Implementasi TPM Berdasarkan OEE dan Six Big Losses Mesin Pengemas Multi-Line di PT. Marimas Putera Kencana (Implementation of TPM Based on

OEE and Six Big Losses Multi-Line Packaging Machine at PT. Marimas Putera Kencana)
Dr. Ir. Budi Hariono, M.Si (Pembimbing)

Nurindini Syahadatin Camilia Study Program of Food Engineering Technology Majoring of Agriculture Technology

Program Studi Teknologi Rekayasa Pangan Jurusan Teknologi Pertanian

ABSTRACT

The effectiveness of a machine in the production process will affect for productivity result, high effectiveness will increase production productivity and vice versa. The multi-line packaging machine at PT. Marimas Putera Kencana is a machine that is in continuous use with a large capacity, so if it breaks down, it will have high losses and affect the effectiveness. The calculation using the Overall Equipment Effectiveness (OEE) method is used as an indicator that can show the cause of the ineffectiveness of a machine by calculating the six major losses, so that companies can find out the weaknesses that exist and the improvements that need to be made. The analytical tools used in this study are the Pareto chart for determining the critical point of loss and the cause and effect chart for determining the cause of the loss. To overcome these problems can be done through the application of Total Productive Maintenance (TPM), it aims to achieve ideal performance and zero loss or no defects, breakdowns, accidents and waste in the production process and changeover. The result of this research is the multi-line machine 01 as a special research object. The OEE value has not reached the world class standard of 79,3%. The loss factors that affect the failure to achieve effectiveness are speed loss of 41,2%, unplanned downtime of 27,5% and planned downtime of 24,2%. Suggestions for TPM-based improvements. Proposed improvements based on TPM that can be implemented are Autonomus Maintenance, Planned Maintenance, Focused Improvement, Early Equipment Management and Training & Education.

Keywords: Multi-Line Packaging, Overall Equipment Effectiveness, Six Big Losses, Total Productive Maintenance