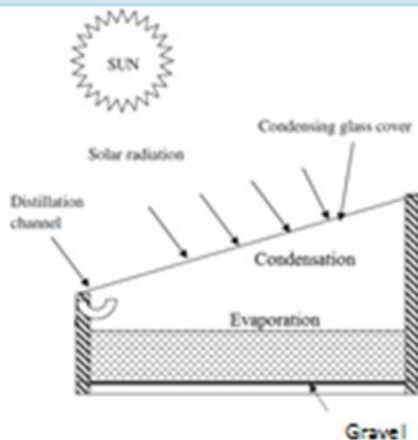


How It Works?

A solar still is a device that uses the sun's heat energy to convert dirty or brackish water into drinking (potable) water. It works on the same principle that is used by nature to produce rainfall, namely evaporation using solar heat near the surface of the water body, followed by condensation in the upper parts where it is colder.

Its design is simple and uses a bent iron sheet and a glass cover. It is fabricated using low-cost and locally-available materials, so that it can be easily maintained.



SURYAGEN
The power to shine

SuryaGen Solar Water Purifier

Product Catalogue



SuryaGen Renewable Energy Pvt. Ltd

#5 Arch Arcade, HMT main road, Gokula 1st stage, 1st phase, Mathikere, Bangalore 560 054
Phone- 080 23573326 / 080 42275885

Visit us at: www.suryagen.com

Email us at: admin@suryagen.com



Specifications

Length	0.5 m
Breadth	1 m
Area	0.5 m ²
Top angle Inclination	13°
Material of Still	Powder coated Galvanized Iron
Cover Material	Plain Transparent Glass
Cover Material Thickness	4 mm
Insulation Material	Expanded Polyethylene Foam (EPE)
Insulation Thickness	8 mm
Amount of Feed Water	3 liters per day
Expected Amount of Purified Water	Up to 1.5 liters

User Guide

1. Orientation setup- The model has to be oriented such that the inclination of the still is in north-south direction.
2. Use the funnel to fill 3 liters of water into the still.
3. Using clamps attach the glass on the still so that there is no air gap.
4. Connect the water pipe coming from a distillation channel into a closed vessel.
5. Flush the remaining water in the still and repeat the above steps

Water Test Results

	PARAMETERS	Permissible Limits as per IS:10500-1991	Rain Water Input	Purified Rain Water output from still	Purified desalinated water output form still
1	Color-Hazen units	5	8.00	Colorless	Colorless
2	Odor	Unobjectionable	Odorless	Odorless	Odorless
3	pH value	6.5 to 8.5	7.85	6.95	6.85
4	Turbidity - NTU	5	8.50	<0.01	<0.01
5	Total Dissolved Solids-mg/l	500	340.00	95.0	140
6	Suspended Solids- mg/l	150.00	160.00	<0.01	<0.01
7	Total Hardness (as CaCO ₃)-mg/l	300	240.00	20.00	30
8	Calcium Hardness (as Ca)-mg/l	75	56.00	4.80	7.20
9	Magnesium (as Mg)-mg/l	30	24.00	1.90	2.80
10	Chlorides (as Cl)-mg/l	200	85.08	42.50	56.70
11	Sulphate (SO ₄)-mg/l	200	< 0.01	< 0.01	<0.1
12	Iron (as Fe)-mg/l	0.1	3.85	<0.01	<0.1
13	Nitrates (NO ₃)-mg/l	Maximum 45	4.00	3.00	3.50
14	Total Alkalinity (as CaCO ₃)-mg/l	200	150.50	31.80	53.00
15	Fluorides (F)-mg/l	1	0.03	< 0.01	< 0.01
16	Copper (as Cu)-mg/l	0.05	< 0.01	< 0.01	< 0.01
17	Lead (as Pb)-mg/l	0.05	< 0.01	<0.01	<0.01
18	Zinc (as Zn) -mg/l	5.00	< 0.01	<0.01	<0.01
19	Manganese (as Mn)-mg/l	0.05	<0.01	< 0.01	< 0.01
20	Total Residual Chlorine-mg/l	0.2	< 0.01	<0.01	<0.01
INFERENCE			Unfit for Drinking	Fit for Drinking	Fit for Drinking