

LAPURAN PROJEK TAHUN AKHIR
KURSUS DIPLOMA KEJURUTERAAN JENTERA
KAJIAN KEJURUTERAAN, ITM, SHAH ALAM

DESIGN AND FABRICATION OF A HYDRAULIC
BENCH PRESS

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PREFACE

The area of control engineering that deals with the transmission and control of loads and motion by means of fluid is called fluid power. Fluid power is rightly a part of Mechanical Engineering, since it is truly a machine designer's tool. The opportunities offered by fluid power in education and research have found to be complementary to the other fields.

One of the main application of the fluid powers is as the means of powering machine. Nowadays the application of hydraulic is largely used in industries. This is because the fluid power can vary from a delicate touch of a few ounces to a gigantic force of 36000 tons or more.

To demonstrate how this area can work together, we decided to use a hydraulic system to power a press machine. The press machine itself contains of two parts that is the press itself and the die.

All these parts were design separately but dependant to each other. Therefor, a very careful study is needed before designing the parts. All the design were based on books, suppliers and the Department of Mechanical Engineering of M.I.T. Although this would not give a complete or balance picture of the state of the art and science of fluid power control and machine designing, it does reflect more or less accurately the collective experience and accomplishments of the student and Mechanical Engineering staffs.

Apart from the press machine and it's hydraulic power means, this project extends to design and

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Once again, we must appologise for any errors which may have escaped our scrutiny.

We will be glad to receive any correction or constructive criticisms.

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