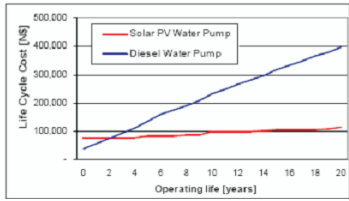


Comparison



	SOLAR HAND PUMP	VS	DIESEL GENERATOR
life time costs	low		high
initial	high		low
recurring cost	low		high
maintenance	low		high
sound pollution	no		yes
green product	yes		no

life time costs
initial
recurring cost
maintenance
sound pollution
green product

Accessories

Solar Lighting Systems

The LED technology used in the lighting systems is a major break through in the solar industry. These lights require minimum watts to generate desired light, essential in rural parts of the world. School corridors, reading lights, PHU examination lights have been customized according to lumen requirement.

Vaccine Carriers

The vaccine carriers offered work on electricity from solar panels. These are essential in refrigerating blood, vaccines, samples and so on. The carrier works on both AC & DC current.

Water Tank

Span can also provide water tanks of various capacities depending on requirement. Collapsible water tanks are also available.

Tank Tower

A specially designed tank steel structure stand can be shipped to any part of the world. The tower is made in knock down condition.

Hand Washing Facility

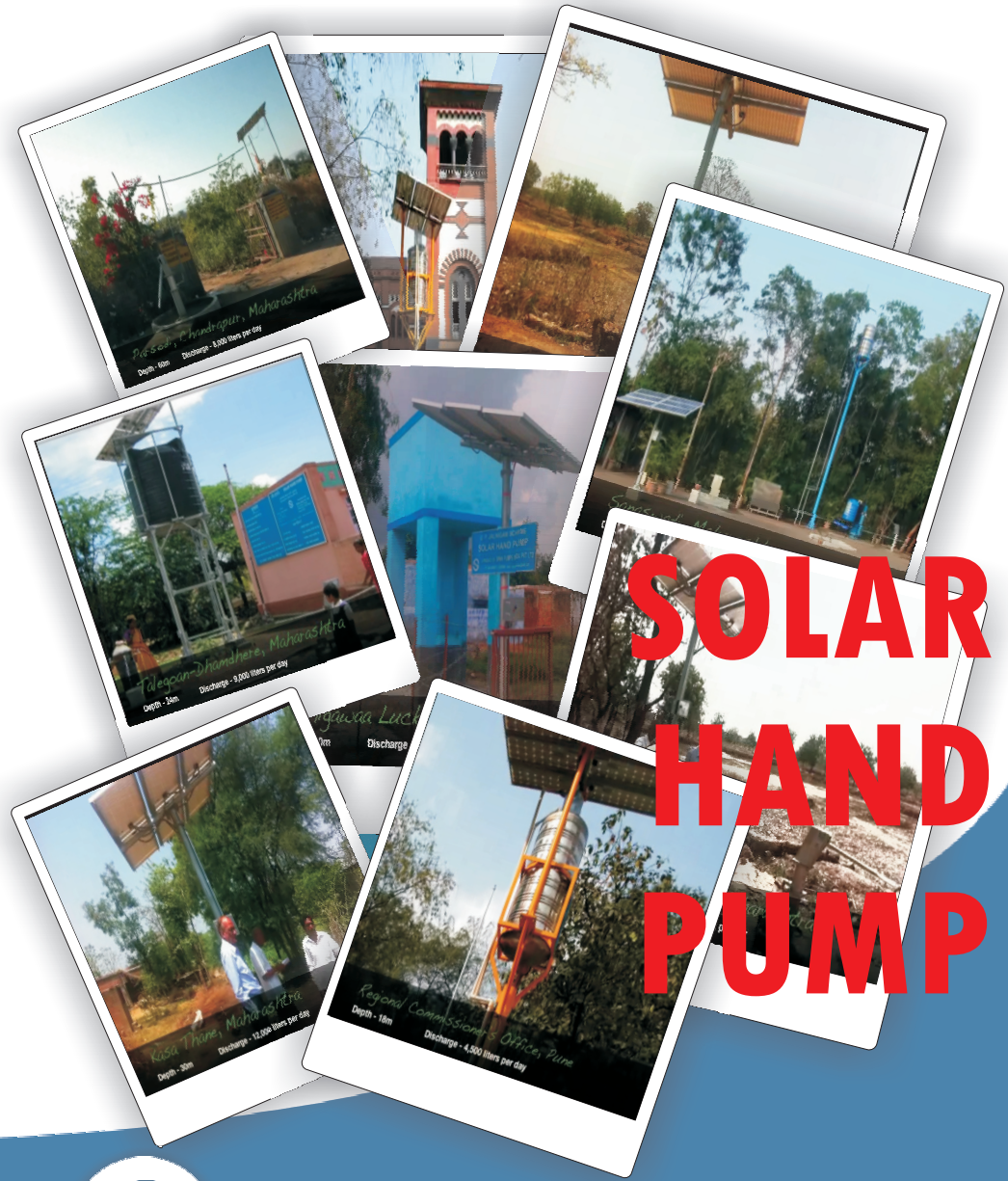
The Hand washing facility is specially designed for Schools, for children of Various age groups. The structure is made in mild steel finished with stainless steel exteriors. This durable accessory completes all sanitation and hygiene programs.

Solar Street Lighting

The solar street lights draw current from the panels used for the solar hand pump. This light can be fixed on top of the water tank tower or its individual 20 feet pole. Suitable for community lighting.

Water Filters

Water purification system is designed using UF membrane filtration technology. The system does not require electricity.



SOLAR HAND PUMP



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SPAN PUMPS PVT. LTD.

Quenching rural life with water consistently!

SOLAR HAND PUMP SYSTEM LAYOUT



WASH Sector

Solar Hand Pumps give 24x7 access to water. This water is stored in an overhead tank, which eventually can be connected to filters for drinking, hand washing facilities, toilets and so on. These pumps satisfy the all principles of Water, Sanitation & Hygiene.

Health Sector

This system enhances the clinical sanitary and sterilized environment required in public health units by providing adequate availability of water.

A purification system can be connected between the outlet and overhead tank to eliminate bacterial viruses in water.

Education Sector

In many under-developed and developing countries, children miss school for collecting water. Installing these pumps in schools ensures children go to school for both education and water.

The sanitation facilities improve in schools with adequate supply of water. This results in higher literacy rate amongst girls who enter their adolescent age.

Solar Energy is converted into Electrical Energy in day light, using PV cells.

Water pumped from borehole is stored in an overhead tank, which can be further distributed to schools & public health units.

Overhead Tank Structure is hot dip galvanized and is designed to withstand harsh conditions.

SOLAR PANNELLS

WATER STORAGE PVC TANK WITH GALVANISED FRAME STRUCTURE

UNDERGROUND PIPE CONNECTION

STAND POST

A 4 Tap Galvanized Stand Post is provided for easy use and hence reducing queues at the pump.

PLATFORM

Discharge of the system can vary from 4,000 - 24,000 liters per day depending on local conditions & Solar Panels connected.

The Hand Pump is used as backup in cloudy conditions and at night, hence ELIMINATING the need of batteries.

The Solar Submersible Pump and the Hand Pump share the SAME Riser Pipe in a 4" borehole.

HAND PUMP

Key Features

- Self-sustainable independent water supply scheme
- 24 X 7 Access to Water
- Total Head: 10 mtr. - 150 mtr.
- Discharge: 4,000 - 24,000 liters/day
- Span's Innovation in using same riser pipe, hence no extra cost
- No batteries/invertor/grid required.
- Can convert existing hand pump into Solar hand pump
- Can work on any type of Deepwell Pumps like Afridev/India MarkII/III
- No extra maintenance
- Green product - No pollution
- Automatic security features
- Special security against Solar panel theft

Variants

Solar Hand Pumps variants include India Mark II, India Mark III, Extra Deep Well Hand Pumps, Afridev Pumps, etc.

Retrofit Kit

Already installed handpumps can also be converted into Solar Hand Pumps by using our Retrofit Kit. This SHP Retrofit Kit comes with solar panels, solar submersible pump and some modified items for the hand pump.



Working

The Solar Hand Pump is an innovative pump devised to utilize the power of the sun during the day and act as a normal hand pump when the sun is not available, hence assuring uninterrupted water supply, thus eliminating the need of batteries resulting in low cost and no maintenance hassles. The system consists of a submersible pump which runs directly on power generated from the photovoltaic solar cells and is suitable for use on bore wells with 100 mm (and above) diameter and up to 90m depth. In practice a solar array is installed near the bore well. A submersible pump powered with permanent magnet motor is installed below the hand pump cylinder. The pump is connected to a storage tank and the collected water is dispensed through a stand post. This system can also be used on other water sources such as open wells or tanks. The Solar Pump is environment friendly and extremely easy to use; moreover the life of the pump is for 15-20 yrs and there are no recurrent costs and also since it has a very low O&M it is an economically viable option.

Span pumps hope in rural water sector with the introduction of Solar Hand Pump.

- Times of India