ABSTRACT

PT Pindad is a company that produces militaryand several commercial products. One of the productsis a distributor-valve which is one of component in air brake system. Based on historical data, the delivery of products to customers often had delays. Therefore, the research was conducted in the production process of the distributor-valve using lean six sigma approach.Motion waste was detected as the most waste in the process.The production data were processed by DMAI (Define, Measure, Analyze, and Improve). SIPOC diagram and Value Stream Mapping (VSM) were used to identify the key process of production process. Process Cycle Efficiency (PCE) was calculated in the measure stage, which was 54.21% and *total lead time* 272.64 minutes. *Fishbone diagram was used to analyze the root cause of waste motion. Based on the fishbone diagram was known that the causes of motion waste in the production process consist of the human, tools, materials and environment factor.The root causes of this waste can be minimized by applying the 5S principles on the production floor and making toolbox and storage rack for components. They could be decrease lead time by 20.26 minutes.*

Keywords—Lean Six Sigma, E-DOWNTIME, SIPOC, VSM, 5S