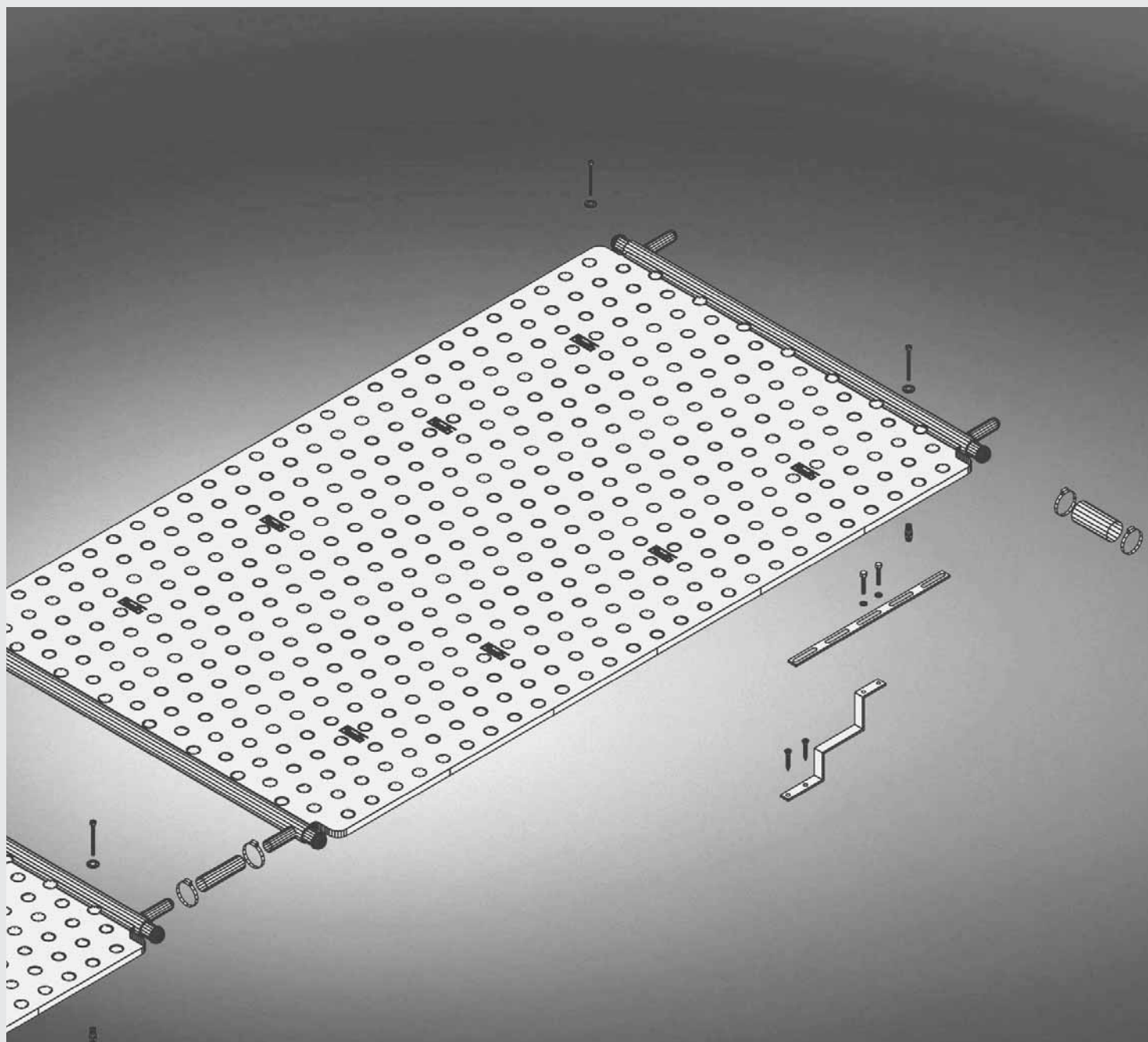


**HELIOPOOL® PLASTIC COLLECTOR
FOR SWIMMING POOLS**
INSTALLATION INSTRUCTIONS



Installation requirements

■ General requirements

The collector HeliPool® is capable for installation on roofs with different slopes. Depending on the roof covering there are various types of attachment (pantiles, various tiles, under and over tiles). On roofs with natural stone the attachment must be carried out by specially qualified personnel.

Please note: You may need additional material such as ventilation roofing tiles for the roof lead-through of the collector field connections (available in special tiler stores and construction material wholesalers), possibly lumbers for different supporting purposes etc.

Important: In applications without Antifreeze empty the collectors completely and take of the pressure to avoid frost damages.

■ Safety information

Please read the installation instructions before starting the installation carefully and follow the indicated safety information. The valid industrial safety instructions and regulations of technology especially with regard to working on the roof have to be observed (see page 10).

Important: The collector HeliPool® is delivered with 2 open outputs (Ø 25). When storing the collector uncovered before installation, it is recommended to cover the outputs to

prevent anything from getting into the collector which could negatively effect the collector and/ or the installation (this is extremely important if collectors are stored outside).

■ Installation of sensor

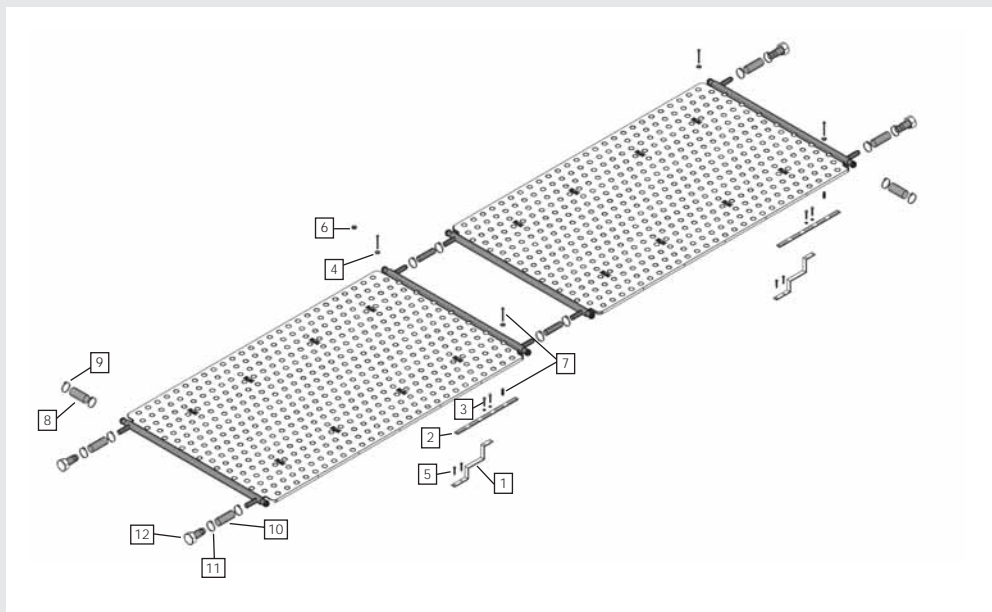
The temperature sensor must be installed outside on the last flooded collector of the collector field (in the direction of the swimming pool). The sensor can be installed on site or optional with the Roth pipe attachment adapter for immersion sensor PT 1000 (material code 1135002273). Please use the corresponding sleeve provided by Roth.

Please note: Up to a sensor cable length of 50 m it is sufficient to choose a cable diameter of 2 x 0,75 mm for more than 50 m a diameter of 2 x 1,5 mm must be used.

■ Overview of tools

- Boring machine with corresponding borer (6) and screw-turn function
- Pins for the type of material of the roof cladding
- Marker, string and measuring tape
- Pencil
- Flat and crosstip screwdriver
- Allen key

Overview of material

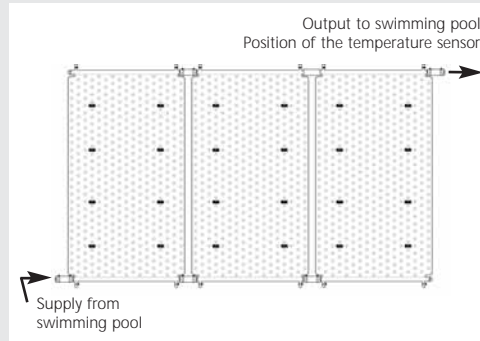


System components

Attachment material	For all roof types (Quantity)	For under and over tiles (Quantity)
1 Rafter anchor (2 types, 1. standard version for all common roof types, 2. height adjustable version, for under and over tiles for example)	2	2
2 Flat steel with borings	2	2
3 Allen screw (6)	4	6
4 Washer (6,5 x 18)	6	3
5 Wooden screws	4	4
6 Washer 6,5 x 17 (bore guidance)	1	1
7 Cavity pin with screw M4 x 45	2	2
Connection material	Quantity	
Connection set for 40 mm connections		
8 Connection sleeve 40 x 47 (length 35 mm)	1	
9 Corrosion resistant clamp 32 x 50		
Connection set for 25 mm connections	4	
10 Connection sleeve 25 x 32 (length 25 mm)	1	
11 Corrosion resistant clamp 20 x 32	4	
End plug set for 25 mm connections		
10 Connection sleeve 25 x 32 (length 25 mm)	1	
11 Corrosion resistant clamp 20 x 32	4	
12 Plug PPR 35 x 40	2	

System varieties

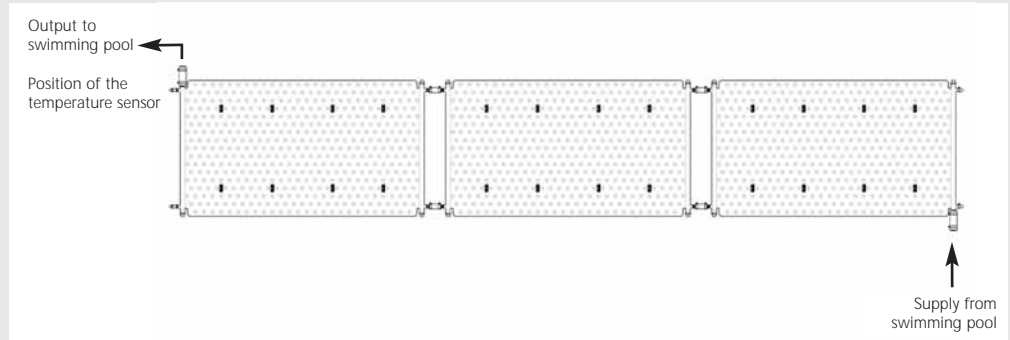
Version 1



Installation material

- ① Connection set for 40 mm connections
= Quantity of collectors
- ② End plug set for 25 mm connections
= Quantity of collectors
- ③ Attachment set = Quantity of collectors x 2

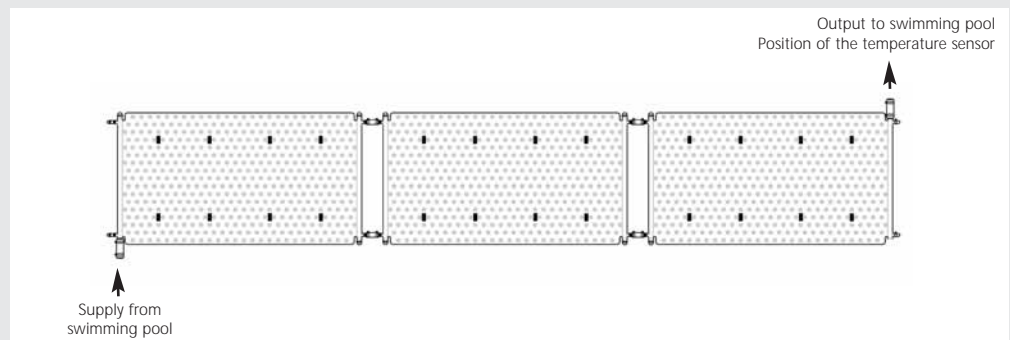
Version 2



Installation material

- ① Connection set for 40 mm connections = 1
- ② End plug set for 25 mm connections = Quantity of collectors - 1
- ③ Attachment set = Quantity of collectors x 2

Version 3

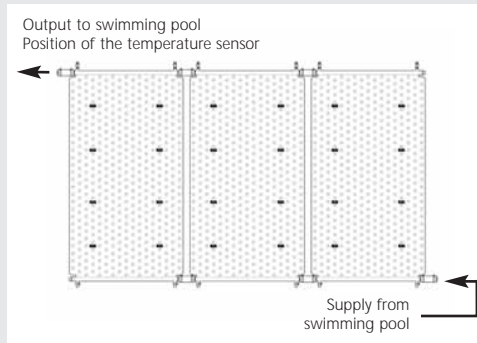


Installation material

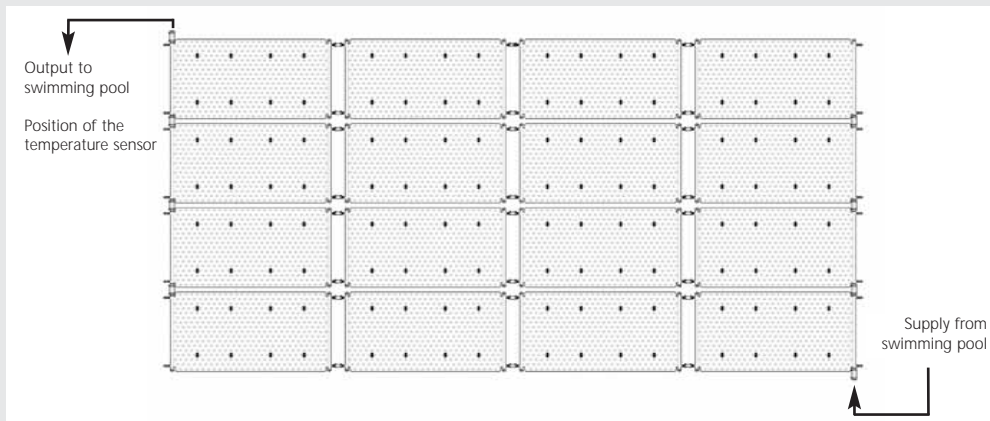
- ① Connection set for 40 mm connections = 1
- ② End plug set for 25 mm connections = Quantity of collectors - 1
- ③ Attachment set = Quantity of collectors x 2

System varieties

Installation material	
1	Connection set for 40 mm connections = Quantity of collectors
2	End plug set for 25 mm connections = Quantity of collectors
3	Attachment set = Quantity of collectors x 2

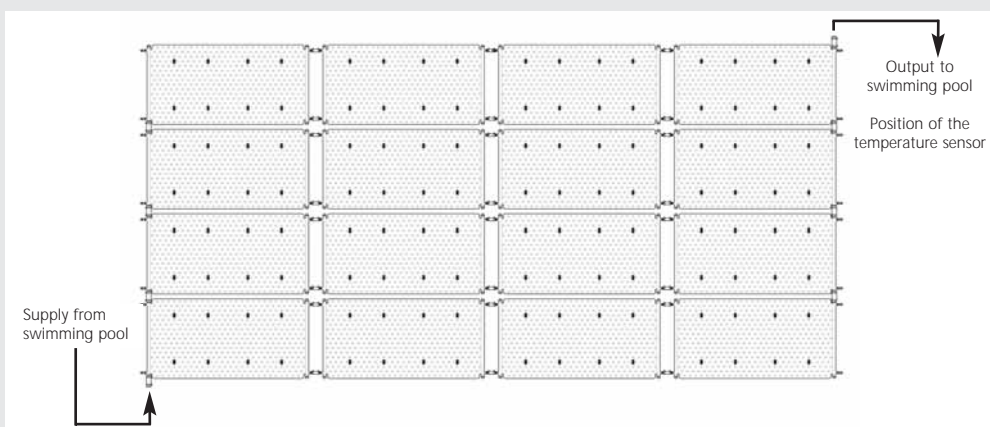


Version 4



Version 5

Installation material	
1	Connection set for 40 mm connections = Quantity of rows one above the other
2	Connection set for 25 mm connections = (Quantity of rows side by side - 1) x (Quantity rows one above the other)
3	Attachment set = Quantity of collectors + Quantity of rows side by side



Version 6

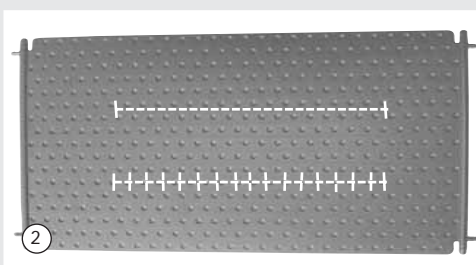
Installation material	
1	Connection set for 40 mm connections = Quantity of rows one above the other
2	Connection set for 25 mm connections = (Quantity of rows one above the other - 1) x (Quantity of rows side by side)
3	Attachment set = Quantity of collectors + Quantity of rows side by side

Installation instructions

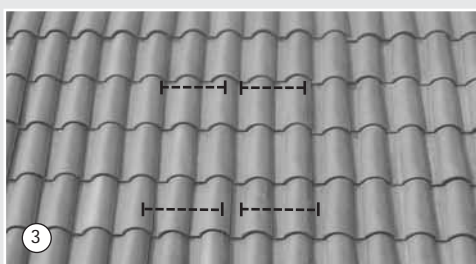
Installation



1. Define the position of the collector field on roof. Make sure that you have enough space for the installation.



2. When defining the position consider the complete dimension of the collector field as well as the required distances between the collectors.



3. Also consider the distances between the attachment areas as well as the width of these areas.

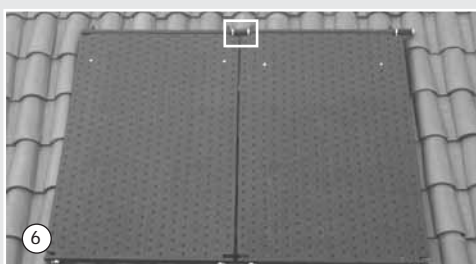
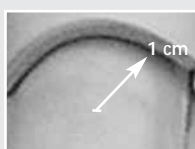


4. Attach the first rafter anchor on the roof and define from there the position of the next one.

Please note: The individual collectors are only attached by two rafter anchors on the upper part of the collectors. It is not necessary to attach the collectors in the lower part.



5. When installing the second rafter anchor consider the knob distance, the clearance between the possible attachment areas as well as the width of these areas.



6. If all steps are completed, the first collector can be attached and then the second one can follow. For this also consider the distance between the collectors, between the possible attachment areas and the width of these areas. The clearance between the collectors should be approximately 1 cm on the side.

Installation instructions



For your own safety, always use your safety material for roof work (see page 10).

■ Safety information



1. Remove the necessary roof tiles after defining the position of the rafter anchor. Make sure to choose the correct attachment set for your roof tiles.

■ Installation steps



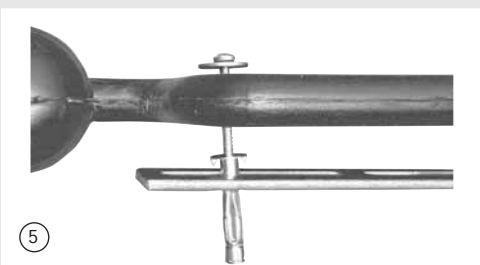
2. Install the rafter anchor on the roof cladding. Exactly measure the position to guarantee that the clamps fit with the knobs of the collector afterwards.



3. Place the roof tiles back into their initial position.



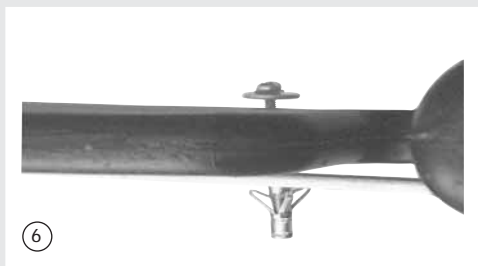
4. Bore with the help of the delivered guidance washer a boring into the knobs which later serves for the attachment of the collector.



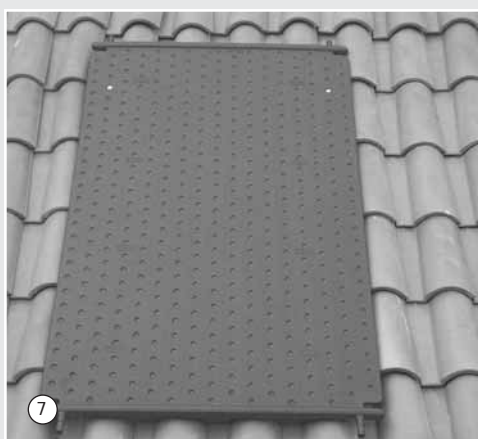
5. Place the cavity pin into the flat connector. Insert the screw through the boring into the pin.

Installation instructions

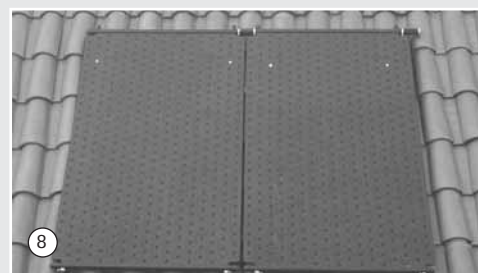
Installation steps



6. Tighten the screw with the help of the boring machine with screw turn function until the pin is opened correctly.



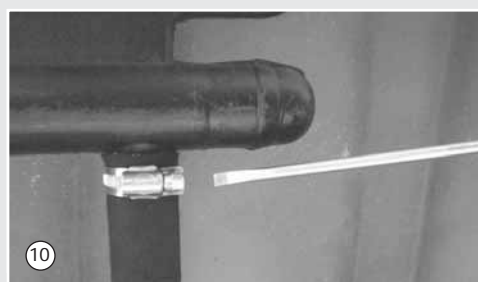
7. Per collector only 2 rafter anchors are required on the backside.



8. Install the other collectors by repeating the before mentioned steps.

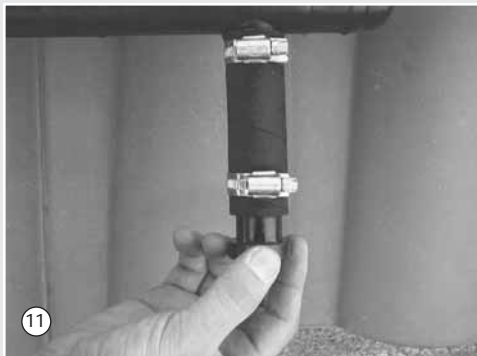


9. The hose from the connection and end plug set must be shortened to the required length.



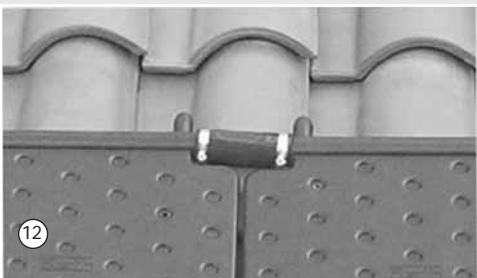
10. To shut off not needed connections (\varnothing 25) with the end plug set, the hose must be attached with the hose clamps.

Installation instructions

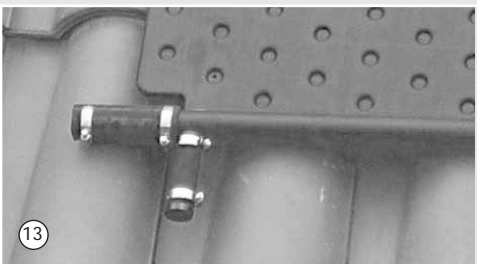


11. Close the open end of the hose with the end plug and also attach it with hose clamps.

■ Installation steps



12. For the hydraulic connection of the collectors cut the closed outputs of the needed diameter (25 or 40) with a knife. The open ends will be connected with the hoses and fixed with the hose clamps.



13. After completion of all steps the connections between the collector field and the swimming pool agitation must be carried out.



Security advises

■ Technical information and hints regarding accident prevention

Detailed information referring to regulations for prevention of accidents for construction work can be found in corresponding legal rules and guidelines. Additional information are also supplied by the Accident Prevention and Insurance Association.

Industrial safety instructions and regulations of technology

- Installation on roofs: DIN 18338 tilers and roof sealing work, DIN 18339 plumbing, DIN 18451 scaffold work
- Connection of thermal solar installations: DIN 4757 part 1 and 3
- Electrical connections: VDE 0100 installation of electronic equipment, VDE 0185 general information with regard to lightning protection installation, VDE 0190 main potential adjustment of electronic installations, DIN 18382 electronic cables in houses

Use ladder appropriate

Use ladder only for a height difference up to 5 m. Lean and secure in an angle of 65 – 75°. Exit must be topped by a minimum of 1 m.

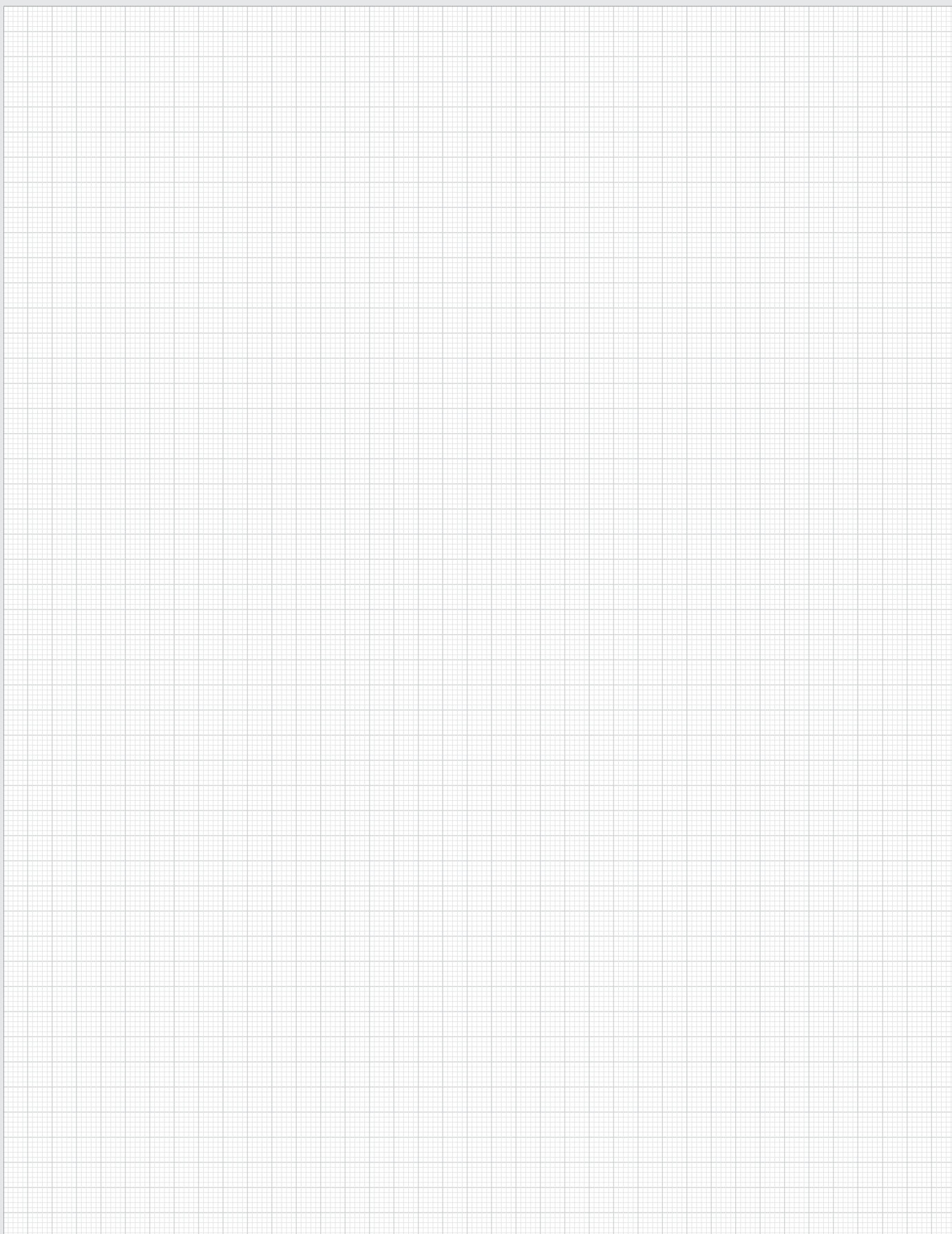
Security of not falling of the roof

In case of falling height > 3m on roofs with a slope between 20° and 60°, it is required to provide corresponding security for falling protection (VBG 37, § 8). The vertical distance from the working place to the roof scaffold or alternatively the roof protection wall should not exceed 5 m. For protection it is also possible to use a safety line. Security hooks must be installed above the user on a sustainable component. Do not use ladder hooks.

Security of falling parts

Protect roads and working places below against falling or upsetting components. These areas must be marked and blocked.

Notes



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SHK ZERT

