DESIGN AND BUILD *AN AUTOMATIC* MINI COMPRESSOR USING AN *ARDUINO NANO-BASED REFRIGERATOR* COMPRESSOR

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ABSTRACT

The design of an automatic mini compressor is to automatically fill the air on the freyon tube. The working system of this automatic mini compressor is designed using an air pressure sensor, with a tube capacity of 100 Psi, and when the air in the compressor drops to 40 Psi the compressor will turn back on. Presure transmitter is an air pressure sensor as a reader of the inlet and outgoing air. In this study, there are several results of automatic mini compressor testing experiments that are tested, namely the speed of filling air into freon tubes and then continuing the test on inflating motorcycle tires. Testing a 0-95 Psi air charge on a freon tube requires an estimated time of 5 minutes and 18 seconds. Because the capacity of the freon tube is 120 Psi, to avoid decongestion, I filled the capacity of the tube to 95 Psi. and the total value of % error in inflating motorbike tires obtained from the LCD and pressure gauge comparison test with a total of 7,9 %.

Keywords :*Arduino Nano, Air Pressure Sensor, Kullkas Compressor Motor, Lcd, Automatic Valve*