

## ABSTRACT

Islachul Hamdi, Muhammad. 2019. Construction Planning of Young Coconut Peeling Machine. Final Report. National Institute of Technology Malang. Faculty of Industrial Technology. Mechanical Engineering Department, Diploma III. Academic Advisor: Achmad Taufik, MT.

The young coconut peeling machine is a tool designed to save time and to improve the economy which will later make it easier, especially for young coconut sellers.

The method applied in the design of the construction of the Young Coconut Peeling Machine begins with the concept and design then identifies the materials to be used. Meanwhile, to determine the strength of the materials, it is done by doing calculations on the framework. While the material used in the construction of the Young Coconut Peeling Machine uses iron and stainless steel. The welding used is electric welding using E308 S electrodes.

Based on the calculations in this construction, the results are the strength of welds is  $4,466 \text{ kg} / \text{cm}^2$ , shear voltage is  $8.9 \text{ kg} / \text{cm}^2$ , and the voltage of material is  $2,466 \text{ kg} / \text{cm}^2$ .

**Keywords:** Young Coconut Peeling Machine Construction.