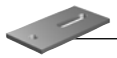
IKO
The Shingles Expert

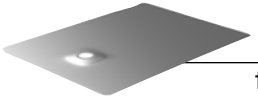
SOLAR BRACKET SET

Mounting Instructions



Adapter

Hanger bolt M10



Metal flashing plate

Required tools

- Tape measure
- Chalk line
- Drill for pre-drilling holes
- Wood drill bit Ø 7.0 (Hanger bolt M10)
- Socket wrench size 7 (Hanger bolt M10)
- Open-ended wrench size 15 (Hanger bolt M10)

Auxiliary equipment

- Roofing hatchet
- Cutting knife with hook blade
- Pry bar
- Caulking gun with bitumen mastic
- Thread sealant for hanger bolt screw

Tightening torque:

Bolted connections M10: 40 Nm

Safety instructions

Planning, mounting, and putting into operation of the solar plant must be performed by qualified personnel only. Poor quality execution can result in damage to the plant and to the building and can present a risk to people.

Risk of falling! There is a risk of falling when working on the roof as well as when ascending and descending the building. Accident prevention regulations must be observed, and appropriate safety equipment must be used. PV mounting systems are not suitable as climbing aids or fall protection.

Risk of injury! Objects falling from the roof can cause injury to people. The danger area around the installation site must be secured and people present in the area must be warned of the risk.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

1. Locate rafters and mark out the center of each rafter using a chalk line.
2. Determine the position of the metal flashing installation.
3. Pre-drilling of the penetration points.
4. Arrange and seal the metal flashing plate.
5. Fasten the hanger bolt into the wooden structure.
6. Seal and fasten lower serrated flange nut.
7. Install the mounting plate – adapter.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

1.

Locate rafters and mark out the center of each rafter using a chalk line.

The position and direction of the rafters must now be marked out centrally on the roof to correctly position the metal flashing plates.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

2.

Determine the position of the metal flashing installation.

Insert slide metal flashing along the axis between the shingles. The flashing must be inserted under the shingle as deeply as possible. Now mark the penetration points for the hanger bolts. Remove the metal flashing before proceeding with the next steps.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

1.
2.
4.
5.
6.
7.

3.

Pre-drilling of the penetration points.

The standard drilling depth of the hanger bolt is to be observed. For M10 hanger bolts this drilling depth is 60 mm.

Please note: It is crucial that the appropriate distances from the edge are observed when drilling into wood. For M10 hanger bolts this distance is 30 mm. In case of ventilated roof decks (eg. OSB board/counter batten/rafter), make sure the hanger bolt always penetrates the rafter minimum 30mm.

Shingle roof covering and wooden deck must be pre-drilled with Ø 7.0 mm for M10 hanger bolts. When pre-drilling into wooden substructures, always make sure that a 90° angle is maintained. Please remove all splinters and cuttings prior to continuing with the installation.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

1.
2.
3.
4.
5.
6.
7.

4.

Arrange and seal the metal flashing plate.

Apply the bitumen mastic around the back side of the metal flashing and a small amount into the pre-drilled hole. Reinsert the metal flashing between the shingles and align the drill holes exactly one above the other.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

5.

Fasten the hanger bolt into the wooden structure.

Please observe the minimum specified thread engagement when placing the hanger bolts. For M10 hanger bolts, this minimum thread engagement is 60 mm. You will need a size 7 socket for M10 hanger bolts.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

6.

Seal and fasten lower serrated flange nut.

The pre-assembled hanger bolt seal is pressed into the drill hole of the nub. The conical end of the seal must be fully inserted. The flange nut is then tightened until it sits flush with the sealing ring. Now turn the flange nut the corresponding number of times (M10 hanger bolt 1,5 – 2 turns) to compress the seal.

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

7.

Install the mounting plate – adapter.

The mounting plate – adapter will be mounted on every hanger bolt with two flange nuts. The height of each adapter can be adjusted. It is recommended to secure the nuts with thread-locking glue.

TIPS >>>

IKO
The Shingles Expert

SOLAR BRACKET SET

Mounting Instructions

1.
2.
3.
4.
5.
6.
7.

TIP:

When the pre-drilling point for the hanger bolt is in the lower exposed part of the shingle, make a round cut on the shingle and slide the metal flashing to this cut-out.