The Taco Solar Pumping Station (SPS) combine 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 1 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 a safety group.
Filling and purging the installation:

Remove the hose caps from the side filling and draining valves and connect the hose unions. Close the balancing valve and open the side filling and draining valves. Use a pump to fill the system with a quality solar fluid to typically 20-40 psi.

To starting up the installation:

Close the side filling and draining valves and open the balancing valve. To avoid any unwanted opening of the side valves, it is better to lock the levers in the close position, as shown.

Regulate the flow rate using the balancing valve when circulator is running at full speed.

The flow rate is referenced from the lower edge of sliding cursor. (See picture)

Safety Unit

The safety unit is CE and TUV approved and protects the installation from over pressurization. It is set to 87 psi (6 bar); over this pressure the relief valve will open. The unit also comes with a pressure gauge and a connection for the expansion tank by means of a 3/4" flexible hose kit (included).
Air Vent
The manual air vent is a device that continually removes air that is entrained with the solar fluid. The air rises to the upper part of the vent and it can be manually eliminated through the special vent connection. Unscrew the knurled metal ring lock 360° to vent any captured air.

This operation should be done periodically.

Directions for Mounting Module

Epp Insulation Box
Measurements: 12.1" X 17.0" X 6.6"
(308 mm X 434 mm X 169 mm)
The enclosure has wiring channels suitable for routing of the power supply cable and of the temperature sensor cables. A special window allows for reading the flow rate without taking off the cover. The back plate fastens the unit to the wall or to the storage tank.

Back plate to fasten the unit to the wall or to the storage tank.

Fastening holes on the back fixing plate. Openings on the insulation box allow the fastening of pumping station without disassembling the unit.
**Directions for Mounting Expansion Tank and Bracket**

**BRACKET AND CONNECTOR FOR THE EXPANSION TANK**
- 3/4" flexible pipe connected to the safety unit of the solar pumping station.
- Fiber sealing gasket included.
- Connector with double check valve to disconnect the expansion tank in a reliable and fast way without any leakage.
- Expansion tank with 3/4" BSP threaded connection (not included)
- Fixing bracket provided with plugs and screws to fix it to the wall.
- Bottom half of connector (C) that threads on to 1/2" BSP expansion tank nipple.
- Fixing the bracket (E) to the wall with the plugs or screws (centre distance 2.27" or 55 mm). Screw the Connector (F) to the expansion tank. Install the connector (C) on the fixing bracket using the special grooves then lock with the nut. Screw the flexible pipe from the safety unit (A) to the top of connector (C) with sealing gasket (B) in between.

**REPLACEMENT OF THE EXPANSION TANK**
The connector (C) holds up the expansion tank and allows for quick removal, without any leakage. By unscrewing the nut (F) it is possible to disconnect one end of the connector from the expansion tank. The other end of the connector stays fixed on the bracket connected to the safety unit. Both ends have a check valve that becomes operative at the time of the disconnection: this prevents any leakage both from the expansion tank and from the flexible pipe. To put in service again, it is necessary to reconnect the connector by screwing the nut (F). In that way the two check valves are opened and the expansion tank is again connected to the installation.

**Note:** If expansion tank nipple has NPT threads than use a hardening type thread sealer like Loctite or SAF-T-LOC.

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**LIMITED WARRANTY STATEMENT**

Taco, Inc. will repair or replace without charge (at the company’s option) any product or part which is proven defective under normal use within one (1) year from the date of start-up or one (1) year and six (6) months from date of shipment (whichever occurs first). Taco, Inc. will repair or replace without charge (at the company’s option) any Taco "00" Series circulator cartridge that is proven defective under normal use within three (3) years from the date of start-up or three (3) years and six (6) months from date of shipment (whichever occurs first). In order to obtain service under this warranty, it is the responsibility of the purchaser to promptly notify the local Taco stocking distributor or Taco in writing and promptly deliver the subject product or part, delivery prepaid, to the stocking distributor. For assistance on warranty returns, the purchaser may either contact the local Taco stocking distributor or Taco. If the subject product or part contains no defect as covered in this warranty, the purchaser will be billed for parts and labor charges in effect at time of factory examination and repair.

Any Taco product or part not installed or operated in conformity with Taco instructions or which has been subject to misuse, misapplication, the addition of petroleum-based fluids or certain chemical additives to the systems, or other abuse, will not be covered by this warranty. If in doubt as to whether a particular substance is suitable for use with a Taco product or part, or for any application restrictions, consult the applicable Taco instruction sheets or contact Taco at [401-942-8000].

Taco reserves the right to provide replacement products and parts which are substantially similar in design and functionally equivalent to the defective product or part.

Taco reserves the right to make changes in details of design, construction, or arrangement of materials of its products without notification.

Taco offers this warranty in lieu of all other express warranties. Any warranty implied by law including warranties of merchantability or fitness is in effect only for the duration of the express warranty set forth in the first paragraph above. The above warranties are in lieu of all other warranties, express or statutory, or any other warranty obligation on the part of Taco. TACO WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS OR ANY INCIDENTAL COSTS OF REMOVING OR REPLACING DEFECTIVE PRODUCTS.

This warranty gives the purchaser specific rights, and the purchaser may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or on the exclusion of incidental or consequential damages, so these limitations or exclusions may not apply to you.