# Water Circulation Pumps & Circulators

# **Solar Pumping Station**

The Taco Solar Pumping Station (SPS-PC-I) combines all the features needed for a closed loop solar water heating system. Just 5 easy connections to make; 2 for the solar collector(s), 2 for the storage tank's heat exchanger and I for the expansion tank. The Solar Pumping Station includes a circulator with an integral variable speed solar control, isolation ball valves, air elimination, flow meter and safety group.

The solar control continually adjusts the speed of the circulator to maximize the output of the collector, increasing the usable higher temperature water throughout the day while eliminating short cycling and increasing system performance by 20%.





Submittal Data # 101-139 Supersedes: New

## 01-139 Effective: 10/08/09

#### **Features**

All-in-One Pre-insulated and Pre-plumbed Module

Ball Valves on Supply and Return with:

- Temperature Gauges
- Solar Check Valves

Flow Meter graduated in GPM with Integral Balancing Valve Safety Group:

- Pressure Gauge
- Pressure Relief Valve
- Expansion Tank Connection

Fill and Purge Valves

Air Eliminator with Manual Vent Expansion Tank Bracket and Flex Tubing Standard 2-Bolt Flanged Circulator Variable Speed Solar Differential Control

- Matches Output of Collector
- No Short Cycling of Circulator
- +20% Increased Performance

User Definable Line Voltage Output, Supports:

- External Heat Exchanger
- Collector Sink / Dump
- Storage Tank Supplement
- I or 2 Storage Tanks

#### **Specifications**

Body Construction Bronze / Brass
Insulating EnclosureEPP
Maximum Working Temp. (Excluding Circulating Pump) 250°F (120°C)
Short Time320°F (160°C) for 20 Seconds
Pressure Relief Setting87 PSI (6BAR)
Temperature Gauges30-250°F (0-120°C)
Pressure Gauges0-145 PSI (0-10BAR)
Flow Meter 0 - 3.25 GPM (0-12 l/min)
Exp. Tank Connections 3/4" BSP or NPT
End Connections3/4" FM Copper Sweat X I" Union
Unit Dimensions

### Variable Speed Pays Big Performance Dividend:

The variable speed circulator in the Solar Pumping Station continuously optimizes the flow through the collector to achieve maximum energy gain. For example, there is no benefit of pulling  $80^\circ$  water out of the collector when you are trying to maintain  $120^\circ$  in a tank. If a proper Delta-T is maintained through the collector then higher source temperatures can be achieved over longer periods of time, no matter the weather conditions.

The Solar Pumping Station truly simplifies your closed loop solar water heating installation. With just a few connections, you install the heart of the system; circulator, solar control and all safety and measurement equipment.







