

Smart Energy Solutions



GREENTEK
INDIA PVT. LTD.
we make sun work for you



Save Energy



Save Money



Save Earth

Plant, Equipment and facilities

GREENTEK employees more than 100 skilled and technical manpower to support its operations.



SOLAR THERMALS & PHOTOVOLTAIC

- Hyderabad : 90000 sq. ft. Built-up area in 2 acres land having automated production line of 50 MW photovoltaic panels and also complete automated production line for the manufacture of tanks and collectors.
- Pune : 5000 sq. ft. with production facility to make larger tanks.
- Noida : Warehouse facilities.



We are registered with :

BIS- Bureau of Indian Standards - specification as IS : 12933) Reg. No. : CM/L - 6557382

NSIC - National Small Industrial Corporation

SSI - registered

ISO 9001 : 2015 - Quality Management Systems (QMS)

ISO 14001 : 2015- Quality Management Systems (QMS)

MNRE - Ministry for New and Renewable Energy

NEDCAP - Non-Conventional Energy Development Corporation of Telangana



Who we are !

Greentek India Pvt. Ltd. is Incorporated in the year 2007 and expertise in all renewable energy systems. Joint ventured with many reputed companies throughout the India and having the best technical partners and supplier in their class throughout India.

GIPL is an ISO 9001:2015 & 14001:2015 certified Company based in Hyderabad as one of the leading manufacturers of Solar Photo Voltaic Modules (SPV) in the Country. We are manufacturing modules in the range of 40Wp to 330Wp. Thus, our Module production line is geared to produce panels of any custom size or wattage having Certifications/ Approvals from MNRE, IEC 61215, IEC 61701, IEC 61730.

Greentek also supplies larger Solar Water Heating Systems for specialist project needs.

Greentek is clearly among leaders in providing Solar Heating for medium to high usage hot water heating. Greentek Solar hot water system applications have been made for uses such as hospitals, restaurants, carwashes, nursing homes, commercial laundries, hospital laundries, defence force bases, dormitories, hostels, clubs and private residences.

Greentek is specialist in manufacture of Solar modules at Hyderabad facility and also provides solutions in Solar Photovoltaic systems for off grid applications and Solar Power Plants Grid Interactive.

Scope of Activities

Greentek India Pvt. Ltd. is rapidly expanding and successful Indian-owned company, with show piece manufacturing facility at Hyderabad, Hitech City of Telangana & Pune, Maharashtra. Subsidiary Unit M/s Greentek Northern India Pvt. Ltd. is formed to cater the North Indian market. Greentek is preferred supplier to the Solar industry for Solar water Heaters, Solar Modules, Solar Inverter having major installations across the country for varied applications duly serviced by well-trained Dealers.

The quality of these units is reflected in their extensive use by the various Government Agencies and reputed Organizations.

Greentek retains complete flexibility in manufacture/supply and installation to allow for a unique range of design options in both Solar Thermal and Solar Photovoltaic Systems. Greentek takes utmost care in understanding the end client's needs and builds its units to provide optimum performance and comfort.

Greentek is committed to quality systems and ongoing performance improvement. The company is recognized with quality accreditation from BIS and MNRE

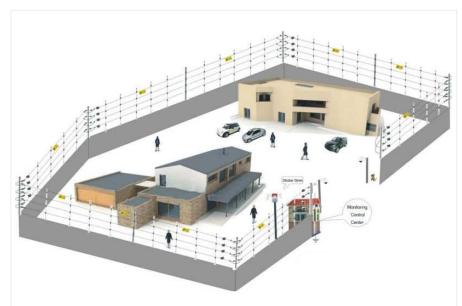


Products Manufacture :

- Solar Water Heaters – Domestic
- Solar Water Heaters – Industrial
- Solar Thermal Collectors
- Solar Air Heating Systems – Dryers
- Solar PV Modules
- Solar Lanterns - Various Models
- Solar Home Lighting Systems
- Solar Power Pack
- Solar Street Lighting Systems
- Solar Water Pumping Systems
- Solar Power Fencing
- Solar Swimming pool Heating

Services Provided :

- SPV Systems design, installation and services
- SWHS design, installation and services





FLAT PLATE COLLECTOR SPECIFICATION:

Type of Collectors	:	flat plate
Collector Size	:	
Collector box details	:	<ul style="list-style-type: none"> a) Size:2025mmx1025.mm x95mm b) Materials: Aluminium Section c) Thickness: 1.4mm d) Bottom sheet: 24 Swg
Manufacturer:		
Trade mark		GREENTEK
Absorber details	:	<ul style="list-style-type: none"> Insulation a. Material: Rockwool b. Thickness: 50.mm bottom/25.mm side c. Thermal Conductivity:0.681mw/cm.deg.c
Riser or Header Tube	:	<ul style="list-style-type: none"> a. Material: Copper b. Absorber area: 1.9sq.m c. Type of coating: Nalsun d. Solar Absorptivity: 96% Emissivity: 16%
Glazing	:	<ul style="list-style-type: none"> a. Material: Copper b. Dia Header:25mm c. Dia Riser:12.5.mm d. No. of riser:9 Nos. e. Spacing of raiser: 110 mm f. Flange Material: Brass g. Flange Dia: 42mm h. Working pressure: 3kg/sqcm
Gromment	:	<ul style="list-style-type: none"> a. Material: EPDM
Glass Beading	:	<ul style="list-style-type: none"> b. Thickness: 4.mm
Hardware	:	<ul style="list-style-type: none"> c. Solar transtivity:>83.%
Fins	:	<ul style="list-style-type: none"> EPDM
Finish	:	<ul style="list-style-type: none"> Rubber Beading SS Screws 9 Powder Coated

SOLAR POWER HEATING SYSTEM

Solar water heating system is a device which used to collect solar thermal energy & transfer it to Hot Water storage tank at a desired temperature.

FLAT PLATE COLLECTOR (FPC) BASED SOLAR WATER HEATERS

The solar radiation is absorbed by Flat Plate Collectors which consist of an insulated outer metallic box covered on the top with glass sheet. Inside there are blackened copper metallic absorber (selectively coated) sheets with built in channels or riser tubes to carry water. The absorber absorbs the solar radiation and transfer the heat to the water.

** These system are commonly used for commercial application.



EVACUATED TUBE COLLECTOR SPECIFICATION:

Material	: Borosilicate 3.3 glass
Outer Diameter	: $\frac{1}{2}$ 47mm / 58mm (whatever applicable)
Inner tube diameter	: $\frac{1}{4}$ 37mm / 47mm (whatever applicable)
Tube Length	: 1500mm / 1800mm / 2100mm (whatever applicable)
Absorptive coating	: Graded Cu/AL-N/ALN
Vacuum	: $<5 \times 10^{-3}$ Pa
Absorptance	: >92%(Am1.5)
Glass thickness	: 1.6mm
Emittance	: <8%(80 oC)
Thermal expansion	: 3.3×10^{-6} oC
Stagnation temperature	: >200 oC
Heat loss	: <0.8 w / sqm
Maximum strength	: 0.8 MPa

EVACUATED TUBE COLLECTOR (ETC) BASED SOLAR WATER HEATERS

Evacuated Tube Collector is made of double layer rosilicate glass tubes evacuated for providing insulation. The outer wall of the inner tube is coated with selective material. This helps absorption of solar radiation and transfers the heat to the water which flows through the inner tube.

**These System are commonly used for domestic application.

Normally non pressurized systems are working up to .5 Kg / Cm², The storage tank is placed at a certain height relative to the top of the collector to prevent the reverse circulation during off-sun shine hours. In this system, hot water storage tank can be under normal pressure of cold water overhead tank so gravitational force of overhead cold water tank comes to bottom of hot water tank at normal pressure (non-pressurized); hot water comes out from top of hot water solar tank and release at the end of top as a regular.

S.No.	Capacity	Type
1	100 LPD	Integrated
2	200 LPD	Integrated
3	300 LPD	Integrated & Industrial
4	400 LPD	Integrated & Industrial
5	500 LPD	Integrated & Industrial
6	Above 500 LPD	Industrial

SOLAR THERMAL

Heat Pipe Solar Thermal Collector



Glass Heat Pipe Solar Thermal Collector is a high efficiency solar thermal collection device used primarily for heat collection when the required fluid temperature is above 80°C and the ambient temperature is below 10°C.

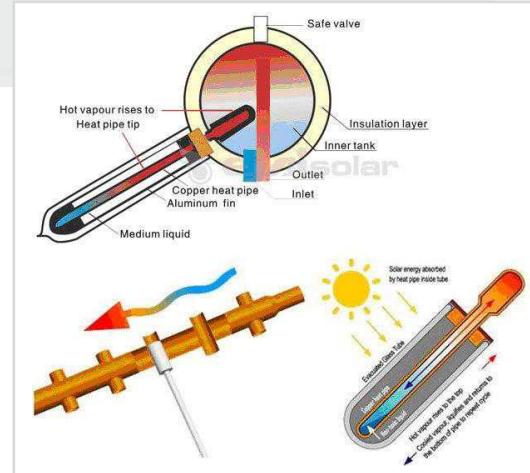
It is ideal in situations where the low ambient temperature will cause the flat plate collector and the evacuated glass tubes to crack. Since the heat transfer takes place inside the tip, the fluid in the heat pipe never comes in contact with the heating fluid.

The Glass tube is made of toughened borosilicate and can withstand hailstones of dia 25mm falling directly on them.

The greater advantage is that they can collect direct as well as diffused radiation making them the ideal choice for those hot yet cloudy days.

Salient Features

- Efficient energy collection using 3-target evacuated glass tubes.
- Minimum heat loss due to vacuum between tubes.
- PUF insulated hot water storage tanks,
- Up to 1,00,000 LPD capacity available.
- Available as pressurized tank system as well as modular collector systems for large capacities.



Advantages

- Excellent performance in the cold climates.
- High energy savings.
- Can be used with a pressure pump (pressurized hot water system).
- Minimum maintenance required.
- Low payback period.
- Can be used for industrial process heat requirements.

SOLAR THERMAL

Solar Power swimming pool heating system



Evacuated We can significantly reduce swimming pool heating costs by installing a solar pool heater. They're

Some systems include sensors and an automatic or manual valve to divert water through the collector(s) when the collector temperature is sufficiently greater than the pool temperature. When the collector temperature is similar to the pool temperature, filtered water simply bypasses the collector(s) and is returned to the pool.

cost competitive with both gas and heat pump pool heaters, and they have very low annual operating costs. Actually, solar pool heating is the most cost-effective use of solar energy in many climates.

Pool water is pumped through the filter and then through the solar collector(s), where it is heated before it is returned to the pool. In hot climates, the collector(s) can also be used to cool the pool during peak summer months by circulating the water through the collector(s) at night.

MAJOR COMPONENTS USED

- A solar collector -- the device through which pool water is circulated to be heated by the sun
- A filter -- removes debris before water is pumped through the collector
- A pump -- circulates water through the filter and collector and back to the pool
- A flow control valve -- automatic or manual device that diverts pool water through the solar collector.

Pool Covers:

It is important to install systems for preventing the energy being wasted. Pool covers are therefore an important consideration. These can be used to keep the pool warm. 10–20 % of the energy in swimming pools is lost due to the bottom and side walls. 60–70% of it is lost due to evaporation.

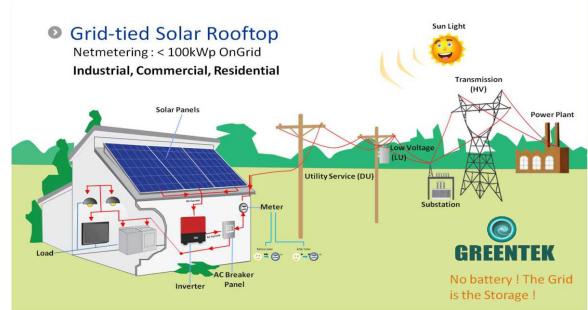
Solar Pool Heater Benefits:

- Can extend swimming season up to 12 months depending on location*
- Ave. temp. rise up to 15-20°
- Have no operating costs
- No pollution, no fuel needed
- Usually last 20+ years
- Have a 10 Year warranty
- Quick and easy installation
- Minimal maintenance required

SOLAR PHOTOVOLTAIC SYSTEMS

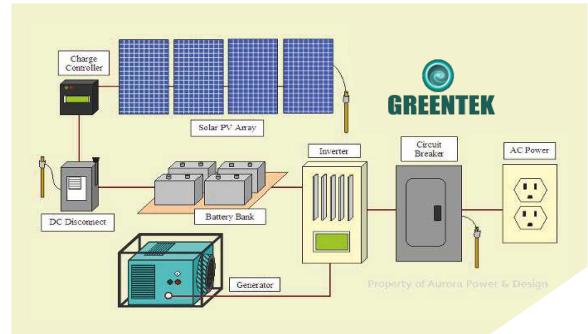
On Grid Solar Power Plant

A grid connected system is connected to the utility grid (typically the public electricity grid) and feeds power into the grid. Grid connected system vary in size from KWp to MWp.



Off Grid Solar Power Plant

Stand-alone PV Systems are designed to operate independent of the electric utility grid and are generally designed and sized to supply certain DC and / or AC electrical loads. Stand-alone PV system is battery based system. When generated energy is stored in batteries and then subsequently used in night or as per customer's requirement without any limitation.



Solar Street Light System

Solar Street lighting system is an ideal lighting for the illumination of the streets, squares and cross roads located in areas that are not connected to the power grid. The system is provided with battery storage backup sufficient to operate the light from dusk to dawn operation.



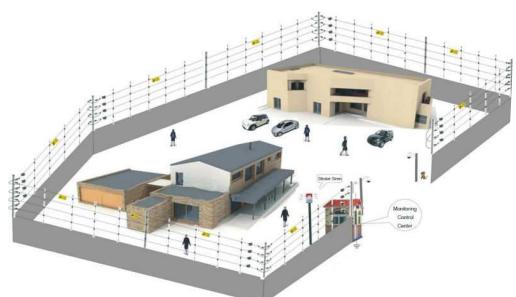
Solar Pumping system

A solar PV water pumping systems - commonly known as solar pump draws power from solar cell/modules to operate a motor set. Solar power pumps use specially developed and energy efficient motor pump sets to achieve higher discharge which off sets the high initial cost. A solar PV water pumping system consists of a number of solar PV modules connected in series - parallel combinations to generate sufficient power to operate a motor pump. Available capacity of pump from - 1HP to customer application.



Solar Power Fencing

We are into manufacturing and supplying of a wide range of Solar Power Fence, which are known for their efficiency and reasonable rates. These solar power fencing is easy to install, maintain and widely appreciated in various sectors for its functionality. Solar power fencing is made up of shock durable system where a person will not die and even if anybody stands near to it, it will automatically generate alarm. The product is fabricated using very high quality material purchased from the most reliable vendors of the industry. This type of fencing system is widely appreciated for various domestic and commercial applications.



Solar Photovoltaic Panels



Maximum Efficiency

17.60% conversion efficiency

Efficiency



Positive Power Tolerance

0~ \pm 5%

Tolerance



Application

Applied for IEC DC 1000V solar PV system

Application



Severe environment resistance

Wind load 2400 Pascal

Snow load 5400 Pascal

2400Pa
5400Pa



Certification

IEC 61215

IEC 61730 - 1 & 2

IEC 61701

- Product Guarantee : 10 year
- Limited Power Warranty : 90% @ 12 years
80% @ 30 years

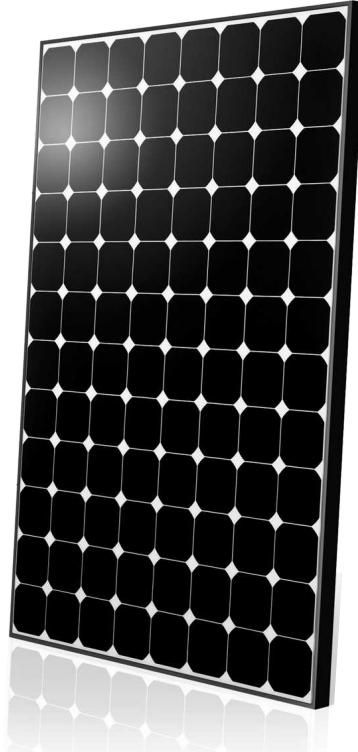
Monocrystalline Silicon Solar Panels



PV Module Greentek GTK40-330Wp

Note : The data presented may change due to further improvements in the products

Polycrystalline Silicon Solar Panels
We are also manufacturing polycrystalline



PV Module Rating Sheets

Provide Model name which will come in black label	Maximum Voltage System (V dc)	Open Circuit Voltage	Maximum power voltage @	Short circuit current @	Maximum power current @	Rated Maximum power @	Maximum series fuse, (A)	Cell type (Mono/Multi)	Cut cell full cell	Total No. of cell	Total No. of Diodes
GTK-40W-36P	600V	21.5	17.5	3	2.4	40	5A	Multi	Cut cell	36	2
GTK-45W-36P	600V	21.5	17.5	3.5	2.6	45	5A	Multi	Cut cell	36	2
GTK-50W-36P	600V	21.5	17.5	4.1	3.1	50	5A	Multi	Cut cell	36	2
GTK-60W-36P	600V	21.5	17.5	4.6	3.7	60	10A	Multi	Cut cell	36	2
GTK-75W-36P	600V	21.5	17.5	4.74	4.3	75	10A	Multi	Cut cell	36	2
GTK-80W-36P	600V	21.5	17.5	5.7	4.6	80	10A	Multi	Cut cell	36	2
GTK-100W-36P	600V	21.5	17.5	7.6	6.1	100	10A	Multi	Cut cell	36	2
GTK-120W-36P	600V	21.5	17.5	7.8	7.1	120	15A	Multi	Cut cell	36	2
GTK-145W-36P	600V	21.5	17.5	8.87	8.29	145	15A	Multi	Full cell	36	2
GTK-150W-36P	600V	21.5	17.5	8.7	8.75	150	15A	Multi	Full cell	36	3
GTK-180W-36P	1000V	21.5	17.5	11.01	10.29	180	15A	Multi	Full cell	36	3
GTK-200W-54P	1000V	33.8	27.5	8.11	7.7	200	15A	Multi	Full cell	54	3
GTK-205W-54P	1000V	33.8	27.5	8.26	7.86	205	15A	Multi	Full cell	54	3
GTK-210W-54P	1000V	33.8	27.5	8.42	8.02	210	15A	Multi	Full cell	54	3
GTK-215W-54P	1000V	33.8	27.5	8.58	8.18	215	15A	Multi	Full cell	54	3
GTK-220W-54P	1000V	33.8	27.5	8.56	8.04	220	15A	Multi	Full cell	54	3
GTK-225W-54P	1000V	33.8	27.5	8.71	8.19	225	15A	Multi	Full cell	54	3
GTK-200W-60P	1000V	37.6	30.6	7.42	6.81	200	15A	Multi	Full cell	60	3
GTK-220W-60P	1000V	37.6	30.6	8.07	7.54	220	15A	Multi	Full cell	60	3
GTK-225W-60P	1000V	37.6	30.6	8.25	7.71	225	15A	Multi	Full cell	60	3
GTK-240W-60P	1000V	37.6	30.6	8.4	8.1	240	15A	Multi	Full cell	60	3
GTK-250W-72P	1000V	44.7	36.6	7.48	6.98	250	15A	Multi	Full cell	60	3
GTK-255W-72P	1000V	44.7	36.6	7.68	7.12	255	15A	Multi	Full cell	72	3
GTK-260W-72P	1000V	44.7	36.6	7.8	7.25	260	15A	Multi	Full cell	72	3
GTK-265W-72P	1000V	44.7	36.6	8.12	7.35	265	15A	Multi	Full cell	72	3
GTK-270W-72P	1000V	44.7	36.6	8.22	7.5	270	15A	Multi	Full cell	72	3
GTK-275W-72P	1000V	44.7	36.6	8.31	7.6	275	15A	Multi	Full cell	72	3
GTK-280W-72P	1000V	44.7	36.6	8.42	7.84	280	15A	Multi	Full cell	72	3
GTK-285W-72P	1000V	44.7	36.6	8.51	7.97	285	15A	Multi	Full cell	72	3
GTK-290W-72P	1000V	44.7	36.6	8.62	8.08	290	15A	Multi	Full cell	72	3
GTK-295W-72P	1000V	44.7	36.6	8.74	8.2	295	15A	Multi	Full cell	72	3
GTK300W-72P	1000V	44.7	36.6	8.85	8.31	300	15A	Multi	Full cell	72	3
GTK-305W-72P	1000V	44.7	36.6	8.96	8.42	305	15A	Multi	Full cell	72	3
GTK-310W-72P	1000V	44.7	36.6	9.05	8.53	310	15A	Multi	Full cell	72	3
GTK-315W-72P	1000V	44.7	36.6	9.14	8.68	315	15A	Multi	Full cell	72	3
GTK-320W-72P	1000V	44.7	36.6	9.25	8.76	320	15A	Multi	Full cell	72	3
GTK-325W-72P	1000V	44.7	36.6	9.34	8.89	325	15A	Multi	Full cell	72	3
GTK-330W-72P	1000V	44.7	36.6	9.43	9.12	330	15A	Multi	Full cell	72	3



GREENTEK

INDIA PVT. LTD.

we make sun work for you

www.greentekindia.co.in



एन. इस. आई. सी.
Bureau of Indian Standards
ISO 9001 : 2008

**Corporate Office :**

Plot No. 8,
Lepakshi Colony,
West Maedpally,
Secunderabad - 500 026
040 65198519, 040 27807145
98480 23079, 98480 54435
info@greentekindia.co.in

North India :

Greentek Northern India Pvt. Ltd
F 382, Sector 63, Noida - 201307
Tele : 0120-4525663, 4526886
Mob. : 8376931555
anilazad@greentekindia.co.in

Factory Unit :

Survey No. 43/1A,
Shabashpille Village,
Shivampet Mandal
Medak Distt. -502334
Telangana

Pune Unit :

Survey # 14,
Mahamatma Pule Road,
Ghadge Industrial Estate,
Nandedphata, Singhagad,
Pune - 411041, Maharashtra
sunil@greentekindia.co.in

Dealer/ Distributor :