

# PERANCANGAN TATA LETAK GUDANG PLAT MENGUNAKAN METODE *DEDICATED STORAGE* DAN *CLASS-BASED STORAGE* DI PT MEGA ANDALAN KOMPONEN LOGAM

Siti Aisyah<sup>1</sup>, Widya Setiafindari<sup>2</sup>

Program Studi Teknik Industri

Fakultas Sains dan Teknologi Universitas Teknologi Yogyakarta<sup>1</sup>

[sitiaisyahhx@gmail.com](mailto:sitiaisyahhx@gmail.com)

Program Studi Teknik Industri

Fakultas Sains dan Teknologi Universitas Teknologi Yogyakarta<sup>2</sup>

[widyasetia@uty.ac.id](mailto:widyasetia@uty.ac.id)

## ABSTRAK

PT Mega Andalan Komponen Logam (MAKL) adalah perusahaan yang memproduksi komponen alat rumah sakit dengan bahan plat, pipa, dan as. Permasalahan yang terjadi pada gudang plat yaitu tidak adanya susunan produk yang permanen, lokasi penyimpanan menjadi sempit karena produk diletakkan secara acak di lantai gudang, tidak ada kode produk sebagai penanda pada rak sehingga karyawan seringkali kesulitan dalam mencari plat, dan terdapat jarak tambahan sebesar 10-15 meter karena adanya aktivitas bolak-balik mencari produk. Tujuan penelitian ini adalah merancang susunan kode plat pada rak dan *layout* usulan untuk mengatur posisi penyimpanan. Usulan susunan plat menggunakan metode *dedicated storage* diurutkan dari nilai T/S tertinggi dekat area pintu masuk dan keluar gudang. Urutan plat pada rak yaitu dimulai dari kode K,F,A,J,E,D,C, dan B. Usulan penyimpanan plat menggunakan metode *class-based storage* diatur berdasarkan perbandingan nilai *throughput*. Urutan plat pada rak 1 yaitu kode J,K, dan F, rak 2 kode B, rak 3 kode E, rak 4 kode D, rak 5 kode C, dan rak 6 kode A. *Layout* usulan yang memiliki hasil terbaik dibandingkan *layout* awal adalah metode *class-based storage* ditunjukkan dengan adanya penurunan sebesar 25% dari jarak tempuh awal 117 meter dan total jarak setelah dilakukan perbaikan 99,6 meter pengurangan sebesar 17,4 meter.

Kata kunci: *class-based storage*, *dedicated storage*, gudang, susunan

# **LAYOUT DESIGN OF PLATE WAREHOUSE USING DEDICATED STORAGE AND CLASS-BASED STORAGE METHODS AT PT MEGA ANDALAN KOMPONEN LOGAM**

**Siti Aisyah<sup>1</sup>, Widya Setiafindari<sup>2</sup>**

*Industrial Engineering Study Program*

*Faculty of Science and Technology, University of Technology Yogyakarta<sup>1</sup>*

[sitiaisyahhx@gmail.com](mailto:sitiaisyahhx@gmail.com)

*Industrial Engineering Study Program*

*Faculty of Science and Technology, University of Technology Yogyakarta<sup>2</sup>*

[widyasetia@uty.ac.id](mailto:widyasetia@uty.ac.id)

## **ABSTRACT**

*PT Mega Andalan Komponen Logam (MAKL) is a company that produces components for hospital equipment with plate, pipe and axle materials. The problems that occur in the plate warehouse are that there is no permanent product arrangement, the storage location is narrow because the products are placed randomly on the warehouse floor, there is no product code as a marker on the shelf so that employees often have difficulty finding plates, and there is an additional distance of 10- 15 meters due to the activity back and forth looking for products. The purpose of this research is to design a plate code arrangement on a shelf and a proposed layout for arranging storage positions. The proposed plate arrangement using the dedicated storage method is sorted from the highest T/S value near the entrance and exit areas of the warehouse. The order of the plates on the rack starts from the code K, F, A, J, E, D, C, and B. The proposed storage of plates using the class-based storage method is arranged based on the ratio of throughput values. The order of plates on rack 1 is coded J, K, and F, rack 2 is coded B, rack 3 is coded E, rack 4 is coded D, rack 5 is coded C, and rack 6 is coded A. The proposed layout which has the best results compared to the initial layout is The class-based storage method is shown by a 25% decrease from the initial distance of 117 meters and the total distance after repairs of 99.6 meters is a reduction of 17.4 meters.*

*Keywords: class-based storage, dedicated storage, warehouse, arrangement*

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