

ABSTRAK
**PENDEKATAN *TOTAL PRODUCTIVE MAINTANANCE* (TPM) DAN
METODE *WASTE ASSESSMENT MODEL* (WAM) GUNA MENURUNKAN
TINGKAT *WASTE* DAN MENINGKATKAN EFEKTIVITAS MESIN PADA
PROSES PRODUKSI CV. POLLY PLAST MANDIRI**

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CV. Polly Plast Mandiri merupakan perusahaan yang bergerak di bidang pembuatan sedotan dan gelas plastik. Salah satu mesin yang digunakan untuk produksi sedotan plastik yaitu mesin BNL50 seringkali mengalami kendala seperti *breakdown* dan *minor stoppages*. Sehingga berakibat pada rendahnya total produksi dan terlambatnya pengiriman pesanan konsumen. Tujuan dari penelitian ini adalah mengetahui nilai efektivitas peralatan produksi dengan menggunakan analisis *Total Productive Maintenance* dan alat ukur *Overall Equipment Effectiveness* (OEE) dan *Six Big Losses*, identifikasi *waste* yang paling dominan pada lini produksi dengan menggunakan *Waste Assessment Model* (WAM) serta menghitung kerugian perusahaan dengan *Activity Based Cost* (ABC). Diperoleh nilai rata-rata efektivitas mesin BNL50 selama empat bulan yang dihitung dengan OEE yaitu 87.40% dengan *reduced speed losses* sebagai nilai *losses* tertinggi. Dengan metode WAM, ditemukan *waste* dengan nilai tertinggi yaitu *waiting* dengan persentase sebesar 32.5%. Kerugian yang harus dikeluarkan perusahaan selama 4 bulan adalah sebesar Rp. 7.165.600. Usulan perbaikan yang dapat diberikan kepada CV. Polly Plast Mandiri adalah Menerapkan 5S dan pilar-pilar TPM serta membuat SOP untuk pelatihan operator, komposisi pencampuran material, dan standar kebersihan mesin.

Kata kunci: *Total Productive Maintenance* (TPM), *Overall Equipment Effectiveness* (OEE), *Six Big Losses*, *Waste Assessment Model* (WAM), *Activity Based Cost* (ABC)

ABSTRACT

A TOTAL PRODUCTIVE MAINTENANCE APPROACH TO IMPROVE EQUIPMENT EFFECTIVENESS AND WASTE ASSESSMENT MODEL TO REDUCE THE WASTE LEVEL IN THE PRODUCTION PROCESS OF CV. POLLY PLAST MANDIRI

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CV. Polly Plast Mandiri is a company engaged in the manufacture of plastic straws and cups. One of the machines used for the production of plastic straws, namely the BNL50 machine, often encounter problems such as breakdown and minor stoppages. Therefore, the total production is low and there is delay in delivery of customer orders. The purpose of this study is first to determine the effectiveness of production equipment with Total Productive Maintenance analysis using Overall Equipment Effectiveness (OEE) and Six Big Losses as measuring tools. Second, to find out the most dominant waste in the production line using the Waste Assessment Model (WAM). Third, Activity Based Cost is also used to generate the company losses in this study. The average value of the BNL50 machine effectiveness for four months calculated by OEE is 87.40% with a reduced speed losses as the highest losses among another losses. With the WAM method, waiting is the highest waste with a percentage of 32.5%. The financial loss that incurred by the company for 4 months is Rp. 7,165,600. Suggestions for improvement that can be given to CV. Polly Plast Mandiri are the application of 5S and TPM pillars as well as making SOPs for operator training, material mixing composition, and machine hygiene standards.

Keywords: Total Productive Maintenance (TPM), Overall Equipment Effectiveness (OEE), Six Big Losses, Waste Assessment Model (WAM), Activity Based Cost (ABC)