

ABSTRACT

DESIGN OF CHICKEN FEATHER REMOVER MACHINE

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The purpose of design of chicken feather remover machine is to create a chicken feathers remover machine in large quantities, quickly and effectively. A good design of construction machinery is needed for the process manufacture of construction machinery is easy to understand and do, in addition to the design of construction machinery are also required to estimate the price of chicken feathers remover machine products.

The concept design of this machine design refers to the concept of Pahl and Beitz, other things planning and explanation of tasks, planning a product concept, giving shape to the product, to produce a detailed design document in the form of product manufacture (working drawings). Steps taken in the design process thresher machine quill is the calculation of force that occurred in the engine, the motor power required, the choice of transmission, to determine the material components required.

The results of the design is the design and working drawings chicken feather remover machine products. This chicken feather remover machine dimensions, length x width x height is 570 x 570 x 1210 mm. The production capacity of this machine is ± 8 tails/min. Driving source of this machine uses an electric motor with power $\frac{1}{2}$ HP with 1400 rpm speed. Motor speed is reduced to 250 rpm. Transmission system uses a reductant component pulleys, V-belts, and gears. Shaft that is used of materials St 37 with 1 inch diameter. Thresher tube material and the disc player to use stainless steel to resist corrosion. Order table using steel materials \perp profile measuring 40 x 40 x 3 mm. While the casing materials using aluminum plate. Estimated selling price of the machine offered is Rp. 3,200,000.00.

Keyword: Design of chicken feather remover machine