

INSTALLATION MANUAL

COLLECTOR FIXING
flat roof (item number 20160)

suitable for df collectors



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





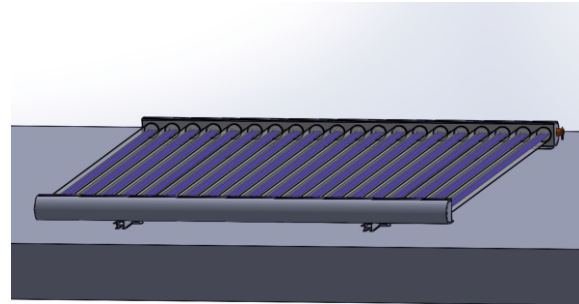
flat roof

(item number 20160)

ONLY df

scope of delivery:

- clamp bracket set for free installation consisting of
 - 8x clamp bracket
 - 8x disc 8,4 A2
 - 8x hex bolt 8x80 A2
 - plastic dowels 12x71
- rail LDC (36 x 28) L=2000mm
- hammer head screw M8x20 A2
- locking nut M8 A2



1

Laying of the LDC rails and the clamp bracket:

- depending on the type of roof, the fastening means for the mounting set must be selected
- this installation manual describes how to fasten the set on flat concrete roofs or on concrete blocks

The following table shows the mounting distances for the various collectors:

type of collector

mounting dimension A (mm)

OEM Vario 500

105 - 285

OEM Vario 1000

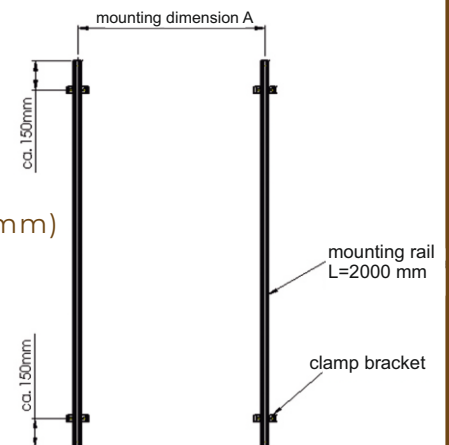
440 - 660

OEM Vario 2000

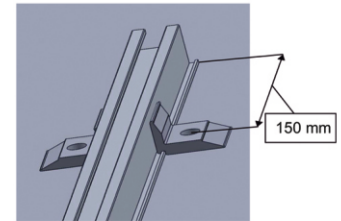
640 - 960

OEM Vario 3000

940 - 1460



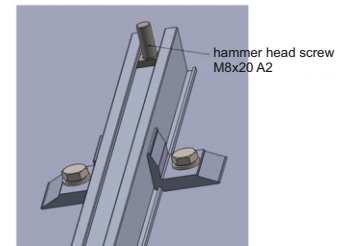
- place the clamp bracket on both sides of the LDC rails
- distance from the clamp bracket to the rail end should be approx. 150 mm
- after positioning LDC rails and clamp bracket, mark drilling positions by drilling the clamp bracket
- for the dowels, drill holes with a diameter of 12 mm and a depth of approx. 85 mm
- after driving in the dowels, fix the LDC rails with clamp bracket, washers and the hexagon screws 8x80



2

Insertion the hammer-head bolts:

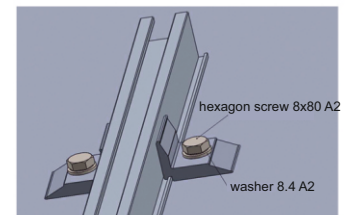
- the 4 hammer-head bolts are inserted into the LDC rails from the sides
- the distance to the outer edge of the LDC rails should be approx. 25 mm
- the centre distance between the hammer-head bolts located on an LDC rail must be 1945 mm



3

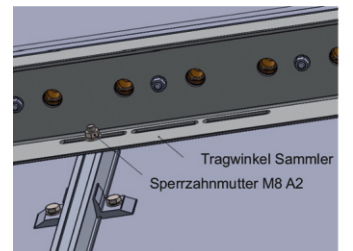
Mounting of the supporting brackets:

- the supporting bracket (tube) and the supporting bracket (manifold) are placed with their elongated holes on the hammer-head bolts inserted in the LDC rails
- fixed after alignment with the enclosed locking nuts
- both support brackets must be parallel (center distance of the hammer head bolts 1945 mm) and must not be offset laterally to one another



further assembly:

- is carried out according to the collector-specific assembly instructions



important:

Please pay attention to all planning, installation and commissioning manuals.

These documents are available at any time

<https://www.akotec.eu/english/about/downloads/> .

WE ARE GLAD TO BE HERE FOR YOU:



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