

Briquette Crusher Modification with Screen Filter Variations
Risse Entikaria Rachmanita, S.Pd., M.Si (Undergraduated Thesis)

Bambang Tri Atmojo
Study Program of Renewable Energy Engineering
Department of Engineering

ABSTRACT

The process of making or producing briquettes is recommended to use tools with an automatic system, one of which is in the process of crushing the appropriate briquette raw materials. The technology needed is the technology used to chop the corncobs into smaller sizes so that they can be processed into raw materials for briquettes or for animal feed. Research includes the process of designing and testing, while the data collection and testing process is carried out. The manufacture of the crusher machine is carried out according to the crusher design that has been carried out. Materials and dimensions of the crusher are adjusted according to calculations and planning. There are 2 test materials for the coconut shell briquette crusher machine and corn cobs with different mesh variations, namely 30, 40 and 50 mesh. The result of the tachometer reading obtained on average from 3 measurements is 2771 rpm without load. Modification of the crusher machine adjusts the material and electric motor used. This briquette material crusher machine uses a 5.5 hp electric motor, with a voltage of 220 volts. The performance of the crusher machine is capable of chopping 5 kg of briquette material which has been charred beforehand with time intervals for each material, milling of corn cob briquettes takes 15,4 minutes to produce 5 kg at 2338 rpm while coconut shell material takes 20,6 minutes to produce 5 kg at 2244 rpm.

Keywords: crusher machine, tachometer, screen