

## **ABSTRACT**

### **Design of Sawing Machine for Limestone**

This thesis discusses a redesigning and reanalyzing of a sawing machine as its function as a cutter of a limestone.

Basically from its construction and its way of operation, it is a simple machine. The designing machine needs 5.5 kW of power resulted from an electric motor, transmission machine with V standart belt and an 5000 rpm output. The transmission system does not reduce the electric motor circulation, but it uses the increasing circulation system, because basically this machine needs an higher output circulation. It needs knife made from a fusion of diamond to cut the limestone.

The work is so simple, by the time the electric motor is on, it automatically circulates the transmission system and the plate of the saw will also circulate in 5000 rpm of speed. The object which is put on the object table then is pushed to the circulate saw. During the process, water is needed as the cooling media in order to reduce overheat. Generally, the product of thr process is like a brick wits its 10 centimeter of the maximum height. This machine can reach 2 ton/hours of its capacity.