

## **ABSTRACT**

*PT. XYZ is a manufacturing industry company that produces several types of excavators, namely the standard 200 excavator, the 200 long arm excavator the 80 amphibious excavator and the 200 amphibious excavator. This research focuses on the standard 200 excavator because this type of excavator is the product with the most sales in 2022. The problems faced by PT. XYZ is a company that still uses a spare parts storage system in a random warehouse layout and results in several spare parts being placed in an empty warehouse area so that there are spare parts that cover the pedestrian area. The purpose of this study is to provide a more optimal proposed layout in terms of spare parts storage and can reduce the distance between the warehouse. The method used in this study is the Class-Based Storage method by calculating and grouping spare parts based on the storage policy and the Analytical Hierarchy Process to determine the most influential criteria in redesigning the warehouse layout. The results obtained from this study are that there is a difference in the displacement distance of 32,365 m from the displacement distance in the initial layout.*

*Keywords : Class-based Storage, Analitychal Hierarcy Process, Sparepart*