

FORTNA

Thought Leadership Series

Optimize Last Mile Operations with Cross-Docking



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Many studies on warehouse operations and logistics have revealed that close to 50% of all delivery costs are attributed to the last mile delivery segment. Optimizing while cutting costs in this area can realize faster delivery and higher customer loyalty, leading to repeat orders and a healthier bottom line.

Last mile distribution facilities or micro-fulfillment centers that are strategically located closer to customer populations can utilize cross-docking practices to fulfill orders faster, cut inventory costs and optimize travel costs.

In this FORTNA Insight, we will examine how the practice of cross-docking can increase time to delivery, minimize inventory costs and improve order fulfillment accuracy.

What is cross-docking?



Cross-docking is the practice where an inbound truck delivers products that are then unloaded into a facility. The products are processed, sorted and consolidated rapidly, then loaded onto an outbound truck for delivery. This dramatically reduces the time the items spend in the facility and increases delivery time.

Cross-docking not only optimizes space utilization by quickly moving items through a facility but also enables carriers to consolidate small shipments into larger, more economical loads for last mile transportation. This maximizes vehicle capacity, reduces the number of trips and lowers overall costs while improving route optimization.

Cross-docking benefits

Delivery and processing time reduced

One of the principal benefits of cross-docking is that it reduces the time it takes orders to travel through the facility and into the customers' hands. By loading outbound trucks with minimal or, in some cases, no delay, the products can either get to a sorting center faster or be placed in a truck for final delivery.

Enabling just-in-time delivery

With customers expecting on-time delivery of their orders, often next-day or even same-day delivery, adopting a just-in-time (JIT) delivery strategy with cross-docking can increase the speed at which products flow from order to delivery. With JIT delivery, inventory levels are kept at a minimum, so the operation is consistently receiving products while at the same time filling orders. This strategy is demand-driven, requires close collaboration with suppliers and must employ lean principles.

Reduction in inventory holding costs

Unlike traditional warehouses designed for longer-term inventory management, cross-docking facilities and practices are specialized for rapid movement and redistribution of shipments. Items come and go quickly, so there is less need for extensive inventory management and storage. This can lead to cost savings and allow organizations to invest in other areas of their operations.

Optimized delivery routes and vehicle usage

Many distribution organizations have introduced robust routing and delivery software to reduce carbon emissions, fuel costs and delivery time. Cross-docking is useful in supporting these objectives as it consolidates shipments based on their destination, which makes for improved route planning, improved vehicle utilization and reduced deliveries.

Benefits for certain types of operations

While cross-docking can benefit all distribution operations, some can see substantial improvements.

- **Businesses that distribute products with an expiration date** – food items, pharmaceuticals, and products with perishable chemicals can suffer if they sit on storage racks for too long, and the chance of spoilage is a concern. Cross-docking can shorten their time in the distribution chain and relieve the pressure of product expiration.
- **Seasonal or promotional items** – there is an industry saying, “Do not let your products miss the season.” This is when a season or a promotion ends, and you still have a stock of products that will need to be discounted as they are now considered out-of-season. Cross-docking can ensure that products flow through the distribution channel quickly and spend minimal time in storage.
- **Prepackaged items** – companies that deal in self-contained products that come in a shippable box or container can see significant benefits as they do not need any consolidation and, in many cases, can be shipped independently of other products in the order, getting to the customer quicker.
- **Third party logistics (3PL)** – many 3PLs utilize a just-in-time inventory practice, receiving the exact amount of inventory they need to satisfy demand with little to no stock retained. Cross-docking can ensure that these products are quickly processed and loaded into trucks to avoid delays and meet their service level agreements (SLAs).



Challenges to cross-docking

Coordination of inbound and outbound vehicles

To effectively use a cross-docking system, a distribution operation must orchestrate inbound and outbound traffic precisely. This will take communication with multiple suppliers and carriers to ensure that the truck arrives and departs the facility within their window of time. Delays in inbound deliveries can lead to bottlenecks and delays. Partnering with a supply chain expert like FORTNA can help an organization develop and launch cross-docking practices.

Congestion during peak

Peak season normally arrives with its own list of challenges. With a rise in volume and an increase in inbound and outbound vehicles, space and capacity become more of an issue in keeping the operation running smoothly and on time. Anticipating the space needed and the orchestration required can keep the trucks running on time.

Investment in technology and infrastructure

The benefits of cross-docking are significant. However, there will be upfront investment costs to utilize and efficiently deploy a solution. Material handling equipment, technology and IT infrastructure must be considered, and resources must be put toward them. Working with an experienced supply chain partner can help an operation select and implement the right cross-docking solution.



Streamline operations with cross-docking

Cross-docking can become a powerful option for operations that need to ensure fast, reliable and efficient deliveries for customers. As e-Commerce continues to grow, strategies to optimize the last mile and drive productivity and speed to fulfillment and delivery will continue to be important.



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FORTNA CAN HELP

Creating and integrating data-backed solutions like cross-docking is what FORTNA strives to achieve for customers around the globe. FORTNA has formed a Last Mile Solutions Center within the company to address these challenges. Leverage our team's deep knowledge of distribution and last mile logistics to optimize your last mile delivery operation.

Contact us today at www.FORTNA.com