

ABSTRACT

PT. Multi Instrumentasi is a manufacturing company that produces water meter. The type of water meter that be observed in this thesis is a part body casing water meter. In production process of making part body casing was found waste waiting that affected product delivery.

In terms of minimizing waste waiting is used lean six sigma methods. Steps that need to be done in this method is define, measure, analyze, and improve in DMAIC and use tools to do improvements on lean production process part body casing. In define phase is described SIPOC diagram and VSM which aims to define the problems that happens. In measure phase is described the determination of CTD and KPI's on waste waiting. In Analyze phase will be analyzed the root causes of waste waiting. Then in the last phase is improve phase is proposed improvement from the root causes of the previous phase which aims to minimize the cycle time.

Based on the results of the define phase, the waste which will be minimized namely waste waiting in production process part body casing water meter. In measure phase the OEE is earned by using a value of 38.10% with equipment failure as the biggest losses in production process. In analyze phase is known the root causes of waste waiting that is the broken spare part, administrative delay, there is no maximum recording of a mechanical failure, and a limited number of maintenance employees. At improve phase there are several recommendations provided in minimizing the waste waiting such as doing perform calculation using pareto diagram, design the andon system, do maximal recording of mechanical failure, and implement autonomous maintenance.

Kata kunci : *Lean Six Sigma, Waste, Waiting, Downtime, Overall Equipment Effectiveness, Pareto Diagram, Visual Control, Autonomous Maintenance*