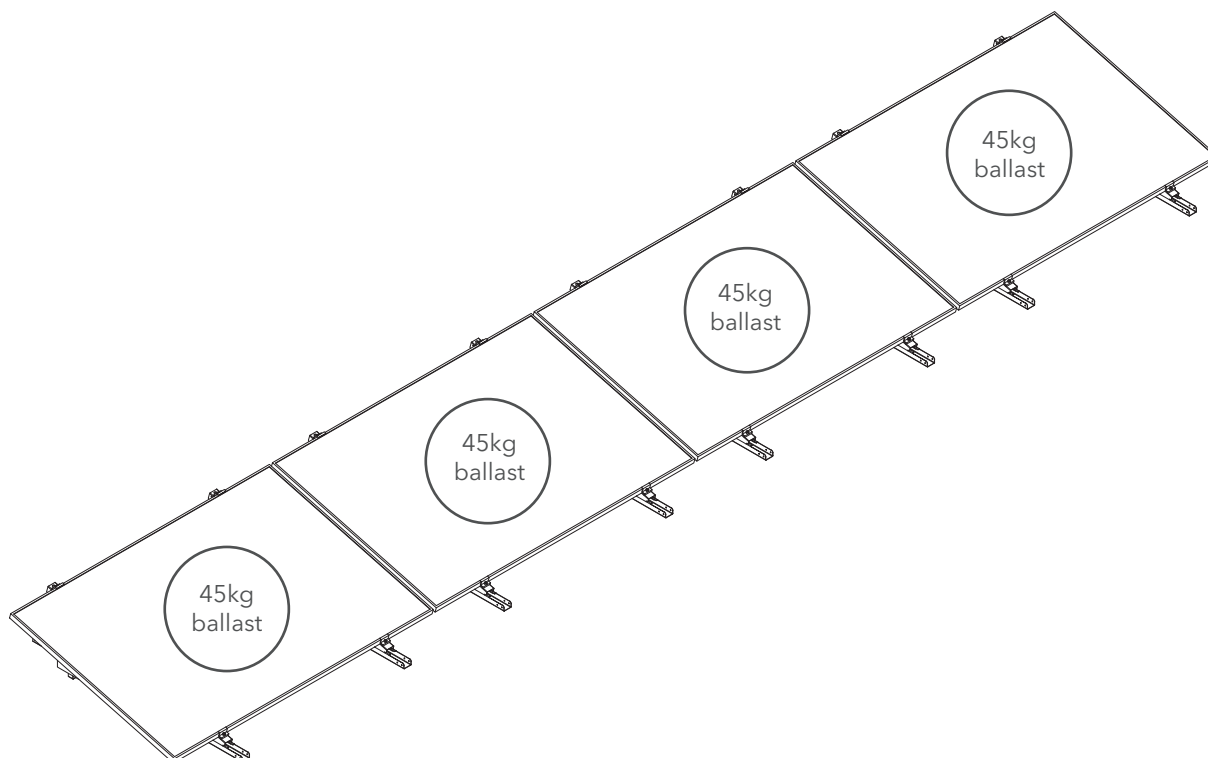
- 1 The blocks should be placed on the base of the mounting tripod. There are 15 kg of ballast for each row of photovoltaic panels



## Distribution of ballast in wind zone II

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- 1 The blocks should be located on the base of the mounting tripod. There are 45 kg of ballast per row of photovoltaic panels

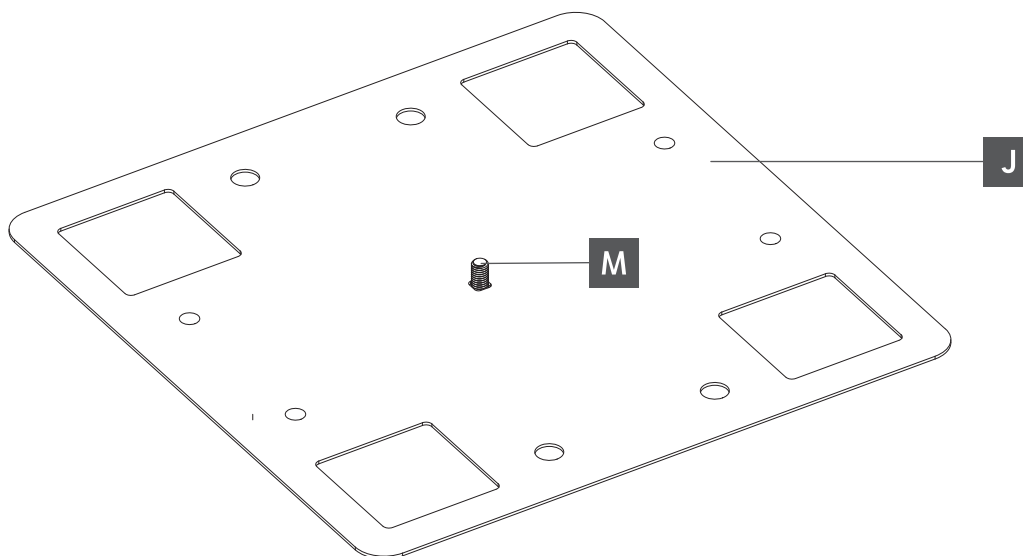




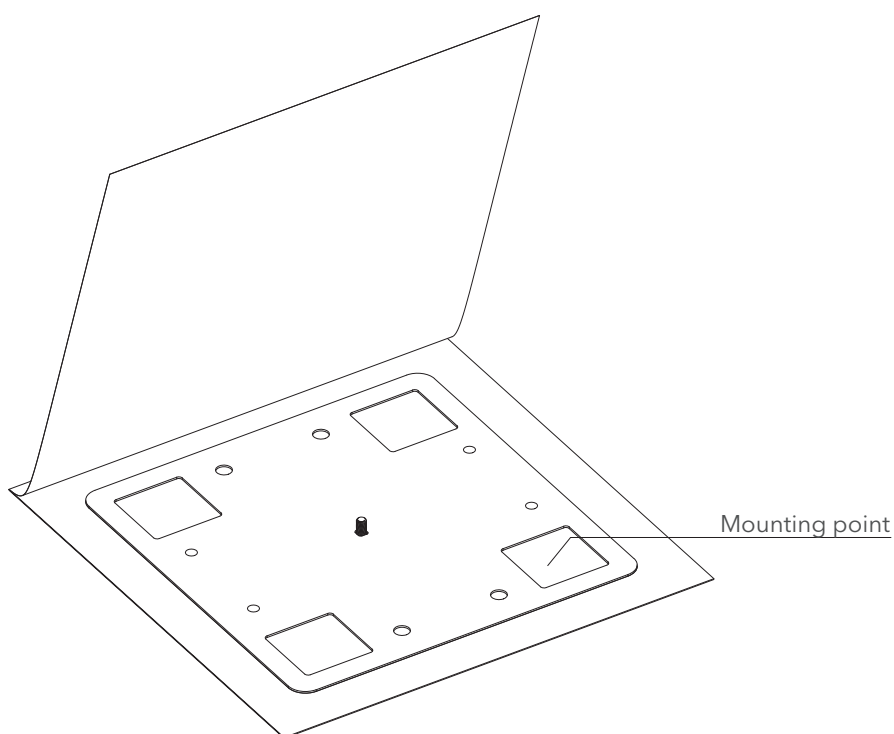
## Mounting the mounting plate

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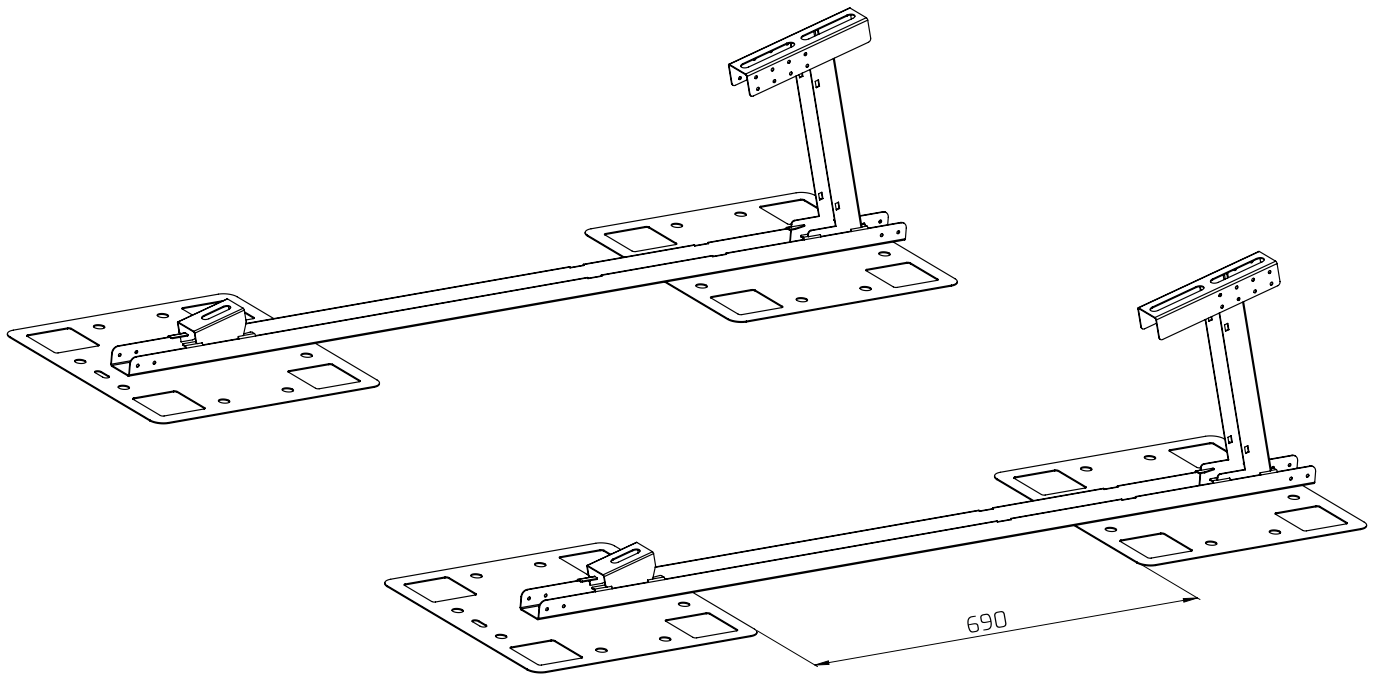
- 1 Install the lock screw in the mounting plate and place the plate in the correct position on the diaphragm



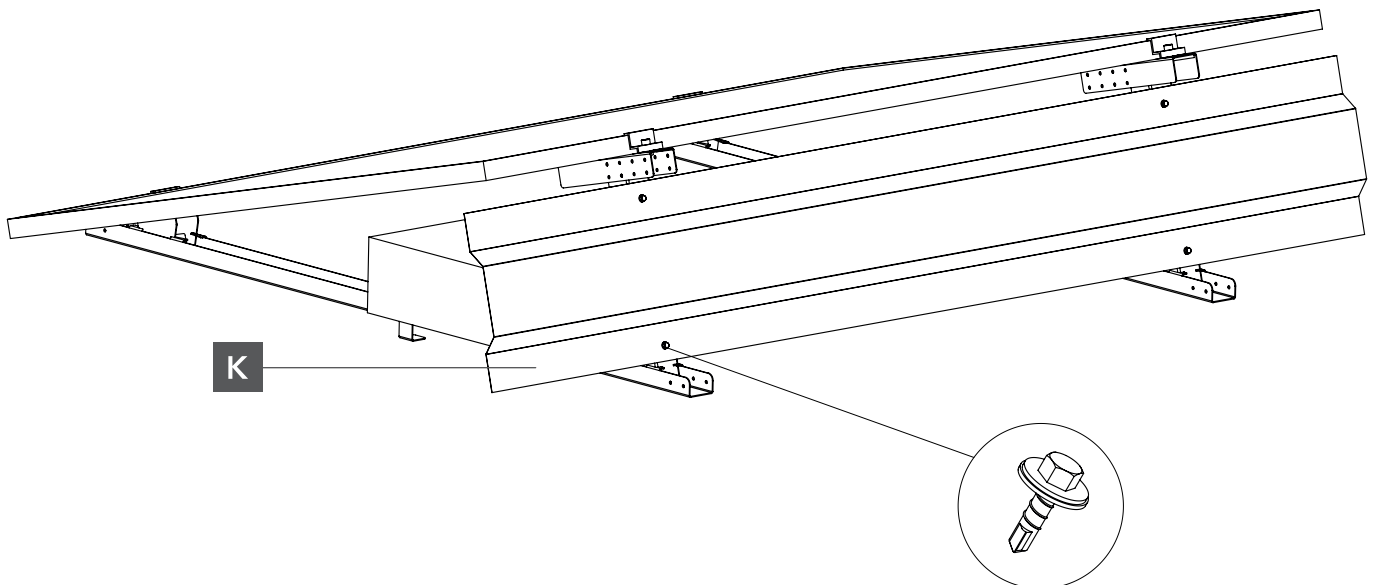
- 2 Cut a membrane of 500 x 500 mm. Make holes for the locking screws. Weld the membrane at four fastening points and 50 mm around each fastening plate



**3** Attach the mounting triangles to the lock bolts and bolt with the flange nut.



## Assembly of the windlass



## Legal clause

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These instructions define the basic standards for the installation and operation of a support system for photovoltaic modules. The instructions do not constitute and do not replace a photovoltaic installation project. The correct selection of the mounting system for photovoltaic modules and the components belonging to it is the responsibility of the persons who directly carry out the installation of this system. This work should be carried out by professional installers with the appropriate qualifications and experience. It is the responsibility of the installer to select the correct mounting system and its integration with the building or the ground depending on the conditions of the site and the needs of the customer. IVENDO SOLAR, as a manufacturer of mounting systems, assumes no responsibility for the proper design and installation of the structure. It is necessary that the technical inspection of the installation is carried out at least once a year by persons with the appropriate qualifications. In the event of weather anomalies (strong gusts of wind above 79 km/h, unusual amounts of snow), a technical inspection of the installation should be carried out immediately after its completion. The structure must be used in accordance with its purpose and the requirements of environmental protection. It is expected that the structure will be kept in perfect technical condition and that no significant deterioration will occur.