



HYDRAULIC POWERED FAN (HPF)

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ABSTRACT

Combining and outlining all these requirements as formalized by the department of Mechanical Engineering, UiTM, here we produced our final project that we called as “Hydraulic Powered Fan” or (HPF).

The main purpose of Hydraulic Powered Fan (HPF) is used to reduce electricity consumption at home. Why we state that our project can reduce electricity consumption? It is because this project did not use current as its source, but it solely uses hydraulic to function. It is based on turbine concept that uses water as a main source to generate power. We used a tank filled with water, which is then used to rotate the turbine. The rotation of the turbine will move the main shaft; the main shaft will move the water pump shaft (to function the water pump). The water pump is used to pump water back into the tank (recycle the water), at the same time the main shaft will also move the fan.

From this project, we hope that it will fulfill all the desired requirements for our final project.

This report will take us to understand more about the fluid concepts; we hope that this project will give help students who are interested to further study about this project.

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CHAPTER 1

INTRODUCTION

1.1 Overview of The Project

Hydraulic power fan is the fan that is using the water to generate the output fan. This idea is coming from the concept of hydroelectric turbine that is generating the electricity from the water in the dam. From this project, we have change the source of the water from the dam to small tank but the concept of the system is still same. Actually, the project purpose is to change the source of energy for the fan from electricity to hydraulic. We have applied the fluid mechanic concept and a few part of mechanism concept. By the end of this project, we have successful prove that we have other initiative of the fan which are not only depend of the electricity source. From this project, we can also try to improve HPF to be a hydraulic generator.