

THERMAL FLOW VARIATION ON A PLATE AND BARS HEAT EXCHANGER FOR DIFFERENT GEOMETRICS CONFIGURATIONS

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ABSTRACT

This paper presents a study the authors made on the aluminum plate and bars heat exchangers having different geometrical configurations of the vertical wings with a different pitches and varying the lengths of the air channel. The experimental stand and the measured values for different parameters are presented. The aim of the research is to obtain better thermal performances: a higher global heat transfer coefficient and a lower pressure drop. Some correlations between the parameters and also the conclusions about the heat transfer optimal configuration are made.

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