

ANALISIS PENGENDALIAN KUALITAS DENGAN METODE DMAIC DAN POKA YOKE UNTUK MENGURANGI JUMLAH PRODUK CACAT MANHOLE COVER DI CV.MEGA JAYA LOGAM

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ABSTRAK

Penelitian ini dilakukan di Cv. Mega Jaya Logam yang bergerak di bidang pengecoran produk logam. Permasalahan dialami dikarenakan terdapat kecacatan dalam proses produksi produk Manhole Cover. Tujuan dari penelitian adalah untuk mengidentifikasi penyebab cacat dan memberikan usulan maupun pencegahan menggunakan pendekatan *DMAIC* dan *Poka Yoke*. Pendekatan *DMAIC* merupakan pendekatan penyelesaian masalah berbasis data yang membantu membuat perbaikan-perbaikan bertahap dengan mendapat hasil optimal dan *Poka Yoke* adalah pendekatan yang digunakan untuk mencegah terjadinya kesalahan sederhana akibat adanya human error. Hasil pengamatan menunjukkan terdapat tiga jenis cacat diantaranya cetakan tidak rapi, cor cetakan logam kurang, dan tidak presisi. ketiga aspek tersebut jenis cacat paling dominan dan diluar control yaitu cetakan tidak rapi, dilihat pada proses produksi bulan january memiliki nilai error sebesar 0,15152 yang melewati batas UCL sebesar 0,1401 dan bulan agustus sebesar 0,14286 yang melewati batasa UCL sebesar 0,1401. Akar penyebab masalahnya di karenakan kinerja karyawan kurang disiplin, kurangnya penerapan SOP, dan, kualitas logam kurang bagus. Dari hasil penelitian didapatkan beberapa usulan perbakian yaitu tindakan tegas pengurangan gaji dan pemecatan, perlu adanya penerapan SOP pada tenaga kerja, dan, teliti memisahkan bahan baku bagus dan tidak bagus.

Kata Kunci : *Six Sigma*, *DMAIC* (Define, Measure, Analyze, Improvement, Control), *Poka Yoke*

QUALITY CONTROL ANALYSIS WITH DMAIC AND POKA YOKE METHODS TO REDUCE THE NUMBER OF MANHOLE COVER DEFECTS AT CV. MEGA JAYA METAL

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ABSTRACT

This research was conducted at Cv. Mega Jaya Logam which is engaged in metal product casting. The problem was experienced because there were defects in the Manhole Cover product production process. The purpose of the research is to identify the causes of defects and provide suggestions and prevention using the DMAIC and Poka Yoke approaches. The DMAIC approach is a data-based problem solving approach that helps make incremental improvements to obtain optimal results and Poka Yoke is an approach used to prevent simple errors from occurring due to human error. The results of the observations showed that there were three types of defects including untidy molds, lack of metal castings, and imprecision. These three aspects are the most dominant and out of control types of defects in the form of untidy prints, seen in the production process in January has an error value of 0.15152 which crossed the UCL limit of 0.1401 and in August of 0.14286 which crossed the UCL limit of 0, 1401. The root cause of the problem is due to the lack of discipline in the performance of employees, the lack of application of SOPs, and the quality of the metal is not good. From the results of the study, it was found that several proposals for improvement through decisive action on salary reductions and dismissals, the need for the implementation of SOPs for workers, and carefully separating good and bad raw materials.

Keywords: Six Sigma, DMAIC (Define, Measure, Analyze, Improvement, Control), Poka Yoke