

Aluminum Heat Pipe Collector Assembly Instructions

Without reflector, Back leg (optional)

Foreword

Please take time to read this manual and familiarize yourself with the function of this product.

★ Notice

1. Consult or hire professionals in your area for your installation, the lightening arrester should be considered in installation.
2. The system has to be mounted facing south.
3. All exposed piping should be insulated properly to prevent heat loss and provide freezing protection. In the areas with ambient temperature under -5°C , electric heating wire can be served as the solution of piping freezing. Switch off the power before operation.
4. Any modifications on the structures of water heater might lead to problems during service.

◆ The most obvious advantages of Heat pipe solar collector

- Can be installed individually or combined with a traditional system;
- Withstand pressure;
- Can operate with occasional tubes breakage and be replaced easily;
- Works well in low-irradiance day with an electric booster
- How to avoid cold water and hot water mixing?

If the outflow rate is limited within 8L/min, through a lot of testing such phenomenon is not obvious.

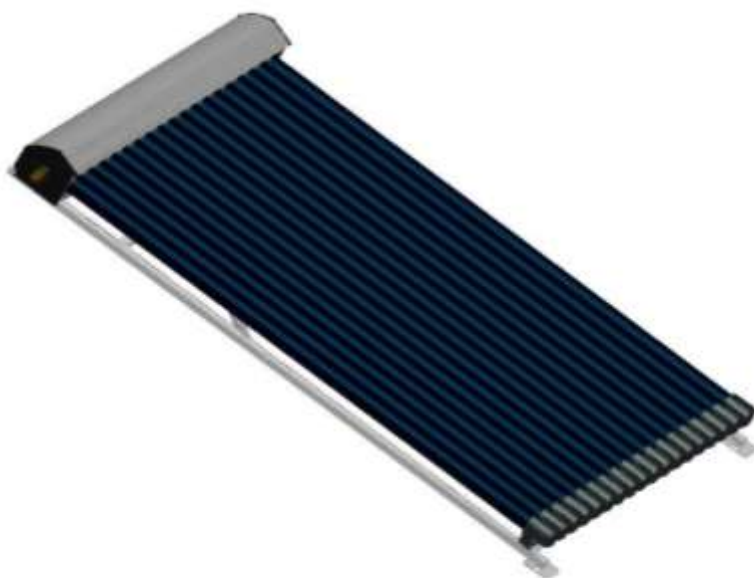
- How to clean clime after heat pipe has been used for a long time?

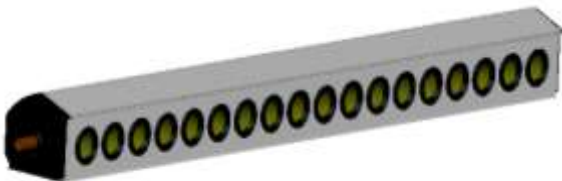


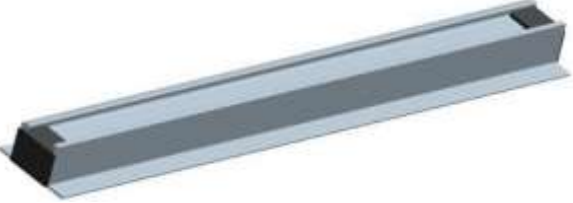
Carefully remove collector tubes, screw loose the heat pipe, clean the top end with decontamination.

- What are the requirements for the piping and connections?








Choose good aluminum and plastic compounds whose heat-resistance is over 90°C . And ask local professionals install your purchased solar water heater.

Introduction of Aluminum Heat Pipe Collector



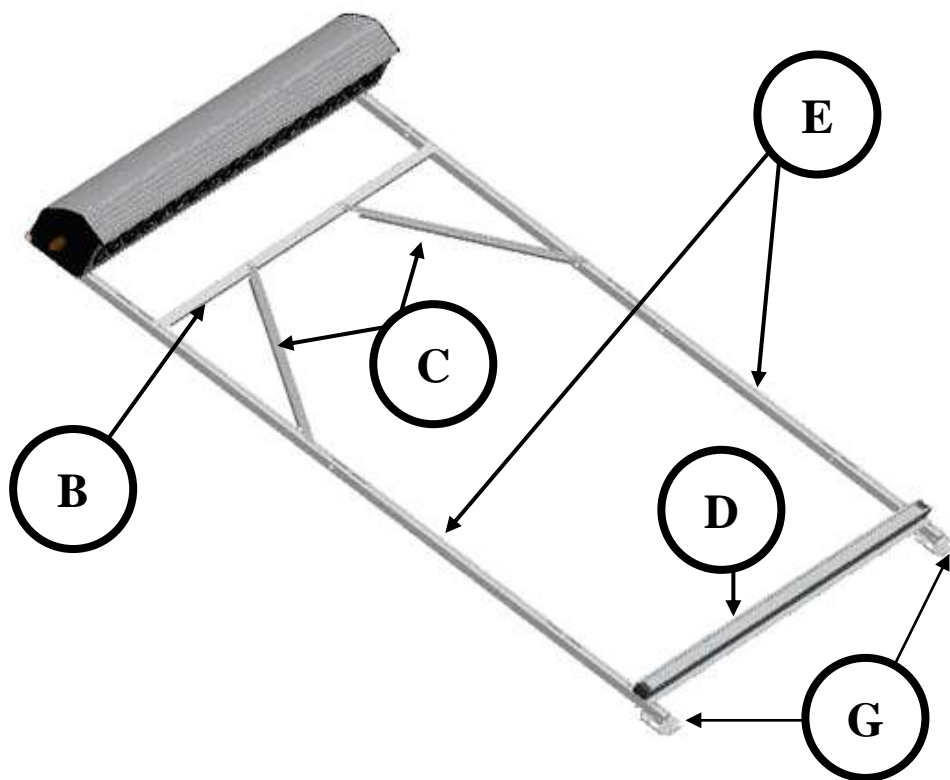
Component	Photo	Amount
A: Manifold		1 pc
B: Horizontal bar		12-20tubes, 1pcs 24-30tubes, 2pcs
C: Diagonal bar		12-20tubes, 2pcs 24-30tubes, 4pcs
D: Bottom support		1 pc

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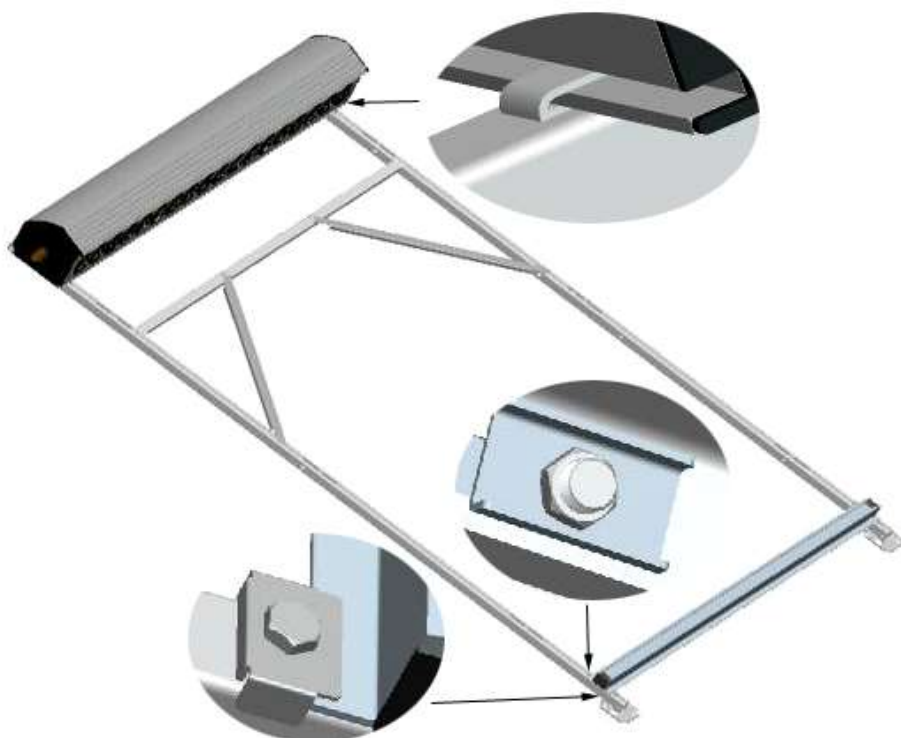
E: Front leg		12-20tubes, 2pcs 24-30tubes, 3pcs
F: Tube holder		12-20tubes, 12-20pcs 24-30tubes, 24-30pcs
G: Baseboard		12-20tubes, 2pcs 24-30tubes, 3pcs
H: Heat pipe		12-20tubes, 12-20pcs 24-30tubes, 24-30pcs
I: Connector		12-20tubes, 6pcs 24-30tubes, 9pcs
J: Thermal Compound		1 pc
K: Screws		

◆ **The installation procedure of the solar collector**




1. Put the two pieces of the front legs in the right position.
2. Connecting Horizontal bar with right and left front leg by screws and then connecting bottom support with front leg.

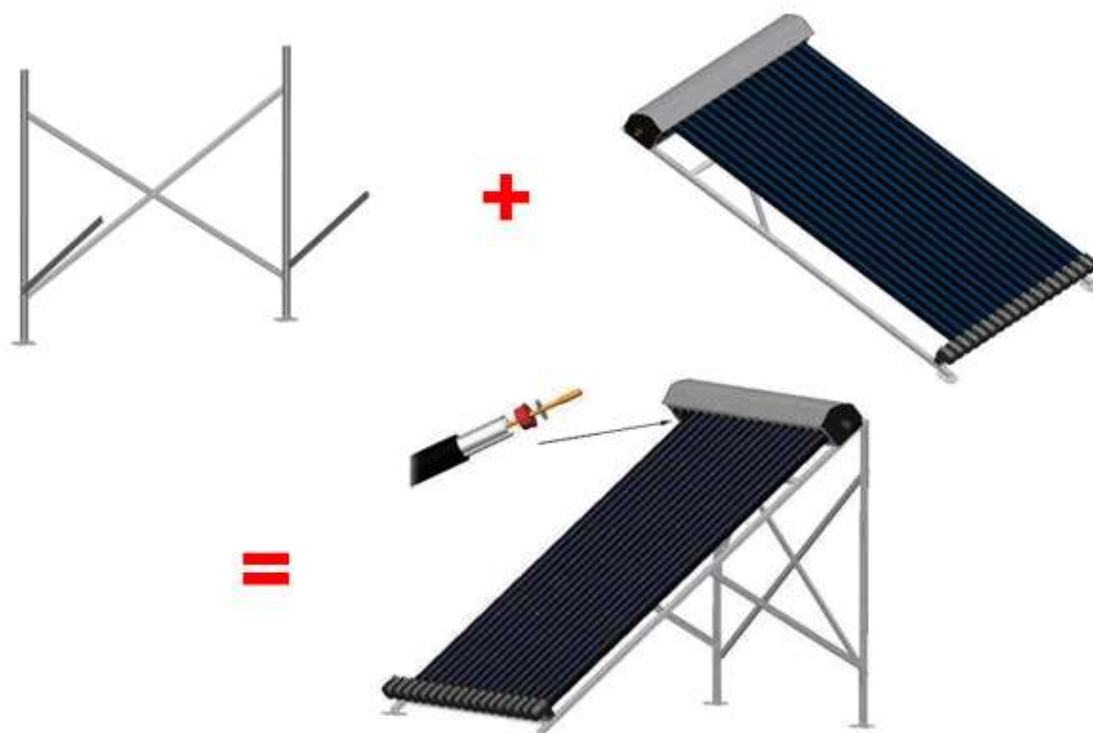


3. Fix the manifold and tube holders:

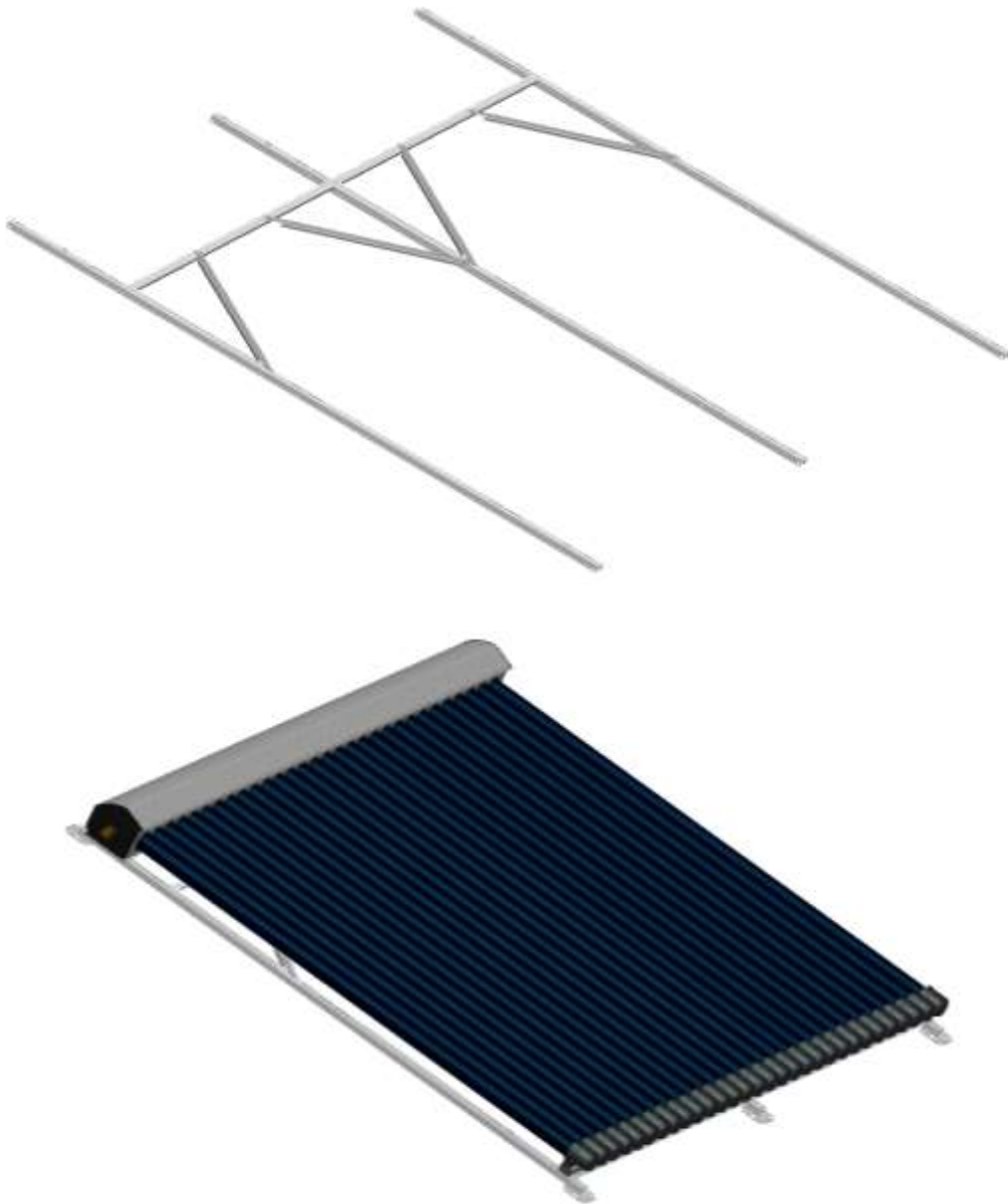


【Please ignore contents of this page if collectors without back leg】

L: back leg		12-20tubes, 2pcs 24-30tubes, 3pcs
M: Upright Diagonal bar		12-20tubes, 2pcs 24-30tubes, 4pcs
N: Diagonal bar		12-20tubes, 2pcs 24-30tubes, 3pcs



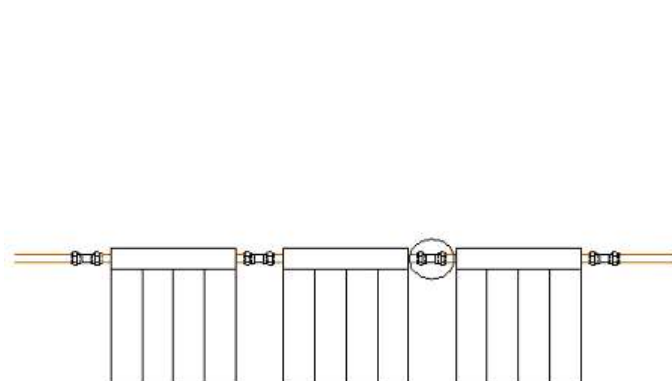
【24tubes or 30tubes collector installation】



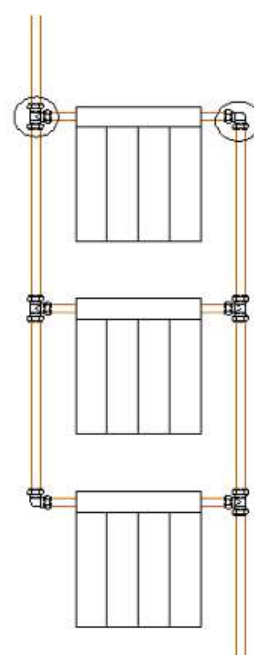
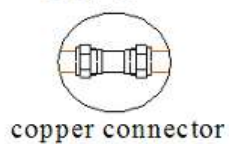
4. Insert the Heat pipes:



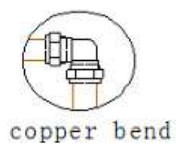
Series Connection and Parallel Connection



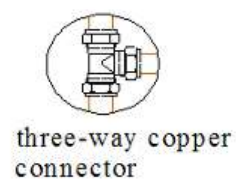
Pic 1



Pic 2 A:



Pic 2 B:



Installation photos Gallery



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Specifications of Solar Collector

Model	SB-1800/Φ 58-AL-12	SB-1800/Φ 58-AL-18	SB-1800/Φ 58-AL-20	SB-1800/Φ 58-AL-24	SB-1800/Φ 58-AL-30
Weight for Manifold (KG)	10.00	12.50	14.00	17.00	21.50
Packing Size for manifold	1130*170*190	1610*170*190	1770*170*190	2090*170*190	2570*170*190
Weight for Heat Pipe (KG)	30.30	45.50	50.50	60.00	76.00
Weight for Frame (KG)	4.30	4.80	5.40	7.20	7.90
Packing Size for Frame	2060*130*130	2060*130*130	2060*130*130	2440*130*130	2440*130*130
Weight of the Collector (KG)	44.60	62.80	69.90	84.20	105.40
Size of the Collector (mm)	1110*2060	1590*2060	1750*2060	2070*2060	2550*2060
Insulation	Rock Wool	Rock Wool	Rock Wool	Rock Wool	Rock Wool
Absorbing Area (m ²)	0.96	1.44	1.60	1.92	2.40
Max. Operating Pressure(MPa)	0.6	0.6	0.6	0.6	0.6
Max. Title Angle	60 °	60 °	60 °	60 °	60 °
Min. Title Angle	20 °	20 °	20 °	20 °	20 °
Hailstone Resistance	≤ Ø25mm	≤ Ø25mm	≤ Ø25mm	≤ Ø25mm	≤ Ø25mm
Wind Resistance	≤30m/s	≤30m/s	≤30m/s	≤30m/s	≤30m/s
Snow load	470mm thick snow on record	470mm thick snow on record	470mm thick snow on record	470mm thick snow on record	470mm thick snow on record

Note: the air vent and the expansion tank are needed to prevent the pressure drop.

