

Using automation to efficiently manage SKU growth within your existing warehouse

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What is SKU Proliferation?

SKU proliferation is the process of increasing the number of SKUs offered as a business learns and understands the wants and needs of its customers.

Bottom Line: Today, consumers want more variety to choose from based on seasonality, delivered faster and at the best possible value.

Causes of SKU Proliferation

- Meet customer demand
 - Individual preferences
 - Want more variety / choices to select from
 - Want to buy everything from single source
- Offer more SKUs to Increase sales
 - Offer complimentary SKUs to existing SKUs
- Package sizes
 - Travel
 - Personal
 - Bulk
- Customer service level agreements
 - Same day
 - Next day
 - Two day



Causes of SKU Proliferation

- New product developments
 - Offer the latest in technology or fad
- Private labeling
 - Same SKU under different brands
- Management of inventory
 - Not weeding out the non or slow moving SKUs
 - Addressing long-tail of seasonal SKUs
- Mergers / acquisitions
 - Adding a new SKU set to an existing SKU set
 - Adding new business channels
 - Retail, e-com and Omnichannel



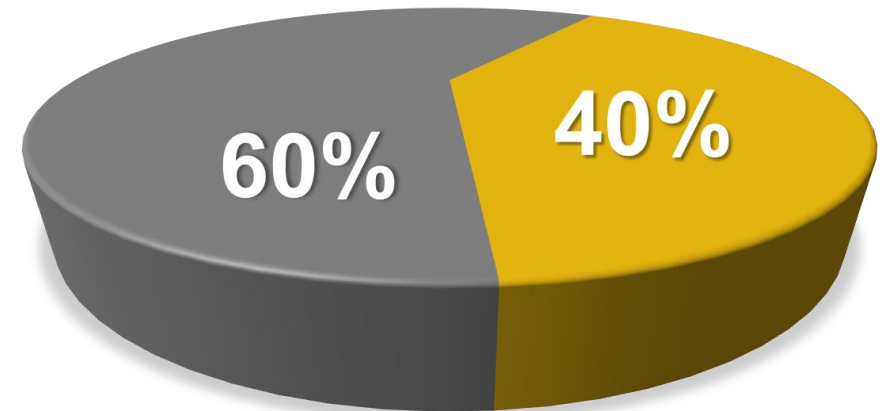
SKU Proliferation Impacts

- Pareto's 80/20 Rule
 - 80% of an operation's revenue is generated by only 20% of its SKU inventory base
 - The remaining 80% of the inventory is deemed as medium to slow-moving SKUs

80
20

SKU Proliferation Impacts

- Manual Picking 60/40 Rule
 - In a manual warehouse, 60% (or more) of a picker's time is spent walking while only 40% (or less) is spent picking
 - There is no useful business KPI tracked or revenue generated by steps taken while picking, every step is a loss in productivity and to the bottom line



Effects of SKU Proliferation

- Inefficient picking and storage
 - Increased order cycle time
 - Longer walk paths = Less productivity
 - Picking from an order-picker = Less productivity
 - Smaller pick faces = more replenishments or short picks
 - Not having the right SKU in the right place at the right time
 - Honeycombing in storage rack – poor space utilization



Effects of SKU Proliferation

- Decrease in order accuracy
 - More SKUs to pick from = more opportunities to pick the wrong item or count incorrectly
- Increase in re-slotting frequency
 - Adds touches to SKUs, which requires more labor to manage
- Increase in operational costs
 - Add labor, add equipment, work overtime, etc.
 - Incur on-boarding, training and certifications costs to hard-to-find labor



Effects of SKU Proliferation

- Increased facility costs
 - Space requirements increase = potentially need a building expansion
 - More lighting
 - More heating
 - Higher utility costs
- Risks of lost capital / business opportunities
 - Product sitting on shelves or in racking runs the risk of never being sold or if perishable, may even spoil
 - Inventory is money tied up sitting on pallets and shelves that could be invested elsewhere in the business



Case Pick SKU Proliferation Solution

An ideal solution to address SKU proliferation starts at receiving with two questions

Does your operation

- Receive floor loaded mixed SKU containers and manually sorts cases to pallets staged on the dock?
- Scan random cases to pallets then move them put into rack locations only to sort through them when they need to be picked?

If so, STOP to consider an inbound receiving system to build pallets and/ or stage cases in an ASRS buffer

SKU proliferation can wreak havoc on this type of inbound process. More cases, pallets, constraints, sorting and labor!



Case Pick SKU Proliferation Solution

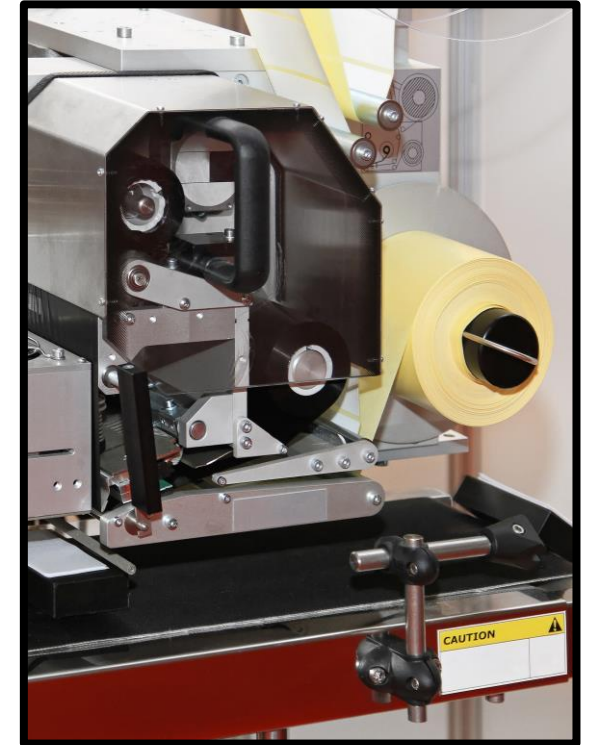
After receiving, an ideal solution should also consider

- Storing bulk reserve at half and full pallet levels to
 - Maximize storage density
 - Reduce honeycombing in pallet rack
- Staging SKUs at the case level in an ASRS to
 - Represent several days-on-hand in the system
 - Be readily available to fulfill orders
 - Always be in the “Golden Zone” – No re-slotting required!
 - Enable automatic picking to increase operational efficiency

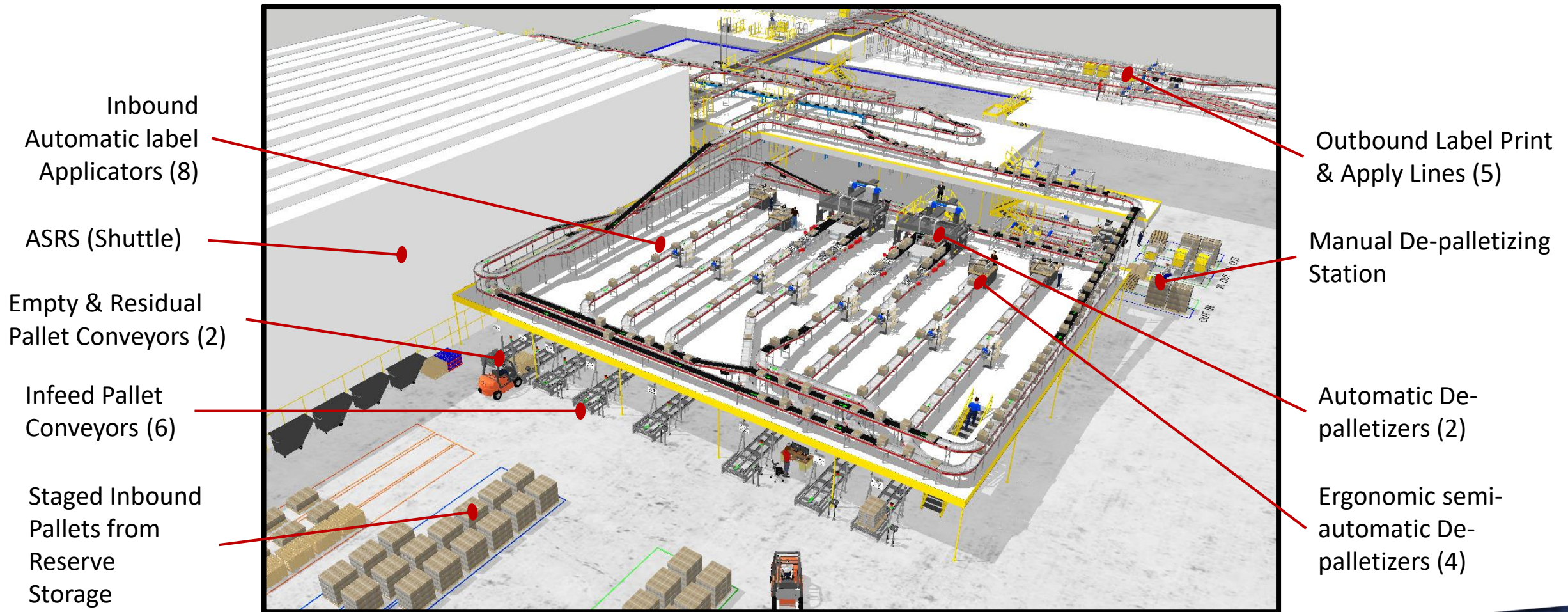


Case Pick SKU Proliferation Solution

- Automating inbound and outbound labeling to increase operational efficiency while maintaining accuracy
- A solution that is compatible to with the existing operation. Items to consider include, but not limited to
 - Quality of pallets – Avoid hang-ups in the inbound system
 - Include a manual de-palletizing station lane for exceptions (ie. bad pallets, leaning loads, etc.)
 - Case sizes – Define what is too small, too large or too odd to automate (i.e. odd shaped, shrink wrap, tray height, etc.)
 - Quality of case corrugate – Must be firm, flat, and consistent size per SKU with minimal bulging and no protrusions
 - Complexity of sequencing requirements erodes system rate



Example: Automatic Case Pick Solution



ASRS Characteristics

- Have the ability to operate in all temperature zones: ambient, chilled and frozen
- Have the ability tie into existing operations using a conventional conveyor based case pick-to-belt systems
- Have the ability to sequence loads to outbound trailers, semi-automatic and/or automatic palletizers on the shipping dock
- Are also highly effective technologies for piece picking solutions in conjunction with goods-to-person workstations



Questions



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