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(57) Abstract :
Heat transfer enhancement using transverse ribs inside a rectangular channel is investigated numerically in the present study. Six different angular orientation of ribs at constant flow velocity of 0.0085 m/s has been considered. Water is used as the working fluid. Turbulence k-epsilon model is used for the analysis. The results in the present work are presented in the form of velocity and temperature contours. A maximum enhancement in the working fluid temperature is obtained at 55o angular orientation. This is due to high turbulence intensity and development of secondary flow over the ribbed surface which result in extensive mixing of fluid element which led to enhance heat transfer.

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