

ABSTRACT

Vapor recompression process for the recovery of fresh water from salt water

The engineering development of process for desalination gives an informative comparative study. The real problem is one of scaleup and cost reduction . This process starts by collecting the salt water to be purified . This water is fed to a high pressure pump to increase the pressure such that it is ready to be fed to the evaporator. The evaporator functions and three product streams are generated .The vapor stream is allowed to pass through a compressor then a cooler to get the fresh water.The second product may or may not exist depending on the feed. The final product and the heavy product is fed to a splitter or separator such that any solid material is separated , the other stream is again fed back to the evaporator for recycling purposes.

This is the most economical method that is being used now a days.

KEYWORDS : Engineering , Cooler, Compressor, Recompression, Evaporator