

**DESIGN OF A SOLAR DISTILLER
FOR DOMESTIC USE**

by

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Project Report

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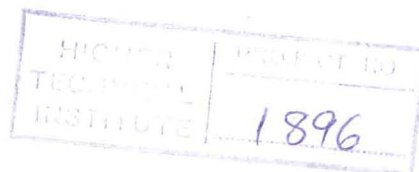
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SUMMARY :

This project deals with the design of a Solar Distiller for Domestic use. With this distiller fresh water is obtained with the use of solar energy from dirty and salty water.

In the first chapter of the project the relevant theory on Solar energy is discussed.

In the next chapter the principle of solar distillation is explained and also the energy distribution on a solar distiller is shown.

Chapter 3 is the main chapter of the whole project. At the beginning it is concerned with the parameters affecting the design and each one is separately discussed. Afterwards all the design variables are analyzed and the best solutions are given in order to achieve the highest productivity possible.

The next chapter is concerned with the Selection Procedures and specifications for those items that are not to be designed.

After designing and specifying all items the materials and manufacturing processes are shown and explained in the next chapter.

Having finished with the previous matters the economic aspect of the solar distiller is discussed in chapter 6.

In the last two chapters the instructions to the user are given and also the maintenance procedures for the whole plant.

From the whole project it is seen that solar distillation is a good way for getting fresh water but the high initial cost for the construction of the solar distiller is a factor that discourages its general use.

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