

ABSTRACT

ANALYSIS OF BALL TEA DRYER MACHINE EFFECTIVENESS USING THE OVERALL EQUIPMENT EFFECTIVENESS (OEE) APPROACH IN THE DRY TEA PRODUCTION PROCESS

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This study aims to analyze the effectiveness of the Ball Tea Dryer machine in the dry tea production process at CV. Padasuka Putra, Bojonggambir District, Tasikmalaya Regency. A descriptive quantitative method was employed, with data collected through direct observation, in-depth interviews, and documentation review of production data covering the period of July to December 2025. The findings reveal that the Overall Equipment Effectiveness (OEE) value of the Ball Tea machine has not yet reached the world-class standard established by JIPM, with the performance rate identified as the most critical component and the primary driver behind the suboptimal overall OEE value, even though both the availability rate and quality rate have individually surpassed the international benchmark. Six Big Losses analysis reveals that reduced speed losses significantly dominate total operational losses, attributable to raw material volume fluctuations stemming from the seasonal nature of tea production. The implications of this study recommend strengthening raw material supply chain coordination, developing machine operational Standard Operating Procedures (SOPs), and institutionalizing OEE measurement as a continuous performance evaluation instrument to drive machine effectiveness improvement toward the world-class standard set by JIPM.

Keywords: Machine Effectiveness, Ball Tea Dryer, Overall Equipment Effectiveness (OEE), Six Big Losses, Tea Agro-Industry

ABSTRAK
ANALISIS EFEKTIVITAS MESIN BALL TEA DRYER MENGGUNAKAN
PENDEKATAN *OVERALL EQUIPMENT EFFECTIVENESS* (OEE)
DALAM PROSES PRODUKSI TEH KERING

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Penelitian ini bertujuan untuk menganalisis efektivitas mesin *Ball Tea Dryer* dalam proses produksi teh kering di CV. Padasuka Putra, Kecamatan Bojonggambir, Kabupaten Tasikmalaya. Metode yang digunakan adalah kuantitatif deskriptif dengan teknik pengumpulan data melalui observasi langsung, wawancara mendalam, dan studi dokumentasi terhadap data produksi periode Juli hingga Desember 2025. Hasil penelitian menunjukkan bahwa nilai *Overall Equipment Effectiveness* (OEE) mesin *Ball Tea* belum mencapai standar *world class* yang ditetapkan JIPM, dengan komponen *performance rate* teridentifikasi sebagai faktor paling kritis dan menjadi penyebab utama belum optimalnya nilai OEE secara keseluruhan, meskipun komponen *availability rate* dan *quality rate* telah melampaui standar internasional. Analisis *Six Big Losses* mengungkapkan bahwa *reduced speed losses* mendominasi keseluruhan kerugian operasional secara signifikan, yang bersumber dari fluktuasi volume bahan baku akibat karakteristik produksi musiman. Implikasi penelitian ini merekomendasikan penguatan koordinasi rantai pasokan bahan baku, penyusunan *Standard Operating Procedure* (SOP) operasional mesin, serta penerapan pengukuran OEE sebagai instrumen evaluasi kinerja secara berkelanjutan guna mendorong peningkatan efektivitas mesin menuju standar *world class* yang ditetapkan oleh JIPM.

Kata Kunci: Efektivitas Mesin, *Ball Tea Dryer*, *Overall Equipment Effectiveness* (OEE), *Six Big Losses*, Agroindustri Teh