

**STUDI EFEKTIVITAS MESIN LABELER AQUA 600 ML MENGGUNAKAN
METODE *OVERALL EQUIPMENT EFFECTIVENESS* (OEE) DI PT TIRTA
INVESTAMA, KLATEN, JAWA TENGAH (MAGANG)**

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RANGKUMAN

PT Tirta Investama Klaten menerapkan sistem pengukuran efektivitas mesin dalam satu line produksi, sehingga hasilnya kurang spesifik dan banyak hasil pengukuran yang dibawah standar, akibat sistem pengukuran ini menyebabkan kegiatan *maintenance* mesin tidak berjalan optimal. Tujuan dari penelitian ini untuk mengidentifikasi penyebab efektivitas mesin yang paling bermasalah serta mencari solusi untuk meningkatkan tingkat efektivitasnya. Pengukuran tingkat efektivitas mesin menggunakan metode *Overall Equipment Effectiveness* (OEE), sedangkan penentuan akar masalah menggunakan *Six Big Losses* dan Diagram Ishikawa. Penelitian menggunakan data pada tanggal 13 Januari-7 Maret 2020 yang datanya didapatkan dari datasekunder dari pencatatan perusahaan. Penelitian ini mengukur nilai OEE pada mesin *labeler* karena paling sering mengalami masalah. Nilai rata-rata dari mesin *labeler* selama penelitian yaitu *availability ratio* yang bernilai 94,599%, *performance ratio* yang bernilai 84,302%, *rate of quality* yang bernilai 99,242% dan OEE yang bernilai 79,016%. Nilai OEE yang kurang dari *standard world class* sebesar 85% menandakan bahwa mesin *labeler* perlu dilakukan perbaikan. *Losses* tertinggi pada mesin *labeler* disebabkan karena faktor *idling and minor stoppages losses*. Usulan perbaikan yaitu perusahaan sebaiknya melakukan pencatatan data produk, memberikan *reward* bagi karyawan, mulai menerapkan *Total Productive Maintenance* (TPM), analisis lebih lanjut terkait aspek OEE yang lebih luas dan melakukan uji coba terhadap mesin *labeler* yang baru.

Kata Kunci: Air Minum dalam Kemasan (AMDK), mesin *Labeler* dan *Overall Equipment Effectiveness*

**ANALYSING THE EFFECTIVENESS OF LABELER MACHINE LINE 600 ML
USING OVERALL EQUIPMENT EFFECTIVENESS (OEE) METHOD IN PT
TIRTA INVESTAMA, KLATEN, CENTRAL JAVA (INTERNSHIP)**

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SUMMARY

PT Tirta Investama Klaten implements a machine effectiveness measurement system in one production line, so that the results are less specific and many of the measurement results are below standard, as a result of this measurement system it causes machine maintenance activities to not run optimally. The purpose of this research is to identify the causes of the most problematic machine effectiveness and to find solutions to increase its effectiveness. To measure the level of machine effectiveness, this study used the OEE method while to determine the root of the problem, this study used Six Big Losses and Ishikawa Diagram. The data were gathered from daily reports, observations, and interviews in the field from January 13 until March 7, 2020. This study measured the OEE value on the labeler machine due to this machine was the most frequent breakdowns during eight weeks of observations. This study has shown that the average value of the labeler machine was the availability ratio 94,599%, performance ratio 84,302%, rate of quality 90,242%, and OEE 79,016%. It can be seen that the OEE value was less than the world-class standard of 85%. This indicated that the labeler machine needed to be repaired. Losses that occurred on the labeler machine were caused by idling and minor stoppages losses. As proposed improvements, the company should record the product data, give rewards to employees, start implementing Total Productive Maintenance (TPM), do further analysis related to broader aspects of OEE, and testing the new labeler machine.

Keywords: AMDK, Labeler Machine and Overall Equipment Effectiveness