

USULAN PENGENDALIAN KUALITAS PRODUK PAVING PRESS DENGAN PENDEKATAN METODE LEAN SIX SIGMA.

Agung Rizky Setiawan¹, Ari Zaqi Al-Faritsy²

¹ Teknik Industri, Fakultas Sains dan Teknologi, Universitas Teknologi Yogyakarta,

Jl. Glagahsari No. 63, D.I. Yogyakarta 55164, Indonesia

Email: akhmadw138@gmail.com¹, suseno@uty.ac.id²

Abstrak

Kualitas produk menjadi kunci utama yang sangat penting dalam industri manufaktur dengan memperhatikan kualitas produk yang dihasilkan. UD. Margo Material dihadapkan dengan masalah yaitu kualitas. Pada hasil produk paving press segienam ada beberapa kendala yang menghasil cacat produk seperti pecah dan gripis di bagian pinggir produk dengan jumlah 28.341 unit dari 644.000 unit produksi selama 1 tahun. Dengan dilakukan peggendalian perbaikan kualitas menggunakan metode Lean Six Sigma dengan DMAI (Define, Measure, Analyse, Improve). Berdasarkan hasil analisis terdapat jenis kecacatan yaitu pecah dan gripis dengan persentase tertinggi pada jenis cacat pecah 55.47% dan jenis cacat gripis 44.53% dari masing-masing cacat produk dapat diketahui jenis cacat pecah yang paling dominan. Berdasarkan hasil peta kendali (p chart) terdapat kecacatan yang melebihi batas kendali UCL dan LCL kemudian menghitung nilai sigma, analisis menggunakan diagram tulang ikan (fishbone) dan teknik brainstorming. Dari hasil analisis disimpulkan cacat terbanyak terdapat pada jenis cacat pecah, Faktor mesin dan metode merupakan penyebab cacat, Usulan perbaikan adalah dengan menerapkan metode Poka Yoke yaitu warning, control, dan shut down untuk melakukan penggantian papan pengeringan yang rusak dan penambahan alat pendukung produksi produk yaitu rak pengeringan.

Kata kunci: Pengendalian Kualitas, DMAI, *Lean Six Sigma*, *Brainstorming*, *Poka Yoke*.

PROPOSED QUALITY CONTROL OF PAVING PRESS PRODUCTS WITH LEAN SIX SIGMA METHOD APPROACH.

Agung Rizky Setiawan¹, Ari Zaqi Al-Faritsy²

¹ Industrial Engineering, Faculty of Science and Technology, University of Technology Yogyakarta,
Jl. Glagahsari No. 63, D.I. Yogyakarta 55164, Indonesia
Email: akhmadw138@gmail.com¹, suseno@uty.ac.id²

Abstract

Product quality is a very important key in the manufacturing industry by paying attention to the quality of the products produced. UD. Margo Material was faced with a quality problem. In the results of the hexagonal paving press, there are several obstacles that result in product defects such as cracking and gripping on the edges of the product with a total of 28,341 units from 644,000 units of production for 1 year. By controlling quality improvement using the Lean Six Sigma method with DMAI (Define, Measure, Analyze, Improve). Based on the results of the analysis, there are types of defects that are broken and grippy with the highest percentage of broken defects being 55.47% and gripping defects of 44.53% from each product defect, it can be seen that the type of breakage is the most dominant. Based on the results of the control chart (p chart) there are defects that exceed the control limits of UCL and LCL then calculate the sigma value, analysis using fishbone diagrams and brainstorming techniques. From the results of the analysis, it was concluded that the most defects were in the type of broken defects. Machine and method factors were the cause of the defects. The suggestion for improvement is to apply the Poka Yoge method, including warning, control, and shut down to replace the damaged drying board and add supporting tools for product production in the form of a drying rack.

Keywords: Quality Control, DMAI, Lean Six Sigma, Brainstorming, Poka Yoke