

EXPERIMENTAL ANALYSIS OF A SINGLE SLOPE SINGLE BASIN SOLAR

STILL WITH HOT WATER PROVISION

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ABSTRACT

In this paper present has been worked in design, fabricate and experimental analysis of single slope single basin solar still. These models have been developed based on purified water and hot water. The experimental analysis of a single slope single basin solar still is affected by design and parameters like water temperature, basin liner temperature, hot water temperature, glass cover temperature, ambient temperature and solar intensity. The experimental analysis of the system has been measured 24 hours output values 4.915 kg/m² and hot water 45.500 kg/m². The facile approaches analysis has been carried out for natural circulation of water temperature sunny hour's (11.00am to 3.00pm) continuous output temperature 53°C, respectively. The experimental calculations have been made for one of the typical days under in Chennai at Manimangalam climatic condition.

KEYWORDS: Basin Solar Still, Solar Hot Water, Thermal Model Efficiency, Productivity