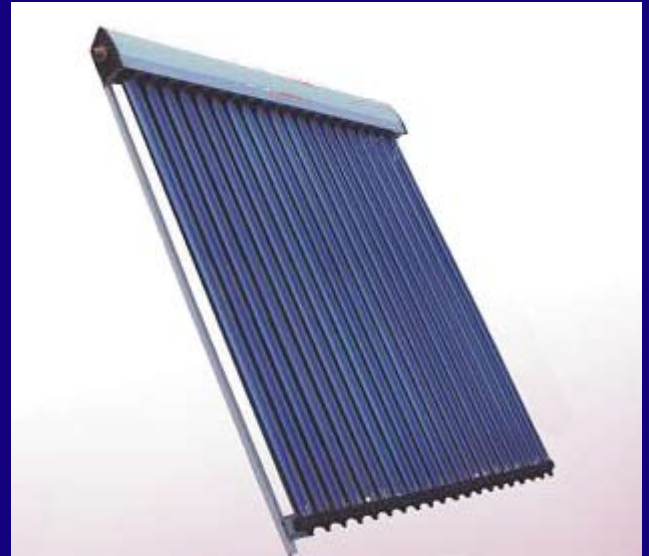


Solar Hot Water System

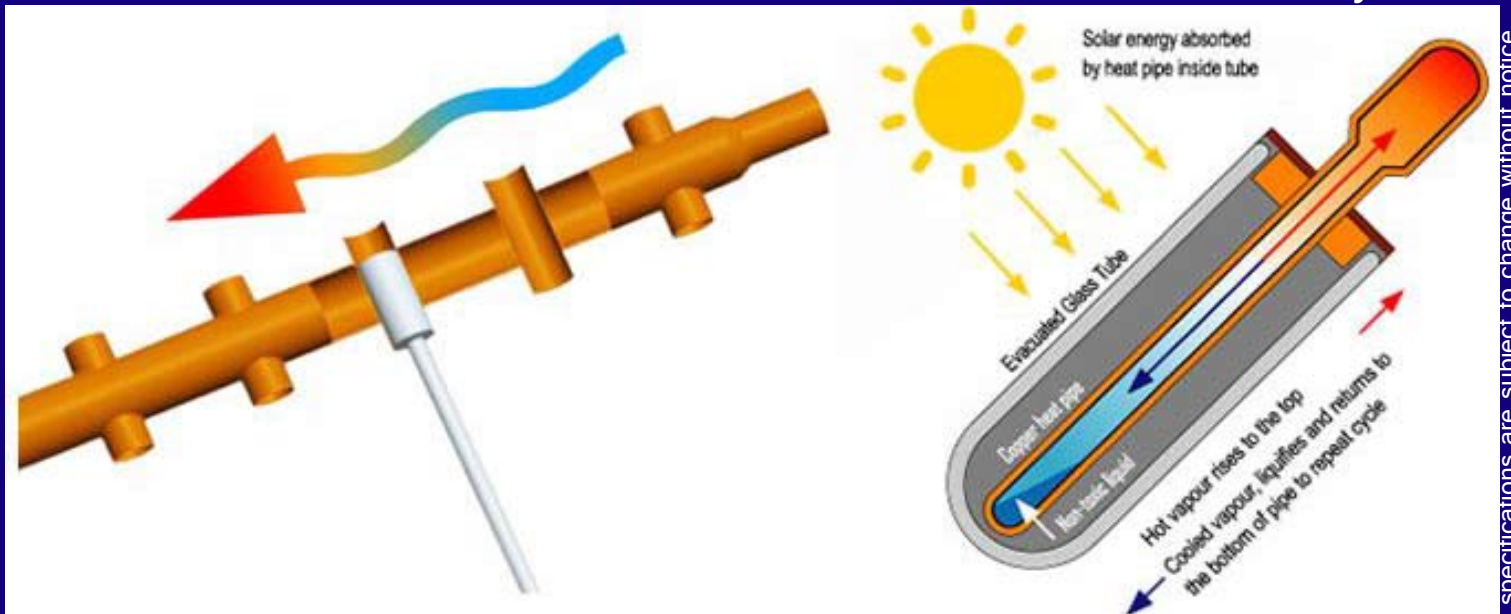
Heat Pipe Collector

BREATHE Systems® heat pipe collectors play an essential role in the solar hot water system. The main feature in the heat pipe collectors is the heat pipe itself, otherwise known as a heat evacuated tube. The heat pipe is composed of a heat-energy absorption unit and condenser unit, and the hollow section which is evacuated. Due to the vacuum function, the air pressure inside the heat pipe is very low, thus the medium can be evaporated easily when absorbing energy. This vapor rapidly rises to the condenser zone and transfers heat to the water that is flowing around it; it then becomes liquid again and returns to the bottom of the heat pipe. This process repeats again and again, and so the solar energy is transferred continuously to heat the water.

On BREATHE Systems® heat pipe collectors, the condenser zone of the heat pipe is placed on copper sleeves which are distributed across the water pipe evenly. After the solar energy is absorbed by the vacuum tubes, it is transferred to the heat pipe through the aluminum fin.



5-Year Warranty



specifications are subject to change without notice

- As there is no water in the heat evacuated tubes there is no risk of the tube breaking in winter or summer
- Heat pipe collector can be used in temperatures as low as -30°C
- Tubes have a rated life of approximately 15 years
- Approximately 80% of the proximate suns energy enters the copper heat pipe inside the tube (10% higher then average)
- Corrosion Resistant
- A Wilo Pump with adjustable power of 46W, 67W and 93W can be used in accordance with the pipeline length and volume



“bringing renewable
& efficient alternatives
to home environments”

BREATHE
SYSTEMS®

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Solar Hot Water System

Heat Pipe Collector

Manifold	1 Inch
Manifold Connections	38mm(outer); 34mm(inner)
Outer Tank	Alnico; 1.5mm
Test Pressure	1Mpa
Operating Fluid Pressure	0.6Mpa
Maximum Service Temperature	95°C
Maximum Stagnation Temperature	200.3°C
Distance Between Tubes	78mm
Flow Range Recommendation	50-120L/mm²h
Insulation Thickness	40
Minimum Collector Angle	15°
Maximum Collector Angle	75°

Type	Vacuum Tube Quantity	Volume of Fluid	Area (m²)	Dimensions LxWxH (mm)	Gross Weight (kg)	Suitable Volume (L)
BSS-1800ZT58-10	10	35	1.303	2020x995x115	39.9	100
BSS-1800ZT58-15	15	44	1.972	2020x1410x155	58.3	150
BSS-1800ZT58-20	20	53	2.641	2020x1825x155	77.1	200
BSS-1800ZT58-25	25	62	3.31	2020x2240x155	96.1	250
BSS-1800ZT58-30	30	68	3.979	2020x2655x155	114.1	300

Vacuum Tube Size: Ø58 x 1800 (mm)

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