

MARA UNIVERSITY OF TECHNOLOGY

FACULTY OF MECHANICAL ENGINEERING

FINAL YEAR PROJECT

RECYCLED HOT AIR FROM AIR CONDITIONER

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DECLARATION

We hereby declaration that the work in this Final Project Report is our own and has not previously been accepted in substance for any diploma, locally or overseas and not been concurrently submitted for this diploma or any other diplomas.

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ABSTRACT

Recycling hot air from air-conditioning simply looks at how hot air being used and how it can be save. This process has two benefits. Saving money (which can be spent on supplied instead of energy) and helping the environment. However, there are other benefits that are hidden; we can supply this hot air in many ways.

The goal of this research is to recycle the unwanted hot air that coming out from the air conditioning system. It's more quick and easy to use hot air from the air conditioning than other hot air devices and machines it is also an inexpensive option. Before the hot air can be used, we must filter it first. Duct design and the material used of duct also can affect the hot air that produces by the air conditioning. We also need to wrap the duct by fiberglass or galvanize sheet steel as a heat insulator.

This research had been done at Hotel UiTM. There are many type of air conditioning in this hotel. They produce this unwanted hot air in a big quantity to the environment. Beside, they don't know that this hot air can be recycled. The only hot air that can be gathering is from package unit, because these units is located on the roof and make it easy to gather the hot air.

Hot air is used in laundry (to dry cloths), toilet (hand dryer) and dishwasher. Before this, we need other machine to produce hot air to do this job. But now, from this research we can forget about hot air machine maintenance.

For the conclusion, we can use this recycled hot air in many ways. Like in a kitchen, laundry and also in a toilet. Before that, it must be filtered, so that it cannot affect the user and can make people comfortable. To make sure this system can work perfectly, we use much equipment like fan, filter, valve and any others.