

ABSTRAK

Salah satu perusahaan manufaktur yang bergerak di bidang industri perakitan elektronik adalah PT. Tridharma Kencana. PT. Tridharma Kencana Serang memiliki berbagai macam jenis perakitan sesuai dengan permintaan konsumen. Hal ini mengakibatkan presentase efisiensi lintasan menjadi rendah, dikarenakan pembagian elemen kerja dan jumlah stasiun dilakukan secara singkat dan jarak perbedaan yang cukup signifikan. Tujuan penelitian untuk mengukur keseimbangan lintasan menggunakan metode diagram *yamazumi* dan *Kilbridge Wester* dengan melihat *Line efficiency*, *Balance Delay*, dan *Idle time* pada jalur produksi. Dengan metode *Kilbridge Wester* dimana *line efficiency* meningkat menjadi 64%, *balance delay* 36%, dan *idle time* 5.59 menit. Kemudian dengan metode *Diagram Yamazumi* dimana *line efficiency* lebih tinggi menjadi 65% , dimana *balance delay* menurun menjadi 35%, dan *idle time* mengalami penurunan menjadi 5.29 menit. Dimana dengan adanya penerapan metode ini dapat meningkatkan efisiensi lintasan proses produksi LED AQUA 6500.

Kata Kunci: *Line Balancing*, *Takt Time*, *Cycle time*, *Line Efficiency* , *Balance Delay*, *Idle Time* ,*Diagram Yamazumi*, *Kilbridge Wester*



ABSTRACT

One of the manufacturing companies engaged in electronic perakita industry is PT. Tridharma Kencana. PT. Tridharma Kencana Serang has a wide range of assembly types according to consumer demand. This resulted in the percentage of the efficiency of the track being low, because the division of work elements and the number of stations performed briefly and the distance difference is quite significant. The purpose of this research is to measure the track balance using yamazumi and Kilbridge Wester diagram method by looking at Line efficiency, Balance Delay, and Idle time on production line. By Kilbridge Wester method where line efficiency increased to 64%, balance delay 36%, and idle time 5.59 minutes. Then with Yamazumi Chart method where line efficiency is higher to 65%, where balance delay decreases to 35%, and idle time decreases to 5.29 minutes. Where with the implementation of this method can improve the efficiency of the path of LED production process AQUA 6500.

Key Word: Line Balancing, Takt Time, Cycle time, Line Efficiency, Balance Delay, Idle Time , Yamazumi Chart, Kilbridge Wester



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