

**ANALISIS PENGENDALIAN KUALITAS CACAT PRODUK
EQ SPACING MENGGUNAKAN METODE *STATISTICAL
PROCESS CONTROL (SPC)* DAN *FAULT TREE ANALYSIS
(FTA)*
(STUDI KASUS: PT SINAR SEMESTA)**

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ABSTRAK

PT. Sinar Semesta merupakan perusahaan yang bergerak pada industri pengecoran logam seperti alat pertambangan, komponen kereta api, dan komponen lainnya. Perusahaan harus selalu memperhatikan kualitas produknya agar tidak mengalami kerugian kedepannya. Berdasarkan data produksi di Januari sampai dengan Oktober 2022 perusahaan memproduksi *eq spacing* sebanyak 2594 unit, dari produksi tersebut masih ditemukan dua jenis produk cacat sebanyak 59 unit dengan persentase (7,652%) yang mengalami cacat salah alir, dan sebanyak 712 unit dengan persentase (92,348%) yang mengalami cacat ekor tikus yang disebabkan oleh faktor manusia, mesin, material, metode, dan lingkungan. Penelitian yang dilakukan bertujuan untuk mengetahui penyebab yang mempengaruhi kecacatan produk *eq spacing* yang ada di PT. Sinar Semesta dan memberikan usulan perbaikan kualitas produk. Kemudian melakukan analisis jumlah cacat produk serta faktor penyebab cacat dengan menggunakan metode *Statistical Process Control* dan *Fault Tree Analysis*. Untuk meminimalisir kecacatan produk diberikan usulan perbaikan pada setiap faktor yang menjadi penyebab kecacatan saat proses produksi *eq spacing* sedang berlangsung.

Kata kunci: Kualitas, *Eq Spacing*, *Statistical Process Control*, *Fault Tree Analysis*

ANALYSIS OF QUALITY CONTROL OF EQ SPACING PRODUCT DEFECTS USING STATISTICAL PROCESS CONTROL (SPC) AND FAULT TREE ANALYSIS (FTA) METHODS

(CASE STUDY: PT SINAR SEMESTA)

ABSTRACT

PT. Sinar Semesta is a company engaged in the metal castings industry, such as mining equipment, train components, and other components. Companies must always pay attention to the quality of their products so as not to experience losses in the future. Based on production data from January to October 2022, the company produced 2,594 units of eq spacing. Of this production, 59 units of two types of defective products were found with a percentage (7.652%) that had faulty flow defects, and as many as 712 units with a rate (92.348%)) which deformed rat tails caused by humans, machine, material, method, and environmental factors. The research aims to determine the causes affecting the defect in the eq spacing product at PT. Sinar Semesta and provide suggestions for improving product quality. Then analyze the number of product defects and factors that cause defects using Statistical Process Control and Fault Tree Analysis methods. Suggestions for improvements to each factor that cause defects during the Eq spacing production process are being made to minimize product defects.

Keywords: Quality, Eq Spacing, Statistical Process Control, Fault Tree Analysis

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