

CATALOGUE

SOLAR WATER HEATER

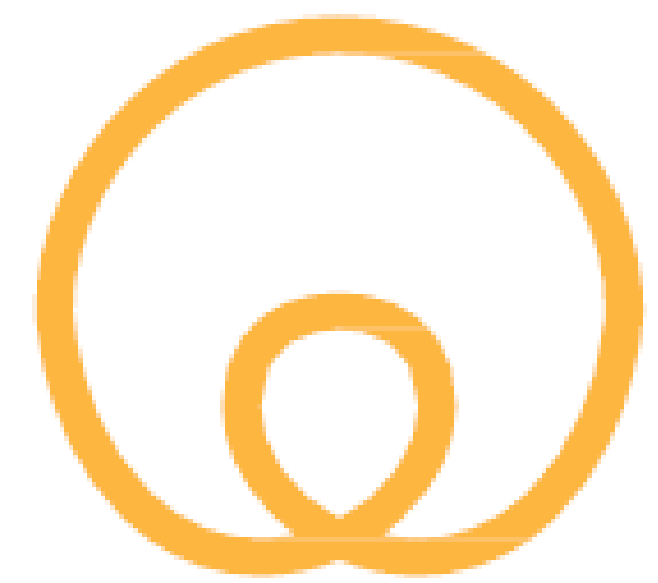


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Innovation and technology for efficient eco energy solutions!

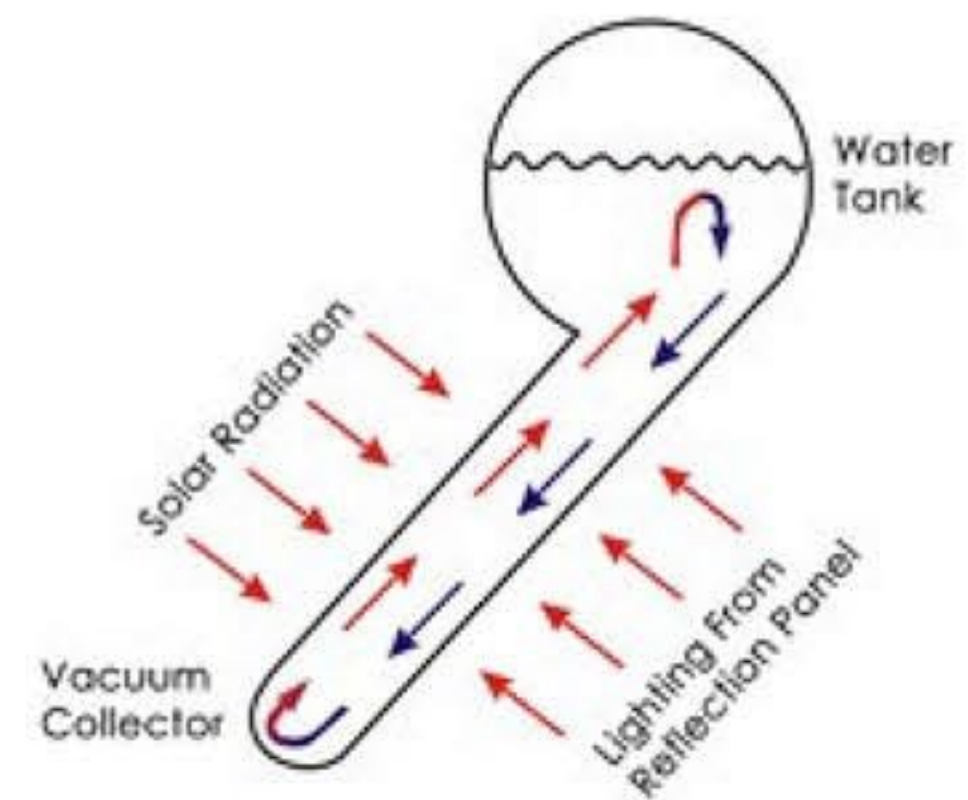
ECOSOURCE CANADA INC.
4484, boulevard de la Grande-Allée
Boisbriand, Québec CANADA J7H 1R9
Tel: 450.951.6151 | 1.855.691.7254
Fax : 450.951.6152
info@ecosource-canada.ca
www.ecosource-canada.ca



SOLAR WATER HEATERS are devices that use energy from the sun to heat water. Solar water heating is used around the world. We offer two types of solar collectors: flat plate and vacuum tube.

Solar water heating systems consist of solar collectors + a well insulated water storage tank + pumps & controls (if necessary).

Using the theory of water circulation and energy absorption, solar water heating allows for virtually free hot water.



KEY BENEFITS

- Low cost: Save up to 70% on your water heating bill
- Environment Protection: Initial investment paid back over 2 - 3 years
- No pollution
- Long life time: 10-15 years life time; flat collector can work more than 20 years
- Construction integration

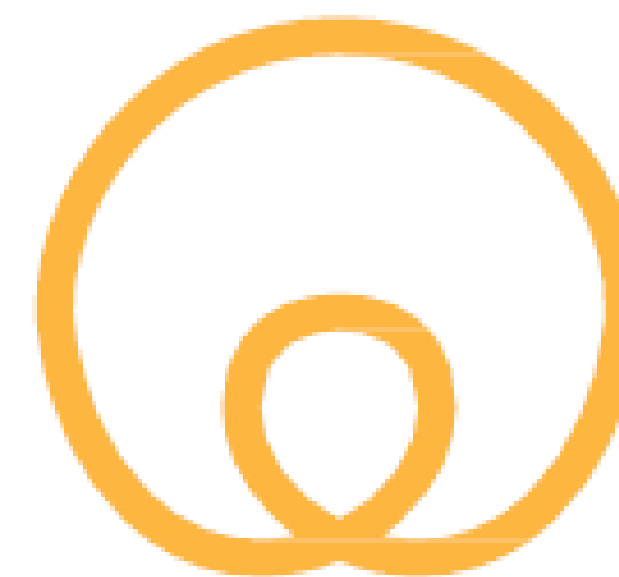
HOW IT WORKS

	Vacuum tube solar water heaters	Pressure - heat pipe solar water heaters		Flat collector
		U copper tube	heat pipe collector	
Cost	★	★★	★★★	★
Maintain Cost	Low	High	High	free
Tube Diameter	47 or 58mm	47 or 58mm	58mm	-
Life Time	10 years	10 years	10 years	20 years
Collector Efficiency	85%	68%-75%	62%-72%	76%
Operate Temperature	-30~250 °C	-30~250 °C	-50~250 °C	0~220 °C
Max. Water Temperature		70~90 °C		60~70 °C
Effective Lightina Area		70%		100%
Packing & Transportation	Individual /easy	Incorporate /hard	Individual /easy	Incorporate/easy
Replace Vacuum	Easy	Hard	Easy	-
When a Vacuum Bursts	Stop working & water leakage	Stop working but no water leakage		-
Remark	Water in tube; Bursting easily in summer and freezing in winter; Needing control system that is a quick-wear part for inlet and outlet.	No water in tube. Scaling easily with alkali water.		Building integrated. Not be suitable for winter.

SOLAR WATER HEATER

Vacuum Tube

Non-pressure Series



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KEY BENEFITS

- Integrated design, simple installation
- Excellent figure, reliable performance
- Low maintenance, convenient replacement
- Suitable to use in all kinds of climates

KEY FEATURES

- Inner tank SUS304 stainless steel, advanced welding technique, thickness 0.5 mm
- Isolation layer: 50-65mm imported polyurethane foam for superior heat preservation
- Frame material: coated galvanized steel sheet-1.5mm
- High efficiency



Model	Tubes Qty.	Type of Tube	Type of tank	Tank Capacity	Materials
ECO-SWH-101	15	Ø47x1500	Ø375xφ475	120L	1) Inner tank: stainless steel SUS304-0.5mm 2) Vacuum tube: QB-AL-N/AL-47-1500/58-1800 3) Outer tank: painted steel-0.5mm 4) Frame: coated galvanized steel sheet-1.5mm 5) With reflector and electric heater
ECO-SWH-102	18			150L	
ECO-SWH-103	20			180L	
ECO-SWH-104	24			200L	
ECO-SWH-105	30			250L	
ECO-SWH-106	36			300L	
ECO-SWH-111	15	Ø58x1800	Ø375xφ475	150L	5) With reflector and electric heater
ECO-SWH-112	18			180L	
ECO-SWH-113	20			200L	
ECO-SWH-114	24			240L	
ECO-SWH-115	30			300L	
ECO-SWH-116	36			360L	

SOLAR WATER HEATER

Vacuum Tube

Heat Pipe Solar Collector



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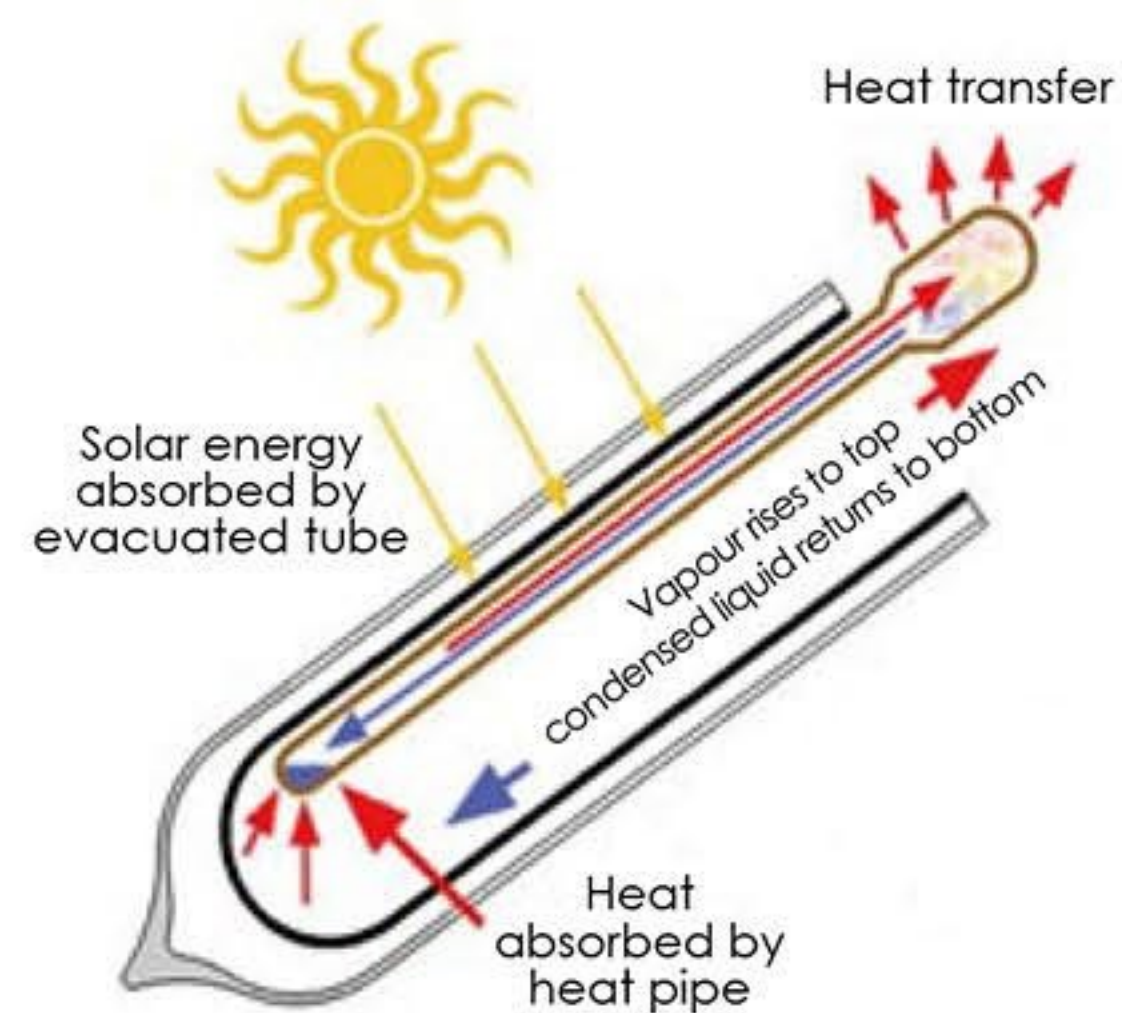
Heat pipe solar collectors belong to pressure-bearing solar water heater, which achieves water input and output automatically. There is no water in the tube. Using copper pipe, based on heat-exchange principle, hot water can be provided for free for the whole family.

KEY BENEFITS

- Special design for the split solar water heater systems
- Easy to combine with existing water heating systems for commercial buildings, hotels, hospitals, swimming pools, etc.
- Excellent and reliable performance
- One or several glass tubes broken will not affect the system
- Suitable to use in all kinds of climates

KEY FEATURES

- Achieving water input and output automatically
- No leaking if vacuum tubes break
- Efficiency up to 76%
- Special brackets could stand any climates



Models	ECO-SWH-201	ECO-SWH-202	ECO-SWH-203	ECO-SWH-204	ECO-SWH-205
Tube Spec	Ø58 x 1800 (TYY-MC/TYY-AA)				
Number of Tube	10	15	20	25	30
G. W.	39.6kg	55kg	73kg	90kg	106kg
Gross Area	1.715m ²	2.52m ²	3.53m ²	4.39m ²	4.901m ²
Aperture Area	0.936m ²	1.399m ²	1.867m ²	2.333m ²	2.791m ²
Absorber Area	0.808m ²	1.209m ²	1.612m ²	2.015m ²	2.411m ²
Fluid Content	0.7L	1.1L	1.47L	1.83L	2.3L
Fluid Type	Glycol solution or pure water				
Flow range recommendation	50-150L/m ² h				
Inlet/Outlet Pipe	1"				
Operating fluid pressure					≤6kg/cm ³ ≤6Bar
Maximum fluid pressure					12kg/cm ³ 12Bar
Maximum Operating Pressure					6Bar
Maximum service temperature					95°C
Stagnation Temperature					200°C

SOLAR WATER HEATER

Vacuum Tube

U Type Solar Collector



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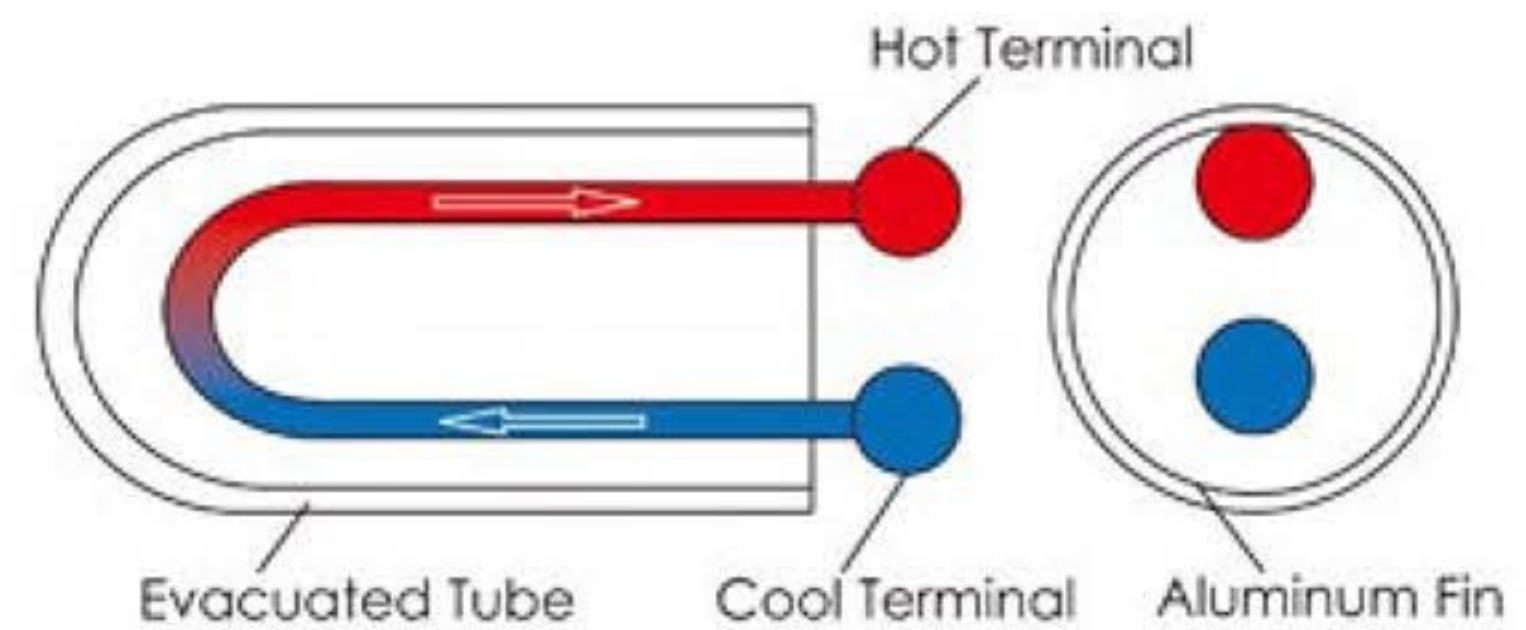
U type solar collectors belong to pressure-bearing solar water heater. Its the same as heat pipe, only with differently shaped pipe in the vacuum tube end can achieve higher efficiency.

KEY BENEFITS

- Easy to combine with existing water heating systems for commercial buildings, hotels, hospitals, swimming pools etc
- Excellent and reliable performance
- One or several glass tubes broken will not affect the system
- Suitable for all kinds of climates

KEY FEATURES

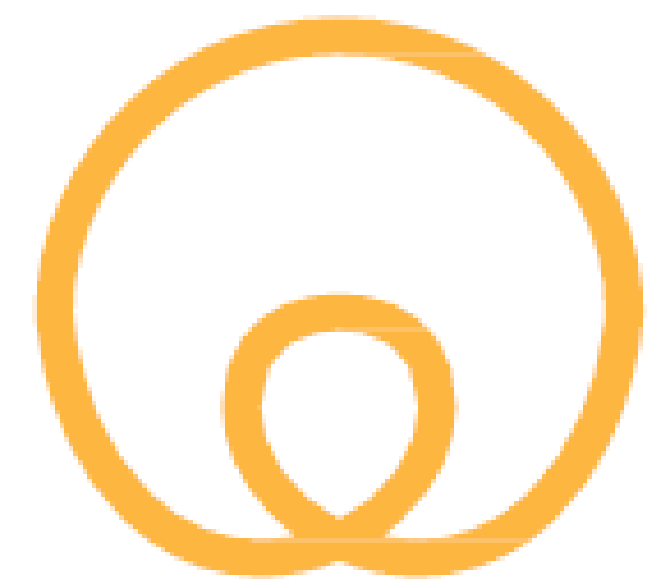
- Achieving water input and output automatically
- No leaking when vacuum tubes were broken
- Can achieve 78% of efficiency
- Special brackets could stand any climates
- Fast-response coil component assures quick heating and low maintenance



Model	ECO-SWH-301	ECO-SWH-302	ECO-SWH-303	ECO-SWH-304	ECO-SWH-305
Tube Spec	Ø47x1500(TYY-AA/TYY-MC)				
Number of Tubes _s	10	15	20	25	30
G.W.	26kg	38kg	50kg	63kg	75kg
Gross Area	1.41m ²	1.98m ²	2.56m ²	3.13m ²	3.71m ²
Aperture Area	0.85m ²	1.28m ²	1.71m ²	2.55m ²	3.08m ²
Absorber Area	0.53m ²	0.80m ²	1.07m ²	1.34m ²	1.60m ²
Fluid Content	1.3L	2.0L	2.7L	3.4L	4.1L
Fluid Type	Glycol solution or pure water				
Inlet/Outlet Pipe	1/2"				
Working pressure	≤6kg/cm ³ ≤6Bar				
Tested pressure	12kg/cm ³ 12Bar				
Max. operating pressure	6Bar				
Max. operation Temp	95°C				
Stagnation Temp	200°C				

SOLAR WATER HEATER

Flat Plate Solar Collector



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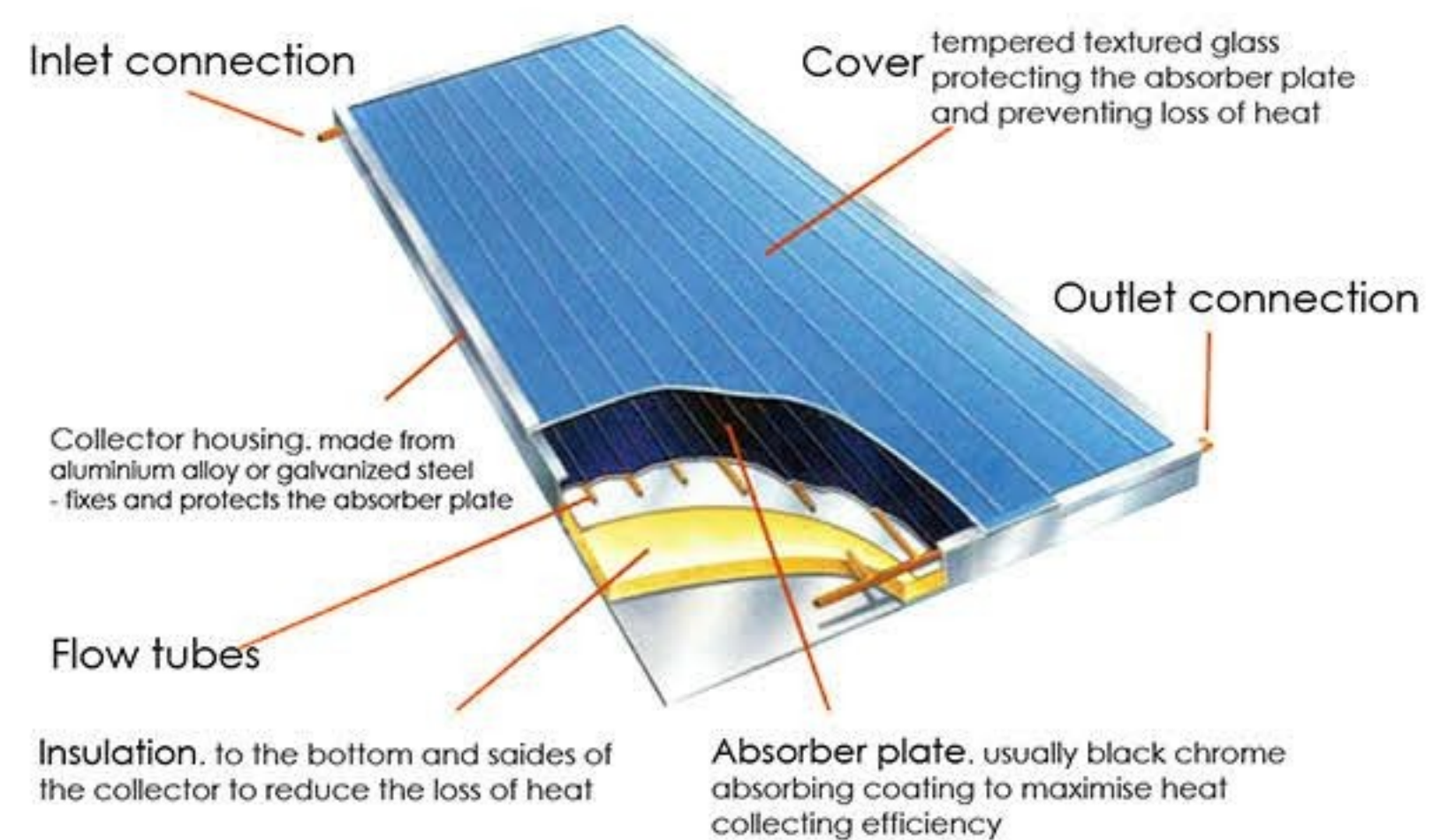
Flat plate solar collectors belong to pressure-bearing solar water heater. Flat collector is very popular in Europe and America. It's the best way for construction integration. Maintenance-free is the best advantage.

KEY BENEFITS

- Easy to combine with existing water heating systems for commercial, buildings, hotels, hospitals, swimming pools, etc.
- Excellent and reliable performance
- Maintenance-free, no burst like vacuum tube
- Long life, can work continuously for 20~25 years

KEY FEATURES

- Achieving water input and output automatically
- High efficiency coating with absorptivity of 92%~96% and emission rate of 5%~10%
- Max pressure is up to 1.Mpa and the normal working pressure is 0.6Mpa
- Easy installation, many styles of brackets suitable for different construction



Model	ECO-SWH-401	ECO-SWH-402	ECO-SWH-403	ECO-SWH-404	ECO-SWH-405	ECO-SWH-406
Dimension L*W*T(mm)	2000 x 1000 x 80	2000 x 1000 x 95	2150 x 1100 x 95	2000 x 1000 x 95mm	2000 x 1000 x 80mm	2000 x 1000 x 95mm
Gross Area(m ²)	2	2	2.37		2.03m ²	2.03m ²
Absorber Area(m ²)	1.73	1.73	2.07		1.73m ²	1.84m ²
Net Weight(kg)	40	42	49	41.6	37.5	39
Cover Material	Low-iron Tempered Textured Glass					
Cover Size L*W*T(mm)	1959x959x3.2	1959x959x3.2	2110x1060x3.2	1970x970x3.2	1970x970x3.2	1970x970x3.2
Cover Transmission				85%-91%	85%-91%	85%-91%
Absorber Construction	Full Sheet & Tube (Laser Welding)					
Absorber size L*W(mm)	1914x976	1914x976	2065x1076	1840x950	1840x950	1840x950
Absorber Material					1pc pure Aluminium	
Surface Treatment	Blue Selective			Black Chromed		Black Chromed
Header Tube Size(mm)	Φ22 x 8				Φ22 x 80.6mm 2pcs	
Riser Material						Black Chrome
Riser Tube Size (mm)	Φ8 x 80.5 8pcs	Φ8 x 80.5 8pcs	Φ8 x 80.5 9pcs	Φ10 x 80.6 8pcs	Φ10 x 80.6 8pcs	Φ10 x 80.5 9pcs
Insulation Material						Copper
Insulation Thickness	30mm	50mm	50mm	50mm	30mm	50mm
Back Plate	0.8r			0.21mm thick	0.4mm	0.27mm
Sealing Gasket						EPDM
Frame	Aluminum Alloy, Anodized black/silver/brown color					
20' Container	145	118	108	138	153	130
40' Container	303	242	220	277	316	277

SOLAR WATER HEATER

Enamel Water Tank



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Enamel water tanks are better than steel ones because they will not corrode at all (intergranular corrosion). So if it is a pressured solar water tank, enamel does better in standing acid, alkali, uprising and pressure. It is the development direction of the solar water tank.

KEY BENEFITS

- Anticorrosion
- Good pressure resistance capability
- Resistance to high temperature



Model	ECO-SHW-501	ECO-SHW-502	ECO-SHW-503
Capacity	100L (wall mounted type)	150L	300L
Inner vessel diameter(mm)	φ368	φ368	φ542
Water tank dimension(mm)	φ430	φ450	φ620
Material and thickness of the inner vessel	1.8 / BTC340R	1.8 / BTC340R	2.0 / BTC340R
Enamel thickness (mm)	0.3-0.5	0.3-0.5	0.3-0.5
Material and thickness of the shell	0.5 / galvanized sheet	0.5 / galvanized sheet	0.5 / galvanized sheet
Insulation thickness(mm)	30	40	40
Surface area heat exchanger top(m ²)	----	----	0.4
Surface area heat exchanger bottom(m ²)	----	0.6	0.7
Coil Diameter (mm)	----	16	16
Coil thickness (mm)	----	1	1
Installation size of water pipe	NPT1/2"	NPT3/4"	NPT3/4"
Rated heating power	1.5KW	1.5KW	2.5KW
Overall dimension(references)(mm)	φ430×1114	φ450×1570	φ620×1530
Packing case size(mm)	500×520×1186	480×480×1665	655×655×1625
Weight(references)(Kg)	32	58	95