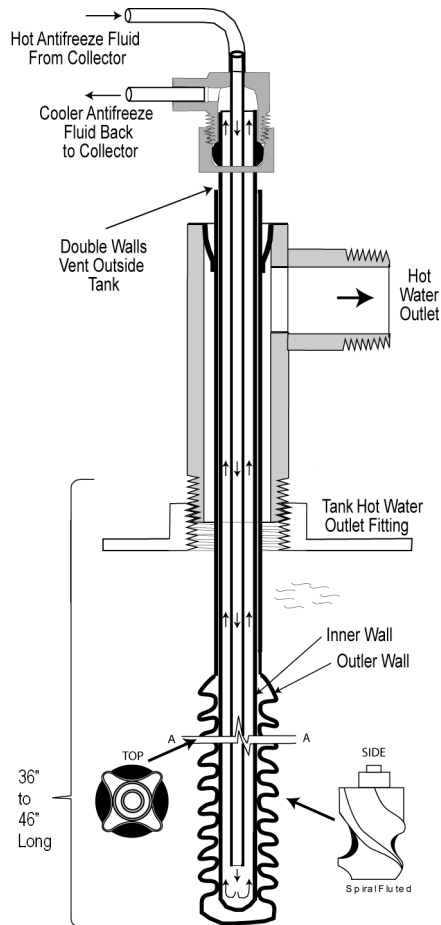




**Solar Wand™ Specification Sheet**  
**Part Numbers SW-36, SW-46**



**Description:**

The BSSI Solar Wand™ is a solar heat exchanger that is installed in a conventional hot water tank to convert it to a solar hot water storage tank

**Heat Exchanger Type:**

Double-wall, protected – American Water Works Association (AWWA) Designation

**Materials:**

Copper, brass, & braze/solder (all lead-free)

**Connections:**

To Tank:

Threaded, 3/4"  
Male NPT

Hot Water Outlet Port:

Threaded, 3/4" Male NPT

Solar Fluid from Collectors (Top Connection):

Hose, 3/8" (9.5mm) ID

Solar Fluid to Pump (Bottom Connection):

Hose, 3/8" (9.5mm) ID

**Dimensions:**



# Butler Sun Solutions, Inc.

## Solar Hot Water

<b>Model Number:</b>	<b>SW-36</b>	<b>SW-46</b>
Overall Length:	46.5" (1181 mm)	56.5" (1435 mm)
Distance from Bottom of Wand to Top of Mounting Threads	36.5" (927 mm)	46.5" (1181 mm)
Height Above Top of Tank	10" (254 mm)	10" (254 mm)
Heat Exchange Surface Area:	1.56 sq.ft (0.145 sq.m)	2 sq.ft. (0.186 sq.m)

**Nominal Operating Temp.:** 120°-220°F (50°C-105°C)  
**Nominal Solar Fluid Flow:** 0.5 to 1 gpm  
**Maximum (Proof) Pressure:** 125 psi (0.86 MPa)  
**Nominal Operating Pressure:** 0-25 psi (0-0.17 MPa)  
**Hot Water Outlet Flow:** 18 gpm @ 40 psi (~2 gpm restriction)

**Typical Operating Conditions (SW-46):**

Input Solar Fluid Temperature: 200 °F (93°C)  
Output Solar Fluid Temperature: 182 °F (83°C)  
Solar Fluid Flow Rate: 0.5 GPM or 4 lb/min (1.9 Liter/min)  
Thermal Power: 4,320 BTU/Hr (1266 Watts)

**Peak Operating Conditions (SW-46):**

Input Solar Fluid Temperature: 240 °F (115°C)  
Output Solar Fluid Temperature: 205 °F (96°C)  
Solar Fluid Flow Rate: 0.5 GPM or 4 lb/min (1.9 Liter/min)  
Thermal Power Transferred: 8,400 BTU/Hr (2461 Watts)

**Certifications:**

SRCC (Solar Rating Certification Corp.): OG-300  
IAPMO (International Association of Plumbing and Mechanical Officials), Uniform Solar Energy Code, Listing: 5663

**Warranty:** Lifetime

**Patent:** United States Patent Number 6837303, "Internal Water Tank Solar Heat Exchanger", issued January 4, 2005