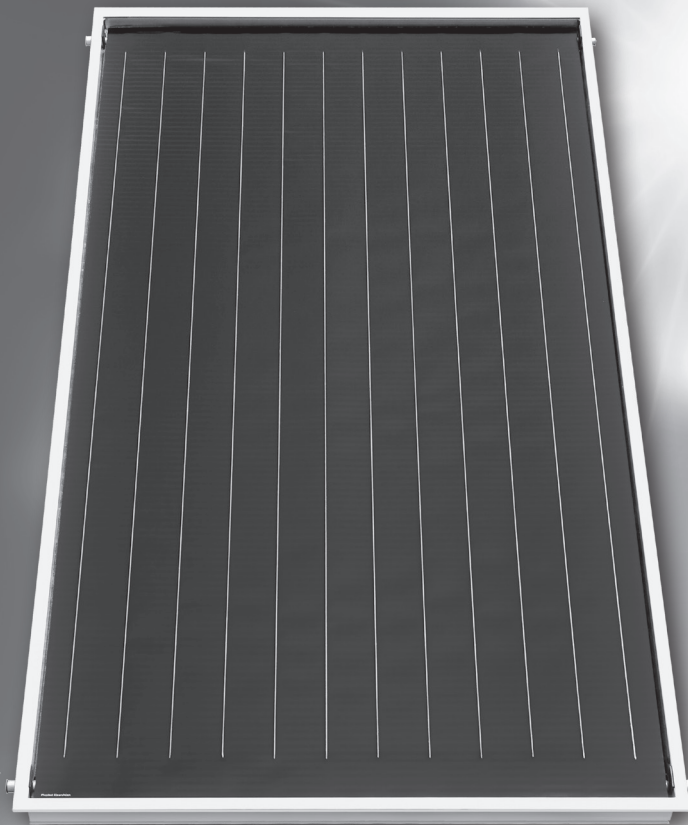


# Installation manual

Excellent efficiency • The best characteristics • Attractive design



SOLAR COLLECTORS

The Quality Chooses Quality



**Solarico<sup>®</sup>**

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## REMARKS



A solar collector generates heat from sunlight and all other types of light. This leads to collector connectors getting very hot, even when they are not filled. This creates a risk of burning. Cover the collectors with opaque material until the installation has been completed. It is recommended you leave the collector inside its packaging until it is installed.



Never install any shut-off valves in the line between the collectors and the safety valve. The safety valve responds at 87 PSI pressure.



Never set the Solar loop pressure lower than potable pressure.



Neither drop the collector nor anything onto the collector.



Never step onto or stand on the collector.

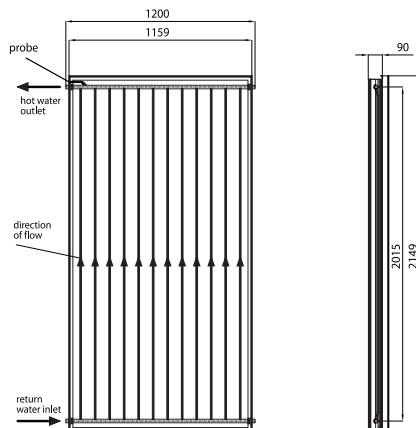
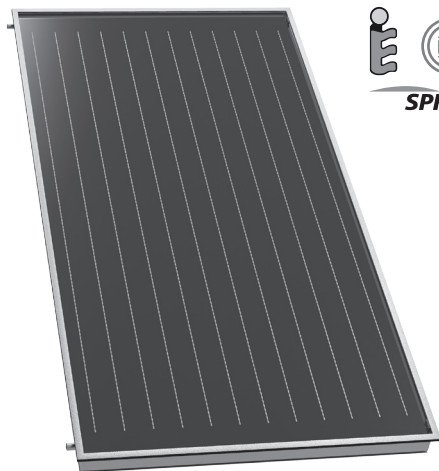


Never leave the collector unsupported or unsecured. The glass could break if the collector falls over.



All sensor wiring needs to be rated for expected temperatures. All sensor wiring needs to be protected from degradation and false signals.

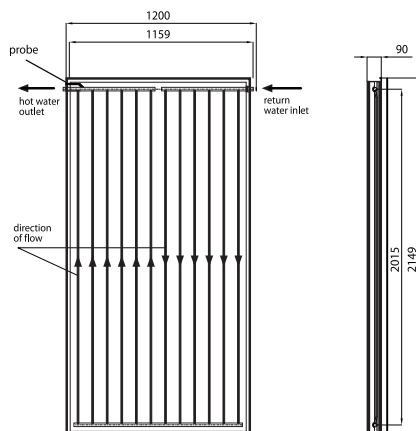
## SELECTIVE SOLAR COLLECTOR TYPE ESK 2.5 - SB



### Technical characteristics:

- copper absorber with Eta plus selective foil 0.2 mm, corrugated
- low iron tempered glass, 4 mm thick
- dimensions 2149 x 1159 x 90 mm

## SELECTIVE SOLAR COLLECTOR TYPE ESK 2.5 - SB U



### Technical characteristics:

- copper absorber with Eta plus selective foil 0.2 mm, corrugated
- low iron tempered glass, 4 mm thick
- dimensions 2149 x 1159 x 90 mm



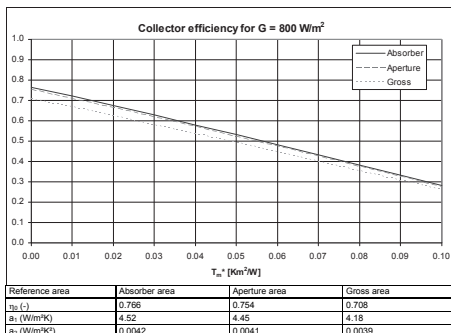
**ISO 9001**  
LL-C (Certification)

**CE 10 years**  
warranty

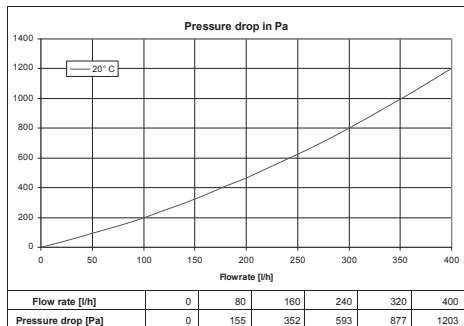
**Solarico®**

Tip		ESK 2.5 SB	ESK 2.5 SB - U
Gross area	(m <sup>2</sup> )	2,49	2,49
Light entering area	(m <sup>2</sup> )	2,35	2,35
Absorber surface (corrugate)	(m <sup>2</sup> )	2,32	2,32
Absorber material		copper sheet with "Eta plus" selective surface coating	
Absorption coefficient (Eta plus)	(%)	95 ± 2	95 ± 2
Emission coefficient (Eta plus)	(%)	5 ± 2	5 ± 2
Cu Pipe register frame	(mm)	Φ 8 x 0,5	Φ 8 x 0,5
Collective Cu pipe frame	(mm)	Φ 22 x 0,8	Φ 22 x 0,8
Absorber volume	(l)	1,7	1,7
Transparent front cover		4mm Hecker T-Safe Solarfloat tempered solar glass	
Solar light transmission through glass	(%)	92 ± 2	92 ± 2
Solar energy transmission through glass	(%)	91 ± 2	91 ± 2
Number of connections		4	2
Connection diameter	(R)	Φ 22	Φ 22
Max. working / test pressure	(bar)	10 / 14	
Stagnation temperature	(°C)	199	
Insulation - back side		40 mm glass wool (50kg/m <sup>3</sup> )	
Insulation - on the sides		-	
Back area		0.5 mm embossed aluminium sheet	
Collector construction		aluminium profil AlMgSi 0,5 F22	
Welding method		ultrasonic	
Height	(mm)	2149	2149
Width	(mm)	1159	1159
Depth	(mm)	90	90
Weight	(kg)	44	44

## Collector efficiency

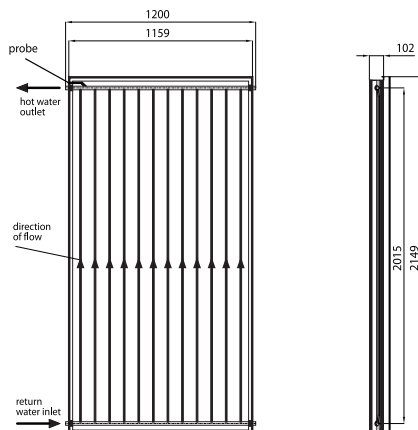
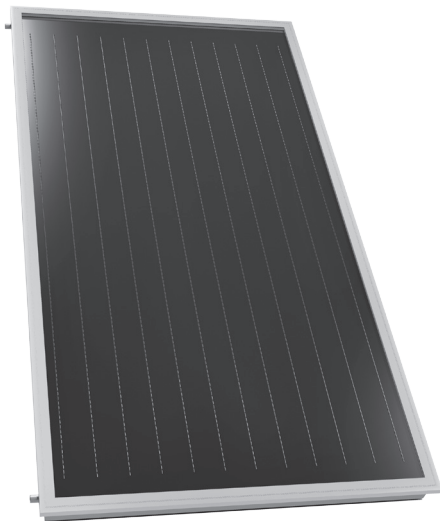


## Pressure drop



## SELECTIVE SOLAR COLLECTOR

### TYPE ESK 2.5 - SB T

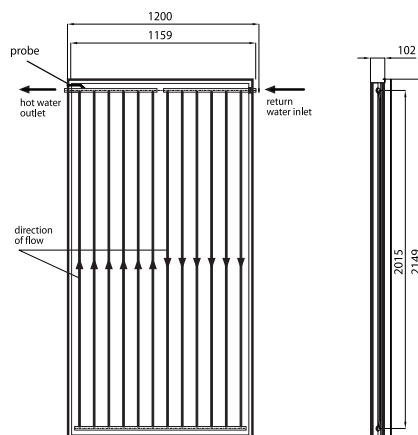
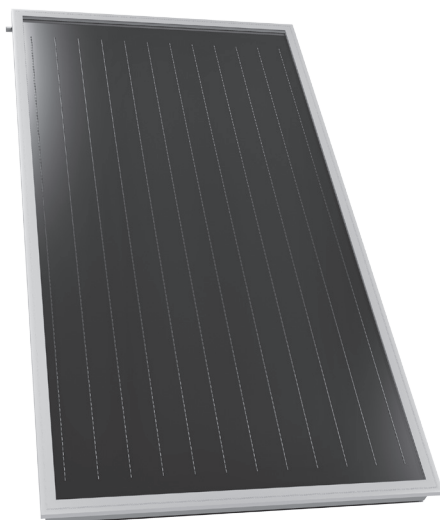


#### Technical characteristics:

- copper absorber with Eta plus selective foil 0.2 mm, corrugated
- low iron tempered glass, 9mm filled with argon, 2 x 4 mm thick
- dimensions 2149 x 1159 x 102 mm

## SELECTIVE SOLAR COLLECTOR

### TYPE ESK 2.5 - SB TU

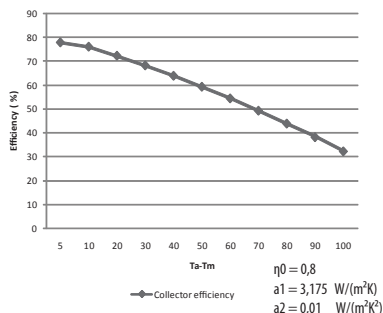


#### Technical characteristics:

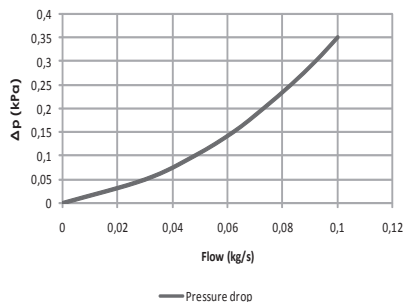
- copper absorber with Eta plus selective foil 0.2 mm, corrugated
- low iron tempered glass, 9mm filled with argon, 2 x 4 mm thick
- dimensions 2149 x 1159 x 102 mm

Tip		ESK 2.5 SB T	ESK 2.5 SB - TU
Gross area	(m²)	2,49	2,49
Light entering area	(m²)	2,22	2,22
Absorber surface (corrugate)	(m²)	2,20	2,20
Absorber material		copper sheet with "Eta plus" selective surface coating	
Absorption coefficient (Eta plus)	(%)	95 ± 2	95 ± 2
Emission coefficient (Eta plus)	(%)	5 ± 2	5 ± 2
Cu Pipe register frame	(mm)	Φ 8 x 0,5	Φ 8 x 0,5
Collective Cu pipe frame	(mm)	Φ 22 x 0,8	Φ 22 x 0,8
Absorber volume	(l)	1,7	1,7
Transparent front cover		2 x 4mm tempered solar glass with 9 mm space gap, filled up with argon	
Solar light transmission through glass	(%)	96 ± 2	96 ± 2
Solar energy transmission through glass	(%)	95 ± 2	95 ± 2
Number of connections		4	2
Connection diameter	(R)	Φ 22	Φ 22
Max. working / test pressure	(bar)	10 / 14	
Stagnation temperature	(°C)	236	
Insulation - back side		12 mm elastomeric rubber foam / 40 mm glass wool (50kg/m³ )	
Insulation - on the sides		12 mm elastomeric rubber foam / 10 mm glass wool (50kg/m³ )	
Back area		0.5 mm embossed aluminium sheet	
Collector construction		aluminium profil AlMgSi 0,5 F22	
Welding method		ultrasonic	
Height	(mm)	2149	2149
Width	(mm)	1159	1159
Depth	(mm)	102	102
Weight	(kg)	70	70

## Collector efficiency



## Pressure drop



# SAFETY INSTRUCTIONS

## Installation & Transportation

Solar Collectors must be secured during transportation. You must secure the collectors from falling out of the packaging, and from scratching each other.

- Use of a carrying strap is recommended
- Do not lift the collector by the connection ports or header tube
- Avoid impacts & vibration on the collectors as much as possible
- Please lift collector by lifting lugs (if included)

## On Roof Operation

Please follow the following safety & operational guidelines when installing Solar Collectors

- Included Mounting Hardware(2 x antislip protection and 4 x side bracket) is intended for On Roof Installations Only
- Additional Mounting Hardware is needed for Pitched Roof & Tilt Mount Installations
- You will be intervening in existing roof and roof coverings during installation
- Please ensure that proper measures are taken for protection of all installation crew
- Familiarize yourself with local laws & regulations, and follow them carefully



**Important Note** - Solar Collectors should not be filled when the sun is out because scalding can occur due to steam being released from the system. If you must fill the Solar Collectors during sunny periods, please cover the collectors.

## Lightning Protection

Solar Collectors should be electrically connected to each other, and to the building's Earth ground via the shortest possible route. An authorized lightning protection specialist should be consulted to examine the installation and installation site.

# INSTALLATION INSTRUCTIONS

## Collector Layout, Orientation, and Siting

Place the collector where it will receive the maximum amount of sunlight available in your location. Eu-roterm ESK 2.5 SB collectors may be installed on a roof, against a south facing wall, or on the ground.



# INSTALLATION INSTRUCTIONS

## Orientation

Orientation and tilt are critical to performance. The Euroterm ESK 2.5 SB collectors should be oriented (faced) as close to true south as practical, although they may be faced as much as 20° east or west of true south with less than 5% loss in capacity.

## Shading

Trees, chimneys, dormers, other buildings, new construction, and even fences may shade the collector array, especially in the winter when sun angles are low and shadows are long. Be sure the collectors are placed where they will be not shaded by these obstructions. As a rule, no more than 5% of the collector area should be shaded between the hours of 9:00 a.m. and 3:00 p.m.

To avoid shading by collectors on each other, the front to front dimension must be 2.5 times the highest point of the front collector.

## Angle of Inclination or Tilt Angle

For domestic water, use an optimum tilt of the site's latitude plus 5°, although the slope may be 10° greater or less with a capacity loss of under 5% for the system. For a solar space heating system, a steeper tilt angle is important for optimal winter performance. The steeper tilt will favor winter system operations when the sun is low in the sky. Therefore, for space heating systems chose a tilt of latitude plus 15°. The variation of 10° either way will not seriously affect the total annual performance of the system, all other things being equal.

## Shedding Snow

A tilt angle of 50° or more is necessary in regions of heavy snowfall and accumulation. Tilt angles of 50° and above will shed snow from OVSOL evacuated tube collectors even after severe storms. It is critical in heavy snow areas that the collectors be sloped to at least a 50° tilt angle. If collectors are installed on a flat roof in an area which receives heavy snowfalls, the lower end of the units should be at least 40 cm above the roof level to minimize chances of snow build-up on the bottom end of the collectors.

### Wind & Snow Load

The wind and snow loads for your location should be taken into account when installing a Euroterm ESK 2.5 SB Flat Plate Solar Collector and calculating the overall weight-carrying capacity of the roof. Euroterm ESK 2.5 SB Flat Plate Solar Collector Mounting Hardware is designed for:

- 1.2 kN/m<sup>2</sup> (snow load)
- 1.1 kN/m<sup>2</sup> (wind load)

## Operation, Checks and Maintenance



The solar system offers unmanned and almost maintenance-free operation. Despite that, it is important to check the right functioning of the system within the first days of operation. First of all the temperature, system pressure and pump operation shall be checked. Once a year, preferably during a sunny day, it is necessary to check the working order and tight fixing of the collectors, verify the system tightness and pressure (incl. pressure in the expansion vessel) and the pump operation. At least once in every 2 years the heat carrying fluid shall be checked for its anti frost properties. The system shall be always replenished with the same fluid as the original filling was.

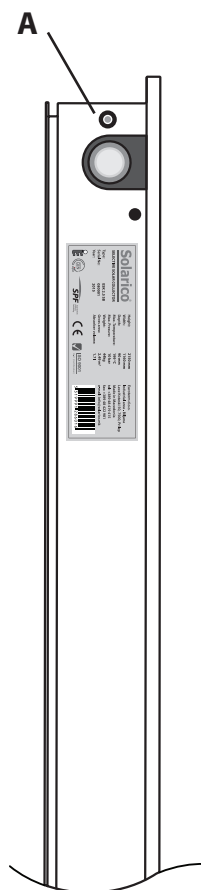
## DESCRIPTION

Euroterm Flat-plate solar collector TYPE: ESK 2.5 SB, is composed of aluminum housing in which is attached a selective copper plate for collecting heat. In one piece placed selective absorber - full plate, is processed in a latest technology – Bluetec “ETA Plus”, which provides a very high efficiency of the collector. Selective solar absorber is ultrasonically welded to the 12 copper pipes. The upper side of each panel is tempered solar glass, with low content of iron oxide and high coefficient of energy transfer. Glass wool insulation with density of 50 kg/m3 is placed at the bottom of the collector. Temperature sensor should be placed in a specially designed pocket (**A**) near the upper collector pipe. System installation is simple, and if it is performed correctly, ensures long and efficient operation.

## IDENTIFICATION

For identification of the solar collector is used table:

Model: <b>SELECTIVE SOLAR COLLECTOR</b>	Height: 2150 mm	 <b>EUROTERM d.o.o.</b> Industrial area - Biljana Lece Koteski 50, 7500, Prilep Made in Macedonia tel: +389 48 419 415 fax: +389 48 422 981 e-mail: solar@euroterm.com.mk
Type: <b>ESK 2.5 SB</b>	Width: 1160 mm	
Serial No: <b>050420</b>	Depth: 90 mm	
Year: <b>2010</b>	Max. Temperature: 199 °C	
	Max. Pressure: 10 bar	
	Weight: 44kg	
	Gross area: 2.49 m <sup>2</sup>	
 58199971286016	Absorber volume: 1.7 l	

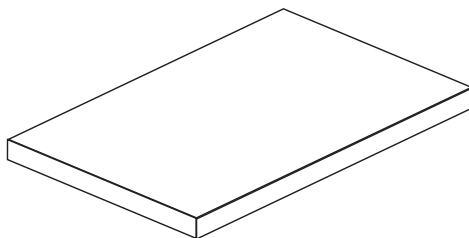


## PACKAGING

Solar collectors can be delivered in different packaging depending of the quantity:

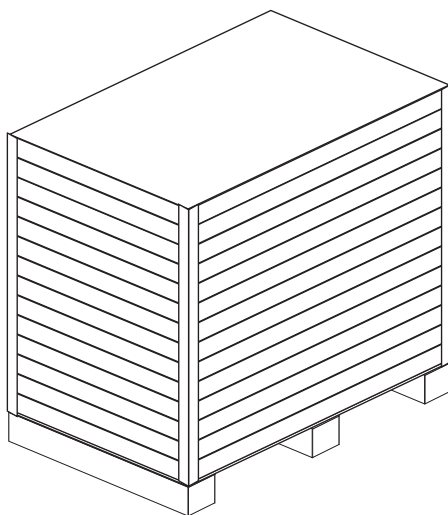
### 1. One collector

- collector
- installation manual
- with guarantee included



### 2. Packaging in 14 pcs.

- max 14 collector
- installation manual
- with guarantee included



# FILLING

## PREPARATION OF MIXTURE OF WATER + glycol

Glycol is supplied separately in the standard package and mixed with water in the tank before filling the installations (for example. 40% glycol and 60% water-resistant to frost temperatures from -21 ° C).

Fill the solar system exclusively with propylene glycol which is intended specifically for use in solar devices. Propylene glycol retains its properties in the area of  $-32 \div 180$  ° C.

Propylene glycol is biologically compatible and not toxic.

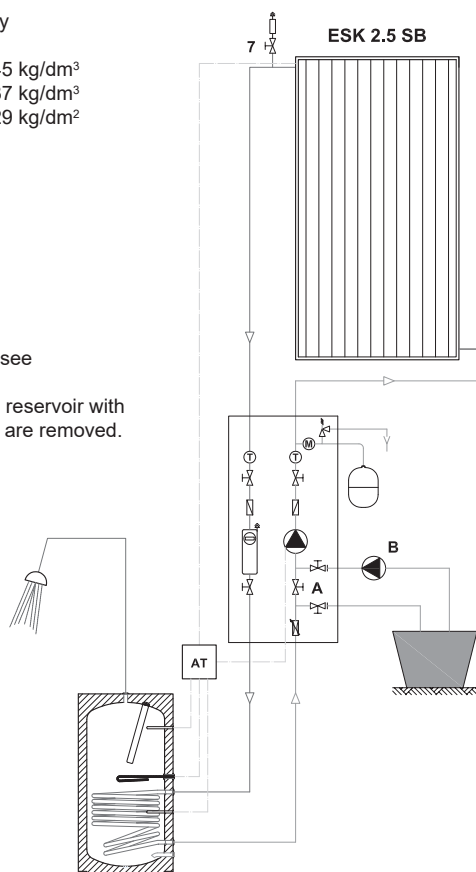
Do not fill pure glycol first and then add water.

If the water contains a high level of chlorine is it necessary to use a distilled water.

Antifreeze	temperature	Density
50%	-32 ° C	1.045 kg/dm <sup>3</sup>
40%	-21 ° C	1.037 kg/dm <sup>3</sup>
30%	-13 ° C	1.029 kg/dm <sup>2</sup>

## FILLING

- 1 - Close the valve (A)
- 2 - The manual venting valve at the highest point (see drawing ) shall be open during charging (7)
- 3 - Insert antifreeze liquid into the system from the reservoir with external pump (B) figure 1, until all air bladders are removed. Close the manual venting valve.
- 4 - Raise the pressure in the installation at 4 bar.
- 5 - Open the valve (A) and leave the installation to work about 20 minutes
- 6 - Repeat the procedure from point 2, while the air is completely dropped
- 7 - Adjust the pressure in the installation of 3 bar.
- 8 - Open the valve (A) and close venting valve, to prevent possible evaporation of heat transfer fluid.



Do not fill the installation during full insolation and while collectors are hot.



**Important:** The system must not be replenished with water.

# FILLING

For larger solar thermal systems or in installations where are not used pump sets, connecting and charging the system are implemented in accordance with the following scheme.

**Note:** To prevent the natural circulation should be used one of these three solutions:

- check valves (recommendation - two, one on each line),
- solenoid valves or
- electromotor valves.

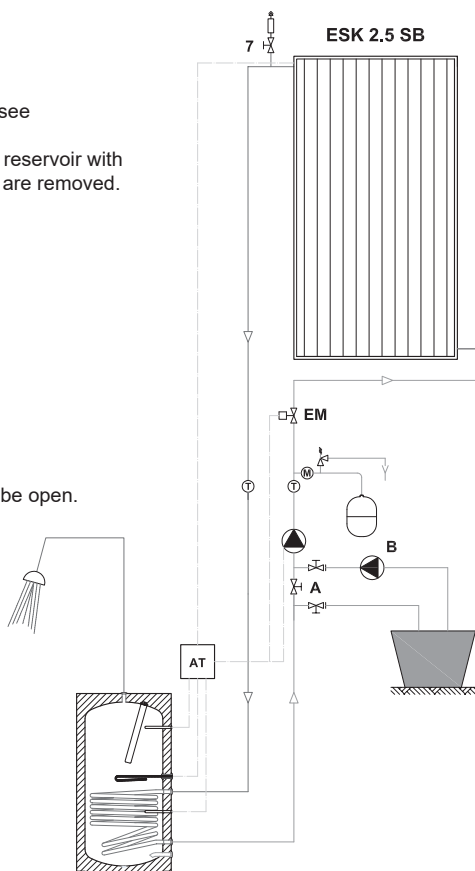
## FILLING

- 1 - Close the valve (A)
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- 6 - Repeat the procedure from point 2, while the air is completely dropped
- 7 - Adjust the pressure in the installation of 3 bar.
- 8 - Open the valve (A) and close venting valve, to prevent possible evaporation of heat transfer fluid.

**Note:** In the charging process, EM valve needs to be open.



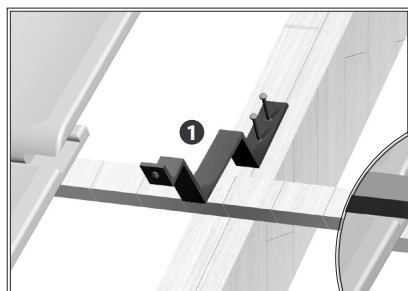
Figure 1



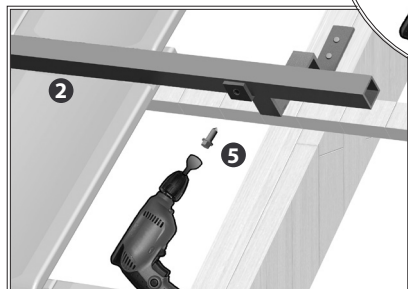
**Important:** The system must not be replenished with water.

# MOUNTING WITH METAL CONSTRUCTION

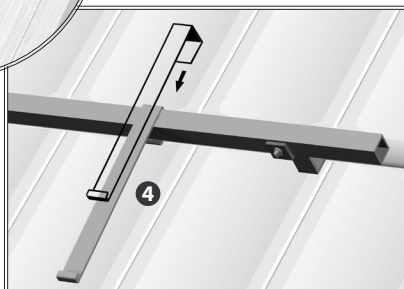
## PARALLEL MOUNTING WITH THE ROOF LINE



Install four collector roof hooks by lag bolting feet into roof rafter.

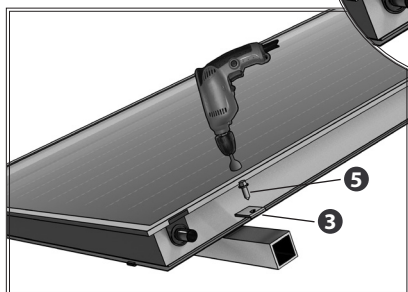
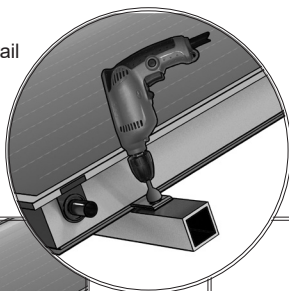


Metal profile is set to the roof hooks. Fixing is done by M8x35 self drilling screw.



Anti slip protection is placed on the lower profile for prevent sliding of the collectors during installation.

- Attach the collector to the profile rail by using a collector side bracket and M8x35 self drilling screw.
- Each collector has four mounting brackets.



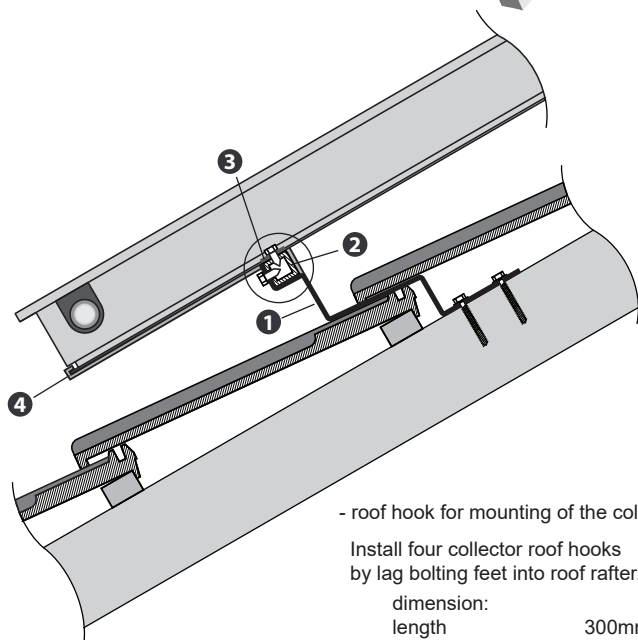
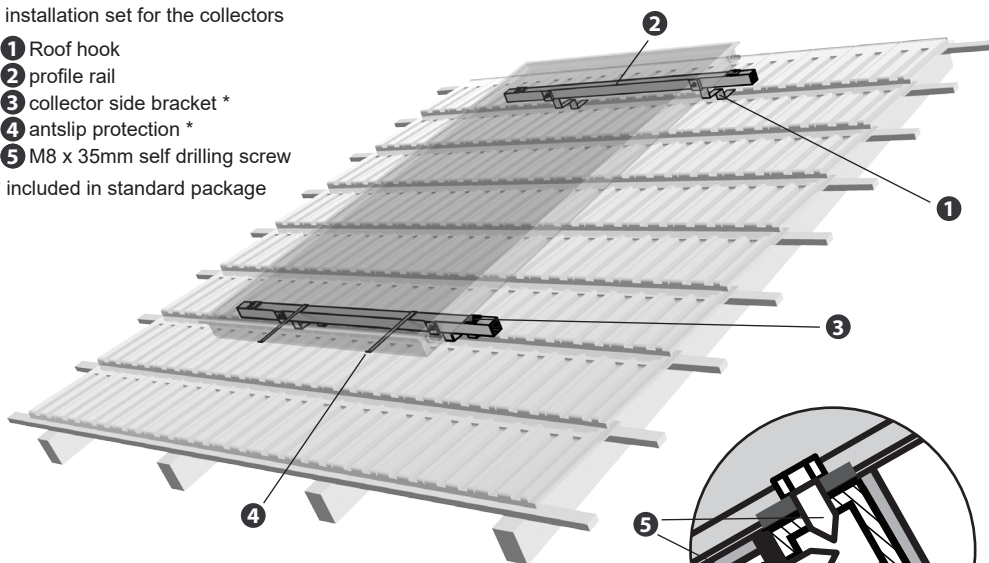
# MOUNTING WITH METAL CONSTRUCTION

## PARALLEL MOUNTING WITH THE ROOF LINE

- installation set for the collectors

- ➊ Roof hook
- ➋ profile rail
- ➌ collector side bracket \*
- ➍ antislip protection \*
- ➎ M8 x 35mm self drilling screw

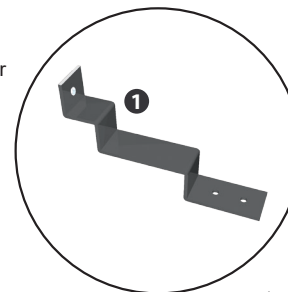
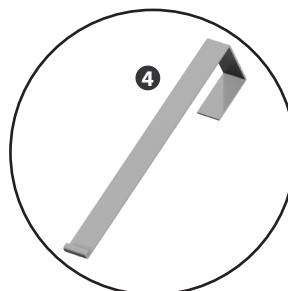
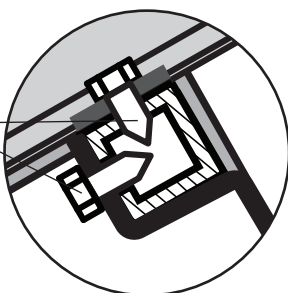
\* included in standard package



- roof hook for mounting of the collector

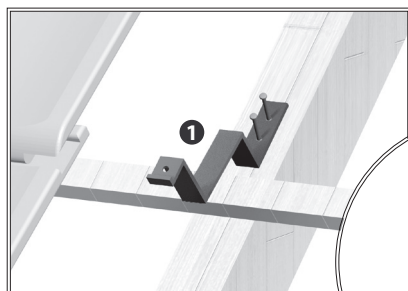
Install four collector roof hooks  
by lag bolting feet into roof rafter.

dimension:	
length	300mm
width	30 mm
material	steel
thickness	5 mm

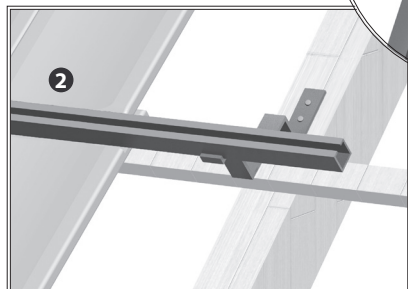
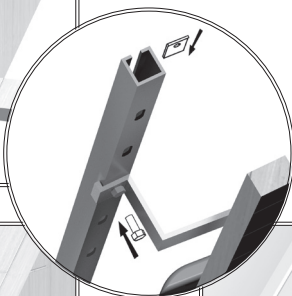


# MOUNTING WITH GALVANIZED PROFILE

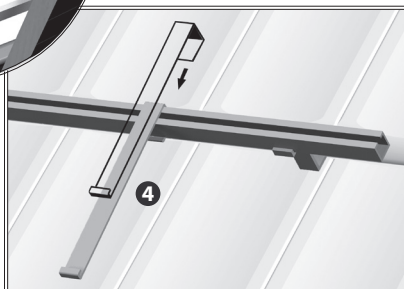
## PARALLEL MOUNTING WITH THE ROOF LINE



Install four collector roof hooks by lag bolting feet into roof rafter.

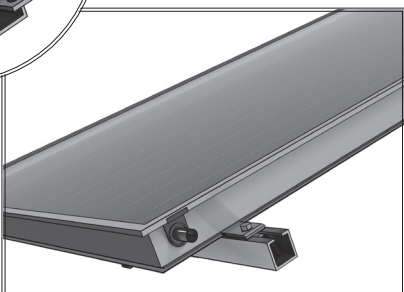
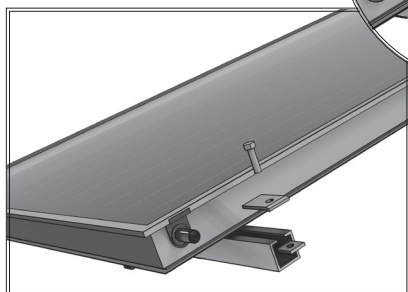
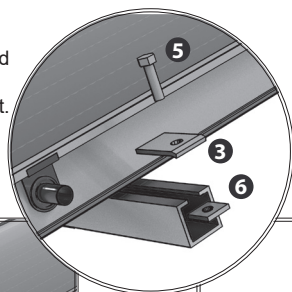


Galvanized profile is set to the roof hooks. Fixing is done by M8x20 screw and M8 locknut (20x30mm)



Anti slip protection is placed on the lower profile for prevent sliding of the collectors during installation.

- Attach the collector to the galvanized profile rail by using a collector side bracket, a bolt and a bracket locknut.
- Each collector has four mounting brackets.





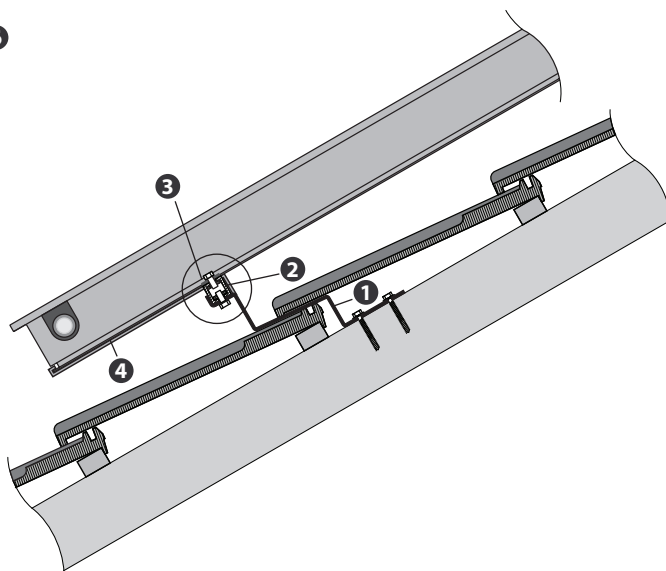
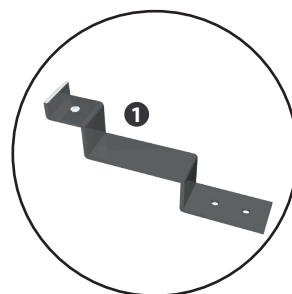
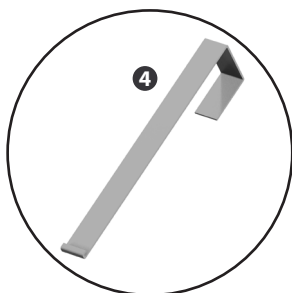
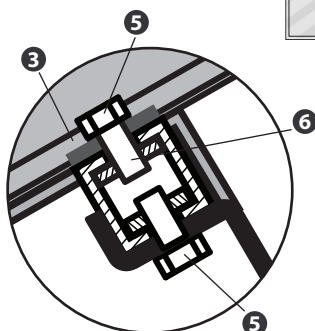
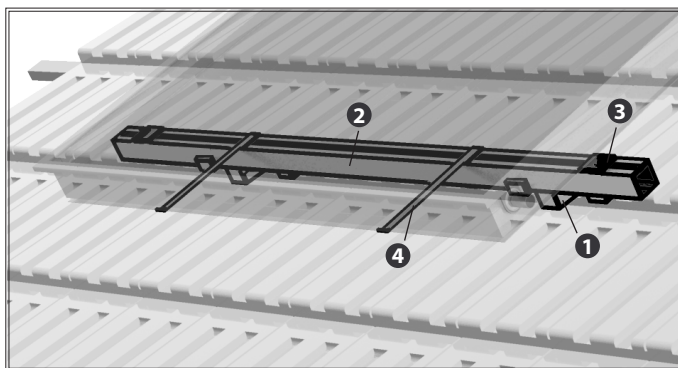
# MOUNTING WITH GALVANIZED PROFILE

## PARALLEL MOUNTING WITH THE ROOF LINE

- installation set for the collectors

- ❶ Roof hook
- ❷ Galvanized profile rail
- ❸ collector side bracket \*
- ❹ antislip protection \*
- ❺ M8 screw x 20mm
- ❻ M8 locknut (20x30mm)

\* included in standard package



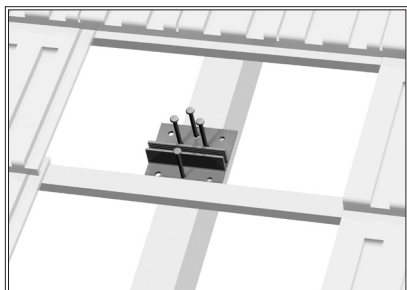
- roof hook for mounting of the collector

Install four collector roof hooks  
by lag bolting feet into roof rafter.

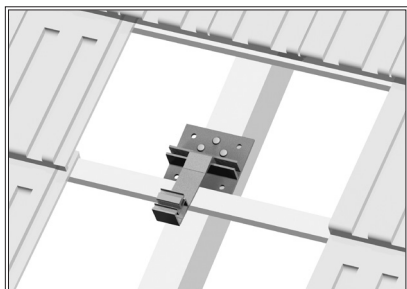
dimension:	
length	300mm
width	30 mm
material	steel
thickness	5 mm

# MOUNTING WITH UNIVERSAL AL PROFILE

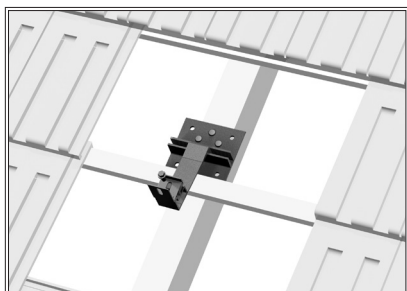
## PARALLEL MOUNTING WITH THE ROOF LINE



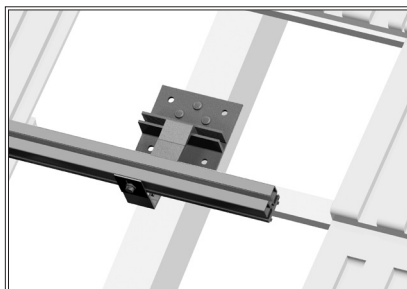
The base plate - Tray 1 (art. 50 206), is mounted on the roof beam using the M8 x 80 screws (art. 50 210). Base plate (Art. 50 206), is prepared so that it is always possible to use at least three screws.



Carrier Profile - Tray 2 (art. 50 207), is placed on the basic plate - Tray 1 (art. 50 206). Grooved carrier profile and the base plate, allows removal of steps, such as height adjustment of the screw, and thus shortens the time of installation, as well as number of hours of the installer on the roof.



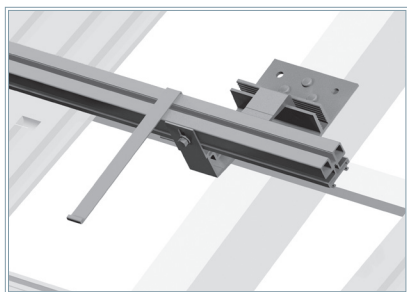
Using self-locking screw M10 x 20 (art. 50 .210) angular profile is associated with the carrier profile - Tray 2 (art.50 207). Angular profile (art. 50 203), is an important element in universal mounting system. It is used in cross-mounting and it is connecting element between the universal profile (art. 50 100) and roof hooks - Tray 2 (art. 50 207).



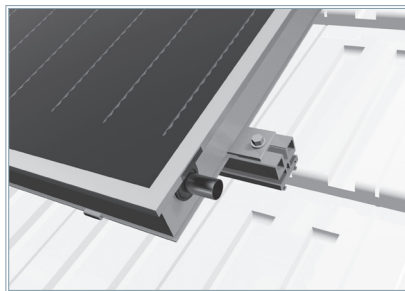
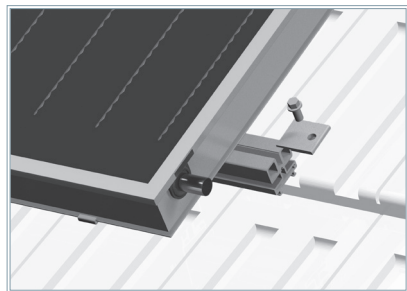
Universal profile (art. 50 100), is set to the angle profiles (art. 50 203). Fixing is done with self - locking screw M10 x 20 (art. 50 210) and screw channels. Screw channels are designed so that the screw can be tightened with torque of 17 Nm.

## MOUNTING WITH UNIVERSAL AL PROFILE

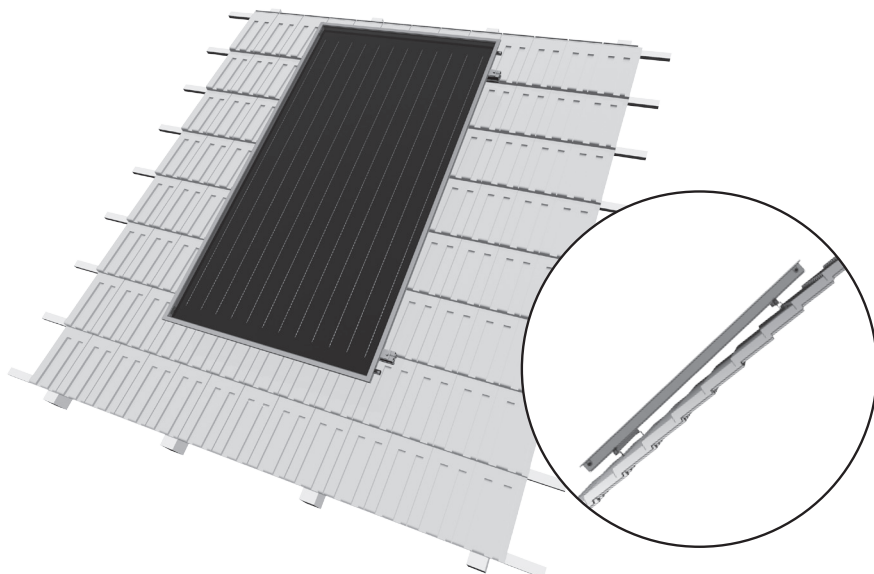
### PARALLEL MOUNTING WITH THE ROOF LINE



Anti slip protection - stainless steel shafts (art. 50 215), is placed on the lower profile for prevent sliding of the collectors during installation.



Attaching the solar collector on a universal platform is performed using side brackets (art. 50 211).



# MOUNTING WITH UNIVERSAL AL PROFILE

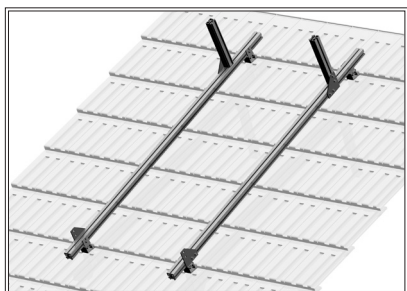
## FREE STANDING MOUNTING



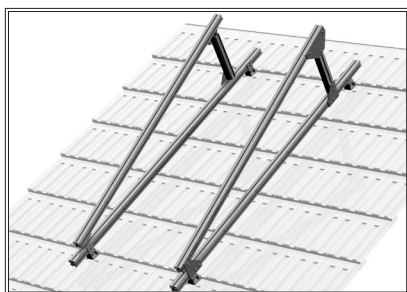
On the already mounted base plate - Tray 1 (art. 50 206) and carrier profile - Tray 2 (art. 50 207), we placed the angle profile (art. 50 203) rotated for 90 degrees, using self-locking screw M10 x 20 (art. 50 210).



Universal profiles (art. 50 100), using self-locking screw M10 x 20 (art. 50 210) and screw channels are placed on angular profile (art. 50 203), parallel to the roof beams.



With angular panels - 90o (art. 50 205), universal mounting platform is adapted for mounting under a certain angle.



Achieving the desired angle is allowed by using variable angular plates (art. 50 204). Universal profiles with self-locking screw M10 x 20 (art. 50 210) and screw channels are placed on the corner plates (art. 50 205) and (art. 50 204).

# MOUNTING WITH UNIVERSAL AL PROFILE

## FREE STANDING MOUNTING

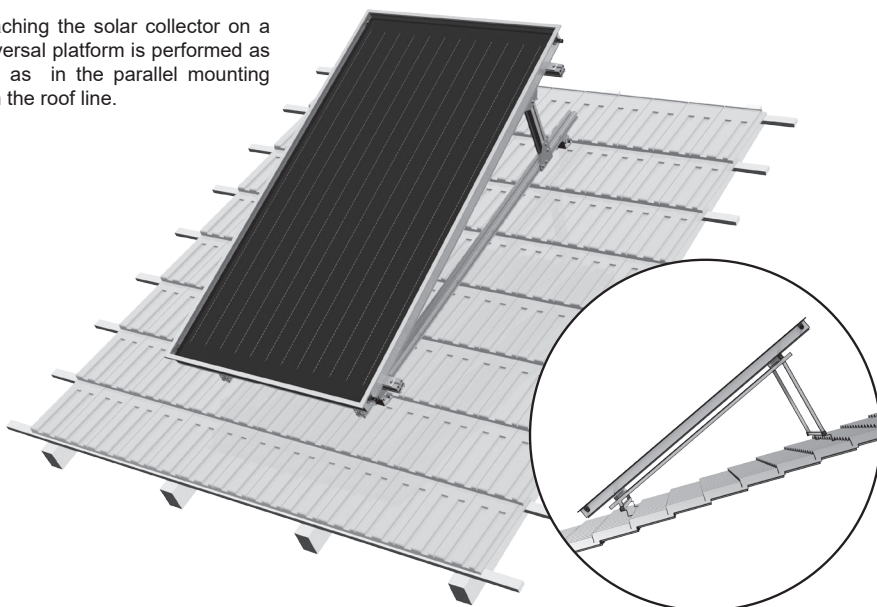


The angular profiles (art. 50 203) are placed on the universal profiles (art. 50 100), using self - locking screw M10 x 20 (art. 50 210) and screw channels.



On the angular profile (art. 50 203), which is rotated for 90 degrees, universal profiles (art. 50 100) are set normal to the roof beams. On the lower profile of an already mounted, universal platform, is placed anti-slip protection - stainless steel shafts (art. 50 215), for prevent sliding of the collectors during installation.

Attaching the solar collector on a universal platform is performed as well as in the parallel mounting with the roof line.



# MOUNTING TERMOSIPHON SYSTEM



Termosiphon system ESK 2.5 150 H and ESK 2.5 300 H represents a simple installation for preparation of sanitary hot water.

The system consists of the following elements:

- Solar collector ESK 2.5 SB – selective
- Water heater - 150 or 300 litres
- Stand for collectors and boiler

## Preparing for installation

Before starting the installation of solar thermal system please check following:

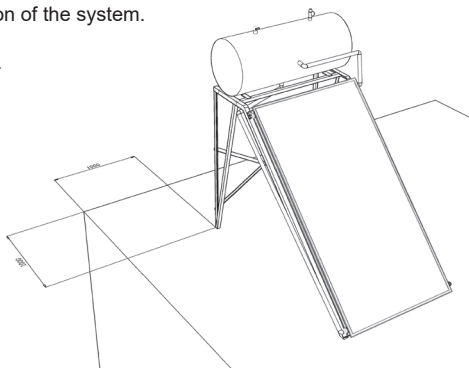
- Completeness and integrity of supply
- Performance of the roof to allow installation on wooden construction.
- The orientation of solar collectors (south).
- Avoid shadows caused by trees, chimneys, etc.
- The stability of the surface intended for installation of the system.

Use only spare parts from the original manufacturer.

Remediation of roof to provide hermetic sealing to perform professional team, especially in the field of waterproofing and bituminous layers.

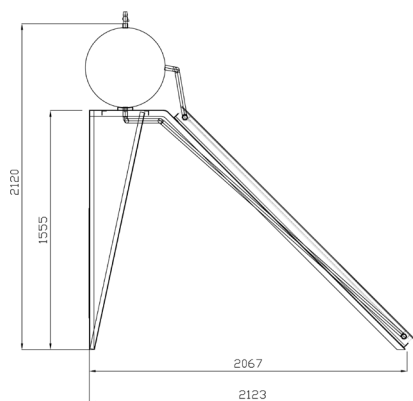
To ensure a minimum distance before you start mounting:

- At least one meter between the construction and the edges of the roof

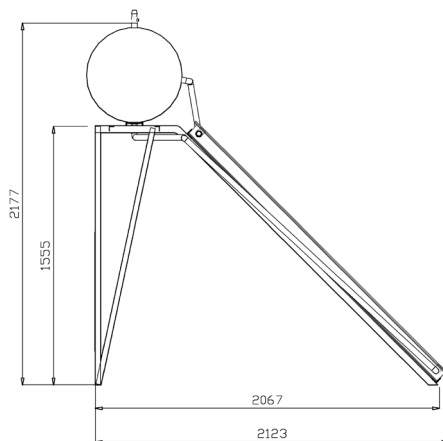


## MOUNTING TERMOSIPHON SYSTEM

### SYSTEM DIMENSIONS



ESK 2.5 150 H



ESK 2.5 300 H

## FILLING TERMOSIPHON SYSTEM

1. With the container filled with a mixture of water and glycol, fill the system by opening the intended (1) for setting the safety valve.
2. Stop filling when fluid begins to drain from the second hole which is used for mounting the mini valve.
3. Close the mini valve (2), and set the safety valve on the intend (1).

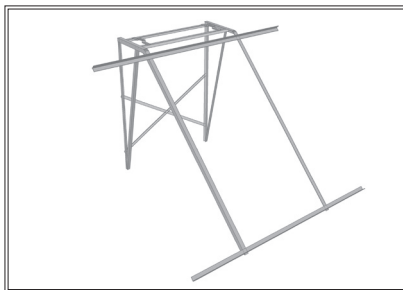
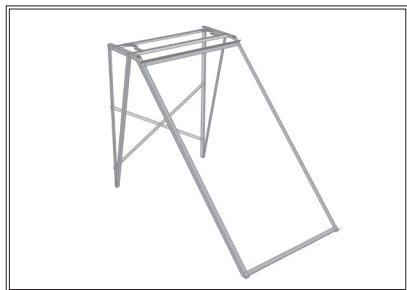


# MOUNTING TERMOSIPHON SYSTEM

Mounting system (45 °)

For complete installation of the system needs at least two people.

The system is installed following the instructions provided with this tutorial.



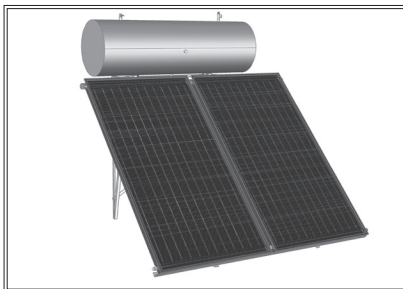
Supporting structure is mounted as shown on drawing



Sets the boiler on the construction using special brackets placed on it or on the special holders that comes with ESK 2.5 SB 300H kit



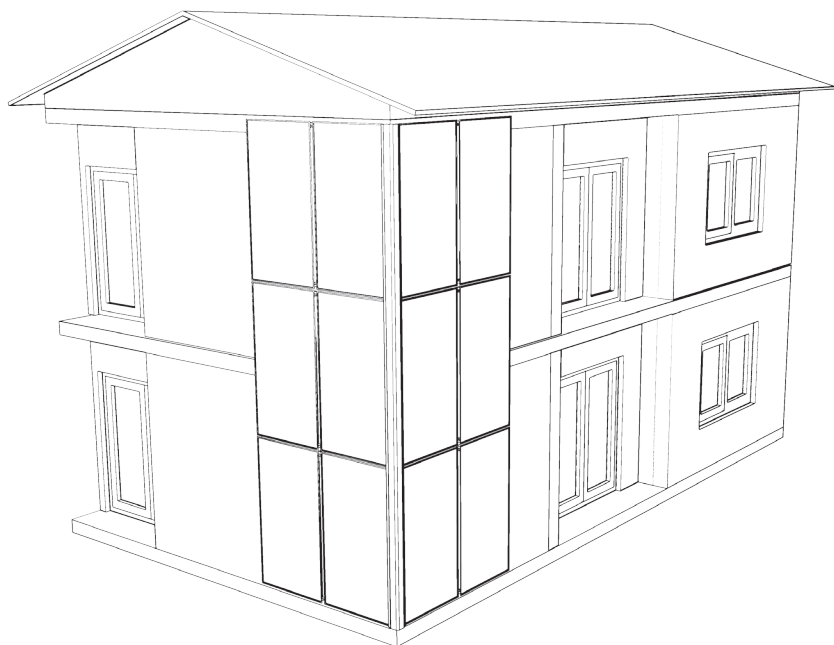
ESK 2.5 SB 150H



ESK 2.5 SB 300H

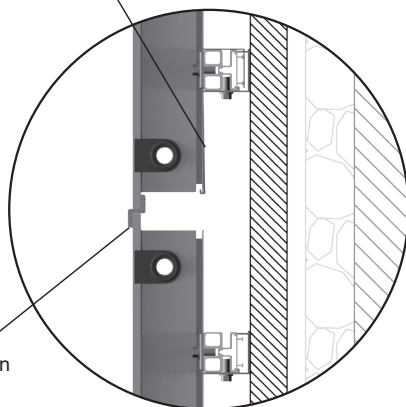


## FACADE MOUNTING



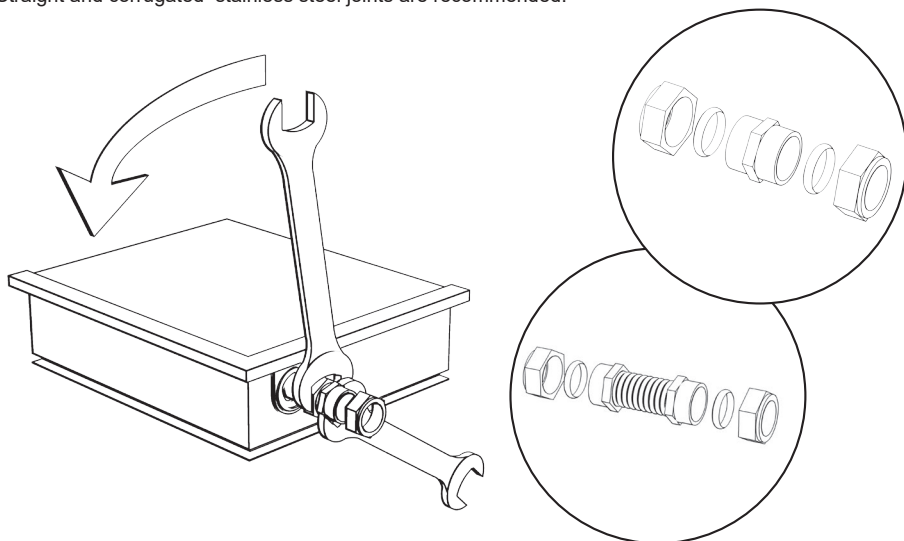
use four antislip  
protection bracket

rain protection  
profile

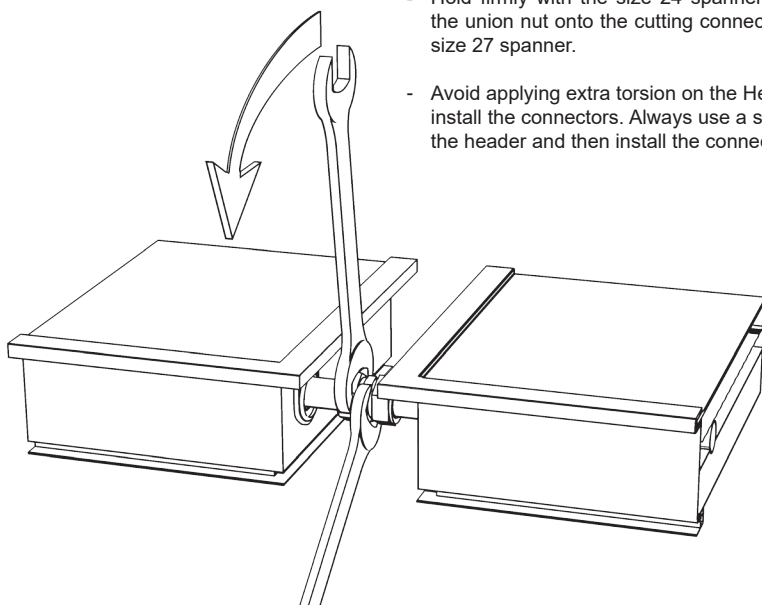


## CONNECTING COLLECTORS

EUROTERM solar thermal collectors are interconnected through 22 mm common joints. Straight and corrugated stainless steel joints are recommended.



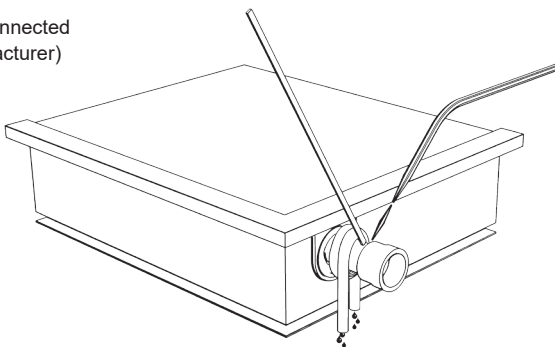
- Hold firmly with the size 24 spanner and tighten the union nut onto the cutting connection with the size 27 spanner.
- Avoid applying extra torsion on the Header as you install the connectors. Always use a spanner to fix the header and then install the connectors.



## CONNECTING COLLECTORS

Solar thermal collectors can also be interconnected by brazing (not recommended by the manufacturer)

- Use oxyacetylene to weld common joints to the Cu pipe.
- Mix a flux with water to make a paste and paint the surfaces to be welded.
- Use wet piece of fabric to protect the plastic joint parts from flame.



## PIPE CONNECTIONS

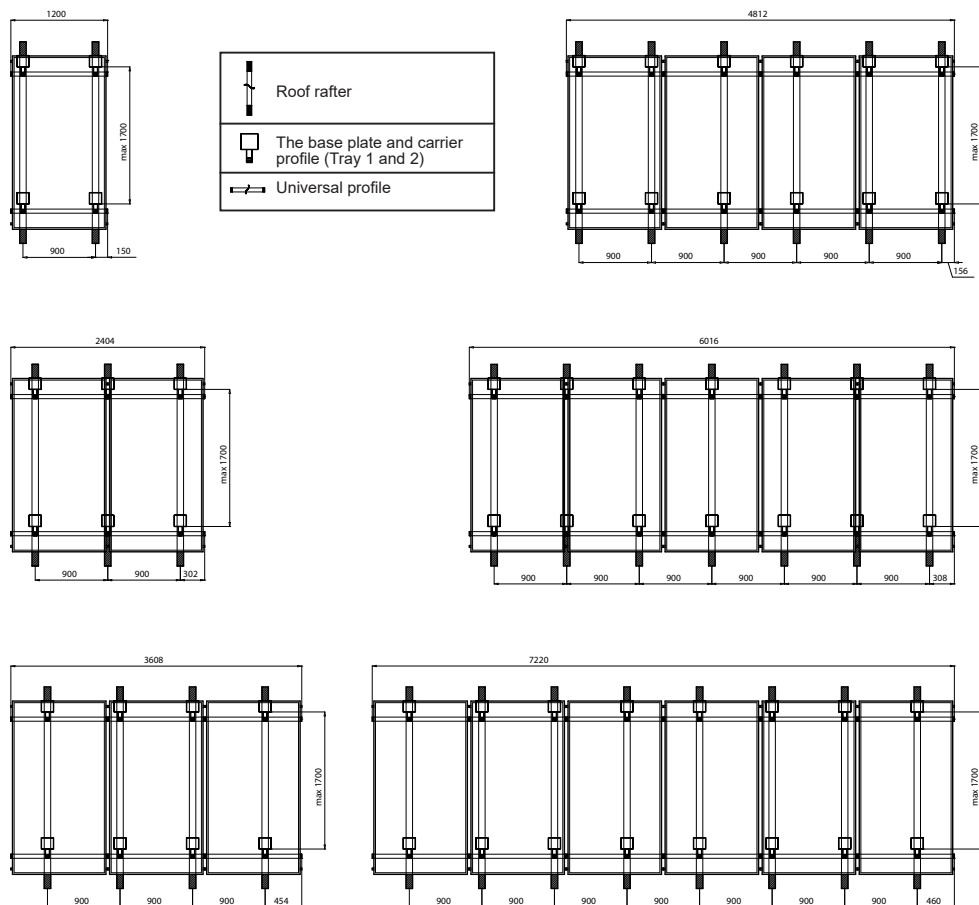
Number of collectors	Flow	Dimension of pipe
/	l/min	mm
1	2	15 x 0.7
2	4	18 x 0.7
3	6	18 x 0.7
4	8	22 x 0.8
5	10	22 x 0.8
6	12	22 x 0.8
7	14	28 x 0.8
8	16	28 x 0.8

# COLLECTOR ARRAY LAYOUT

Collector field measurement (after distance 900 mm)

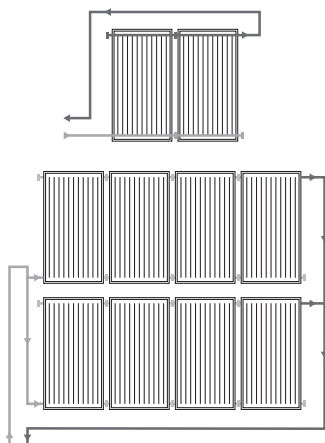
Collector dimensions: 2149x1159x90 (all specified dimensions in mm)

Weight: 45 kg

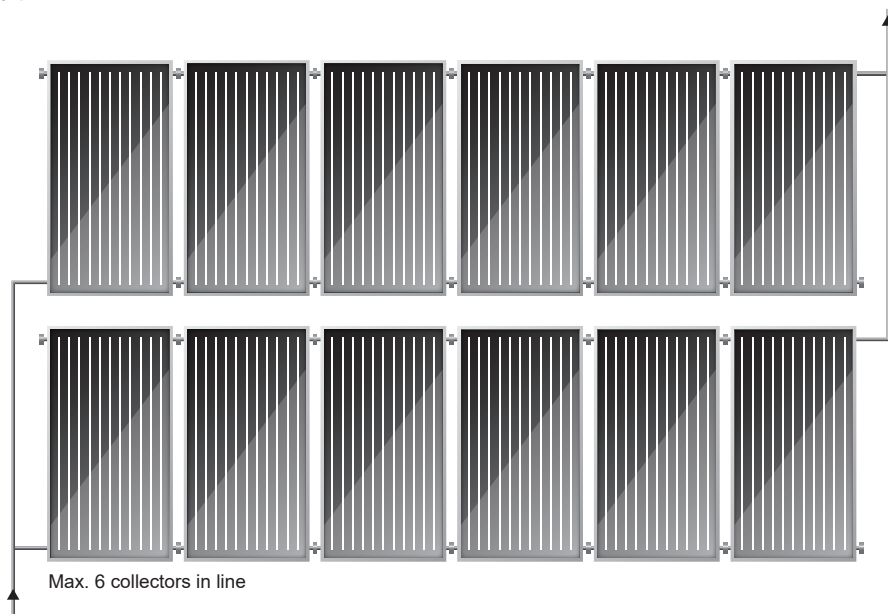
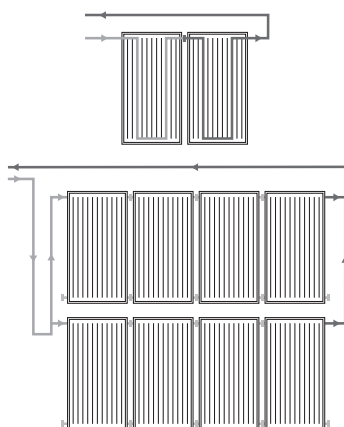


# COLLECTOR ARRAY LAYOUT

Type ESK 2.5 - SB / ESK 2.5 - SB T



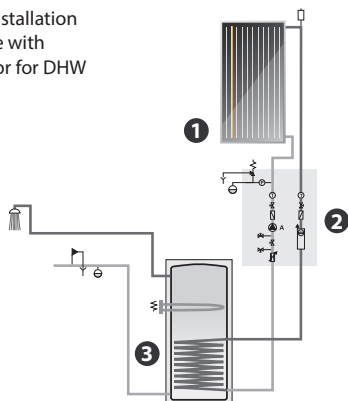
Type ESK 2.5 - SB U / ESK 2.5 - SB TU



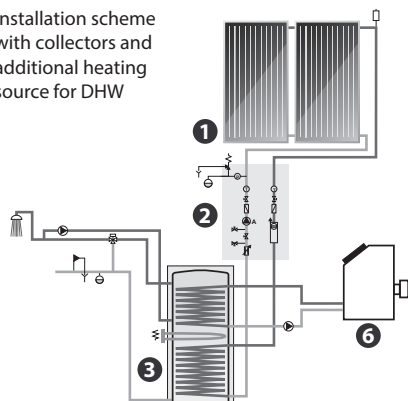
During parallel connecting of two or more collectors fields, pay attention about equal flow (TICHELMAN SYSTEM). Unequal flow may occur disbalance of the system. When connecting collectors in series, use the compensation joints on every second collectors, and in thermopane version for each collector. Connecting for more then 6 collectors in line are performed in consultation with the manufacturer.

# INSTALLATION SCHEMES

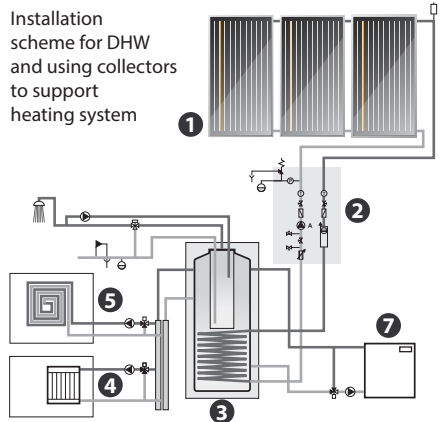
Basic installation scheme with collector for DHW



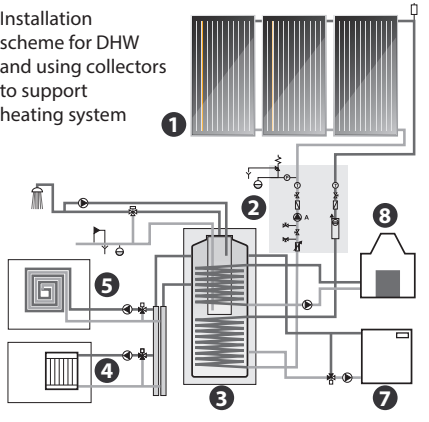
Installation scheme with collectors and additional heating source for DHW



Installation scheme for DHW and using collectors to support heating system



Installation scheme for DHW and using collectors to support heating system



## LEGEND

- |                     |                        |
|---------------------|------------------------|
| 1. Solar Collectors | 5. Floor heating       |
| 2. Pump set         | 6. Boiler              |
| 3. Water tank       | 7. Chiller - Heat pump |
| 4. Radiator         | 8. Fireplace           |

DHW - domestic hot water production

# GUARANTEE

All products are guaranteed by EUROTERM to be free of manufacturing defects since acceptance by the buyer according to following terms and conditions.

Guarantee period:

EUROTERM GUARANTEE PERIOD: 10 years after the date of acceptance by the buyer. Within that period, any repair or incidence will be repaired free of charge by EUROTERM to the buyer, but those expenses when unreasonable return occurs. This guarantee period is only applicable for EUROTERM trademark solar collectors.

Any damage caused by abuse, inappropriate installation, inappropriate electrical protection, energy or combustion, corrosion caused by heat producers, incidences caused by an inadequate working of security elements, drillings caused by frosts and any other agent different to EUROTERM are not included in guarantee period.

For any assistance during guarantee period, buyer must send to EUROTERM a copy of the warranty document filled and sealed.

Guarantee exclusions:

EUROTERM shall not be obliged to repair any damage if:

- Solar collector has not been installed according to procedures described in this manual.
- Warranty document has not been sealed by EUROTERM.
- If products have been manipulated by operators who have not been authorized by EUROTERM
- Spare parts not endorsed by EUROTERM have been used.
- The guarantee does not cover damages caused by freezing of the solar fluid.

Guarantee covers any manufacturing fault in products sold by EUROTERM.

These products will be repaired or replaced in EUROTERM warehouse or in a different one authorized by EUROTERM. Therefore, guarantee does not include working or installation faults.

Guarantee does not cover natural attrition or any breakdown caused by an inappropriate storage, negligence, overcharge or any other reason different to manufacturing faults.

For correct functioning of the solar thermal system, the installer need to comply with the manners and instruction for installation and connection of the collector described in this manual, and detailed in the instruction on our web site in the section of the technical support.

EUROTERM shall not accept any penalty and shall not be liable for any damage to the buyer or to a third party due to abuse.

# www.solarico.eu

## GUARANTEE

Type

**ESK 2.5 SB**

Serial number

Guarantee

**10 years**

Manufacturing date

Signature

# Solarico<sup>®</sup>

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**Lece Koteski 50 Industrial area - Biljana**  
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