

Effect of Baffles on the Cooling of Electronic Components

Authors : O. Bendermel, C. Seladji, M. Khaouani

Abstract : In this work, we made a numerical study of the thermal and dynamic behaviour of air in a horizontal channel with electronic components. The influence to use baffles on the profiles of velocity and temperature is discussed. The finite volume method and the algorithm Simple are used for solving the equations of conservation of mass, momentum and energy. The results found show that baffles improve heat transfer between the cooling air and electronic components. The velocity will increase from 3 times per rapport of the initial velocity.

Keywords : electronic components, baffles, cooling, fluids engineering

Conference Title : ICTFE 2014 : International Conference on Thermal and Fluids Engineering

Conference Location : Venice, Italy

Conference Dates : April 14-15, 2014