

Application of Cube IQ Software to Optimize Heterogeneous Packing Products in Logistics Cargo and Minimize Transportation Cost

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Abstract : XYZ company is one of the upstream chemical companies that produce chemical products such as NaOH, HCl, NaClO, VCM, EDC, and PVC for downstream companies. The products are shipped by land using trucks and sea lanes using ship mode. Especially for solid products such as flake caustic soda (F-NaOH) and PVC resin, the products are sold in loose bag packing and palletize packing (packed in pallet). The focus of this study is to increase the number of items that can be loaded in pallet packaging on the company's logistics vehicle. This is very difficult because on this packaging, the dimensions or size of the material to be loaded become larger and certainly much heavier than the loose bag packing. This factor causes the arrangement and handling of materials in the mode of transportation more difficult. In this case, it is difficult to load a different type of volume packing pallet dimension in one truck or container. By using the Cube-IQ software, it is hoped that the planning of stuffing activity material by pallet can become easier in optimizing the existing space with various possible combinations of possibilities. In addition, the output of this software can also be used as a reference for operators in the material handling include the order and orientation of materials contained in the truck or container. The more optimal contents of logistics cargo, then transportation costs can also be minimized.

Keywords : loading activity, container loading, palletize product, simulation

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