

Design of a Tobacco Chopper Machine Using an Electric-Powered Machine

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ABSTRACT

This study aims to determine the chopping capacity, machine efficiency and performance of the tobacco leaf chopper by varying the load of the tobacco leaves and their speed. This study consisted of 1.5 kg, 2.5 kg and 3.5 kg tobacco leaves. The rates are 1000 rpm, 1300 rpm and 1500 rpm. The study results show that the capacity using a speed of 1000 rpm produces a moderate chop of 15.74 kg/hour, an efficiency value of 90% and a power of 0.17 HP. Variation using a speed of 1300 rpm produces an average chopping of 19.5 kg/hour, an efficiency value of 91%, and a power of 0.23 HP and Variations using a speed of 1500 rpm produce an average chopping of 31.02 kg/hour, a value 93% efficiency and 0.26 HP power.

Keywords: *design, speed variation, yield capacity, chopper efficiency, power*