

DESIGN OF A HOUSEHOLD
DESALINATION PLANT

by

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Project Report

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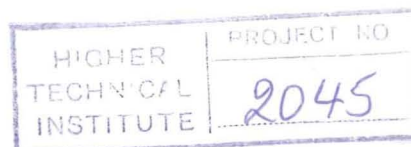
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I N T R O D U C T I O N

Desalting is the production of fresh water from brackish or salt water. It has become important because water use is increasing rapidly throughout the world. In many areas of the world the use of natural fresh water is reaching the limit of the available supply. Additional sources of supply must be developed. One likely method of providing at least a part of this supplemental water is to desalt inland brackish or sea water.

Land based desalination plants are being used on isolated islands, in the Middle and Near East and in industrial districts which are suffering a water shortage.

One of the big problems connected with producing fresh water from seawater with a land based desalination plant is cost. It is necessary to keep the cost as close as possible to the cost of natural water (rainwater contained in reservoirs and purified at a purification plant). Research has been done on various desalination plants which can produce adequate water at reasonable cost.

Methods of desalting

In desalting processes, either fresh water is removed from the saline solution or dissolved solids are extracted from the solution to reduce salinity.

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