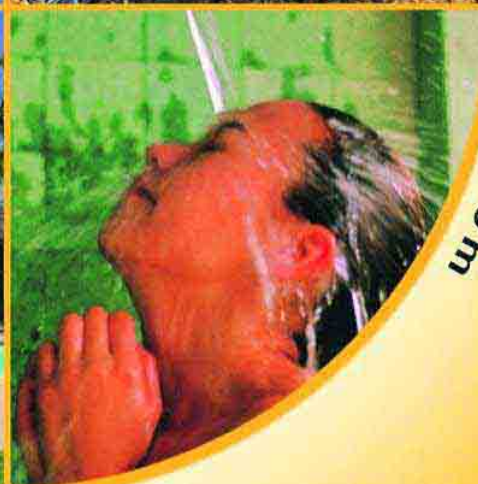




CHANGZHOU
BLUE CLEAN
SOLAR ENERGY

Web: <http://www.sunstar-solar.com>

E-mail: sunstar@sunstar-solar.com



Changzhou

Blueclean Solar Energy Co., Ltd

Changzhou Blueclean Solar Energy Co., Ltd

[Brief Introduction]

Changzhou Blueclean Solar Energy Co.,Ltd is a professional manufacturer which is specially engaged in the development, production, sale and export of solar water heaters. We have the most advanced production line in China, such as automatic foaming machine imported from Italy, automatic argon arc welding machine from America, and numerical control punch, and we use Germany Bayer's polyurethane and SUS304 stainless steel from Korea and Taiwan.

Our company locates in Xilin Industrial Park, Changzhou City, Jiangsu Province, with an advantaged position and convenient transport: 800 meters away from the exit of Lingjia Tang, Hu-Ning expressway, 500 meters away from the new G312, and 2000m from downtown. Our company has got ISO9001:2000 quality system certification, ISO 14001 environmental certification, and set up four centers: Scientific research, production, management and marketing. With a powerful technician team and advanced facility, the annual production ability of the company can reach 300,000 sets. Our products have been sold to over 87 countries, including Europe, South and North America, Asia and so on.

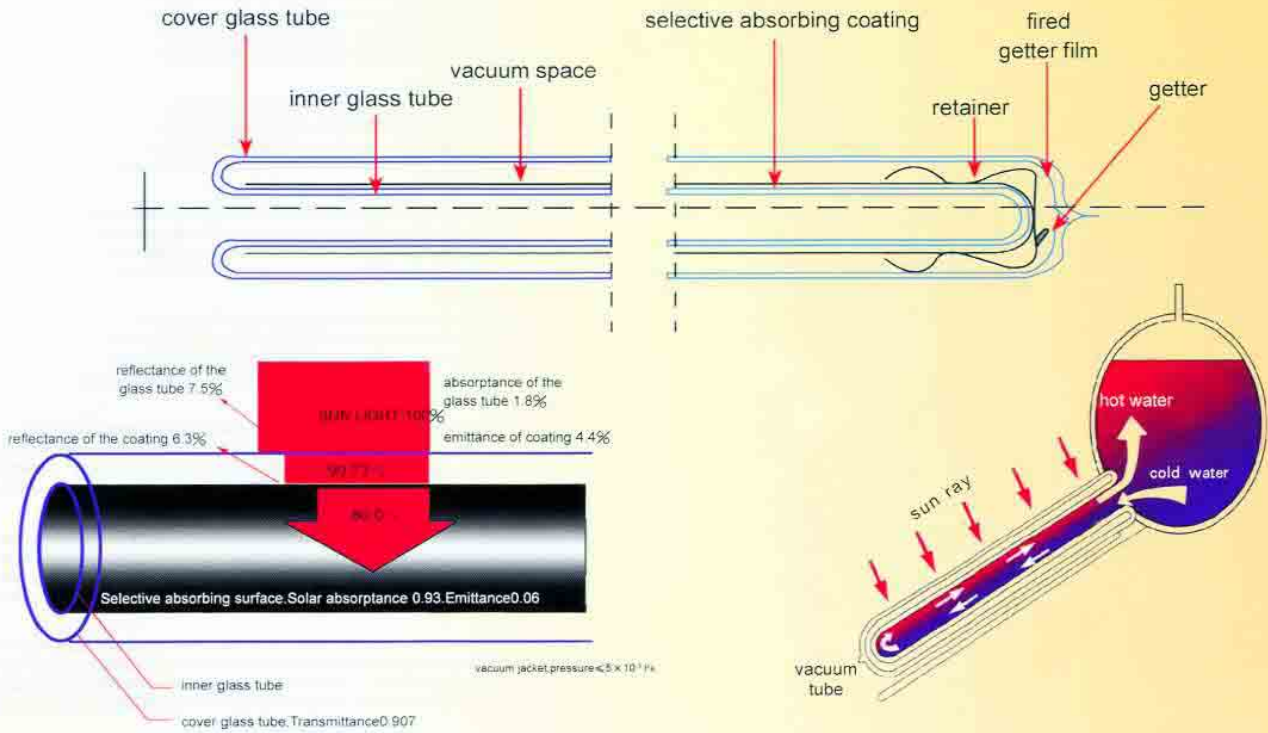
Changzhou Blueclean Solar Energy Co.,Ltd takes the objective of sincere cooperation, people-oriented and advocates the green civilization. It devotes itself to the development and application of green energy resources.

Besides, with the orientation of "Excellent Quality for the Whole World", we are glad to join hands with you for the promotion of developing worldwide green environmental protection undertaking and jointly build up a fine green homeland. We believe, with the advancing of our quality and services, we must become a pacemaker of credit and mutual benefit in solar area.

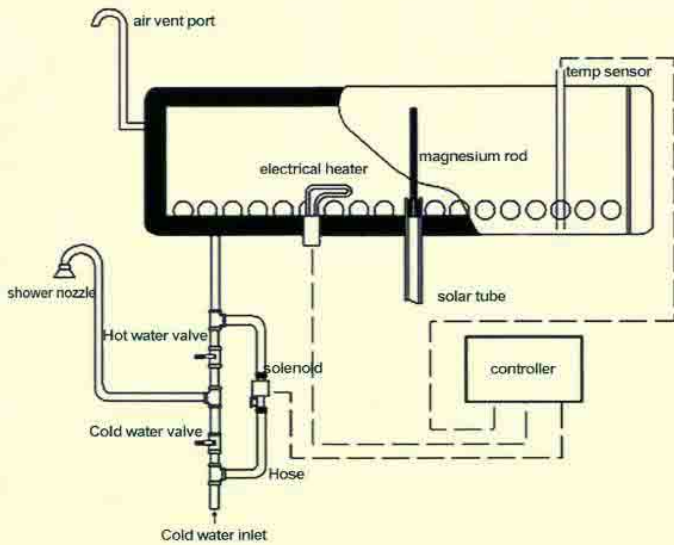




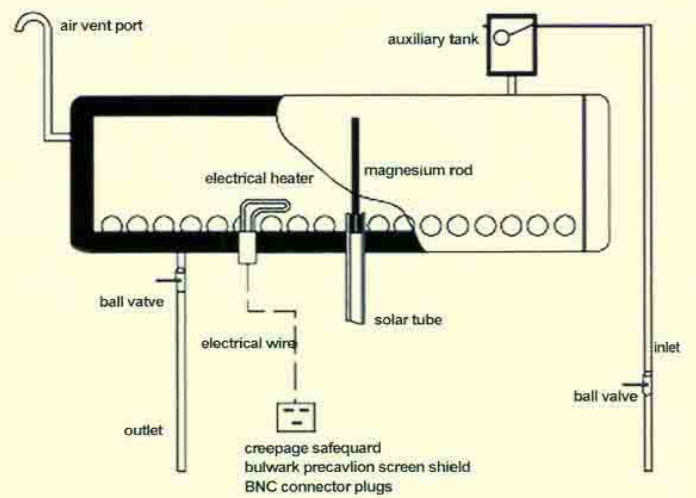
Working Principle



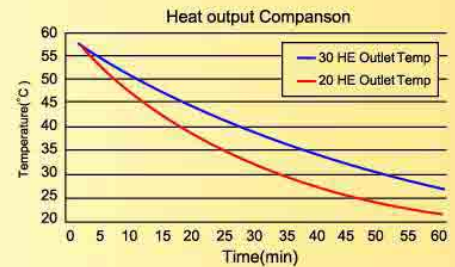
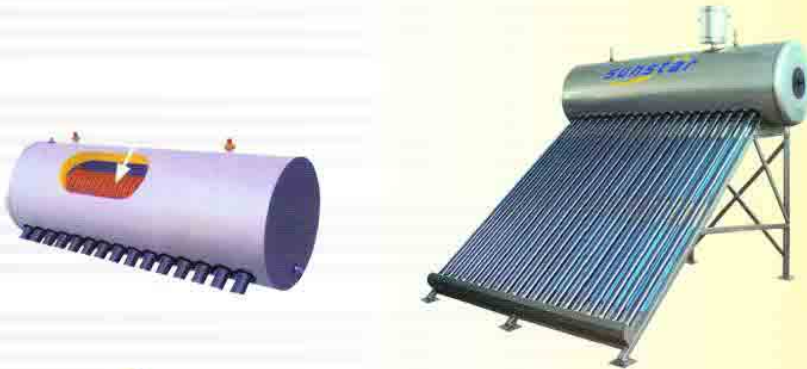
■ Piping diagram for system with controller



■ Piping diagram for system with auxiliary tank

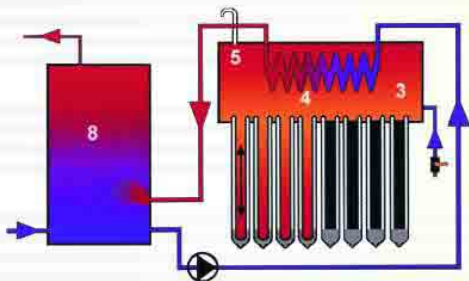


Close Loop Thermosyphon System

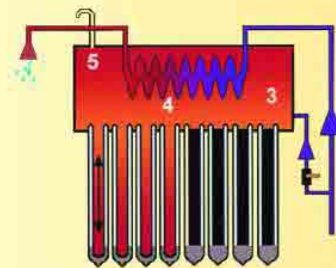


This type of solar water heater provides mains pressure pre-heating via a highly effective copper coil heat exchanger located within the solar collector tank. The way in which the mains pressure solar collector heats water is the same as the non pressure solar collector. Rather than using the water in the tank directly, as the non pressure does, this type uses a 45m~60m copper coil.

Heat exchanger inside the tank provides more than 1.5m² of heat transfer area. When water flows through the coil it absorbs heat from the water inside the solar collector tank. The solar collector tank is therefore a thermal store.



Circulation Mode(1)



Circulation Mode(2)

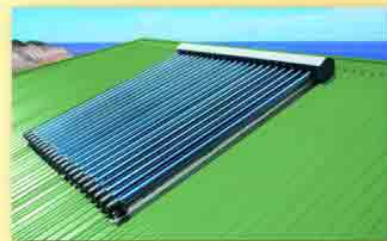
Copper Coil Heat Exchanger Specifications	
HE Material	14mm×1.0mm copper pipe
HE Surface Area	2.5m ² for 30 tube water heater
HE Testing Pressure	9 bar
HE Net Weight	15kg for 30 tube water heater

MODEL	Absorbing Area (m ²)	Vacuum Tube			Qty. per 20'/40' Container(set)
		diameter(mm)	length(mm)	tube(pcs)	
SHE 470-1800/58-20	1.60	58	1800	20	32/65
SHE 470-1800/58-30	2.40	58	1800	30	24/50

Note: Absorber area is the part of the collector that actively absorbs the light rays. For solar tubes this is defined as the cross-sectional area of the inner tube (selective coated) measured using the outside diameter. (Eg. 0.047 × 1.72m = 0.08 m²)



Heat Pipe Solar Collector

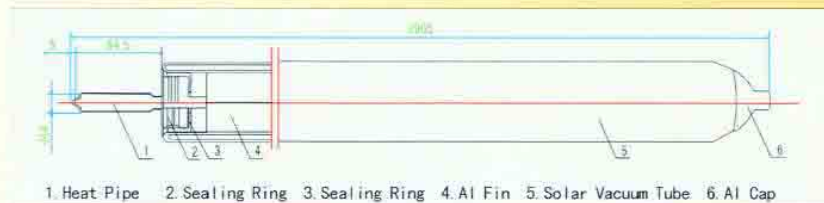
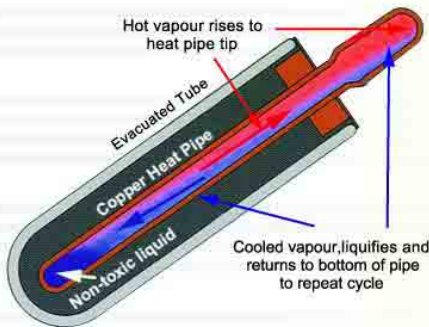


»» Technical Specification:

MODEL	Absorb Area(m ²)	Heat Pipe			Supply Hot Water(L/°C)	QTY.Per 20/40" Container (set)
		Diameter(mm)	Length(mm)	No.(pcs)		
SA/SB-1500/47-12	0.60	47	1500	12	70/60	133/276
SA/SB-1500/47-18	0.90	47	1500	18	120/60	120/249
SA/SB-1500/47-20	1.00	47	1500	20	125/60	110/227
SA/SB-1500/47-24	1.20	47	1500	24	150/60	97/200
SA/SB-1500/47-30	1.50	47	1500	30	180/60	76/158
SA/SB-1800/58-12	0.96	58	1800	12	110/60	118/244
SA/SB-1800/58-18	1.44	58	1800	18	150/60	84/175
SA/SB-1800/58-20	1.60	58	1800	20	175/60	77/160
SA/SB-1800/58-24	1.92	58	1800	24	220/60	64/133
SA/SB-1800/58-30	2.40	58	1800	30	260/60	52/106
SA/SB-1700/70-10-C	1.50	70	1700	10	120/60	100/240
SA/SB-1700/70-20-C	3.10	70	1700	20	223/60	52/126



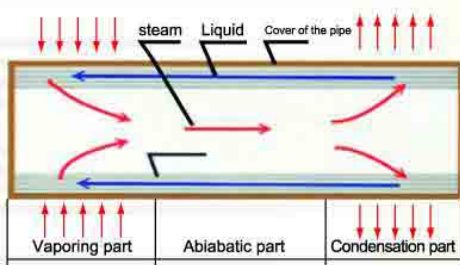
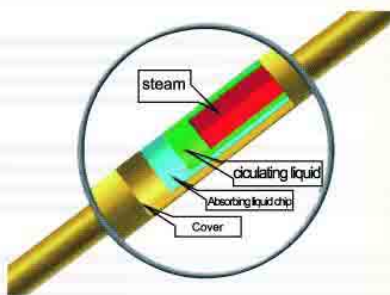
ALL-glass Evacuated Solar Collector Tube With Heat Pipe



» Operation Principle:

When solar energy gets to heat pipe, medium in tube is vaporized at 25, then conducts heat energy received to cooling end. After the process, a circulation is completed.

ZC58/1800 Transition Heat Pipe Tube				
Vacuum Degree	Absorbing Coefficient	Emission Coefficient	Lowest Temperature	Anti-wind
$\leq 5 \times 10 \text{ Pa}$	$\geq 92\%$	$\leq 10\%$	-35°C	Yes
Hot Water output $17\text{Mj}/\text{m}^2.\text{day} \Delta T=35^\circ\text{C}$			8L	



» Definition and Principle

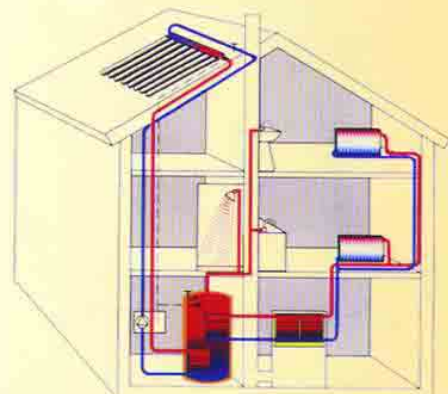
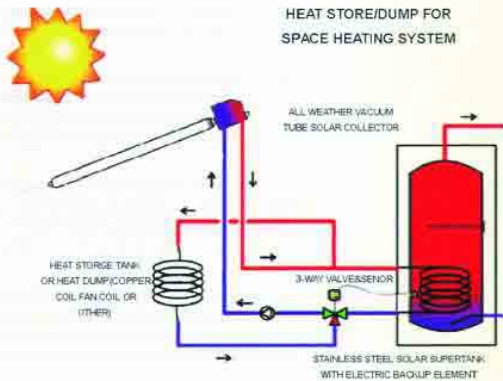
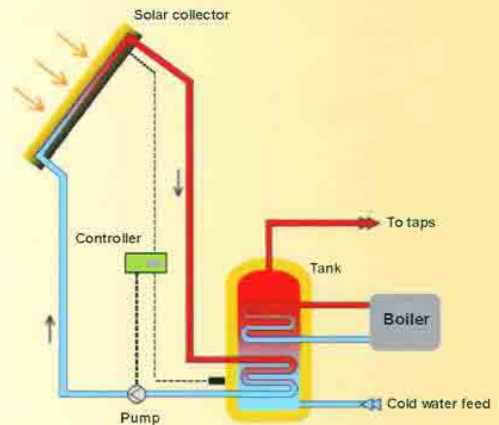
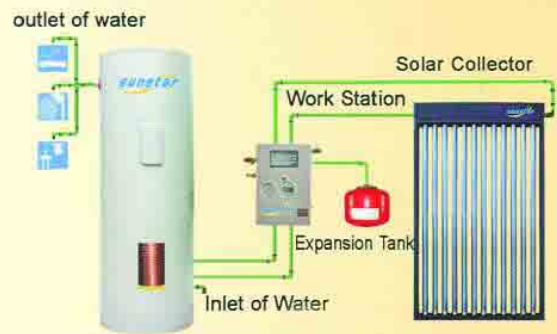
The heat pipe is a kind of heat transfer component, with high heat transfer capacity. It adopts the principle of transformation and capillary effect, endowing itself with the heat transfer efficiency, which is thousands of times higher than other similar pure copper.

Working principle of the heat pipe (Refer to the left picture)

The working principle of the heat pipe indicates: the liquid in the heat pipe is heated and thus vaporized. The vaporizing saturated steam flows to the cold end, and gives out the heat there, while the condensing liquid returns to the hot end and continues to absorb heat and get vaporized again.

The analysis of the working state of the heat pipe (Refer to the left picture)

Separate Pressurized Solar System

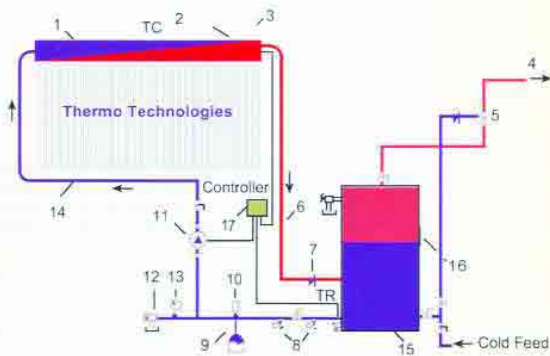




Separate Pressurized Solar System

» Active Open Loop System

Open Loop System is for climates where there is no risk of freezing. Recirculation freeze protection can be provided by the Recirculation feature in the controller. An Open Loop Water Heating System provides many advantages. It is the simplest and typically the least expensive active system to install. There is no heat exchanger, which allows efficient heat transfer directly to the water. The system operates at standard line pressure. It is simple to add capacity to the system if demand changes. The system integrates easily with existing systems.

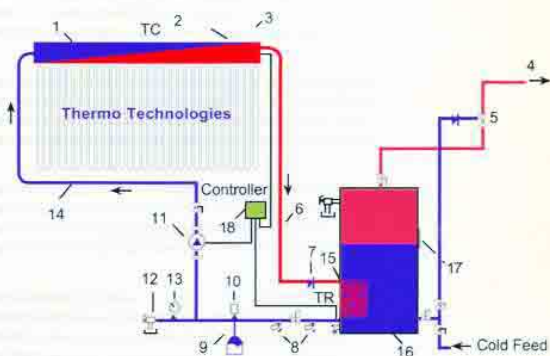


- 1. Collector
- 2. Collector sensor
- 3. Manual Air Valve
- 4. Hot Water to Taps
- 5. Tempering Valve
- 6. Collector Return
- 7. Check Valve
- 8. Hose Bibs For Filling And Flushing
- 9. Expansion Tank

- 10. Air Scoop & Air vent
- 11. Circulating Pump with Flanges or couplings
- 12. Pressure Relief Valve
- 13. Pressure Gauge
- 14. Collector Supply
- 15. Solar Hot Water Tank
- 16. Immersion Heater
- 17. Controller

» Active Closed Loop System

Closed Loop Solar Heating Systems are suitable for single and multiple solar heating application systems, e.g. domestic solar water heating, solar water heating hot tub, solar swimming pool heating or solar space heating systems. The Closed Loop Solar Systems are suitable for areas with questionable water quality and all climate conditions. The Closed Loop Solar Heating Systems are the preferred option for extremely cold areas.



- 1. Collector
- 2. Collector Sensor
- 3. Manual Air Valve
- 4. Hot Water to Taps
- 5. Tempering Valve
- 6. Collector Return
- 7. Check Valve
- 8. Hose Bibs For Filling And Flushing
- 9. Expansion Tank

- 10. Air Scoop & air vent
- 11. Circulating Pump With Flanges or Couplings
- 12. Pressure Relief Valve
- 13. Pressure Gauge
- 14. Collector Supply
- 15. Heat Exchange Coil
- 16. Solar Hot Water Tank
- 17. Immersion heater
- 18. Controller

Pipeline Working Station System

» Single Pipeline Solar Station SR961



Main technical data

- 1.Dimension of Appearance:L42cm×W28cm×H14cm
- 2.Power Consumption: < 4W
- 3.Accuracy of temperature measuring: ±2°C
- 4.Range of collector temperature measuring: -10~200°C
- 5.Range of tank temperature measuring: 0~100°C
- 6.Suitable power of pump:4pcs,< 600W
- 7.Suitable power of electrical heater:1pc,<1500W

INPUT:

- One Sensor for collector(pt1000,probe 500°C,Silicon cable 280°C)
- Two Sensors for tank (pt1000,probe 135°C,pvc cable 105°C)
- Ambient temperature: -10~50°C
- Water proof grade: IP43

Main functions

- 1.DT O & DT F Temperature difference controlling the Solar circuit pump
- 2.THET THET Timing heating
- 3.EM EM Emergency collector temperature (emergency switch-off temperature of collector)
- 4.CMX CMX Maximum limited collector temperature(collector cooling function)
- 5.CMN CMN low temperature protection of collector
- 6.CFR CFR frost protection of collector
- 7.SMX SMX Maximum temperature of tank
- 8.REC REC Tank re-cooling function
- 9.DVWG DVWG Anti-Legionella function
- 10.CIRC temperature controlled CIRC hot water circuit pump
- 11.CIRC time controlled CIRC hot water circuit pump
- 12.nMINv nMIN Solar circulation pump speed adjusting(RPM speed controlling)

» Single Pipeline Solar Station SR962



Main technical data

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Φ70 Heat Pipe

» Sample Drawings of Product



» Technical Specification

Model Tape	HP70		
Length	1700mm	Absorption Coefficient	>92%
Glass Tube Diameter	70mm	Emission Coefficient	<8%
Glass Thickness	2.0mm	Vacuum	<5x10 ⁻³ Pa
Glass Material	Borosilicate Glass 3.3	Wind Resistance	30m/s
Absorptive Coating	AL/N/AL	Freezing Resistance	-50
Absorber Material	Aluminum	Stagnation Temperature	>220℃

The new evacuated heat-pipe tube is a revolutionary breakthrough in solar thermal technology as well as the symbol of a great leap in solar thermal utilization field after mankind's continuous researches year after year. The tube has the following advantages:

1. Heat-pipe conduction, no water inside, thus it is successfully prevented from the defects of tube block and low power output caused by water fouling and deposits of mud and sand.

2. It prevents the tube from being easily broken caused by the volume expansion when the water in tube freezes in frigid season.

3. Start up quickly. Energy inside the tube can be taken out within 2 minutes under sunshine. The stagnation temperature of the heat-pipe can reach 220 .

4. High efficient selective absorptive coatings and vacuum heat insulation technology ensure the tube to get higher heat output in cloudy weather and in moist area, especially in winter.

5. Solar collecting plate is installed and sealed inside the tube of high-quality borosilicate glass with 5x10⁻³Pa of vacuum, so it cannot be corroded event in moist area.

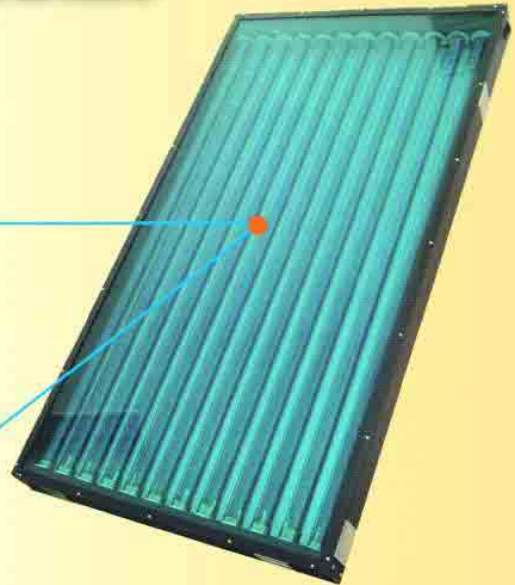
6. It perfectly solves the fetal defect of the common all-glass vacuum tube solar water heater, which cannot run if one of the tube is out of work.

» Applied Fields

It is widely used in large –sized hot water project/sea water desalination/ Industrial heating/ heating system and other fields.



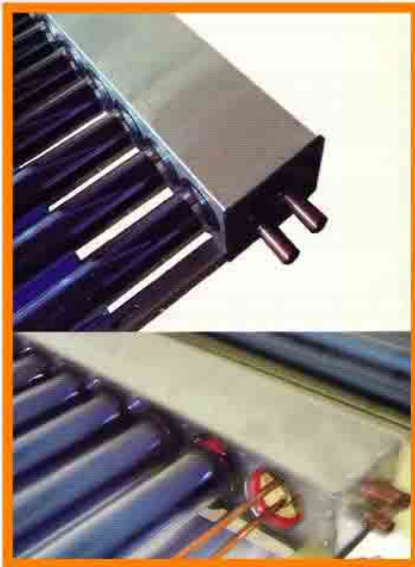
Flat Solar Collector With Glass Surface



Model	Area (m ²)	Vacuum Tube			Volume (L)	Qty.per 20' /40' Container(set)
		Diameter(mm)	Length(mm)	Qty(pcs)		
SF-47/1500-12	1.20	47	1500	12	60	141/295/305
SF-47-1500-15	2.00	47	1500	15	100	85/178/181

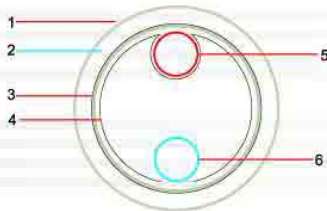


U Pipe Solar Collector



In each vacuum tube there is a U pipe with direct flow-through that is connected to the header pipe inside manifold. This U pipe is seamed in an aluminum heat transfer fin in the interior of vacuum tube that transmits the heat from the interior tube to the U pipe.

Solar radiation permeates the outer glass tube and is captured on the outside of inner glass tube by highly selective sputter layer. The captured solar radiation is transmitted to flush-contact aluminum shield and then copper pipe filled with heat transfer fluid. The 360° aluminum heat transfer fin assures the fastest energy transfer.



1. Outer glass
2. Vacuum
3. Selective coating
4. Aluminum heat transfer fin
5. U pipe(Hot terminal)
6. U pipe(Cold terminal)

Model Name	SU18
Manifold casing material	Anodized aluminum (2.5-3mm)/Stainless Steel
Frame material	Anodized profiled aluminum bar(2.5-3mm)/Stainless Steel
Header pipe material	Copper
U pipe material	Copper
U pipe diameter	8mm
No. of pipes	18
Aperture area	2.3m ²
Insulation	Rock wool
Rubber seals and rings	UV stabilized high temperature silicon rubber
Test pressure	9 bar
Collector mounting	Flat roof/inclined roof
Mounting angle	30 degree-50 degree
Inlet,outlet	3/4"
Gross weight	70KGS

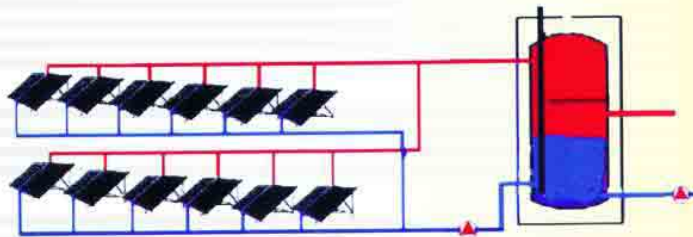
MODEL	Size(mm)	lighting (m ²)	Heat-pipe Vacuum Tube			Supply Hot Water (L/°C)	Qty. per 20' / 40' Container(set)
			diameter(mm)	length(mm)	No.(pcs)		
SU -58/1800-12	2020×1160×150	1.99	58	1800	12	120(60)	82 / 195
SU -58/1800-18	2020×1640×150	3.56	58	1800	18	180(60)	57 / 138



Project Example



Heat Water Engineering



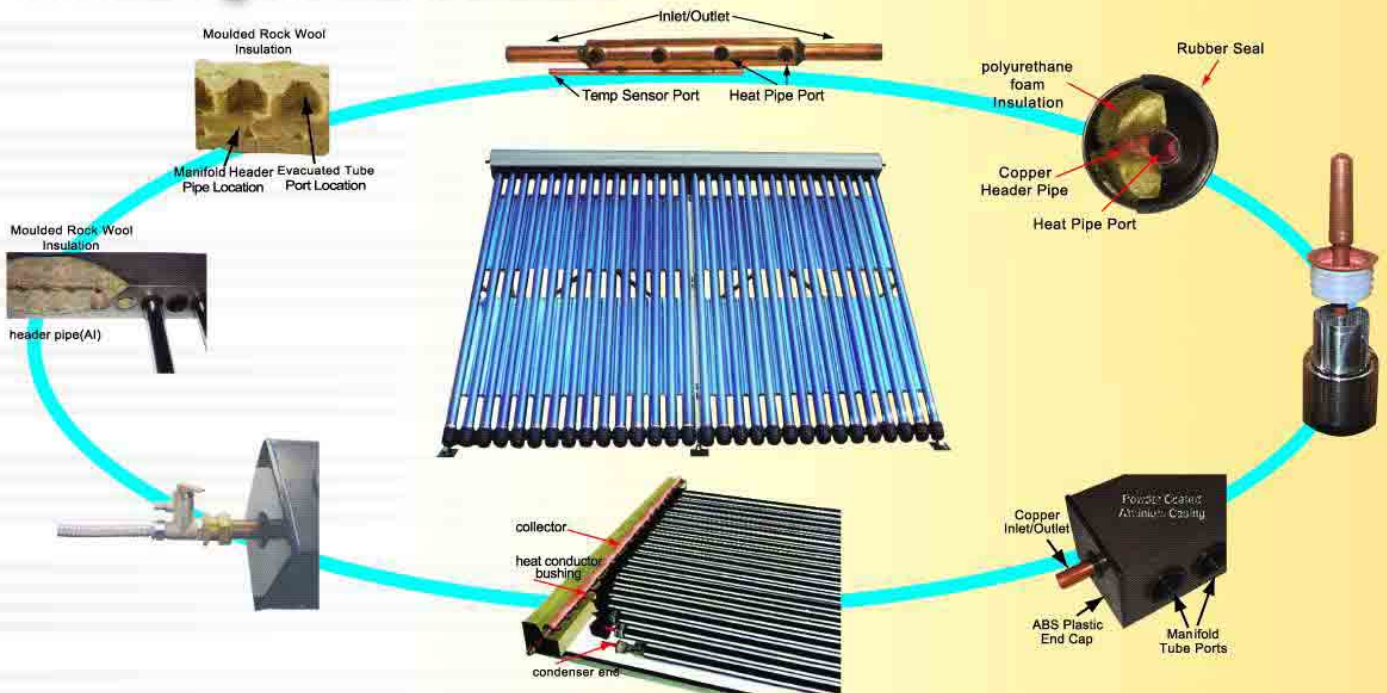
With more and more serious environmental pollution, the government lays down a series of restriction policies in accordance with every city because of the traditional boilers, high energy consumption and many emissions polluting environment. Even more, some cities have been seriously forbidden using the boilers. However, so many collective bathrooms, hostels, mid and small hotels, enterprises and institutions need heating water to bathe. The SUNSTAR solar concentrative heat water supply system engineering is safe, economic, un-pollution, automatical, which uses the sun as the main source of power. Its life-time may be 15 years and has noticeable benefit of economic, environment, society. Now, it has been used in many companies in some cities.



MODEL	Absorbing Area (m ²)	Vacuum Tube		
		diameter(mm)	length(mm)	tube(pcs)
SG 190-1500/47-24-CF	1.20	47	1500	24
SG 190-1500/47-48-CF	2.40	47	1500	48
SG 190-1800/58-24-CF	1.92	58	1800	24
SG 190-1800/58-48-CF	3.84	58	1800	48

Note: Absorber area is the part of the collector that actively absorbs the light rays. For solar tubes this is defined as the cross-sectional area of the inner tube (selective coated) measured using the outside diameter. (Eg. $0.047 \times 1.72\text{m} = 0.08\text{m}^2$)

Heat Pipe Solar Collector



Technical Specification:

Manifold casing material	Aluminum/SUS304 stainless steel
Frame material	Aluminum/SUS304 stainless steel
Header pipe material	Copper
Heat pipe material	Copper
Insulation	Rock wool
Rubber seals and rings	UV stabilized high temperature silicon rubber
Test pressure	9 bar
Collector mounting	Flat roof/inclined roof
Mounting angle	15-50 degree
Inlet Outlet	3/4"

- Features:**
- * Reliable, efficient, twin-glass solar tubes heat pipe
 - * Copper heat pipes for rapid heat transfer
 - Low maintenance effort
 - Easy installation of single or multiple units
 - * Corrosion resistant silve brazed copper header

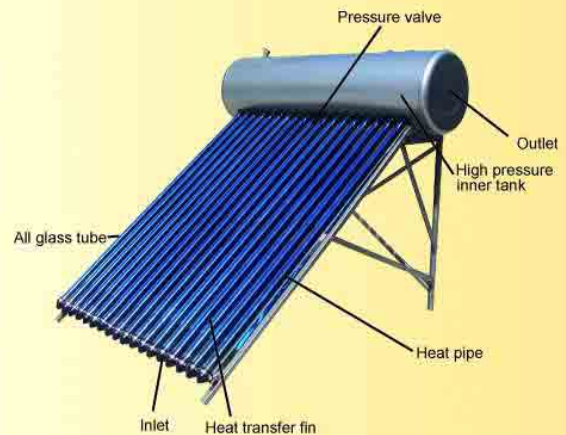
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Integrative Pressurized Solar Water Heater

Sunstar high pressure stand alone model is a new type of solar water heater which adopts advanced heat pipe and all glass vacuum tube Technology. Highly efficient vacuum tube absorbs heat from sunlight and heat pipe transfers heat to the condenser end of itself. Condenser indirectly contacts with water through a copper cap and it boils water by releasing heat gained from vacuum tube. The available size of the tank ranges from 150L to 250L. It has the following features:

- 1. High pressure storage tank (Testing pressure=9 bar)
- 2. No vent and less heat loss as compared to low pressure model
- 3. Highly efficient heat pipe technology
- 4. No water introduced into vacuum tube
- 5. No sealing rubber is needed and hence no leaking problem
- 6. Easy plug-in installation
- 7. Freezing Resistance



MODEL	Absorb Area (m ²)	Heat Pipe			Tank Capacity (L)	Qty. per 20'/40' Container(set)
		diameter(mm)	length(mm)	No.(pcs)		
SP 470-1800/58-18	1.44	58	1800	18	150	40/82
SP 470-1800/58-20	1.60	58	1800	20	165	35/72
SP 470-1800/58-24	1.92	58	1800	24	200	30/61
SP 470-1800/58-30	2.40	58	1800	30	250	25/50

Note: Absorber area is the part of the collector that actively absorbs the light rays. For solar tubes this is defined as the cross-sectional area of the inner tube (selective coated) measured using the outside diameter. (Eg. $0.047 \times 1.72\text{m} = 0.08\text{m}^2$)



SPLIT PRESSURIZED WATER TANK

The characteristic

- 1. The upright tank can make the water temperature to different level, it can hot the top water instantly, and the special structure can reduce the cold and hot water to mix together.
- 2. The tank inside the building, the connection pipe between the tank and water tap is very short, so that hot water can be used instantly and seldom cold water flows out.
- 3. The tank inside the building, the hot water lose less energy than the normal one.
- 4. The heater collector and the water tank is separated, which makes the system combine with the building perfectly, and will not reduce the sightseeing for the building and the environment around.
- 5. Back up with electric heater so that in the days without sunshine hot water can also be used.
- 6. Capacity: 100L, 150L, 200L, 250L, 300L, 400L, 500L.

» Details for the material

Inner tank: stainless steel SUS304L-1.2mm / porcelain inner tank

Outer tank: painted steel-0.6mm / stainless steel-0.5mm

Insulation: polyurethane



Thermosyphon Solar Water Heater

Thermosyphon System

Thermosyphon solar water heater relies on the natural circulation of water between the collector and the tank or heat exchanger. As water in the vacuum tubes is heated, it rises naturally into the tank, while cooler water in the tank flows down to the bottom of the vacuum tubes, causing circulation throughout the system.



Technical Specifications

- Both of Inner and outside water tank shell are made of SUS3042B food grade stainless steel plates, welded by argon arc. Water is pure and drinkable.
- Heat insulation of water tanks adopts polyurethane foam, thickness is 55mm.
- Silicon rings to connect and seal them.
- The tubes and supports are adjustable, power bearing is average, and can assure the vacuum tubes to use for long time.
- Whole glass vacuum tubes adopt super hard borax and silica glass.
- Absorb rate: =93%, thermal radiation rate: =6% (100°C)
- Resist 25mm hail, using life can last 15 years.
- Temperature when exposed to sun without water: 250°C, 2.5 hours to boiling if using single tube.
- If you use electrical appliances to aid heating, to switch off the power supply before boiling.
- To test the water temperature before using, in order to avoid scalding.

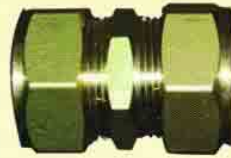
MODEL	Absorbing Area (m ²)	Vacuum Tube			Tank Capacity (L)	Qty. per 20' / 40' Container (set)
		Diameter (mm)	Length (mm)	No. (pcs)		
SS 420-1500/47-15	0.75	47	1500	15	85	66/137
SS 420-1500/47-18	0.90	47	1500	18	100	56/115
SS 420-1500/47-20	1.00	47	1500	20	111	50/105
SS 420-1500/47-24	1.20	47	1500	24	135	44/92
SS 420-1500/47-30	1.50	47	1500	30	166	36/75
SS 470-1500/47-15	0.75	47	1500	15	113	51/102
SS 470-1500/47-18	0.90	47	1500	18	140	44/88
SS 470-1500/47-20	1.00	47	1500	20	150	42/84
SS 470-1500/47-24	1.20	47	1500	24	180	33/66
SS 470-1500/47-30	1.50	47	1500	30	230	30/60
SS 470-1800/58-16	1.28	58	1800	16	133	44/91
SS 470-1800/58-18	1.44	58	1800	18	150	39/81
SS 470-1800/58-20	1.60	58	1800	20	165	35/73
SS 470-1800/58-24	1.92	58	1800	24	200	30/62
SS 470-1800/58-30	2.40	58	1800	30	250	24/50
SS 470-1800/58-36	2.88	58	1800	36	300	20/40

➤ **Note:** Absorber area is the part of the collector that actively absorbs the light rays. For solar tubes this is defined as the cross-sectional area of the inner tube (selective coated) measured using the outside diameter. (Eg. $0.047 \times 1.72\text{m} = 0.08 \text{ m}^2$)

Links And Valves



Vacuum valve



Copper Connector
(male and female)



Air Vent



Relief Valve For
Temperature & Pressure



Relief Valve
For Pressure



Connector Bend



Three-way Connector



Ball Valve



Constant
Temperature Valve



Temperature
Controlled Valve



One Way Valve



Female Compression
Coupling



Auxiliary Parts



Flowmeter



Manometer



Wilo Pump



Controller Display
SR868-C6



System Controller
SR618-C1



Temperature Sensor



7-Shaped
Electric Heating



Expansion Tank



European
Standard Plug



Electric Heater

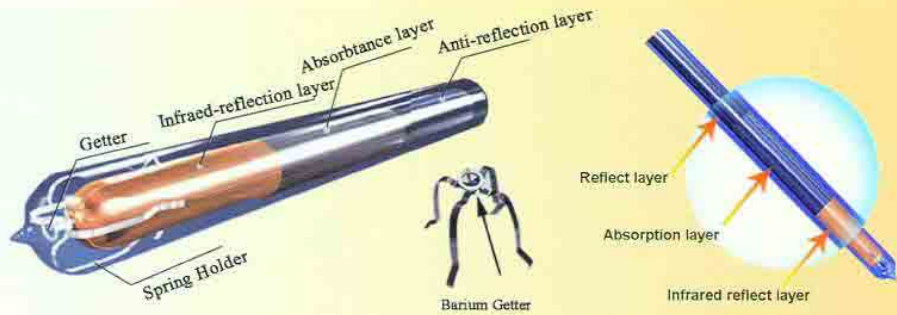


Magnesium Stick



Assistant Tank

ALL-glass Evacuated Solar Collector Tube



»» Operation Principle:

Apply for selective absorbing coating material of normal all-glass vacuum tube to collector solar energy.

Length	1500mm	1800mm
Outer tube diameter	47mm	58mm
Inner tube diameter	37mm	47mm
Weight	1.3kg	2.2kg
Glass thickness	1.6mm	1.6mm
Material	Borosilicate Glass 3.3	Borosilicate Glass 3.3
Absorptive coating	Graded Al/N/A1	Graded Al/N/A1
Vacuum degree	$P < 5 \times 10^{-2} \text{Pa}$	$P < 5 \times 10^{-2} \text{Pa}$
Thermal expansion	$3.3 \times 10^{-6} / ^\circ\text{C}$	$3.3 \times 10^{-6} / ^\circ\text{C}$
Insolation Temperature	$> 200^\circ\text{C}$	$> 200^\circ\text{C}$
Absorptance	$> 93\%$	$> 93\%$
Emissivity	$< 8\%$	$< 8\%$
Heat loss	$< 0.8 \text{W}/(\text{m}^2 \cdot ^\circ\text{C})$	$< 0.8 \text{W}/(\text{m}^2 \cdot ^\circ\text{C})$
Maximum pressure	0.8Mpa	0.8Mpa
Resist cold	-35°C	-35°C
Resist hailstone	$\Phi 25\text{mm}$	$\Phi 25\text{mm}$
Resist wind	30m/s	30m/s
Start-up temperature	$\leq 25^\circ\text{C}$	$\leq 25^\circ\text{C}$
Effective collector area M^2	0.05291	0.25670

- Apply for two layers 3.3 high boron silicon glass tube
- The two layers glass tube, with same axis is vacuum zed between them, the vacuum degree can reach $5 \times 10^{-2} \text{Pa}$.
- Coated with Al/N/A1 selective absorbing coating material.
- High absorbing efficiency: The vacuum magnetic-control sputtering selective absorptive coating on the heat-collecting plates has a high absorption coefficient of more than 93%, and the emission coefficient around 6%.
- Long life: The life span can reach 15 years.
- High practicability: Able to endure impact of hail less than 25mm in diameter with high heat efficiency throughout the year.

»» Note:

- If you want to buy the samples, the quantity isn't limited by the minimum order quantity above and can be decided by the actual need of the customers.
- We can make laser brand on tubes according to customers' special request.
- The information above is the simple description of products. If you are interested in products, please contact us and we'll send more detailed brochures of our products to you by e-mail.

Service Idea

Business Ethic

Based on good credit,highquality, excellent service and benefit customers.

Service

We regard customers as god and serve them by our exclusive agent every-where in the world including shipping, installing and sales-after service.

Perform with the excellent services, be sincere and pare-hearted.

Management

Provide the top-grade products,basing ourselves upon the guide of the market.

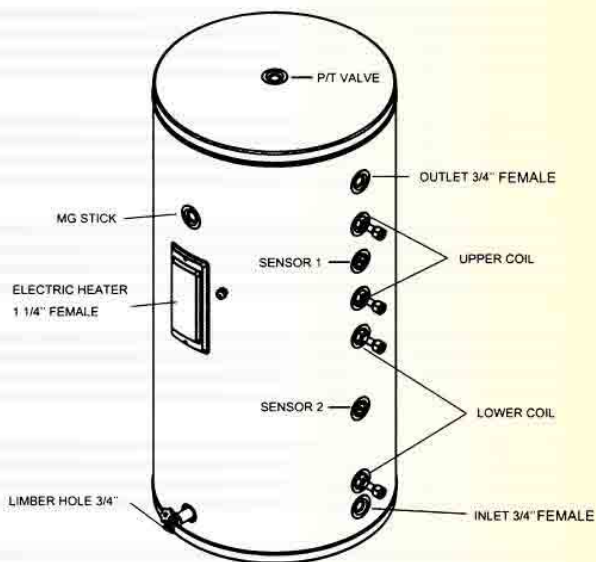
Our greatest advantage is chain of industries.

Our greatest characteristic is constant innovation

Our greatest pride is International quality

Our greatest expectation is client's satisfactions.





» Details for the material

Product model	100L	150L	200L	250L	300L	400L	500L
inner tank diameter(mm)	φ 365	φ 365	φ 440	φ 440	φ 480	φ 600	φ 600
outer tank dimension(mm)	φ 470	φ 470	φ 540	φ 540	φ 600	φ 700	φ 700
material and thickness of the inner tank	SUS /304-1.2mm	SUS /304-1.2mm	SUS /304-1.2mm	SUS /304-1.2mm	SUS /304-1.2mm	SUS /304-2.0mm	SUS /304-2.0mm
material and thickness of the outer shell	0.6galvanized sheet	0.6galvanized sheet	0.6galvanized sheet	0.6galvanized sheet	0.6galvanized sheet	0.6galvanized sheet	0.6galvanized sheet
insulation thickness	50	50	50	50	60	50	50
surface area heat exchanger top (m2)	-----	0.5	0.5	0.6	0.6	0.8	0.8
surface area heat exchanger bottom(m2)	0.6	0.6	0.6	0.7	0.7	1.12	1.12
installation size of water pipe	BSP3/4	BSP3/4	BSP3/4	BSP3/4	BSP3/4	BSP3/4	BSP3/4
rated heating power	1.5KW	1.5KW	1.5KW	2.0KW	2.5KW	3.0KW	3.0KW
Overall dimension(references)(mm)	φ 470 X 1230	φ 470 X 1620	φ 540 X 1530	φ 540 X 1860	φ 600 X 1880	φ 700 X 1570	φ 700 X 1900
packing case size(mm)	510 X 510 X 1290	510 X 510 X 1680	590 X 590 X 1590	590 X 590 X 1920	600 X 1880 X 1940	760 X 760 X 1630	600 X 760 X 1960
weight(references)(Kg)	32	43	50	55	72	102	126

Noted: 1. the power of assistant heating as the requirement of buyers;
2. the cooper coil in the water tank as the requirement of buyers



<http://www.sunstar-solar.com>

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