

SPLIT PUMPED

TASOL
Solar Energy Solutions •

High Pressure Split Pumped Solar Geyser

(150L, 200L, 250L direct split pumped)

This system is often the system of choice due to the aesthetic value of the installation. (Only the collector is mounted outside on the roof; there is no tank outside; the geyser is installed inside the roof.)

How it works

The water from the **geyser / storage tank** is circulated through an **evacuated tube collector** by means of a **12V solar circulating pump**, thereby transferring **solar energy** into the geyser and heating the water directly.

A **geyser management device** regulates the electricity supply to the geyser element. The **geyser thermostat** monitors whether the backup power to the element is required.

1.) Collector

The collector is an evacuated tube heat pipe collector. It consists of either sixteen or twenty double layered tubes which absorb the sun's energy.

There is no water in the tubes. The heat is transferred via the heat pipe to the manifold section of the collector. The outer tube is a minimum of 2mm glass thickness and conforms to the SABS mechanical test standards. Tubes can individually be replaced.

2.) Solar Circulation Pump

The solar circulation pump is specially designed to work with the 12 Volt solar panel. The pump is extremely reliable since it is a brushless, bearingless pump. Water is circulated from the geyser through to the collector.

When used with the solar module / panel the pump is self-regulating and will pump to maximum effect with full sunshine, pump slower when cloudy and stop circulating at night.

3.) PV Panel (Solar Panel)

The solar module or panel generates 12 Volt DC to power the circulation pump during sunshine hours. This module must be mounted on the roof next to the collector.



Split pumped system ↑



Evacuated Glass Tube Collector ↑



Solar Circulation Pump ↑
Solar Panel ↓



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4.) Kwikot Direct Solar Geyser

The Direct Solar Geyser differs from a conventional electric geyser in that it has two additional water ports as required for connecting the solar collectors. The geyser still hosts an electrical element and thermostat. Polyurethane insulation between the inner cylinder and outer casement reduces energy and heat loss

5.) Intelligent geyser management device

This device regulates the power supply to the geyser element during pre-set times. The geyser electrical element acts as a backup for the solar water heating system.

Although we supply the geyser element with electricity during the pre-set phases, the thermostat in the geyser will measure the water temperature, and thus determine whether the electricity supplied is required or not.

This ultimately reduces the time periods during which the element is using the electricity to heat the water, thus resulting in savings.

The conventional geyser thermostat is replaced with an electronic thermostat and probe. The control unit is installed in an area that is easily accessible. This enables the home owner to regulate the water temperatures and electricity usage to the geyser.

There are four different cycle settings which could support different temperatures per day. Included in the unit is a Delta T controller.

The Delta T Controller monitors the temperature difference between the collector on the roof and the water in the geyser. When the collector temperature is 7 degrees higher than that of the geyser, the pump will be switched on and this hot water will be circulated to the geyser.

Other features

- Convenient to operate
- Load shifting capability to "off peak" periods
- Digital water temperature reading / settings
- Battery back up
- Element failure detection
- Leaking hot water pipe detection

**All Tasol EVT direct systems are freeze resistant and SABS tested. Tasol EVT direct systems are maintenance free as they require no periodical Glycol replacement.*

** Reference Terms and Conditions of sale for Warranty details*



SANS 1307



Kwikot geyser ↑



Geyser management device



Convenient to operate ↑