

## Determining the Right Picking Method and Equipment

Data driven decisions can increase productivity rates, efficiencies, and lower total cost. Understanding your order fulfillment process, inventory requirements and order profile will result in an optimal solution for an operation. The validation of a warehouse design through SKU profiling, equipment allocation, zone balancing and profitability will help determine the right picking method for your operation.



Throughput volumes, order frequency and types of picking requirements has a direct impact on the level of automation in a facility. Your product type will have a direct impact on the most efficient means of picking an order. There are four basic types of picking processes by product flow:

- Basic or Discrete Picking
- Batch Picking
- Zone Picking
- Wave Picking

Basic order picking (Discrete), as the name implies, is the most basic order-picking method. Typically one person picks one order and one product at a time. Product is stored in fixed locations and the picker always picks from the same location to select a particular item. The picker will usually use some type of picking cart or box/tote. When the pick slot is empty, a replenishment quantity is retrieved from reserve storage and restocked into a location. The basic order picking method can be used in a piece, case or pallet pick environment. This method is very simple and easy to manage and works well in operations with a small total number of orders and high number of picks per order.

Batch / Multi Order Picking is a picking process where multiple orders are grouped into small “batches”. A batch pick allows one or more orders to be picked simultaneously in a single pass of the warehouse. Multiple orders of the same product are picked at one time and then separated by order for shipping. Batch pick is often recommended for smaller orders with low picks per order. A typical batch size will run between 4 and 12 orders and will typically only be used in a piece pick operation. The advantage of a batch picking operation is a reduction of time throughout the warehouse by allowing an associate to pick multiple orders in the same area. This ultimately increases the pick activity at each location.

Zone picking or pick and pass order picking is a picking process where the picking area is broken up into individual pick zones or assembly lines. Pickers are assigned a specific pick zone and only pick items from their zone, and orders are moved from one zone to the next via conveyor - known as “pick-and-pass”. Order units from each zone are brought to an order consolidation area where they are

combined into the complete order before manifesting. Zone picking is most effective in large operations with high total numbers of SKUs, high number of orders, and low to moderate picks per order. This type of picking is typically used in a piece pick or high velocity case- pick operation. The advantage of zone picking is that it promotes continuous picking, increased productivity and replenishment can occur during the order picking process.

Wave Picking is a variation of zone and batch picking where all zones are picked at the same time. This method is similar to discrete picking in that one picker picks one order or a selected group of orders is scheduled to be picked during a specific planning period. Items are sorted and consolidated into individual shipments which requires automated sorting. Wave picking is recommended in operations with a high SKU count and high picks per order and is most effective in a case pick and pallet pick operation. Wave picking can also be used in a piece pick, case pick or pallet pick environment. The advantage of Wave Picking is the ability to pick multiple item orders, to handle a large number of SKUs and to reduce travel time to pick each order. At enVista we have the knowledge, tools and expertise to optimize your pick methods and type of equipment you need to service the needs of your customers.

PRODUCT FLOW TYPE	PICK METHODS	COMMON EQUIPMENT
Piece Pick	Basic Batch Zone Wave	Static Shelving Carton Flow Rack Carousel ASRS Pick to Light Put to Light Bar Code Scanners Voice Automation Radio Frequency
PRODUCT FLOW TYPE	PICK METHODS	COMMON EQUIPMENT
Case Pick	Basic Wave Zone	Pallet Rack ASRS Bar Code Scanners Voice Automation Automated Conveyor & Sortation System Lift Trucks RF Picking
PRODUCT FLOW TYPE	PICK METHODS	COMMON EQUIPMENT
Bulk/Pallet/Unit Load Pick	Basic Wave Task Interleaving	Pallet Rack ASRS Automated Conveyor & Sortation System Bar Code Voice Direct Lift Trucks RF Picking

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