

## **ABSTRACT**

Lean is an improvement method that focuses on elimination of non value added activities to the customer. PT. Agronesia (Rubber Engineering Industry Division) is a manufacturing company that produces rubber step. This research focused on rubber step Aspira Belakang which has the highest production gap inaccessibility. In the production process, found the wait or waste time waiting affecting the level of achievement of production targets. Based on the problems that occur, the necessary design improvements to minimize waiting time with lean manufacturing approach.

The initial stage of this research is to collect primary data were processed to illustrate the value stream mapping (VSM) and process activity mapping (PAM) current state so the lead time of the production process of rubber step Aspira Belakang which is 5915.07 seconds with a time of value added activities which is 1131.47 seconds or 19:13% of lead time. The next stage is to identify the root cause of problems waiting time using worker-machine mapping, fishbone diagram and 5 why. The next stage is explain details of the problem and determine the design of the proposed improvements with 5W1H to explain details of the problem and determine the design of the proposed improvements with lean manufacturing methods such as Quick Changeover and Display.

The design improvements are designing the cutting tool, splitting lot compound, designing the work instruction and display, make a batch/stock for next shift on Monday, designing the storage for mold machine. Based on the design improvement obtained lead time which is 3134.41 seconds with a time of value added activities which is 1123.79 seconds or 35.85% of lead time.

**Keywords:** Lean Manufacturing, Quick Changeover, Waste Waiting