EVALUASI *LAYOUT* GUDANG KEMASAN *SOLVENT BASE* DENGAN METODE *CLASS BASED STORAGE* DAN *BLOCPLAN* DI PT INDACO WARNA DUNIA KARANGANYAR

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INTISARI

Latar Belakang: Tata letak fasilitas yang baik akan menunjang kelancaran proses produksi. Berdasarkan hasil observasi pada gudang kemasan solvent PT Indaco Warna Dunia Karanganyar saat ini penataan gudangnya kurang baik karena kemasan ditempatkan secara acak dan tidak memperhitungkan derajat kedekatan. Penempatan kemasan yang secara acak menyebabkan operator kesulitan ketika mencari kemasan.

Tujuan: Menganalisis tata letak gudang awal. Mengklasifikasikan kemasan menggunakan metode *class based storage* berdasarkan tingkat pergerakan barang.Merancang ulang tata letak gudang kemasan *solvent* dengan metode *blocplan*.Membandingkan jarak dan biaya *material handling* sebelum dan sesudah perbaikan.

Metode Penelitian: *Blocplan* (*block layout overview with layout planning*) dan *class based storage.*

Hasil: Penelitian ini menunjukkan total jarak yang ditempuh material handling pada layout awal adalah 14.982 m/bulan dan total jarak yang ditempuh material handling layout usulan 14.638 m/bulan. Total ongkos material handling selama Januari sampai Desember 2022 pada layout awal sebesar Rp.3,311,613.95 dan layout usulan sebesar Rp.2,947,453.38 dengan penurunan presentase jarak 2,30% persentase penurunan OMH 11%.

Kesimpulan: Analisis tata letak gudang awal mendapatkan momen *material handling* 14.982m dan total omh sebesar Rp.3,311,613.95. Pengelompokan kemasan dengan totoal keseluruhan kemasan sebanyak 68 menjadi 3 kelas yaitu ABC berdasarkan prinsip pareto yaitu kelas A dengan jumlah kemasan 8, kelas B dengan jumlah kemasan 15 dan kelas C dengan jumlah kemasan 45. *Layout blocplan* menunjukkan gudang 2 dan gudang 1 lebih dekat ke ruang printing. Sedangkan, gudang 3, gudang 4 dan guudang 5 lebih dekat ke area bongkar. Analisis tata letak gudang usulan mendapatkan momen *material handling* 14.638m dan total omh sebesar Rp.2,947,453.38.

Kata kunci : *Blocplan, Clas based storage*, ARC, OMH,pareto

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EVALUATION OF SOLVENT BASE PACKAGING WAREHOUSE LAYOUT USING CLASS BASED STORAGE AND BLOCPLAN METHODS AT PT INDACO WARNA DUNIA KARANGANYAR

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ABSTARCT

***Background**: A good facility layout will support the smooth production process. Based on the results of observations at PT Indaco Warna Dunia Karanganyar's solvent packaging warehouse, the current warehouse arrangement is not good because the packages are placed randomly and do not take into account the degree of closeness. Random placement of packages causes difficulties for operators when looking for packages.*

***Objective**: Analyze the initial warehouse layout. Classifying packaging using the class based storage method based on the level of movement of goods. Redesigning the layout of the solvent packaging warehouse using the bloc plan method. Comparing distances and material handling costs before and after repairs.*

***Method**: Blocplan (block layout overview with layout planning) and class based storage.*

Results: This study shows that the total distance traveled by material handling in the initial layout is 14,982 m/month and the total distance traveled by material handling in the proposed layout is 14,638 m/month. The total cost of material handling from January to December 2022 in the initial layout is Rp. 3,311,613.95 and the proposed layout is Rp. 2,947,453.38 with a percentage decrease in distance of 2.30%, a percentage decrease in OMH of 11%.

***Conclusion**: Analysis of the initial warehouse layout obtained material handling moments of 14,982m and a total turnover of Rp.3,311,613.95. Grouping of packages with a total of 68 packages into 3 classes, namely ABC based on the pareto principle, namely class A with a total of 8 packages, class B with a total of 15 packages and class C with a total of 45 packages. The bloc plan layout shows warehouse 2 and warehouse 1 closer to the room printing. Meanwhile, warehouse 3, warehouse 4 and warehouse 5 are closer to the unloading area. Analysis of the proposed warehouse layout obtained material handling moments of 14,638m and a total turnover of Rp.2,947,453.38.*

***Keywords** : Blocplan, Clas based storage, ARC, OMH, pareto*

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