

ABSTRACT

DESIGNING RACKING SYSTEM AND FACILITY LAYOUT OF FINISHED GOODS WAREHOUSE CASE STUDY: PT. PTS (PRAKASA TRADA SOLUSI)

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Warehouse is one of the most important part in a manufacturing company (product maker) because it can overcome the frequent between cycle production and consumption. All goods stored at the warehouse is temporary before it continues to the next process. One of the activities often done in a warehouse is material handling. It has not a value added to the product so it necessary to be minimized. All goods found at the warehouse needs to be maintained properly because it is the company's assets that are stored for a certain time. PT. PTS (Prakasa Trada Solusi) is a company which concern in supply-chain management. PT. PTS makes a product, storing, and sending to the customers in accordance with demand from it partner. One of the partners of PT. PTS is PT. BRODO Ganesha Indonesia with one of the product it ordered is male's adult shoes. The problems that occurred in PT. PTS's warehouse are limited storage area, products storage still use a block stacking system that causes damage to the packaging, the FIFO concept is not running so there are some products stored longer than usual, product storage is not neatly arranged so it makes material handling tools is difficult to move, and storage of products is still random so material handling cost becomes high. With these condition, to increase the capacity of the warehouse without expansion is used method of racking system that can increase the warehouse capacity from 11.742 box to 14.688 box or about 11,15% with some benefits, there are FIFO concept can be run, products are neatly arranged so material handling tools can run without a hitch, and the carrying capacity of material handling tools can be improved until 70 box/one time transport because the proposed aisle for Trolley is 1,5 meter. In addition to minimize material handling cost used storage method using class-based storage based on popularity can reduce material handling cost from Rp 787.878,81/month to Rp 282.732,32/month or about 47,18%.

Key Words : Finished Goods Warehousing Layout Design, Racking System, Class-Bases Storage berdasarkan Popularity, FIFO (First-In First-Out).