

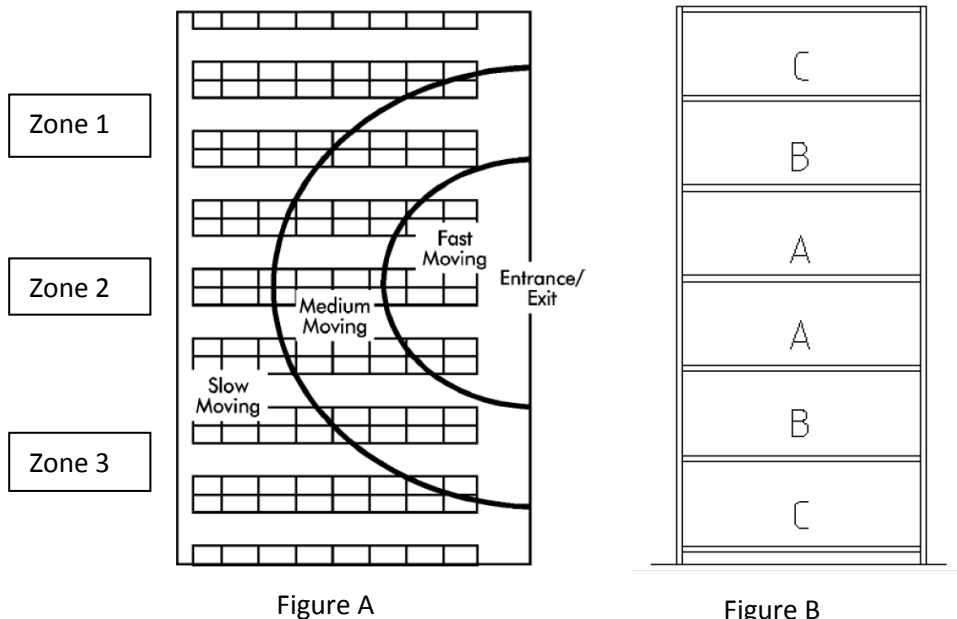
Product Slotting

Storing inventory in the most effective location based on demand is vital to ensure high levels of productivity and customer satisfaction in any distribution operation. Identifying correct storage locations is fairly simple, with basis analysis and constant focus. This paper highlights the benefits and rewards associated with correct product slotting and how it can be achieved with minimal investment.

It could be argued that order fulfillment is the most labor intensive task within a distribution operation. The intent of product slotting is to minimize the labor devoted to order fulfillment by eliminating travel and time associated with product selection. Correct product slotting can also reduce the labor costs associated with replenishment activities. Product slotting can be informed by ABC analysis, which uses an inventory classification system based on sales activity.

Sales guided product slotting is completed by analyzing demand across a SKU range on a regular basis. The exercise is typically repeated bi-annually for inventory that is fairly constant, or performed seasonally, as done in the apparel industries. In some categories, such as greeting cards, demand sensitive product slotting is a nearly constant consideration. The key objective of product slotting is to ensure all fast moving items are in close proximity and at suitable heights; this aids associates tasked with fulfillment or replenishment.

The figures below depict this type of product slotting:



Other key considerations of product slotting are as follows:

Zone Allocation – Fastest moving products should be spread across multiple zones within a particular storage medium, such as a mezzanine or carton flow racks. The intent is to help balance workloads and minimize congestion.

Ergonomics – As shown in figure B, ergonomics are important for health and safety as well as picking and replenishment efficiency. Fast moving products should be placed in user friendly locations while slower items in harder to access areas.

Product Damage – Correct slotting can also reduce product damage if carton weights are taken into consideration. When setting up any pick path, heavy items should be located at the beginning and lighter ones at the end. This is particularly important for facilities with large and varied SKU ranges, such as grocery distribution.

Product Dimensions – Slotting products based on their physical dimensions is also important. Large fast moving items will typically require multiple pick faces to meet demand while small slower items can be stored in a small single location. Replenishment frequency can also be reduced if products are assigned to correct storage mediums that can handle a few days or even weeks worth of demand. Slotting products based on their dimensions not only ensures high levels of productivity but also the best utilization of available space.

Limited Pick Faces – In some facilities, the number of pick faces available will not accommodate the number of SKUs being stored and distributed. In this situation, product slotting may need to be managed on a weekly, or even daily, basis. At this point, a capable warehouse management system is required which will provide forward forecasts of demand and allow a facility to allocate pick faces accordingly. Although this is not an ideal situation, if managed correctly, it can allow a firm to lower their total cost of distribution and improve its competitive position.

In summary, product slotting is vital to ensure high levels of productivity are achieved and should be a constant focus to ensure competitiveness and lean thinking. The cost associated with regular product slotting is minimal, if managed correctly.