

## ABSTRAK

PT. Jindal Stainless Indonesia adalah perusahaan yang bergerak dalam produksi stainless yang tidak dapat dipisahkan terhadap masalah yang berkaitan dengan efektivitas mesin / peralatan. Perawatan karena terjadinya kerusakan mesin menyebabkan perusahaan berusaha untuk meningkatkan efektifitas setiap mesin produksi.

*Total Productive Maintenance* (TPM) adalah prinsip manajemen untuk meningkatkan efisiensi produksi untuk perusahaan yang menggunakan operasional mesin secara efektif. Penanganan dan pemeliharaan mesin yang tidak efektif akan menyebabkan kerugian sehingga pengukuran menggunakan *Overall Equipment Effectiveness* (OEE) Diikuti oleh pengukuran OEE enam kerugian besar (*Six Big Losses*) diantaranya adalah *breakdown losses, set-up losses and adjusment loss, reduce speed losses, idling minor stoppages, rework scrap losses and yield looss*. Kerugian tersebut dapat dianalisa dengan Metode *Failure Mode Effect Analyz* (FMEA) sehingga dapat diketahui masalah nyata yang menjadi penyebab utama dari kerugian yang tinggi sehingga proses produksi tidak optimal.

Hasil pengolahan pada mesin Z Mill 2 diketahui bahwa untuk periode Juni 2014 Mei 2015 lalu adalah Penyesuaian ketersediaan 84,61%, kinerja 88,79%, kualitas 97,88% dan OEE 73,53%. Kondisi ini menunjukkan bahwa kemampuan mesin Z Mill 2 belum mencapai kondisi ideal kelas dunia penyesuaian ketersediaan > 90%, Kinerja > 95% Kualitas 99% dan OEE > 85%. Adapun yang mempengaruhi nilai OEE dan prioritas utama untuk perbaikan bagi perusahaan *Set-up and Ajusment Loss* sebesar 57% yang menyebabkan waktu ketersediaan losses sebesar 1.042 jam dan *Reduce speed loss*s sebesar 18% atau 341jam.

**Kata Kunci :** Perawatan, *Total Productive Maintenance (TPM)*, *Six Big Loss*, *Overall Equitment Effectiveness (OEE)*, *Failure Mode Effect Analysis (FMEA)*.

## ABSTRACT

*PT. Jindal Stainless Indonesia is a company engaged in the production of steel that can not be separated on the issues relating to the effectiveness of the machinery / equipment. Care for damaging the machine caused the company seeks to improve*

*The effectiveness of any production.*

*Total produktive Maintenance (TPM) is a management principle for improving production efficiency for companies using machine operating effectively. Handling and maintenance of machinery ineffective would cause harm to the measurement using the Overall Equipment Effectiveness (OEE) followed by measurement of OEE six big losses (Six Big Losses) including the breakdown losses, set-up losses and adjustment loss, reduce speed losses, idling minor stoppages, scrap rework and yield losses loss. Such losses can be analyzed by the method of Failure Mode Effect Analyz (FMEA) so it can be a real problem that is a major cause of losses so high that the production proses is not optimal.*

*The results of processing on the Z machine Mill 2 is known that for the period of June 2014 and May 2015 was Adjustment availability of 84.61%, 88.79% performance, the quality of 97.88% and 73.53% OEE. This condition indicates that the engine's ability Z Mill 2 has not reached the ideal conditions world-class adjustments availability > 90%, Performance > 95% Quality 99% and OEE > 85%. As for affecting the OEE values and priorities for improvement for the company Set-up and Ajustment Loss by 57%, which led to losses amounting to 1,042 hours of availability and Reduce speed loss hours by 18%, or 341 hours.*

**Keywords:** *Maintenance, Total Productive Maintenance (TPM), Six Big Loss, Overall Equipment Effectiveness (OEE), Failure Mode Effect Analysis (FMEA).*