

**Design of a Solar Water Destilator Using Galvanized Zinc And Styrofoam
Absorbers.** Meilana Siswanto, ST, M.Sc.
(Pembimbing I) as chief counselor

Akhmad Alfian Maulana
Study Program of Renewable Energy Technique
Majoring of Engineering

ABSTRACT

One of the efforts to overcome the problem of drinking water shortage is by using a seawater distillation device that utilizes solar energy. This study aims to measure the effect of air on the sea water distillator on the quantity of fresh water produced and to see the quality of the distilled air. The test was carried out for three days starting at 08.00 to 15.00 with different inputs, the efficiency value of the distillation device with an air level of 8 liters was 10.54%, which produced 74 ml of fresh water. The efficiency value of the distillation device with an air height of 6 liters was 12.68%, by producing 81 ml of fresh water, while the efficiency value of the distillation device with an air height of 4 liters was 17.61%, by producing 92 ml of fresh water and retesting with an air level of 4 liters gets an efficiency of 15.34% by producing 92 ml of fresh water. The quality of fresh water includes pH (7.2), TDS (1324 mg / L), water that is colorless, non-existent, tasteless, and meets standards for consumption.

Keywords : *Seawater Distillator, Distillation Equipment Efficiency, Freshwater Quality*