

INSTALLATION MANUAL

COLLECTOR FIXINGS
freestanding 10° (item number 20275)

suitable for df and hp



AKOTEC
SOLARTHERMIE



Notes

General safety information:

Solar thermal collectors generate heat under solar radiation. All components such as tubes, connectors, sensors etc. carry the risk of injury from hot surfaces. In addition, solar thermal systems are operated with overpressure. Opening a solar thermal system can cause steam or hot water to escape. Persons working on solar thermal systems have to consider this, to wear protective clothing and to adopt safe working practices. The tube sets have to be transported horizontally. A maximum of seven cartons may be stacked on top of each other. Our mounting sets are suitable for snow load zones 1 and 2. Collectors must not be installed in the roof edge areas of one meter because of increased turbulence. In stormy areas, separate static calculations must be carried out.

Working on the roof:

When working on the roof, suitable accident prevention measures must be taken. Before carrying out installation work, acquaint with the accident prevention regulations for construction work of your employers' liability insurance association or have yourself instructed by suitable persons. The following points must be noted to ensure safe installation of the solar components:

- fall protection must be used for the installation of the collectors
- keep the safety regulations when using a single ladder
- workplaces on the steep roof must be secured
- safety glasses and gloves must be worn when working with the angle grinder
- collectors can reach a stagnation temperature of up to 200°C during installation and operation due to incident light. There is a risk of burns at the flow and return connections

Occupational safety information:

- wear helmet, hearing protection and safety glasses!
- put on a fall protection!
- only touch glass tubes with gloves!



Required tools:

- drilling machine
- measuring tape (folding rule)
- spirit level
- open-jawed spanner SW 13
- socket spanner SW 13
- hammer
- angle grinder

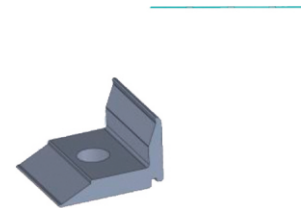




freestanding 10° (item number 20275) for mounting the AKOTEC collectors on flat roofs or free standing

scope of delivery:

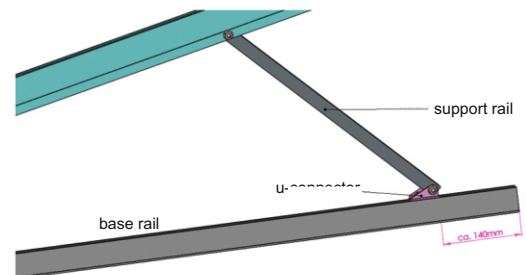
- 2x triangle 10°
- 2x screw M8x40
- 6x locking nut M8
- 4x hex bolt M8x25
- 4x hammer head screw M8x20
- washer DIN125 A 8,4 A2
- diagonal bracing 1400 mm
- clamp bracket set



1

Construction & stiffening of the 10 ° triangles:

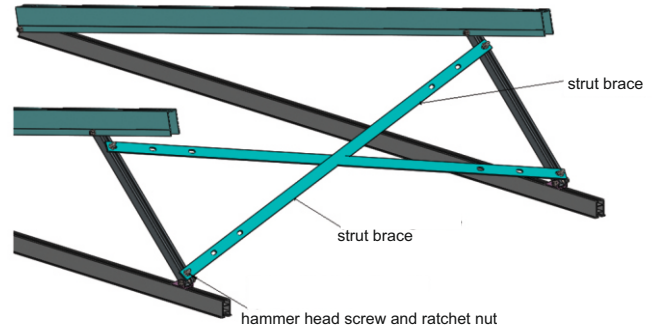
- unfold the two pre-assembled 10 ° triangles
- move the u-connector with the attached support rail in the base rail so that the rear edge of the u-connector is approx. 140 mm from the end of the base rail
- in this position, tighten the 3 locking tooth nuts so that the 10 ° angle of the triangle legs is fixed



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connecting & stiffening the 10° triangles:

- to pin both stiffening struts on one side with hammerhead screws and locking nuts to the support rail of the first 10° triangle
- depending on the collector width and distances of the 10° triangles according to the table, use the various oblong holes of the stiffening struts
- position the second 10° triangle parallel to the first

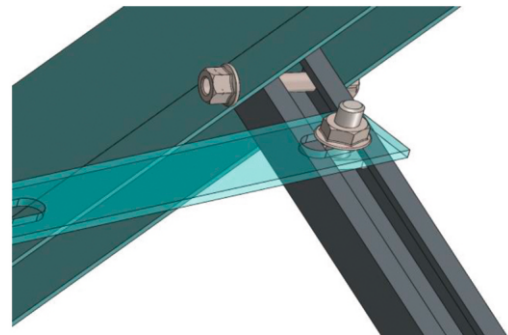


Distances (clear width) between the two 10° triangles depend on the collector type:

collector:	clear width between the triangles:
30 tubes	1275 mm
20 tubes	775 mm
15 tubes	775 mm
10 tubes	525 mm

use in each case:
outer elongated hole
3. oblong hole from outside
3. oblong hole from outside
4. oblong hole from outside

- now fasten loose ends of the stiffening struts crosswise to the support rail of the second 10° triangle using the two hammer-head screws and the locking nuts
- tighten the 4 locking nuts
- the head of the hammer-head screws must lie crosswise in the groove of the support rail



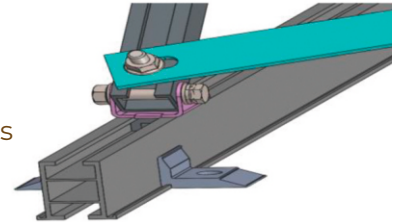


free standing 10° (item number 20275)

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position & fix the 10° triangles at the installation site:

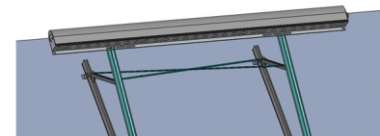
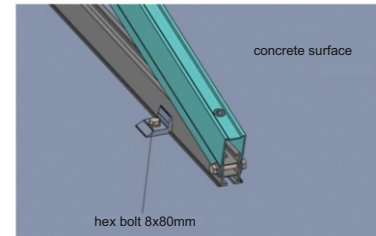
- position the bolted 10° triangles at the intended installation location
- place the enclosed clamp bracket in the front and rear area of the base rail against the base rails
- mark the positions for the dowel bores through the holes of the clamp bracket
- put the clamp bracket aside and drill holes, e.g. into the concrete surface
- diameter of the holes for dowels = 12 mm with a drilling depth of at least 80 mm
- inserting the dowels into the holes
- fix the base rails of the 10° triangles with clamp bracket and the hexagonal screws 8x80 mm with washers on the concrete surface



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mounting the collector:

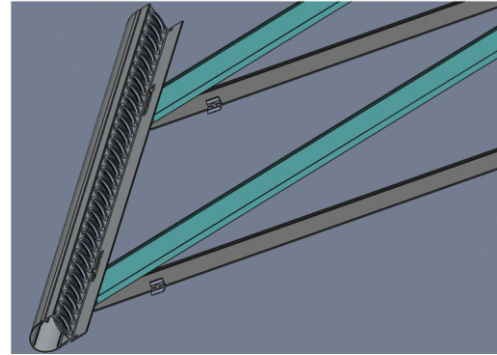
- place the collector at the height of the upper insert nuts on the supports of the 10° triangles
- arrange to the side and secure with washers and M8x30mm hexagon screws



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Mounting the foot part:

- place the foot section at the height of the lower press nuts on the supports of the 10° triangles
- align laterally with the collector
- tighten with washers and hexagon head screws M8x30 mm



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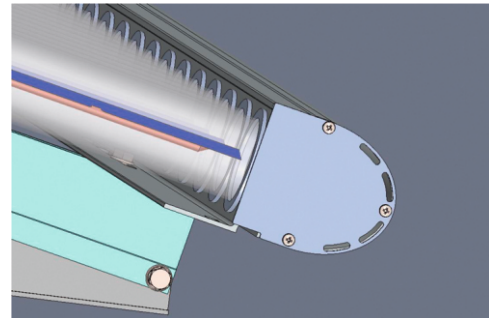
Mounting the tubes /casing:

- for df tubes: see mounting instructions OEM Vario df collector
- for hp tubes: see mounting instructions OEM Varion hp collector

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Mounting the side covers:

- screw the side cover to the casing with 3 flat head cross-head screws



other uses:

A fastening of the 10° triangles adapted to the location or an additional protection against lift-off or provided that the 10° triangles are fixed to the roof, the installation of 10° triangles with collectors attached to them is also possible on flat roofs or outdoors. A corresponding static test or calculation is required.

Collectorfields:

The coupling of several collectors to form a collector array is possible and is described in the installation instructions for the individual collector types.

WE ARE GLAD TO BE HERE FOR YOU:



AKOTEC
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■ AKOTEC Produktionsgesellschaft mbH | Grundmühlenweg 3 | D - 16278 Angermünde

■ T: +49 (0) 3331 25 716 30 | F: +49 (0) 3331 25 599 96 | M: info@akotec.eu | W: akotec.eu