IMPROVEMENT OF BLENDER PRODUCTION PROCESS
USING LEAN MANUFACTURING APPROACH
AT PT. PMT

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ABSTRACT

PT. PMT is a company that engaged in blender product assembly, which effectiveness and efficiency are very important and affect the company condition. Efficiency effort can be done by minimizing non-value added activities called waste that can interfere with physical activity and information flow which affects the high operational costs and not precisely the time of consumer demand fulfillment. Therefore, need an approach to eliminate the waste, one of them with lean manufacturing approach.

With lean strategy that means an effort by all element of the company together to eliminate wastes, the company is expected to increase value added ratio according to waste. Waste minimizing will be very useful for the company to face tougher competition with similar industries. Understanding the company condition described in Value Stream Mapping of the company. Waste is identified with seven waste, then mapping in detail Value Stream Analysis Tool (VALSAT) and analyzed the root cause.

Based on questionare result for waste identification, obtaining the most happened waste are Waiting (23.38%), Overproduction (16.88%), and Inventory (15.58%). These waste identification score converted in to VALSAT matrix, thus obtained dominant mapping tool, they are yang dominan yaitu Process Activity Mapping (35.72%) dan Supply Chain Response Matrix (24.22%). In current condition, the total time required for entire process is 2.076 hours for value added and 93.118 hours for non-value added. While in the condition after improvement, pada kondisi setelah perbaikan, the total time required for entire process is 2.076 hours for value added and 63.84 hours for non-value added. Waiting time for WIP after inject reduced from 68.72 hours into 37.33 hours with a new scheme in making Master Schedule by considering product capacity per process per day, due date, working days in one month, sequence of production process, and number of orders that must be met. Beside that, must be considered if there is an overload on certain date, loads bill be spread to another date so that the production level will be the same (heijunka).

Keywords : Lean manufacturing, Value Stream Mapping, Value Stream Analysis Tools (VALSAT), Seven Waste.