

## **ABSTRACT**

*innovation of Steam Compression Refrigeration System is currently undergoing rapid development over time. One of the innovations found in the Steam Compression Refrigeration System is that the cooler box is generally conditioned using vapor compression refrigeration system. This cooler box designed using vapor compression refrigeration system in which there are four main components, such as compressor, condenser, expansion device and evaporator. The development of this cooler is done by making it mechanically. After the cooling box has been completed, then data collection is carried out using parameters such as output temperature and compressor input and evaporator output and input, condenser temperature, discharge pressure and suction pressure, current, voltage and power of the device. Then from the parameters obtained, the performance and efficiency of the cooler will be generated. The new thing obtained from this final project is the application of a steam compressor refrigeration system that is used on the cooler so that the object (milk) as a heat load will get quality for a long time in a temperature of 5 ° C - 10 ° C in the cooler box. So that mobile milk sellers by using motorized vehicles and carrying milk in the cooler are kept cool and the quality is maintained.*

***Keywords: cooler box, vapor compression refrigeration system, milk quality***