

Are You Using the Right Measurement When Comparing Storage Methods?

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A common business discussion between players in the pallet handling arena is the use of the 'cost per position' measure. This exchange occurs between vendors and customers, customers and consultants, and consultants and vendors. The measure works well when examining identical or nearly identical technologies, but becomes meaningless when diverse technologies are involved. The more useful measure – 'cost per pallet through' the system – is one that isn't simple, which means that its use is limited.

Ultimately, value is created when facility or warehouse processes are made more efficient or eliminated altogether by the type of storage method employed. When comparing automated pallet handling methods such as AS/RS (automated storage/retrieval systems) or HDDS (high-density dynamic storage systems) to standard rack or drive-in rack methods, the entire discussion is typically reduced to a capital basis. Little or no consideration is given to the ongoing operating costs or potential capital avoidance.

A reason people like to use 'cost per position' when discussing storage methods may be that it is easier to talk about equipment as a simple unit of measure. However, using 'cost per position' is not always a complete measurement. What needs to be considered is the entire operation using a total system view, taking into account all the process elements incorporated and their associated costs.



System Overview

A significant area in a comparison between the automated pallet handling and manual methods is the one-time facility costs of the land and building. It can be argued that the capital avoidance in the building footprint and related costs such as land purchase can be as much as 50%, depending on the automated pallet handling technology employed. In addition, equipment such as fork trucks and dock doors can also be reduced by as much as 50%.



Automated Vehicle in Racking

Operating costs have a similar relationship to value creation, and the potential to increase the productivity of shipping and receiving activities via automation can be as high as 300%. The manual storage, replenishment and staging functions in many cases can be completely eliminated. Other pertinent operating savings exist; reduced damage from multiple handling, lower utilities including the high cost of refrigeration in freezers, and even ancillary areas such as drop-lot costs can be reduced in the faster-turn automated environment.

The unit measure of comparison for warehousing alternatives should not be oversimplified by the 'cost per position' approach. Both capital and operating cost information must be analyzed so that the more realistic measure of 'cost per pallet through' can be compared. The bottom line difference can be substantial.