



Understanding Throughput for Fulfillment

Why Saving Space
also Saves Time



Engineered Space Optimization



Why is Saving Time so Important?



Order fulfillment is a game of seconds.



Time is Money

Shaving just 10 seconds (20%) off the time it takes a team member to locate, pick, and deliver medium-throughput SKUs will:

- Increase capacity (100 picks per day)
- Reduce variable costs (20% reduction)
- Boost employee morale (better performance, attendance, lower turnover)

Following through to low and high throughput SKUs will maximize that impact. Optimizing the cubic space in the warehouse, minimizing time spent searching for misplaced SKUs, and ensuring that pick paths are as efficient as possible for ALL SKUs will increase speed while driving down costs.

The Most Costly Part of Fulfillment is Picking

Labor costs account for 60-80% of a fulfillment operation's expense. More specifically, the cost centers around the order fulfillment labor.

The best way to reduce labor costs is to focus on two areas of improvement:

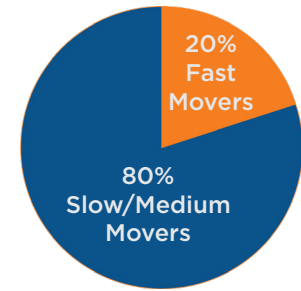
- Reducing Search
- Reducing Travel

What is Throughput?

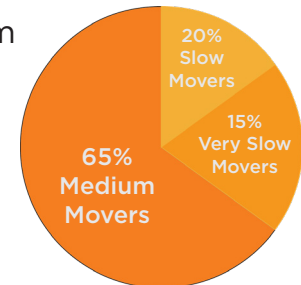
In general terms, throughput is the rate of production or the speed at which something is processed.

In the warehousing industry, warehouse throughput refers to the number of units processed per time interval. Throughput typically quantifies the outbound operations within a warehouse.

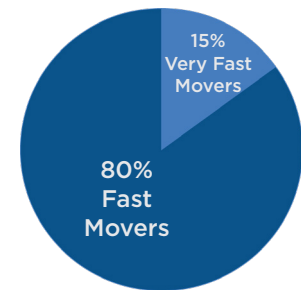
Total SKUs in Warehouse



Slow/Medium Movers



Fast Movers



Low Throughput SKUs



Slow-moving SKUs are a necessary evil. Ordered infrequently, they don't need a high-profile position in the warehouse, but they still need to be stored in an easily accessible location. Store slow-movers in static shelving, tilted-pick shelving, or a high-density dynamic storage system.

Medium Throughput SKUs



Medium-throughput SKUs represent the bulk of an operation's picks. Typically each or case picks, the ideal storage solution for medium-throughput SKUs are carton flow.

High Throughput SKUs



High volume SKUs represent the bulk of the revenue stream of a facility. They typically consist of a pallet or more worth of throughput per shift, where the ergonomic benefits of carton flow outweigh the double handling necessary to load them into the system. These SKUs are best left on a pallet or loaded into a pallet flow system.

How Choosing the Right Storage Medium Saves Space (and Time).

Reduce Search Time

The first step to optimizing your fulfillment operation is collecting and understanding the data, analyzing the data, and then implementing a slotting system. When in place, a proper slotting system allows for each SKU to be stored in its optimal position (or slot), have its own address, and be stored based on its throughput. Without a slotting system in place, your order pickers may find themselves wandering, or even doubling back, to find the SKUs they need to fulfill an order. The excess search and travel time is wasteful, heightens the chance of a mispick, and reduces your bottom line (not to mention your customer service ratings and employee morale).



Store SKUs Based on Throughput

The way you determine which storage solution is best is based on whether the SKU is low, medium, or high throughput. Store low-throughput SKUs in static shelving, tilted-pick shelving, or SpeedCell. For medium-throughput SKUs, carton flow, like SpanTrack, is the ideal solution. High-throughput SKUs shouldn't be removed from the pallet when they arrive at the fulfillment center. The highest throughput SKUs should be placed on a pitched conveying surface, like Pallet Track, for the most efficiency.



Optimize for Piece Picking

Piece-picking, also called each picking or split-case picking, refers to the scenario when an order picker has to pick individual pieces out of a carton for an order. You can store piece picks on shelves (low-throughput), carton flow (medium-throughput), or pallets (high-throughput). In some piece picking processes, it makes sense to have high-throughput SKUs moved from pallets to carton flow since, while the individual pieces move quickly, the cartons themselves will take some time to move off the pallet.



Give Each SKU an Address

Slotting a SKU in a specific position gives the piece an address. Specific addresses make picking much easier for order pickers. If you do nothing else to improve the organization of your warehouse or distribution center, do this. Once you've determined an address for a SKU, direct your efforts to make that a permanent home. If space in your distribution center is limited, and the highest-throughput SKUs change rapidly, you'll want to adjust so consistently the highest-throughput SKUs always have the most accessible addresses.

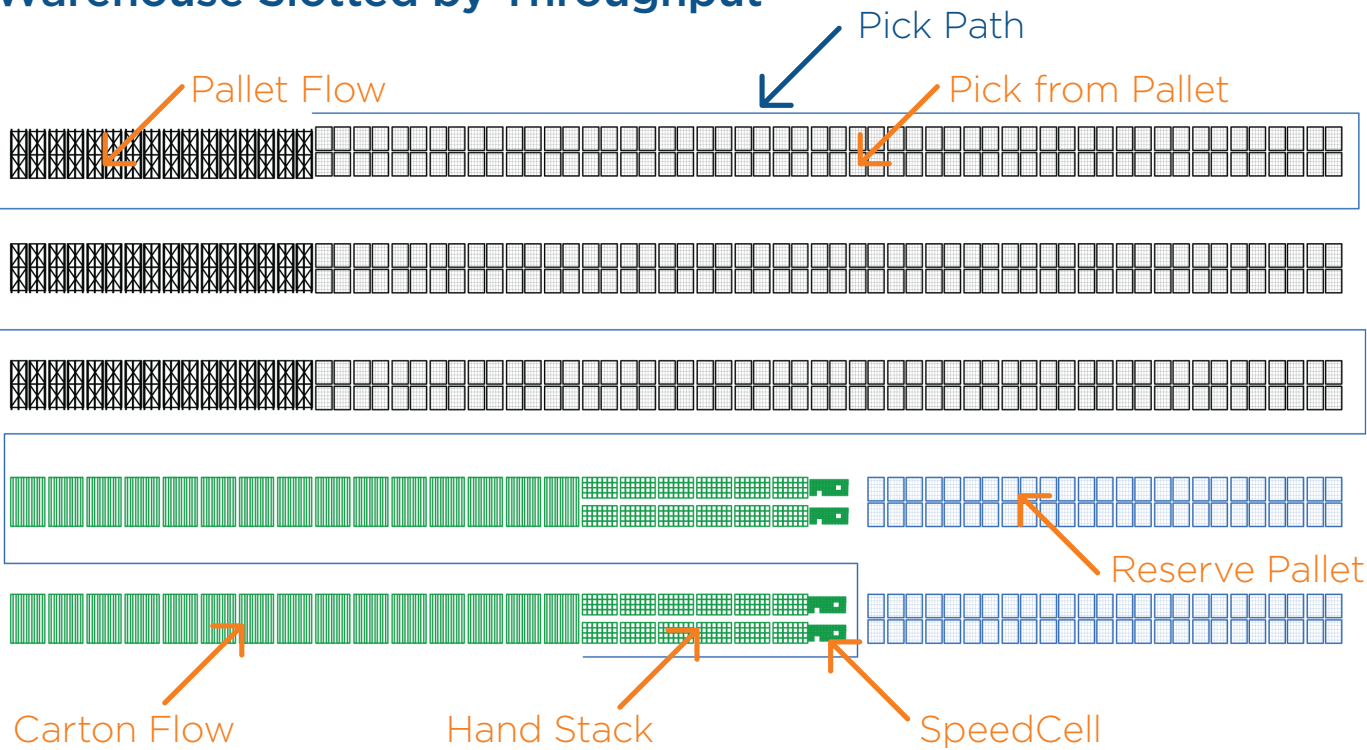
By organizing your SKUs based on throughput, installing the best flow solution based on throughput, and taking into account whether the SKU is a piece pick SKU or carton pick SKU, you will be way ahead of the game. You will reduce pick time, reduce search time, increase employee morale, reduce overall cost, and increase total profit.

Reorganizing your fulfillment center and reducing search time based on these general principles is a significant step. After that, it's all about process optimization: little tweaks that save lots of seconds.

Reduce Travel Time

Travel time refers to the amount of time needed for an order picker to travel between picks. An unorganized distribution center could be creating unnecessary distance between common picks. An optimized layout will have order pickers spending more time picking and less time walking, resulting in more orders fulfilled with less labor.

Warehouse Slotted by Throughput



Organize SKUs Based on Throughput. Not Similarity.

Determine the address for the SKU by analyzing the throughput. Store the lowest volume SKUs away from the main pick line.

For example, an operation may have one high volume ketchup stored in carton flow, and other varieties stored in small quantities on shelving. Organizing by throughput prevents workers from having to walk past every variety when they repeatedly pick the high volume ketchup 80% of the time. When you think about most consumer package goods, this is a common phenomenon.

An added benefit of organizing by throughput is the storage medium is also right-sized for the amount of inventory a facility needs to carry—more space to store more commonly sold items, and less space to store less common items. Right-sized storage mediums create an additional benefit of increased space utilization, which can mean more SKUs for more profit or a smaller facility for reduced overhead.

The Space Optimization Experts



Low Throughput Storage



speed//cell

Maximize warehouse space, pick orders faster, and increase accuracy with SpeedCell® - a dynamic, high-density storage solution uniquely designed to save time, space, and money by using existing space within standard pallet racking.

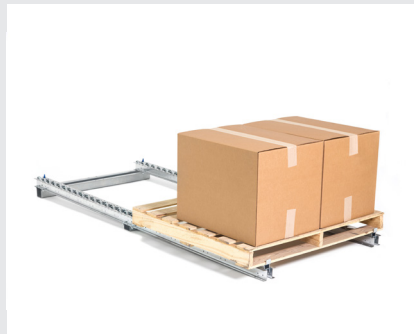
Medium Throughput Storage



span//track

SpanTrack is UNEX's innovative carton flow solution that drops into existing structures to create a robust flow system for any operation. Our full-width roller lanes and universal wheel beds are engineered-to-order to create the ultimate order picking environment.

High Throughput Storage



pallet//track

Pallet Track allows you to drop a pallet on a pitched conveying surface. The pitch enables your order pickers to quickly and easily move pallets forward as other pallets are emptied, and can provide first in, first out replenishment to your pallet positions.

Optimized storage means
predictable, repeatable performance.