

Don't Waste Your Space!!!

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When you run out of warehouse space you have many options to consider including expanding your warehouse space, building a new facility, or leasing outside space. But, there is another option, stop wasting your space and review options to maximize your existing space. There are many operations design concepts that can be implemented to increase your space utilization.

- Remove Excess Inventory
- Selecting the Right Equipment
- Minimize Aisle Widths
- Consider Vertical Space
- Slot Products in Optimum Location Sizes
- Utilize Random Storage
- Perform Layout Assessment

Remove Excess Inventory

This might sound elementary, but you would be amazed at the amount of space being wasted housing excess or obsolete inventory. The first step to remove excess inventory, is to calculate the economic amount of inventory you should have on-hand. Then, compare this amount to the actual inventory on-hand. There are many reasons for keeping excess inventory (customer satisfaction, having complete product lines, lead time uncertainty, etc...), but these reasons should be compared to the cost of the excess space.

Selecting the Right Equipment

A basic principle to not wasting your warehouse space is evaluating and selecting the most space efficient storage equipment. Maximizing storage density is a key factor to reducing your space requirements. The analysis of the SKU cubic activity should be performed to accurately define the inventory storage required per SKU. Then, an evaluation of the various single to deep storage equipment options should be evaluated to make the right choice, which maximizes your space utilization.

Minimize Aisle Widths

Reducing your aisle widths is a prime method of reducing your current space requirements. The industrial truck and the pallet widths dictate the aisle widths. However, with an assessment of aisles widths throughout the facility, you may identify aisles that can be reduced with using the same equipment. In other cases, you might consider the investment of a narrow (96" to 108") or very narrow aisle (44" to 66") industrial vehicles, such as reach or swing-mast respectively.

In addition to minimizing the aisle widths, thought should be made with the number of aisles used in your facility. The amount of cross-aisles and people-aisles should be assessed to maximize the utilization of the aisles.

Consider Vertical Space

The impact of using vertical storage space depends on your current storage clear height and stackability restrictions. For the beverage industry, a stack height of one to two pallets high is common. With these low stack heights, a simple 4 to 5 level pallet rack structure, using basic counterbalanced vehicles can drastically reduce the space requirements of your facility. The key is to maximize the clear height of your facility.

Another method of using the vertical storage space is storing with single-deep pallet racks above your dock doors. These racks can be used to store very slow moving products, packaging supplies and/or empty pallets.

Lastly, automated storage and retrieval systems (AS/RS) reach heights of 100 feet, but most likely require you to build a new facility or invest in a rack-supported building, which isn't the theme of this article.

Slot Products in Optimum Location Sizes

An often-overlooked method of reducing space requirements is optimizing the product location sizes. By performing a product slotting analysis on your reserve storage area, the right location sizes can be crafted to increase the density of storage, resulting in less product storage space. Stacking 5,000 pallets, with a consistent 44" pallet height into a 60" pallet storage opening is just wasting space. The right balance between tailored product location sizes and flexibility can result in improved space utilization.

Random Storage

There are two basic methods for organizing products in the storage area, fixed or random storage philosophies. A random storage philosophy allows a product (that fits) to be stored in any empty storage location. A fixed storage philosophy assigns a specific product or SKU to a fixed location. This is common in the picking area, but isn't recommended in the reserve storage areas of most industries. The fixed method results in empty or wasted storage space.

Perform Layout Assessment

A general layout assessment can identify the overall approach to utilizing space within your warehouse facility. Common space utilization tactics, such as, storing products along outer walls can be identified and integrated into the layout. The general material flow of the layout can yield space savings. For example, a flow through (or straight through) configuration reduces space requirements for a freight-forwarded, versus a classic u-shaped configuration.

Performing an assessment of your existing space utilization is advisable, before investing in other options for handling space shortages. If not, you might duplicate bad space utilization practices into your next facility, or expansion. Another key factor in not wasting your warehouse space is planning for future expansions at the start of any new building design. However, it is never too late to start planning for future expansions of your facility, to ensure the effective use of space.

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