

## Solar Water Pumping (Professional)

### SOLLATEK SOLAR WATER PUMPING (PROFESSIONAL)

The Sollatek ACSP Solar pumping systems are specially designed for water supply and irrigation in remote areas where no reliable electricity supply is available.

#### Features:

- Extremely long life
- Unattended operation
- Easy installation
- Very low maintenance
- Good quality water 24 hours a day

#### General:

Factors such as extremely long life, unattended operation, easy installation and very low maintenance requirements are important in pumping systems, and solar systems are specified over diesel generators for these and other reasons.

The solar modules use the free and abundant energy of the sun to directly power the water pump during daylight hours without the need for fuel or constant maintenance. The water is normally stored in a nearby water tank ensuring the availability of good quality water 24 hours a day.

The ASCP water pumping systems have an operational range of 2m<sup>3</sup> (2,000 litres) to 208m<sup>3</sup> (208,000 litres) per day, with pumping depths of up to 120 metres (395 feet). The submersible pumps are designed to fit into walls as small as 100mm (4 inches) in diameter, with larger flows requiring 150mm (6 inches) diameter walls.

The graph overleaf gives an indication of water output and various heads. Sollatek can provide accurate computer-assisted design tailored to client's requirements and location.



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## Specifications

### Solar modules:

Sollatek's SP55 modules (55Wp) are constructed using 36 mono-crystalline or polycrystalline solar cells in a glass-EVA- tedlar construction and framed with anodised aluminium.

Standard systems are comprised of 8, 16, 24, or 32 modules, depending on head and water volume required. SP55 modules meet or exceed all international qualification standards.

### Solar module mounting:

Adjustable tilt angle, corrosion resistant mounts with stainless steel fixings for 8 solar modules (type SP55). Ground or roof mount and able to withstand high wind loading.

### DC/AC inverter:

The inverter converts DC power from the solar modules into 3-phase AC power with variable frequency, which is needed to power the submersible motor/pump.

An integral tracker electronically matches the peak power output from the solar modules to the power requirements of the motor/pump, thereby increasing system performance and water output.

### Water pump:

Submersible, multi-stage centrifugal type pump with pump and motor combined into a single unit. The brushless AC motors and high quality stainless steel construction ensure very high reliability and little maintenance.

The water output of the pump is directly related to the amount of sunshine received by the solar modules. The graph opposite indicates the head and volume of water that each of the six different types of pump can supply.

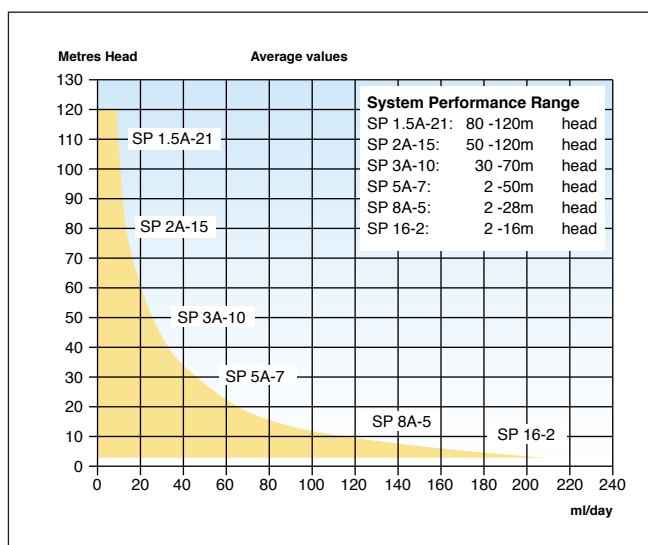
Upon confirmation of water requirements and system location/layout from the customer, ACSP pumping systems include:

- Solar modules
- Module mounting structures
- DC/AC three phase inverter
- Stainless steel pump and motor
- All necessary cabling, piping, junction boxes and fixings

### Water requirements (litres per day)

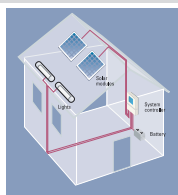
Per person	To survive	5
	Subsistence level	20
Per animal	Cattle/Horses	40
	Sheeps/Goats	5
	Donkeys/Camels	20
Per hectare	Rice	100
	Cereals	45
	Vegetables	50
	Sugar canes	66
	Cotton	55
	Coffee	55

The above figures are meant as a guide only and are related to developing countries. Water consumption differs depending upon local climactic conditions.



(1m<sup>3</sup>=1000litres)

### Other Sollatek Solar products



Solar Energy Systems



Charge Controllers



Solar Lights



Solar Energy Kits



Batteries



Solar Modules



Solar lantern