

Future trends of MED-TVC Desalination Technology

Authors : Irfan Wazeer

Abstract : Desalination has become one of the major water treatment process in several countries around the world where shortage of water is a serious problem. Energy consumption is a vital economic factor in selecting the type of desalination processes because current desalination processes require large amount of energy which is costly. Multi-effect desalination system with thermal vapor compression (MED-TVC) is particularly more attractive than other thermal desalination systems due to its low energy consumption. MED-TVC is characterized by high performance ratio (PR), easier operation, low maintenance requirements and simple geometry. These attractive features make MED-TVC highly competitive to other well established desalination techniques that include the reverse osmosis (RO) and multi-stage flash desalination (MSF). The primary goal of this paper is to present a preview of some aspects related with the theory of the technology, parametric study of the MED-TVC systems and its development. It will analyzed the current and future aspects of the MED-TVC technology in view of latest installed plants.

Keywords : MED-TVC, parallel feed, performance ratio, GOR

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