

Development and Duplication of Solar Power Water Distiller

TECHNOLOGY DESCRIPTION

This technology is a solar power water distiller which receives radiant energy to generate 10 liters clean water per day.

TECHNOLOGY FEATURES

This device contains four main parts which are body, reflector, heat pipe and heat exchanger. It applies the concentration of sun light to generate heat and steam to produce clean water. The possible users of this device are the military bases, residential homes, relief centers, specifically during floods where drinking water is limited and the transportation of mineral water to flood sites is difficult.

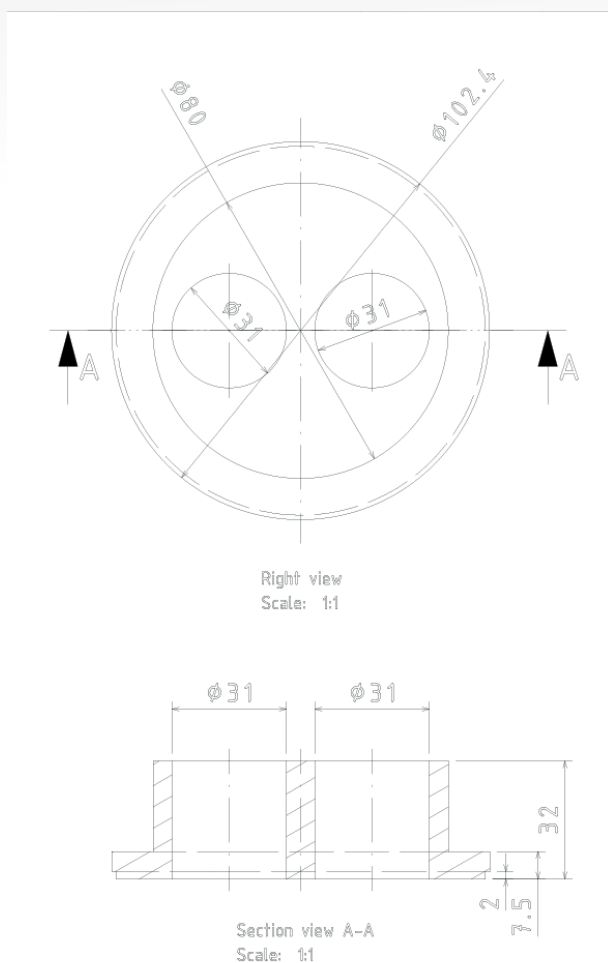
ADVANTAGES

- Light weight and portable
- Parts can be assembled and disassembled without tools
- Produce 10 Ls per day distilled water

INDUSTRY OVERVIEW

Prospect Industry: Water Purification, Filtration Industries

Key innovations impacting the portable water purification market are nanotechnology, the use of renewable energy, and innovative technologies that increase flexibility of application and enable economically viable small-scale solutions. This invention, which utilises solar power and PTC parameter, is a simple yet effective method to filter water. Portable water purification technologies are mostly adopted in North America and in Europe. In Asia, its market penetration is increasing. They are in great demand in water-scarce regions such as Africa and the Middle East, especially for desalination. Population growth, climate change, stricter regulations for drinking water and groundwater, and the need for emergency preparedness, present high-growth opportunities for portable water purification technologies. Novel filtration technologies are the most widely employed at present and is expected to remain relevant; as they offer the most possible for portable water purification. The water purifier market is expected to garner \$45.3 billion by 2022, registering a CAGR of 10.4% during the forecast period 2016-2022. The penetration of water purifiers is relatively higher in developed regions while huge semi urban and rural areas in developing countries still remain untapped.



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