# *ABSTRACT*

*Vaccines are fluids with functions that can be used for certain viruses. In Indonesia, the process of making and distributing vaccines is regulated by the health ministry of the Republic of Indonesia. One way of distributing vaccines is by using the same storage box on the inside of storing vaccines. Storage boxes made into boxes made of styrofoam with dimensions of 50 × 40 × 32 cm with a thickness of 3 cm. The system uses a system to use to choose to hang as vaccine storage. It takes more than 2 days, obtained heat flow flow from the system that has been designed is 8.4 watts. Thus, to maintain the system in a temperature range of 2-8 $^{o}C$, ice cubes of 4 Kg are needed as a source. While the speed produces a flow of heat of 13,24 watts. Thus an ice cube of 6,3 kg is needed as a source. However, to reach certain destinations ice cubes with a mass of 7.5 Kg. This happens because the calculation is done with a perfect system and in reality there is still a heat exchange. In addition, the flow velocity from the upper and lower directions is not taken into account.*



***Keywords: Vaccine, heat flow flow***