

A SEMI-AUTO MEAT SLICING MACHINE WITH PRE-DETERMINE THICKNESS

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ABSTRACT

This project is about creating a semi-auto slicing machine that can slice meat with pre-adjustment thickness. The machine involves electric motor which can operate the blade to slice the meat. This project needs some calculation about the speed of the motor and blade which attached to the motor directly. The most important part of this project is how to create the best design of the machine and placing blade in machine. Because only the best design can give the user to use more comfortable, ease of use and easy to manufacture.

Other than that, it also consists of the materials used in my project. This report explains the manufacturing process, design of meat slicing machine, the way it works and the construction of the machine.

There are some pictures of machine attached to give readers more idea and more understand about machine and its concept.

Power in rotational motion,

$$P_{\text{rot}} = \tau \times \omega$$

τ = Torque of motor

ω = Angular Velocity
the speed of a induction motor,

$$S_{rpm} = \frac{120 \times F}{P}$$

S_{rpm} = synchronous revolutions per minute.

120 = constant

F = supply frequency (in cycles/sec)

P = number of motor winding poles