AARVI ENERGY FILTREX & ENVIRONMENTAL SOLUTIONS
Address: Gat No. 869/4, A/P- Dugaon, Tal- Chandwad,
Dist-Nashik-423104 (Maharashtra)

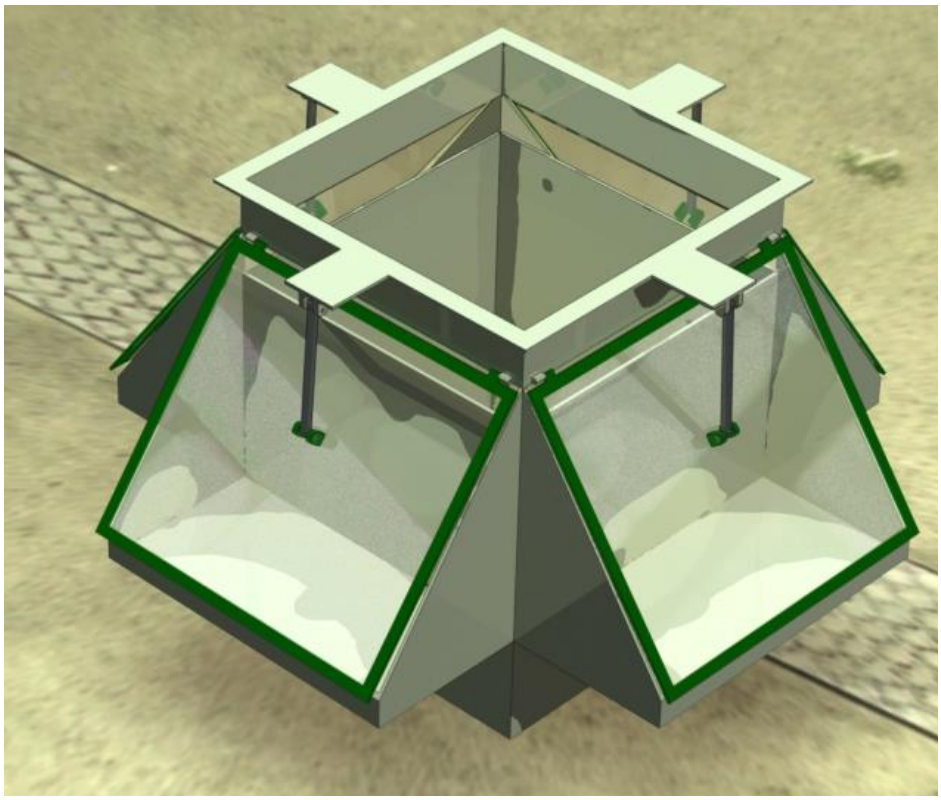
Ref.No. /2024-25 Date: 21/06/2024

Photothermal Desalination Setup

Product Introduction:

A photothermal desalination unit is a setup that uses sunlight to purify saline water. Photothermal material is the heart of the unit and is often a thin, porous membrane made of a light-absorbing material. Common materials include graphene, carbon nanotubes, or special polymers. When sunlight hits this material, it gets converted into heat through a process called the photothermal effect. The light-absorbing properties of the material cause the top layer of water near the membrane to heat up significantly. This localized heating creates a zone with high evaporation rates. The porous nature of the membrane allows the water vapor to pass through, leaving the salt behind.

Photothermal desalination utilizes solar energy, a clean and renewable resource. The process is relatively simple and doesn't require a lot of moving parts, making it potentially low-maintenance. It can be a suitable option for remote areas where access to electricity for conventional desalination methods might be limited.



Photothermal Desalination Setup

Udyam No:MH-23-0214318
GSTN: 27CECPJ983H1ZY
07498539757
sales@aarvienergy.com
info@aarvienergy.com
www.aarvienergy.com

AARVI ENERGY FILTREX & ENVIRONMENTAL SOLUTIONS
Address: Gat No. 869/4, A/P- Dugaon, Tal- Chandwad,
Dist-Nashik-423104 (Maharashtra)

Technical Specifications

Sr. No.	Product	Description	Qty
1	**Moisture Extraction Chamber**	MOC: SS316 Volume of Unit: 10 L Dimensions: 45 cm*28 cm*16 cm (LWH) Make: AarviEnergy	1
2	**Perforated support Plate**	MOC: Ceramic and SS 304 Dimensions: 45 cm*28 cm* Holes size: 2 to 3 mm	2
2	**Dewpoint Reservoir Unit**	MOC: SS316 Type: General grade Clamp: 2 Nos Glass: 8 Nos Angle Adjustment unit: 4 Nos Tank Inside MOC: hydrophobic sheet Make: AarviEnergy	4
3	**Heat Sensing Element**	Measuring Range: -20℃〜+500℃ Accuracy: 1/3DIN, A/B/2B level Output Mode: Three wire system Material: SS 304	5
5.	**Weight Flow Transducer**	Flow Scale: 0 to 100 mL/min Fluid temperature: -10 to 90 °C Temperature accuracy: ± 1 °C MOC: SS316 Sensor: As actual	2
4	**Quartz screen**	Thickness: 5 mm Dimensions: 45 cm*28 cm Operating Temperature ~1050 ºC	2
5	**Digital Display**	On-OFF Switch Included Make: AarviEnergy	1
6	**Drain/Valve**	MOC: SS/ Plastic Make: AarviEnergy	2
8	**Peristaltic tubing pump**	Power Source: Electric (Digital) Discharge Pressure; 2 bar (Variable Head) Range: 5 mL/min to 1000 mL/min Make: AarviEnergy	1
10	**Quartz Infrared Lamp Heaters**	Material: Quartz Power: 100-1000 W Voltage: 220-480 V Quartz Diameter: 10-19 mm (1 Nos of Hold)	1
11	**UV light**	Wattage max 100 W	1