



SOLARBEAM CONCENTRATOR

MODEL # SB-4.5-4400

Description

The SolarBeam Concentrator is the most efficient solar hot water system available. The SolarBeam uses concentrated solar power (CSP) technology that utilizes a highly reflective glass infused mirror to reflect and concentrate the sunlight onto a focal point.

The SolarBeam Concentrator generates peak 13 kW of heat per hour (44,350 BTUs/hour) and can reduce payback from 20 years to 6 years compared to other technologies. The SolarBeam is a state-of-the-art solar hot water system that is built to withstand the most extreme weather conditions.

Sun Tracking

The SolarBeam Concentrator's patent-pending computer controlled 2-axis tracking system tracks the sun throughout the day. This maximizes solar collection, which makes it 262% more efficient than typical solar flat plate panels.

Solar Applications

SolarBeam is principally a solar space heating a water heater system. However the SolarBeam, in conjunction with an absorption chiller, can provide air conditioning (typically commercial applications). The SolarBeam can fit more applications than traditional flat plate panel or evacuated tube technology for solar hot water heating or space cooling.

Solar thermal technologies can be used in the following applications:

- Space Heating
- Space Cooling with Absorption Chillers
- Water Heating
- Process Heat Generation

* As with all solar power heating systems a backup heating system is needed. However, energy can be collected even on partly cloudy days.



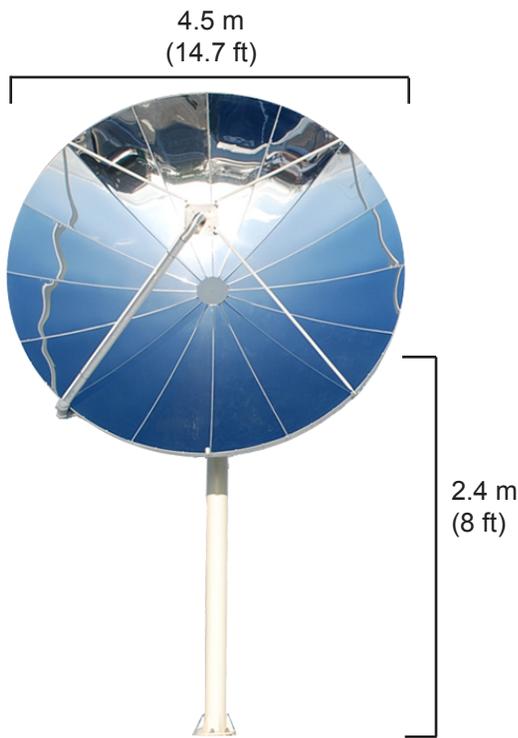
FEATURES

- 44,000 BTUs/hour heat generated by one dish
- Dual-axis sun tracking maintains high efficiency regardless of season
- Intelligent Sunlight Sensor tracks only on sunny days
- No heat stagnation

APPLICATIONS

- Industrial
- Commercial
- Government
- Residential

www.solartronenergy.com



HOT WATER PRODUCTION @ 800 watts / m2

Peak Kw	13 kW/hour
Peak BTUs	44,350 BTUs/hour



Location: Nova Scotia, Canada
 Site: Bottling Plant
 Number of Dishes: 2

DISTRIBUTOR

ECHO Système
ENERGIE SOLAIRE

(819) 537-0560
 750, 131^e rue
 Shawinigan-Sud
 Québec, Canada
 G9P 4J6
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Distribution partout au Québec

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PARAMETERS

Collector Area	15.9 m2 (171 sq. ft)
Thermal Efficiency	82%
Tracking	Dual Axis
Temperature Protection	Automatic stow mode
Maximum Collector temperature	155 deg. C (311 deg. F)
Maximum fluid temperature of Primary loop	93 deg C (199 deg. F)
Maximum fluid Temperature of Secondary loop	93 deg. C (199 deg. F)
Maximum Fluid Pressure	172 kPa (25 PSI)
AC Power Interruption Protection	Automatic Solar Concentrator shut-down to Survival Position (90 deg Vertical Axis).
Heat Transfer Fluid	Propylene Glycol/Water solution (40%/60% to -18 deg. C) or (50%/50% to -30 deg. C)
Flow Rate	0.1393 - 0.3167 L/Sec (4 Gallons)
Power Supply	24VDC, 5A

DIMENSION & AREA

Reflector diameter	4.5m (14.7 ft)
Focal point distance	2.2m (86.63 inches)
Heat Sink Collector	0.254 X 0.254m (10" x 10")
Mounting Post	2.4 m (8' ft)

MATERIAL

Reflector	Anodized Aluminum (90% Reflectance)
Mounting Post	Steel
Weight	300 Kg (661 lbs)

POWER CONSUMPTION

Vertical Axis Motor	24W, 2A
Horizontal Axis Motor	12W, 0.5A
Power Back up	UPS Battery