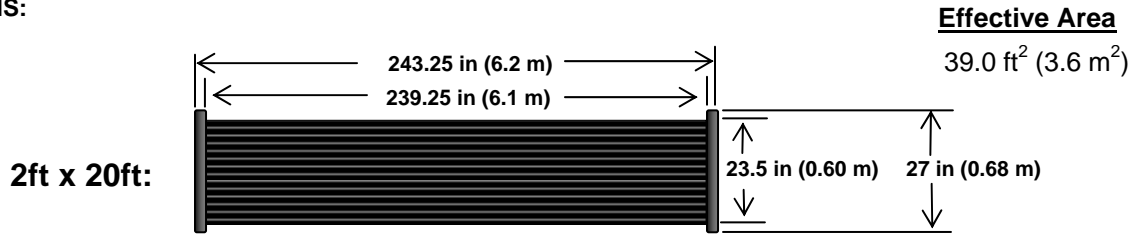


SunGrabber™

Above Ground Pool SOLAR HEAT EXCHANGER

DESCRIPTION: The Sungrabber™ 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, aquiculture, and hydroponics.

DIMENSIONS:



ROOF MOUNTING SPACE: Width = [Number of panels X 27 in. (68.6 cm)] + 24 in. (61 cm)
Length = Panel length + 24 in. (61 cm)

RACK SPACE: Width = [Number of panels X 27 in. (68.6 cm)] + 2 in. (5 cm)
Length = Panel length + 6 in. (15 cm)

WEIGHT:

Without Water:
2 ft. X 20 ft. 12.3 lbs (5.6 kg) or 0.27 lbs/ft² (1.3kg/m²)

With Water:
2 ft. X 20 ft. 43.4 lbs (19.7 kg) or 1.0 lbs/ft² (5.0kg/m²)

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-pressured) = 250°F (121°C)
Melt temperature = 338°F (170°C)

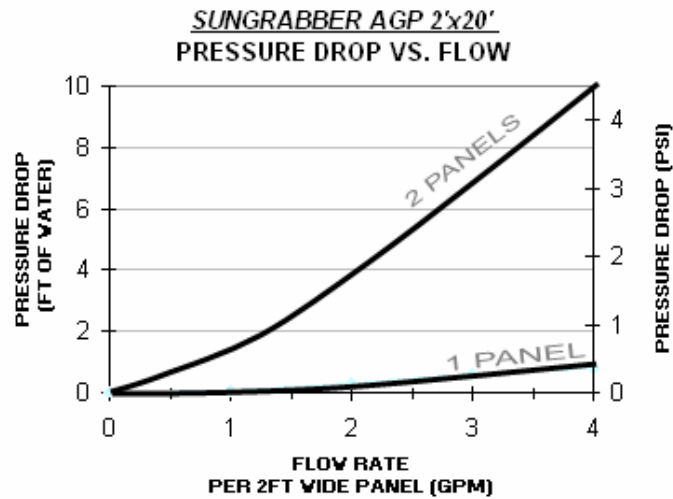
FLOW:

Maximum recommended flow = 4 gpm per panel
Minimum recommended flow = 1 gpm per panel
Recommended flow = 3 gpm per panel

PRESSURE:

	NORMAL OPERATING PRESSURE	MAXIMUM INTERMITTENT PRESSURE
80°F (27°C)	0 to 30 psi (0 - 2.11 kg/cm ²)	45 psi (3.16 kg/cm ²)
212°F (100°C)	0 to 5 psi (0 - 0.35 kg/cm ²)	5 psi (0.35 kg/cm ²)
70°F (21°C)	Measured burst pressure of panel body = Over 300 psi (21.1 kg/cm ²)	

PRESSURE DROP:



CHEMICAL RESISTANCE: Compatible with common collector fluids

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 SunGrabber™ collectors (see warranty). Additionally, SunGrabber's experience of 30+ years and over 1,000,000 collectors installed confirms the proprietary stabilization and high mechanical strength.

ABSORPTIVITY: 0.96

EMISSIVITY: 0.90

All specifications and dimensions set forth above are as estimated by SunGrabber, but are not intended to be precise and should not be relied upon as precise without independent verification. These estimated specifications and dimensions are subject to change without notice. Nothing contained herein is intended or should be construed to expand or extend SunGrabber's warranty, or establish any express or implied warranties of any nature, other than as contained in the Limited Ten Year Warranty Agreement. (SunGrabber disclaims any other warranties and assumes no duty to provide notice if it becomes aware of any deficiencies in these estimates.) The reader accepts full responsibility for any use or application of these estimates and specifically understands and acknowledges the limited reliability of these estimates.

Additional test data available on request