

ABSTRACT

Murakabi Jaya Mandiri Company is manufacturing and export company of coconut shell charcoal briquette. It can produce ± 1 to 1.3 tons of briquettes everyday, while the production target should 2 tons per day. The problem is the manual packing process takes a long time. The packaging is done by 13 workers with no ergonomic position. The position of the packaging is sitting using a small chair, then took the briquettes on the floor and put into the plastic. The packaging process takes an average of 3 minutes to 1 plastic packaging sizes 1 kg. The process will reduce the productivity of the company. Therefore, it takes a packaging tool development briquettes with an ergonomic design for increased productivity briquettes.

Briquette packaging tool development is done uses the steps of Pahl and Beitz methods. The method explains detail of the stages in designs a technology in the transport of briquettes into plastic packaging. Briquette packaging tool was developed with ergonomic design. The draft notice worker comfort, thus making workers comfortable in packaging. The development tool will be realized by the form of manufacturing. Testing tool packaging briquettes made qualitatively and quantitatively against workers packing.

The production of briquettes were made by 13 workers with manual packaging obtained 1071 kg / day, while using a packaging tool briquettes obtained to 1720 kg / day. Revenue per month with manual packing obtained Rp 348.075.000,-, while using a packaging tool briquettes obtained Rp 559.000.000.-. Profit per month with manual packing obtained Rp 226.200.000,-, while using a packaging tool briquettes obtained Rp 437.125.000.-. These results show that using a packaging tool briquettes can improve productivity. Comparison time manual packaging is ± 3.15 min and using tools obtained ± 1.03 min. Quantitative testing worker fatigue with the calculation of the pulse rate decreased using manual packaging at 37.04% to 28.08% using the tool. Qualitative testing showed that workers operate the device easily in packaging briquettes.

Keywords: *coconut shell briquettes, Pahl and Beitz, tool packaging.*