

## ABSTRAK

**Melwita Delfi Anggraeni. Analisis Proses Produksi *Protector Coil* Dengan Menggunakan Konsep *Lean Manufacturing* Di PT Artamas Prima Nusantara. Dibimbing oleh Evi Febianti, ST., M.Eng dan Kulsum, ST., MT.**

PT Artamas Prima Nusantara adalah perusahaan yang memproduksi pelindung *coil* bagian *inner* dan *outer*. Dalam proses produksi terdapat *waste* saat pembuatan produk *protector coil*. Penelitian ini menggunakan konsep *lean manufacturing* dengan pendekatan SMED (*Single Minute Exchange of Die*). Penelitian dilakukan dengan menyebarkan kuisioner *seven waste* serta *brainstorming*. Tujuan penelitian ini adalah mengetahui kategori pemborosan yang berpengaruh pada proses produksi *protector coil*, mengetahui perbandingan nilai PCE pada *current* dan *future state*, mengetahui waktu *set up* optimal proses produksi produk *protector coil* menggunakan SMED, mengetahui hasil perbandingan waktu penerapan SOP *current* dan *future state*. Hasil penelitian ini menunjukkan *waste* yang berpengaruh yaitu *waiting* sebesar 23,57%. Hasil perbandingan nilai PCE *current state* produk *inner* sebesar 44,22% dan *future state* sebesar 56,73%. PCE produk *inner* mengalami peningkatan sebesar 12,51%, sedangkan pada produk *outer* mengalami peningkatan sebesar 12,29%. Hasil waktu *set up* optimal pada proses produksi *inner* menggunakan SMED sebesar 874 detik, sedangkan pada produk *outer* sebesar 917 detik. Hasil perbandingan waktu penerapan SOP produk *inner current state* sebesar 5024 detik dan pada *future state* sebesar 3636 detik, sedangkan produk *outer* pada *current state* sebesar 5251 detik dan pada *future state* sebesar 3737 detik.

**Kata Kunci :** *Lean Manufacturing, SMED (Single Minute Exchange of Die), SOP (Standard Operational Procedure)*

## **ABSTRACT**

***Melwita Delfi Anggraeni. An analysis of the Protector Coil Production Process Using the Lean Manufacturing Concept at PT Artamas Prima Nusantara. Supervised by Evi Febianti, ST., M.Eng and Kulsum, ST., MT.***

*PT Artamas Prima Nusantara is a company that produces protectors for coil's inner and outer parts. In the production process, there are still a lot of waste when making protector coil products. This research uses a lean manufacturing concept with the approach of the SMED method. The research was conducted by distributing the seven waste questionnaire and brainstorming. The research objectives are to find out the highest value waste category in the protector coil production process, to know the comparison of PCE values in the current state and future state, to know the optimal set-up time in the production process of protector coil products using the SMED to know the results of the comparison of time values in the application of the SOP of the current and future state. The results of this research show that the highest waste in waiting is 23.57%. The results of the comparison of PCE values in the inner corner protector current state of the product is 44.22% and the future state is 56.73%. Inner corner protector PCE product has increased by 12.51%, while outer corner protector product's PCE value has increased by 12.29%. The optimal set-up time in the inner corner protection production process uses the SMED method of 874 seconds. The outer corner protection production process is 917 seconds. The results of the comparison of the time value of applying the of the inner corner protector product in the current state are 5024 seconds and in the future state it is 3636 seconds, while the outer corner protector product in the current state is 5251 seconds and in the future state is 3737 seconds.*

***Keywords:*** *Lean Manufacturing, SMED (Single Minute Exchange of Die), SOP (Standard Operational Procedure)*