STUDY OF A COUNTERFLOW WET COOLING TOWER PART I: SIMULATION MODEL FOR PERFORMANCE ANALYSIS

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ABSTRACT

Cooling towers are devices used to extract heat from waste water and reject it to atmospheric air. An energy analysis is usually used in order to investigate the performance characteristics of the cooling tower. However, the energy concept alone is not enough to describe some important viewpoints on energy utilization. In this study, a mathematical model based on the heat and mass transfer principle is developed to find the properties of water and air, which will be further used in exergy analysis. The model is validated against experimental data.

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