

ABSTRACT

PT XYZ is a company engaged in the food and beverage industry. One of the products from PT XYZ is Tortilla, to support the Tortilla production process there are 7 (seven) machines, namely Washer machines, Boiler machines, Mixer machines, Tortilla Printing machines, Fryer machines, Oven machines, and Packing Machines. It is known that the machine that suffered the most damage was the Tortilla Printer machine, which was 65 times in 2020 and 71 times in 2021. The high frequency of machine breakdowns causes high downtime and causes non-fulfillment of production results.

The efforts made by the author are to calculate the effectiveness of the machine using the overall equipment effectiveness (OEE) method and calculate the highest loss using the six big losses method.

Based on the results of data processing, the OEE value was 69.32%, which means the value is still below the JIPM standard, which is 85%. Based on the results of the calculation of the six big losses, the highest loss was caused by the reduce speed loss of 18.6%. Due to the effectiveness of the machine which is still below the standard, a website-based machine maintenance system application design was made which aims to help increase the effectiveness of the machine.

With the design of the machine maintenance system application, it is hoped that it can help technicians to calculate the effectiveness of the machine and carry out autonomous maintenance activities easily.

Keywords — OEE, Six Big Losses, Autonomous Maintenance, Maintenance System