

Results and conclusion report

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Introduction

The two sets of the experiment were conducted in which the apparatus was set in way that allows the fluids to flow and was just separated by what is referred to as the heat exchange surface. The aim of the experiment is mainly to help students to know how the heat exchanger works. The device works in a way that it enables the energy transfer from one moving fluid stream to another moving fluid stream. This is one of the heat transfer devices that do exist like the case of the car radiator and the air conditioning systems. This device applies the law of the thermodynamics in which the first law is put into practice.

In determining the thermodynamic analysis, the control volume system is taken into use to give the proper manner in which the results are achieved when the experiment is into use. The control volume has got laws that are taken into use. The volume that enters is assumed to be equal to the volume getting out of the system.

The experiment was carried out to enable students to be able to learn more about the functionality of the system and to know its major importance in the context. Heat exchanger majorly helps learning about the flow sheets in the industrial situations. For example, from the data indicated in the excel document. The device normally operates with two fluids at two different levels of temperatures and the fluids are believed to be physically separated in which the separation between the two fluids acts like a heat exchange surface. The experiment indicates that the separation.

The following data indicates how the data were obtained during the experiment:

ME 412 - Tube Bank Heat Exchanger Experiment

Analysis

Conclusion

The basic principle applied by the apparatus heat exchanger is the entirely lies on the thermodynamics and it can easily be shown from the experiment that has been done. The experiment supports some principles that it is not a must that the fluid may not necessarily be spontaneously transferred from one colder to a hotter body. It is clear that the first principle of the thermodynamics and conservation of the energy is applied fully in the apparatus arrangement for the experiment.