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**Project Title:**- Designing Of Absorber and Condensation System for Desalination of Sea Water.

**ABSTRACT:** Utilization of solar energy for heating application is indeed need of the hour since it will substantially cut down the use of conventional fuels. It can be manifested through the use of parabolic concentrator, an absorber and a condensation tank. Our project consists of basically these three parts.

Domestic desalination is a process in which salt water is heated and converted to steam. The steam is then condensed by the condenser which is designed on the basis of the thermal analysis. Condenser used is basically a water tank with copper tubes immersed in it. The steam flows through the tubes and heat exchange takes place between steam and tank water which absorbs the heat from the steam by converting it to purified water. No electricity is used for the condensation.
In this project we have manufactured the condensation tank and the absorber and then using these desalination of sea water is done. Theoretical and experimental analysis and calculations have been carried out for both the condensation tank and the absorber. Based on these analysis manufacturing of the tank and absorber is done. Finally again experiments were carried out to verify that the theoretical analysis matches with the experimental analysis.

After carrying out the final experiments we could conclude that around 50 to 60 % of energy is lost to the surrounding and around 25 to 30 % of energy is used. Also based on the amount of pure water received based on experiments we can conclude that the equipment is suitable for one family.