

DESIGN AND MANUFACTURE OF PAPAYA FRUITS AND BOLES PROCESSING MACHINE FOR *DODOL* AND *MANISAN* PRODUCTION IN THE SUB-URBAN SMALL SCALE INDUSTRY

By:
Slamet Widodo dan Darmono^{*)}

Abstract

This community service activity entitled “Design and Manufacture of Papaya Fruits and Boles Processing Machine for *Dodol* and *Manisan* Production in the Sub-Urban Small Scale Industry” aimed to assist the working partner and improve the productivity of traditional foods production in a home industry, especially for the preparation of papaya fruits and boles as the raw materials. On the other hand, this activity also aimed to set up a processing machine that suitable with the need and production capability of the working partner.

Activity procedures of the manufacturing of Papaya Fruits and Boles Processing Machine started with design, manufacturing, trial for production process, and training for the machine operator. In the engineering design stage, the activities consist of: (1) designing and preparing the detail drawing, (2) Estimating amount of needed materials, and (3) Estimating manufacturing cost. The second stage related with manufacturing of processing machine, in this stage the activities divided into: (1) materials cutting based on the detail design, (2) welding, (3) assembling, (4) electrical installation, (5) trial and testing to investigate the performance of assembled machine, and (6) coating. The last stage related with training activities, consist of: (1) theory explanation related with operating procedure of assembled machine, (2) practical demonstration using the new machine, (3) Implementation for real production process.

Based on the done activities, this vucer community service providing new automatic rasping machine of papaya fruits and boles, automatic mixing machine that very useful for working partner in their production process. The automatic rasping machine assembled using 50x50x5 mm, L profile of steel, with 50x60x130 cm of total machine dimension, operated using gasoline motor with 1 HP power capacity and able to rotate in 2800 rpm. The automatic mixing machine built in (30x60x80) cm of total dimension using ½ HP electrical power motor. Using two above mentioned machines, the production going faster up to 3 times compared with the manual production.

Keywords: *Manufacture of Production Machine, Papaya fruits and boles, dodol, manisan.*

^{*)} Lecture of the Construction Engineering Education Departement, Faculty of Engineering, Yogyakarta State University.