

## SunSaver ST™

### **Solar Pool Heating Collector Specifications**

**DESCRIPTION:** 

The SunSaver ST™ Solar Collector is manufactured in Chico, California. The collector is a specially developed, highly stabilized polyolefin and is of parallel, circular channel design. It is unglazed, un-insulated, and designed for low temperature applications such as swimming pool heating, heat pumps, aquaculture, hydroponics, and pre-heating.

**DIMENSIONS:** 

### **Collector Model Number**

|                    | 4 x 8, 2 x 8             | 4 x 10, 2 x 10                        | 4 x 12, 2 x 12           |
|--------------------|--------------------------|---------------------------------------|--------------------------|
| Header Width       | 50-7/8", 26-7/8" (±1/8") | 50-7/8", 26-7/8" (±1/8")              | 50-7/8", 26-7/8" (±1/8") |
|                    | 1.29m, 0.68m (±3.2mm)    | 1.29m, 0.68m (±3.23mm)                | 1.29m, 0.68m (±3.23mm)   |
| Panel Body Width   | 48", 24" (+1/4" - 0")    | 48", 24" (+1/4" - 0")                 | 48", 24" (+1/4" - 0")    |
|                    | 1.22m, 0.61m (±6.4mm)    | 1.22m, 0.61m (±6.4mm)                 | 1.22m, 0.61m (±6.4mm)    |
| Overall Length     | 96" (±1/8")              | 120" (±1/8")                          | 144" (±1/8")             |
|                    | 2.44m (±3.2mm)           | 3.05m (±3.2mm)                        | 2.66m (±3.2mm)           |
| Effective Area     | 32ft², 16ft²             | 40ft <sup>2</sup> , 20ft <sup>2</sup> | 48ft², 24ft²             |
|                    | 2.97m², 1.47m²           | 3.72m², 1.86m²                        | 4.46m², 2.23m²           |
| Weight (w/o fluid) | 12.2lbs, 6.1lbs          | 14.3lbs, 7.2lbs                       | 16.5lbs, 8.3lbs          |
|                    | 5.53kg, 2.77kg           | 6.49kg, 3.26kg                        | 7.48kg, 3.76kg           |
| Fluid Capacity     | 4.0gal, 2.0gal           | 4.7gal, 2.4gal                        | 5.4gal, 2.7gal           |
|                    | 15.1L, 7.6L              | 17.8L, 9.1L                           | 20.4L, 10.2L             |
| Weight (w/ water)  | 46.0lbs, 23.0lbs         | 53.8lbs, 26.9lbs                      | 61.7lbs, 30.8lbs         |
|                    | 20.8kg, 10.4kg           | 24.4kg, 12.2kg                        | 28.0kg, 14.0kg           |

**ROOF MOUNTING SPACE:** Width = [Number of panels X 50-7/8" (1.29m)] + 24" (0.61m)

Length = Panel length + 24" (0.61m)

**RACK SPACE:** Width = [Number of panels X 50-7/8" (1.29m)] + 2" (0.05m)

Length = Panel length + 6" (0.15m)

**FLOW:** Maximum recommended flow =  $0.20 \text{ gpm per ft}^2$  panel area (488 L/hr per m<sup>2</sup>)

3.47 psi head loss (23.9 kPa)

Minimum recommended flow =  $0.05 \text{ gpm per ft}^2$  panel area (122 L/hr per m<sup>2</sup>)

0.23 psi head loss (1.6 kPa)

Recommended flow = 0.10 gpm per ft<sup>2</sup> panel area (244 L/hr per m<sup>2</sup>)

0.87 psi head loss (6.0 kPa)

**MAXIMUM INTERMITTENT** 

PRESSURE: NORMAL OPERATING PRESSURE

80°F (27°C)

 PRESSURE
 PRESSURE

 0 to 30 psi
 45 psi

 (0 - 207 kPa)
 (310 kPa)

212°F (100°C) 0 to 5 psi 5 psi (0 - 34 kPa) (34 kPa)

70°F (21°C) Measured burst pressure of panel body = Over 300 psi (2069 kPa)

**TEMPERATURE:** Normal operating temperature = 60°F to 90°F (16°C to 32°C)

Maximum continuous operating temperature = 212°F (100°C) Maximum intermittent temperature (un-pressurized) = 250°F (121°C)

Melt temperature = 338°F (170°C)



# SunSaverST™ Solar Pool Heating Collector Specifications

CHEMICAL RESISTANCE: Compatible with common collector fluids such as chlorinated or saline pool water.

CORROSION: Non-corrosive

FREEZING: The system should be drained before freezing conditions occur.

**WEATHERABILITY:** Weatherometer, accelerated outdoor exposure, and other extensive laboratory testing demonstrates

long-term weatherability of SunSaverST™ collectors (see warranty). Additionally, FAFCO's experience of 40+ years and over 2,000,000 collectors installed confirms that the proprietary stabilization

and high mechanical strength results in negligible issues over the warranty period.

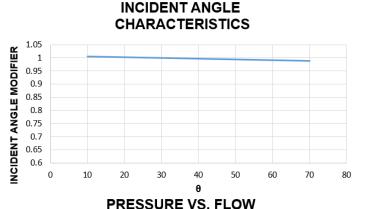
ABSORPTIVITY: 0.96

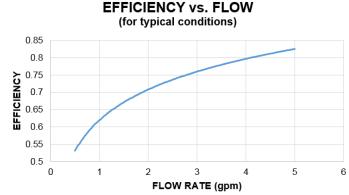
EMISSIVITY: 0.90

TIME CONSTANT: 105 seconds

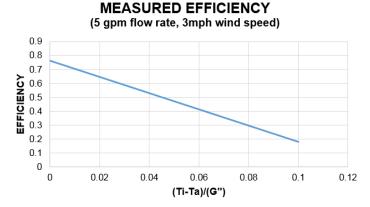
TESTED OUTPUT: 1,900 Btu/ft²-day (5.9 kWh/m²-day) (Per SRCC OG100 Certification # 10001773)

### **PERFORMANCE GRAPHS:**





#### 12 10 10 8 8 9 0 0 2 4 4 2 0 0 2 4 4 6 8 8 10 FLOW RATE (gpm per panel)



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