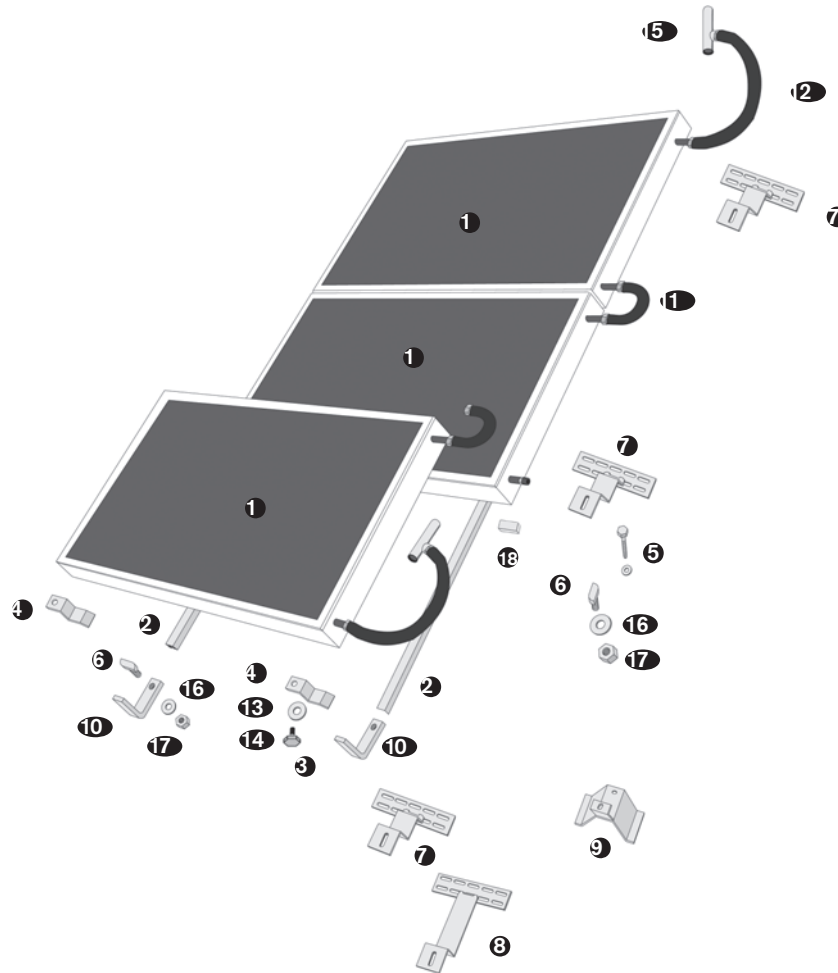
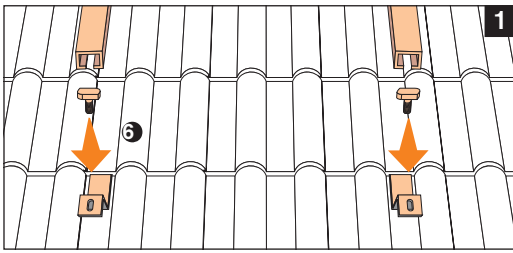


9. Collector mounting with vertical bars

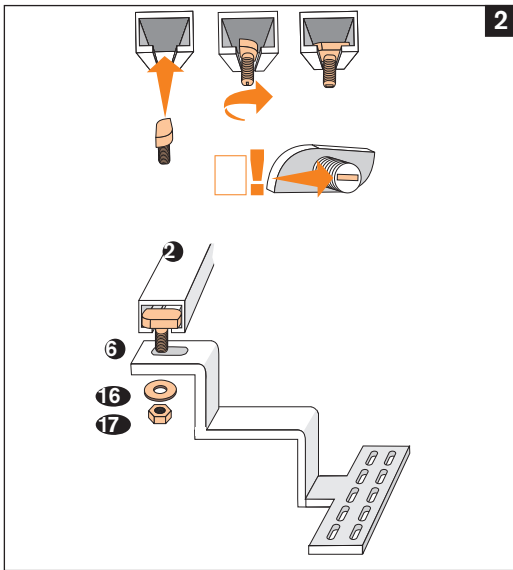


Legend	
Nr. Item	Nr. Item
1 Collector	10 L-Stop profile
2 Alu-C-profile	11 Stainless steel corrugated pipe 30 cm
3 T-headed screw 8x20mm	12 Stainless steel corrugated pipe 90 cm
4 Quicky	13 Washer M8
5 wood screw and washer	14 Nut M8
6 T-headed screw 10x30mm	15 Vent T-piece
7 Roof hook "Frankfurter Pfanne"	16 Washer M10
8 Roof hook plain tile	17 Nut M10
9 Roof hook fibre-cement corrugated plates	18 Distance piece

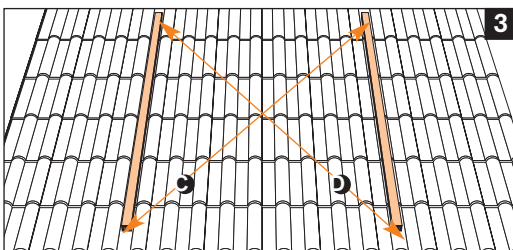


Install the C-profile with T-headed screws ⑥ on the roof hooks.

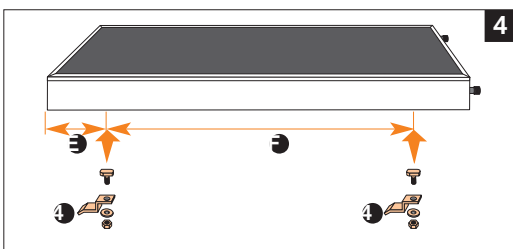
Attention: in the range of the roof hooks, the quickies for the fastening of the collectors cannot snap in the bar. Therefore, do not install the roof hooks right in the centre between two collectors.



Insert the T-headed screw into the C-profile and screw it in as far as it will go. By means of the notch at the end of the thread, the correct position of the screw can be verified



The bars are aligned parallel if measure $C = D$ (e.g. measured with a string). When aligned correctly, the bars can be screwed tightly.



Mounting of the quickies ④

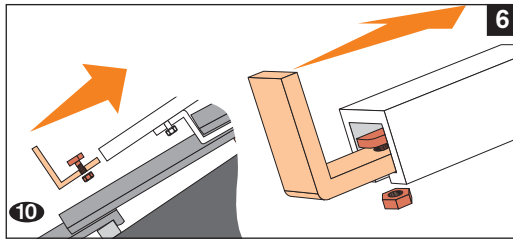
Please consider the measures (E) and (F). The measure (E) should not exceed 50 cm, measure (F) should be 5 cm wider than the distance between the profile bars. This will make the mounting on the roof easier.



According to the on roof installation break out the two draining slots on each of the two lower left and right corners of the collector frame. Use a slotted screwdriver for this and put it on bottom edge of the draining slots to break slots out.

To ensure that the collector could get drained it is necessary that all draining slots at the both lower left and right corners of the collector frame are broken out (according to the collector position on the roof)!

Collector mounting on-roof

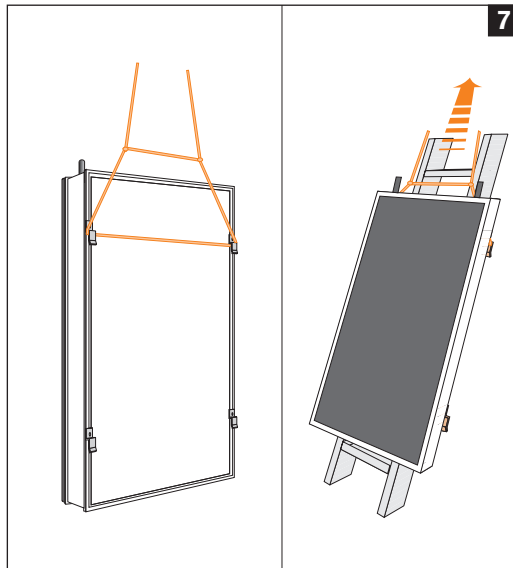


Before the collectors are mounted, put the L-stop profile **10** into the lower opening of the C-profile and securely fastened with T-headed screws.



Important!!!

Screw the L-stop profile tightly!
Otherwise, the collectors could be misaligned.



Pull the collectors onto the roof with a strong rope. Therefore, attach the rope at the upper quickies only if they are screwed together very tightly. Otherwise the quickies could turn to the side and the collector could fall down. Better fasten the rope around the whole collector.

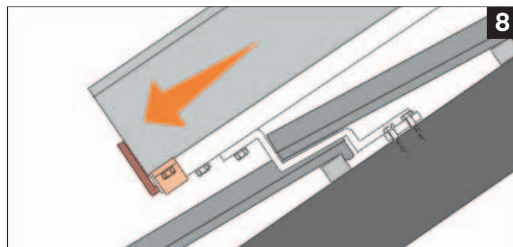
It can then be pulled onto the roof over a ladder. Never attach the rope at the collector connexions.

Danger of falling!!!

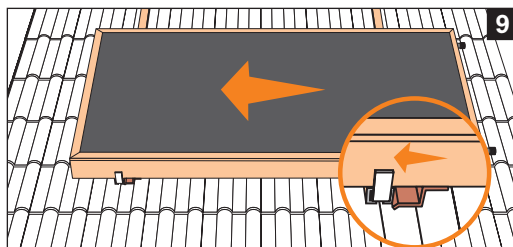


Always wear fall protection.

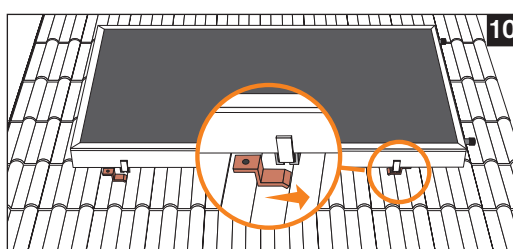
Secure the collectors against the danger of falling.



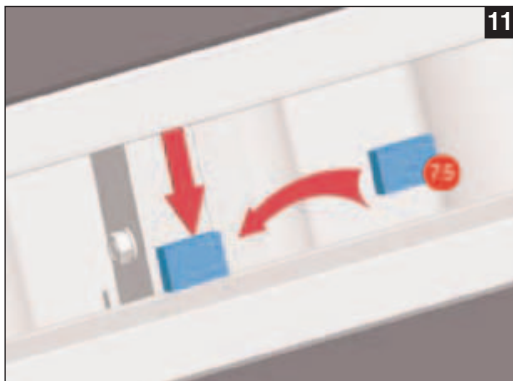
Lift the collector onto the frame and slide them flush with the L-stop profiles.



Slide the collector horizontally with the quickies on the C-profile bar.



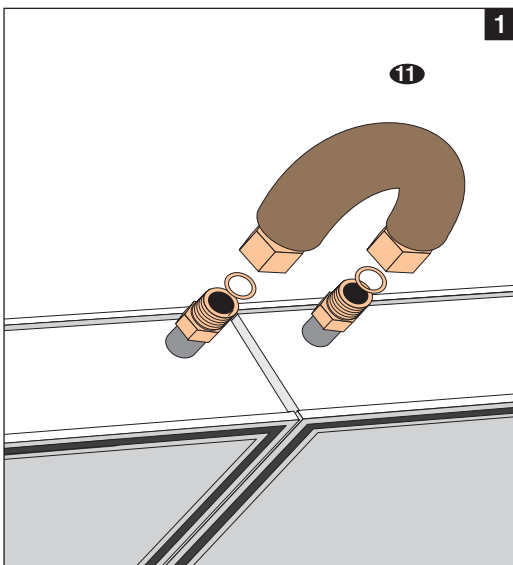
Loosen the quickies at the sides of the collector connexions and turn them 180°. Let the quickies at the opposite side snap into the C-bar and fasten loosened quickies again tightly.



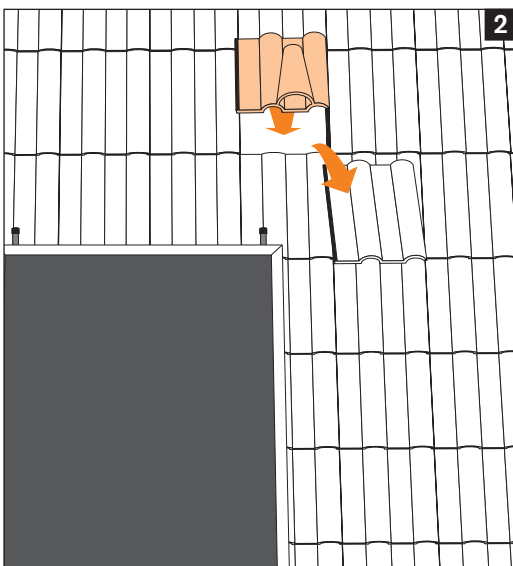
Glue on the distance piece on the profile bar but exactly with stop position against the first collector frame. Install the next collector according to points 9 and 10. Also this collector must rest with its frame against the distance piece.

10. Vent installation and hydraulic connection

For the vent installation, two alternatives are possible: either under the roof (standard) or on the roof.

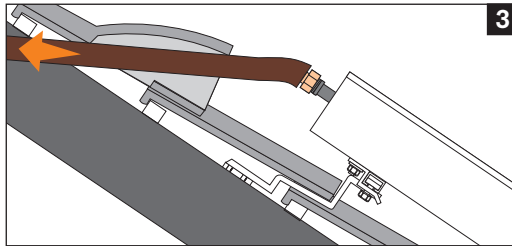


The collectors are connected with each other by means of the short stainless steel corrugated pipes (300mm). **11** Here, please see that the flat seal fits correctly.

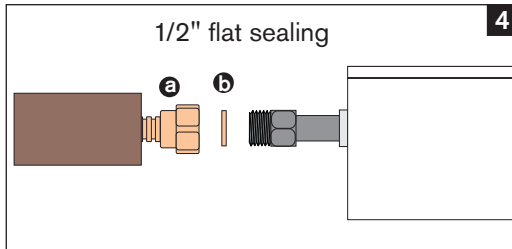


Above the supply and return line of the collector field, exchange one tile against a venting tile in each case. Take care that the flexible stainless steel corrugated pipe tends upwards so that the venting at the highest point is possible.

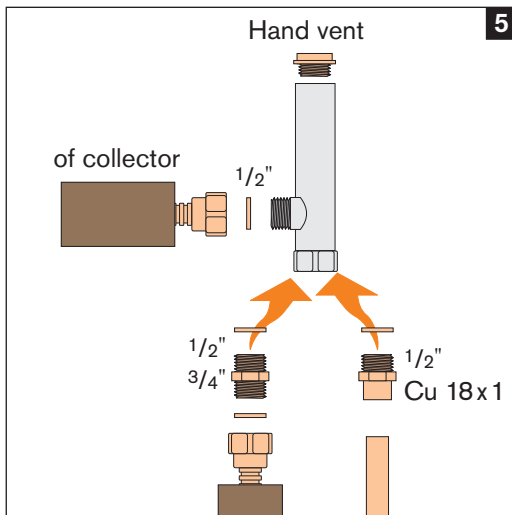
Vent under the roof (recommended)



For the installation of the vent under the roof, first lead the flexible stainless steel corrugated pipe (900mm) through the venting tile.

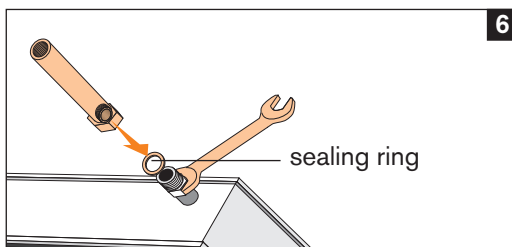


When connecting the stainless steel corrugated pipes **a** see that the flat sealing **b** fits correctly. When tightening the flex-pipe, it is essential that you support it with a wrench. Otherwise the collector could be damaged, because the connexions are only annealed.



The T-piece with vent is mounted at the flex-pipe under the roof. The transition from the T-piece to the further piping is realised with a solder nipple (for Cu-pipe) or a reducing nipple (for flex-pipe).

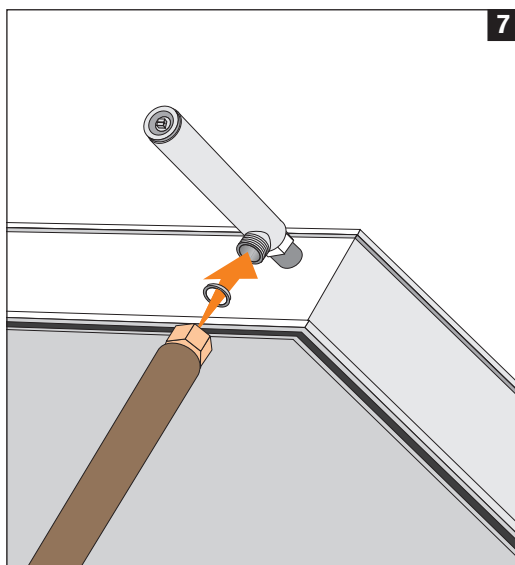
Vent on the roof (alternative)



For the mounting of the vent on the roof, first the T-piece with pre-installed vent must be fastened (both at the supply and the return line). Between collector and T-piece a sealing must be inserted.

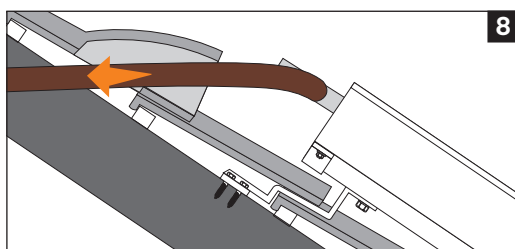


When tightening the flex-pipe, it is essential that you support it with a wrench. Otherwise the collector could be damaged, because the connexions are only annealed.



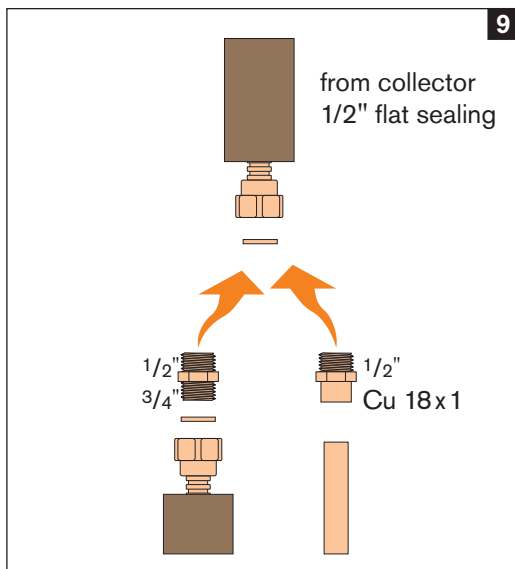
7

Then, connect the long stainless steel corrugated pipe ② (900mm) with the T-piece..



8

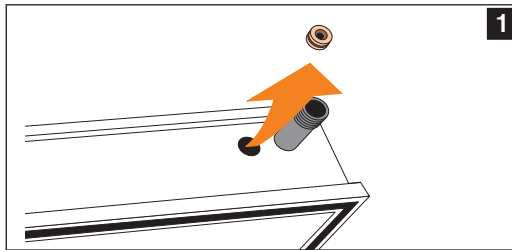
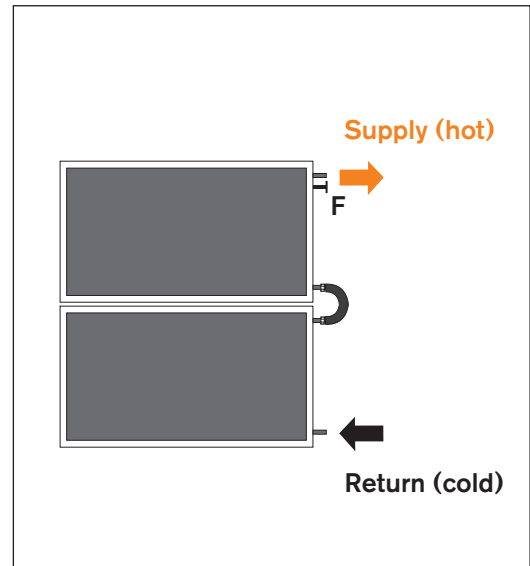
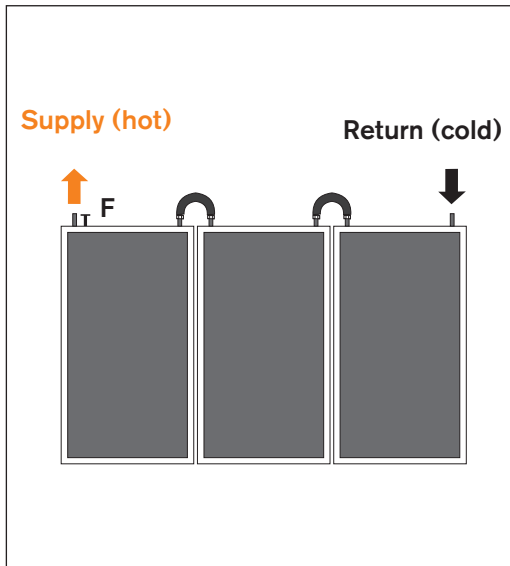
The stainless steel corrugated pipe is then led through the venting tile. Further connections are then carried out in according to the type of piping (flex-pipe or Cu-pipe).



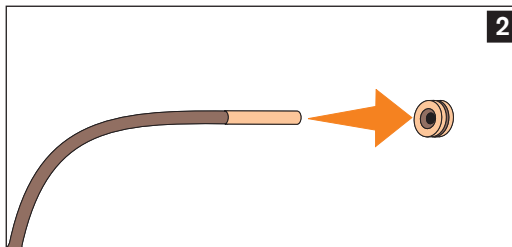
9


At the transition to copper pipe the solder nipple is used, in case of flex-pipe, the reducing nipple is used. Do not forget sealing rings!

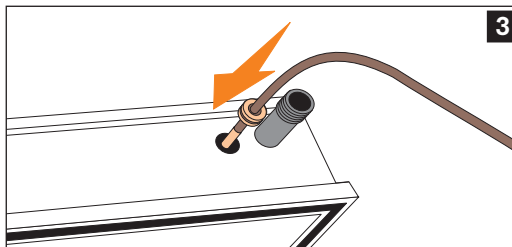
11. Installation of sensors



The sensor is installed in the immersion sleeve next to the collector supply line at position (F). Therefore, remove the rubber stopper from the immersion sleeve and lead the cable carefully through the stopper. Then insert sensor into the immersion sleeve completely as far as it will go and put the rubber stopper back into the frame of the collector.



 Remark: The line that leads from the collector to the hot water storage tank is called supply line. The line that leads from the storage tank to the collector is called return line. The supply line always hotter than the return line.



Up to date of July 2009

PHÖNIX SonnenWärme AG
Ostendstraße 1
12459 Berlin
Fax.: 0049-030 - 53 000 717
info@sonnenwaermeag.de
www.sonnenwaermeag.de