Measurement of Overall Equipment Effectiveness (OEE) on the 600 mL Bottle Filling Machine at PT. Tirta Sukses Perkasa in Takalar Regency

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Abstract. PT. Tirta Sukses Perkasa is a company engaged in manufacturing. This company produces mineral water in bottles, cups, and gallons. Bottles filling machine for 600ml often got damage, such as the rinser not spraying, gripper tilt, disc shift, and cupper loss, so a machine breakdown causes downtime. The higher the downtime, the lower the product produced and causes losses for the company because demand is unmet. This research aims to measure the effectiveness of the 600 mL bottle-filling machine at PT. Tirta Sukses Perkasa uses the method of overall Equipment Effectiveness. Overall Equipment Effectiveness (OEE) is obtained by multiplying the three main ratios: availability, performance rate, and quality rate. Using the method Overall Equipment Effectiveness (OEE) is availability at 80%, performance ratio at 51% and quality rate at 88%. The score of the effectiveness of the filling machine at PT Tirta Sukses Perkasa, Takalar Regency, using the method Overall Equipment Effectiveness (OEE) is about 35%. The OEE score is low because it does not meet the Japan Institute of Plant Maintenance (JIPM) standards, which is 85%.

Keywords: Measurement, Overall Equipment Effectiveness (OEE), bottle-filling machine.