

ABSTRAK

CV SP Aluminium merupakan sebuah perusahaan pengecoran logam yang menghasilkan berbagai macam produk, seperti wajan, panci, ketel, soblok, dan citel. Proses produksinya meliputi peleburan, pencetakan, pendinginan, *finishing* gerinda/kikir, *finishing* bubut, *finishing* polish, dan pengemasan. Bagian *finishing* bubut bertugas membentuk dan meratakan permukaan wajan, di mana seluruh aktivitasnya masih dilakukan secara manual sehingga kualitas kerja pekerja sangat berpengaruh terhadap hasil akhir produk. Perbedaan keterampilan, ketelitian, teknik kerja, dan kondisi fisik antar pekerja dapat menyebabkan ketidakkonsistenan hasil *finishing* bubut, sehingga dapat meningkatkan risiko terjadinya cacat produk. Selain itu, beberapa cacat pada proses *finishing* bubut juga dapat berasal dari tahapan sebelumnya, sehingga semakin terlihat pada tahap ini. Jenis cacat yang sering ditemukan meliputi penyok, merayang, lubang, dan retak. Berdasarkan permasalahan tersebut, penelitian ini dilakukan untuk merancang perbaikan pada proses *finishing* bubut dengan tujuan menurunkan tingkat cacat produk di CV SP Aluminium.

Penelitian ini menggunakan metode *time study* untuk memperoleh waktu baku, diagram pareto untuk mengidentifikasi cacat paling dominan, *fishbone* diagram untuk menganalisis faktor penyebab, serta metode 5W1H untuk menyusun usulan perbaikan.

Berdasarkan hasil pengukuran waktu baku, pekerja 1 memiliki waktu 49,096 detik, pekerja 2 sebesar 49,424 detik, dan pekerja 3 memiliki waktu baku tertinggi yaitu 51,023 detik. Perbedaan waktu ini menunjukkan adanya variasi kinerja antar pekerja, sehingga diperlukan standarisasi waktu baku untuk menjaga konsistensi proses *finishing* bubut. Ditetapkan waktu baku rata-rata 49,848 detik agar proses pembubutan lebih konsisiten. Untuk memastikan fokus perbaikan, dibuat diagram pareto untuk mengidentifikasi cacat paling dominan, yaitu penyok. *Fishbone* diagram digunakan untuk menentukan faktor-faktor penyebab cacat yang meliputi manusia, lingkungan, mesin, dan metode. Berdasarkan hasil tersebut, disusun usulan perbaikan berupa pembuatan SOP, pemasangan poster, serta penyediaan alat pelindung diri berupa ear plug. Setelah perbaikan diterapkan, persentase cacat produk turun dari 2,05% menjadi 1,40%, sehingga menunjukkan adanya peningkatan kualitas pada produk wajan.

Kata kunci: *Time Study*, Waktu baku, Kualitas, *Fishbone*, 5W1H

Improvement of the Lathe Finishing Workstation to Reduce Defects in Wok Products

ABSTRACT

CV SP Aluminium is a metal casting company that produces various products, such as frying pans, pots, kettles, sobloks, and citels. The production process includes smelting, casting, cooling, grinding/filing finishing, lathe finishing, polishing finishing, and packaging. The lathe finishing section is responsible for shaping and smoothing the surface of the frying pan, where all activities are still carried out manually, so the quality of the workers' work greatly affects the final product. Differences in skills, accuracy, work techniques, and physical conditions between workers can cause inconsistencies in the lathe finishing results, which can increase the risk of product defects. In addition, some defects in the lathe finishing process can also originate from previous stages, making them more visible at this stage. The types of defects that are often found include dents, warping, holes, and cracks. Based on these problems, this study was conducted to design improvements to the lathe finishing process with the aim of reducing the level of product defects at CV SP Aluminium.

This study used the time study method to obtain standard time, the Pareto chart to identify the most dominant defects, the fishbone diagram to analyze the causal factors, and the 5W1H method to compile improvement proposals.

Based on the standard time measurement results, worker 1 had a time of 49.096 seconds, worker 2 had a time of 49.424 seconds, and worker 3 had the highest standard time of 51.023 seconds. This time difference indicates a variation in performance between workers, so standardization of standard time is needed to maintain consistency in the lathe finishing process. An average standard time of 49.848 seconds was set to make the lathe process more consistent. To ensure the focus of the improvement, a Pareto chart was created to identify the most dominant defect, which was dents. A fishbone diagram was used to determine the factors causing the defects, which included people, the environment, machines, and methods. Based on these results, improvement proposals were compiled in the form of creating SOPs, installing work guidance posters, and providing personal protective equipment in the form of ear plugs. After the improvements were implemented, the percentage of product defects decreased from 2.05% to 1.40%, indicating an improvement in the quality of the frying pans.

Keywords: Time Study, Standard Time, Quality, Fishbone, 5W1H