SUNSTAR
SOLAR POOL HEATING

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Enjoy Your Pool Beyond Summer with SunStar Solar Pool Heating!

Residential

The SunStar Solar Pool Heating System lets you swim comfortably even during the cooler months. By capturing heat from the sun, solar pool heating is an environmentally friendly and cost effective way to heat your pool.
Our state of the art panels are maintenance free with maximum efficiency. With an innovative mounting system, we have minimized roof connections and raised the panels to "float" above the roof, allowing it to breathe while staying clean and dry.

Commercial

Commercial pool heating with SunStar is extremely energy efficient, provides year-round pool heating in warm climates and extends the swim season in cooler areas. Organizations typically see a return on investment in 3 years or less.

- Distinct, Sleek Panel Design
- Wear and Freeze Resistant
- Little to No Maintenance Required
- Withstands Hurricane Force Winds

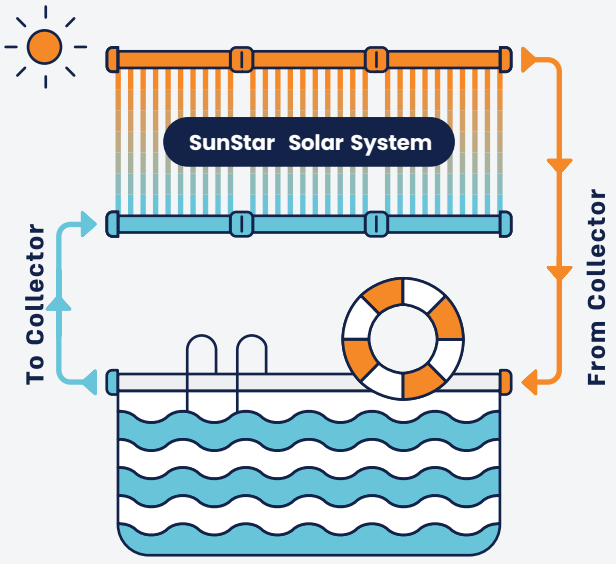
How It Works

1. Using your existing pool pump, pool water is directed through a series of valves to your solar collectors.

2. Pool water enters the solar collectors at the bottom and rises to the top through the individual tubes of the collector.

3. As the water rises through the collector, it is heated by the sun's radiant energy.

4. The water is then returned to the pool to repeat the cycle until your pool has been warmed to your desired temperature.



Design Features

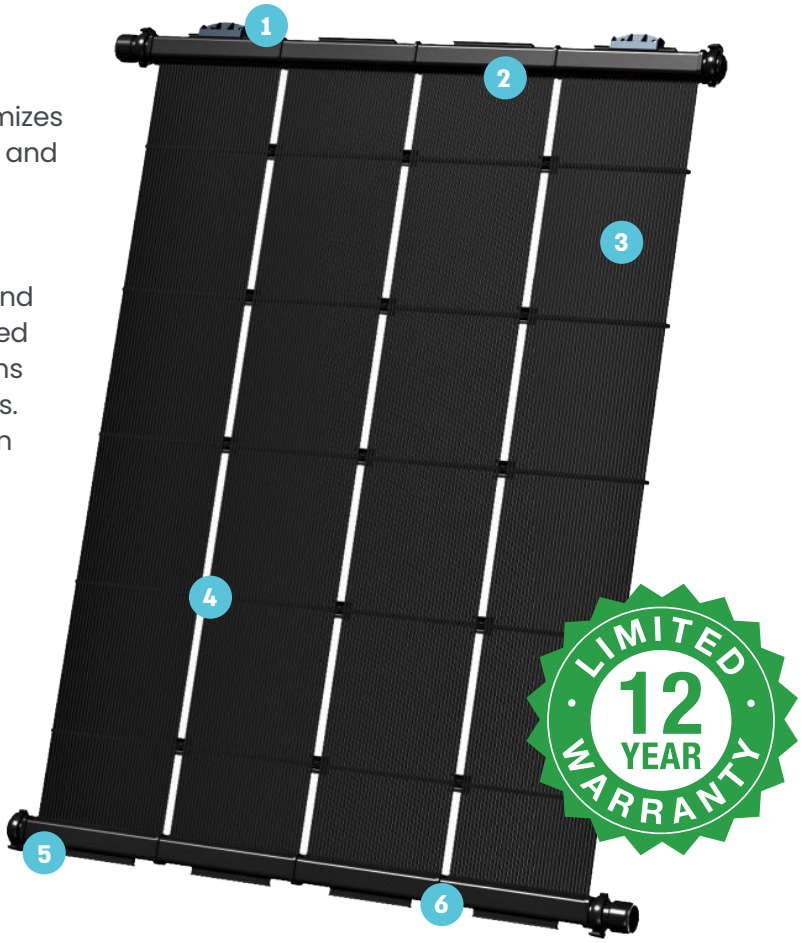
1. Mounting Pads
Strapless flush mounting to any roof type minimizes roof penetrations and allows for expansion and contractions.

2. Single Piece Construction
The unique square header shape maximizes flow and increases efficiency. Headers and risers are molded together forming one solid piece eliminating seams and welds that can crack with age and stress. This produces the strongest possible connection and ensures a low maintenance system.

3. Individual Tubes
Low head-loss riser tubes eliminate high head pressures, maximize efficiency, and protect against clogging. Tubes expand and contract independently, helping to eliminate cracks. The round design captures more heat.

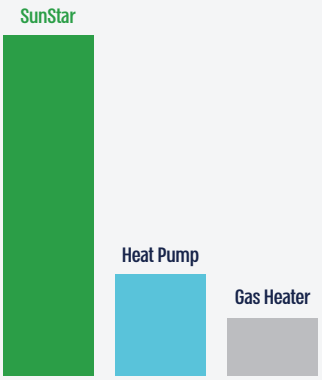
4. Mounting Sleds
Sleds prevent panel distortion and riser tube abrasion over time due to thermal expansion while adding strength to the unit.

5. Panel Clamps
Patented panel clamps eliminate rubber hoses and metal clamps that require regular rooftop maintenance and replacement, eliminating hassles and saving time and money. Clamps also allow panels to be mounted closer together for a more efficient and more attractive system.

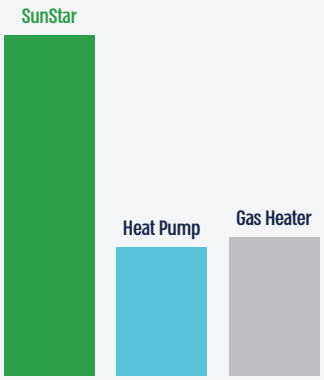


6. Open Flow Design
Each and every individual tube opens into the header, increasing flow and virtually eliminating backpressure, saving wear and tear on your pool pump.

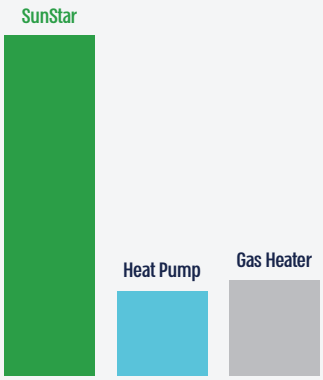
Our industry leading, twelve year limited warranty covers your SunStar panels, labor, parts and freeze protection when installed according to the manufacturer's instruction manual.



Energy Savings
SunStar utilizes the endless cost-free energy of the sun.



Maintenance Savings
SunStar's efficient design eliminates wear and corrosion.



Operational Life
Our patented system outperforms and outlast the competition.

CERTIFICATIONS & ASSOCIATIONS:

Collector Data

Collector Model	STR-50	STR-40	STR-38	STR-30
Size, Nominal	4' x 12.5'	4' x 10.5'	4' x 9.5'	4' x 8'
Width	48.41"	48.41"	48.41"	48.41"
Length	152.88"	128.44"	116.28"	91.94"
Aperture Area	48.23 sq ft	40.68 sq ft	36.68 sq ft	29.15 sq ft
Manifold Diameter	2"	2"	2"	2"
Dry Weight	24 lbs	22 lbs	19 lbs	16 lbs
Volume Capacity	3.7 gal	3.1 gal	2.8 gal	2.4 gal
Working Pressure	90 psi	90 psi	90 psi	90 psi
Burst Pressure	270 psi	270 psi	270 psi	270 psi
Typical Flow	5 - 7 gpm	4 - 6 gpm	3.8 - 5.5 gpm	3 - 4.4 gpm

Certification Data

Certifying Organization	STR-50	STR-40	STR-38	STR-30	Performance Expectations
National Standard SRCC Equivalent of 948 BTU/sq ft	48,230	40,680	36,680	29,150	$\eta = (0.909)(1 - 0.0206u)(2.1084 + 1.1254u)(P/G")$
Florida Standard	956 BTU's/ft²				$0.828 - 3.26 (Ti-Ta) / I$ $K_A X = 1.00 - 0.11(S)$

STR-50

Solar Insolation

Water Temp. Minus Air Temp.	Category T(°F)	2,000 BTU/ft²	1,500 BTU/ft²	1,000 BTU/ft²
	A (-9)	101.28	77.17	57.88
	B (+9)	48.23	28.94	9.65
	C (+36)	4.82	0	0
	D (+90)	0	0	0

Thousands of BTU's per day per panel

STR-40

Solar Insolation

Water Temp. Minus Air Temp.	Category T(°F)	2,000 BTU/ft²	1,500 BTU/ft²	1,000 BTU/ft²
	A (-9)	85.43	65.09	48.82
	B (+9)	40.68	24.41	8.14
	C (+36)	4.07	0	0
	D (+90)	0	0	0

Thousands of BTU's per day per panel

STR-38

Solar Insolation

Water Temp. Minus Air Temp.	Category T(°F)	2,000 BTU/ft²	1,500 BTU/ft²	1,000 BTU/ft²
	A (-9)	77.03	58.69	44.02
	B (+9)	36.68	22.01	7.34
	C (+36)	3.67	0	0
	D (+90)	0	0	0

Thousands of BTU's per day per panel

STR-30

Solar Insolation

Water Temp. Minus Air Temp.	Category T(°F)	2,000 BTU/ft²	1,500 BTU/ft²	1,000 BTU/ft²
	A (-9)	61.22	46.64	34.98
	B (+9)	29.15	17.49	5.83
	C (+36)	2.92	0	0
	D (+90)	0	0	0

Thousands of BTU's per day per panel

KEY: **A** - Pool Heating (Warm Climate) **B** - Pool Heating (Cool Climate) **C** -Water Heating (Warm Climate) **D** - Space & Water Heating

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