RECEIVING BEST PRACTICES

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In today's world of increasing customer expectations and delivery requirements, a distribution center's overall velocity can impact how well they survive in their local markets.

Derek Browning of LeanCor and Kevin Ledversis of Newcastle Systems, Inc. offer some insight into how DCs can use lean principles and mobile power to increase velocity, improve processes and reduce labor costs.

Velocity, a buzz-word in today's supply-chain world, means many things to many people. To some, it means increased cost and negative P&L performance to meet customer demand and respond to the "Amazon Effect". To others, it's a thoughtful intentionality to move only what needs to be moved, when it needs to be moved, but to move it more frequently in smaller batches. In the world of distribution, smaller batches almost immediately equates to higher costs, as pick waves are sub-optimized, unless we think about our distribution strategies altogether differently.

Typical facility designs, work area designs and wave release schedules are built for large batches to a degree. We've witnessed many facilities plagued with the problem where the first shift crew waits on work and second shift work waits on crew. Sorters and diverters get clogged up with peak-volume coming through in large batches, and operators are sent out with a day's worth of work, only to come back at the end of the day with unfinished tickets and complaints about the order being "dirty".

In a world where customers are beginning to demand order-to-ship lead times in terms of hours, we have to think differently about the design of our facility and the way we release work to the floor. A facility designed for higher velocity activity can be more cost-effective as we alleviate bottlenecks, keep operators busy at all times and have a higher frequency of accountability checks on performance. These high velocity facilities are forced to look at the waste embedded in long walk paths to and from printers or to and from fast-moving product. These high velocity facilities are forced to examine the role of automation in core areas of their business, and synchronize the work in each of the areas so that it flows smoothly from shift start to shift end.

The idea of velocity in a distribution environment can be a scary one if we're not ready for it. The problem we have today is that the market is now forcing it upon us, whether we are ready or not. So, let's think differently about the

concept and lean into it rather than running from it. This means we need to be more aggressive with our process improvements and labor utilization.

Process improvements should be targeted at minimizing the wastes of the warehouse, namely excess motion and transportation that occurs when work-stations are not where they should be or materials are not stored or received as they should be. Frequent re-slotting or changing of pick routes can be beneficial for facilities to minimize the waste of walking or equipment motion. Many of these improvements have to be facilitated by outside parties that are not accustomed to the way we've always done it, but include the operators as they are the experts of the process.

In many cases, we find that motion occurs because the facility layout is inflexible, so process improvements are largely hindered by immobile workstations. Our ability to flex up or down or move starting and finishing points for a process is severely limited, so we have to also think differently about the way we set up our workstations.

When designing or transforming a receiving process, keep the following techniques in mind. Please note, when we say "**PDCA**" we mean a regular process of "**P**lanning" work and targets, "**D**oing" the work, and "**C**hecking" plan versus actual to make "**A**djustments" or take "**A**ctions" to drive improvement to the processes.

1. Inbound receiving schedule to level flow across the day, allowing for labor planning and regular PDCA on unload timing performance
2. Pre-receiving of qualified supplier-partner freight to direct putaway
3. Receiving processes located at or near docks or usage of mobile work-stations to minimize motion and improve dock to stock lead times
4. Quality sorts and audits only where necessary to protect customers and downstream processes
5. Visual performance management system with regular PDCA integrated into supervisor standard work

Once process improvements have been made, allowing workers to become more mobile adds a whole new dimension to productivity. Mobile powered

workstations simply take static devices used in the receiving process and make them mobile.

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Shippers across all industries are seeking ways to move receipts and shipments off their loading docks as quickly as possible. World class companies have a dock to stock time of 2 hours or better, but the industry average is more like eight hours (at best). Many companies have inventory sitting for days on their docks. That time frame may have worked during a time when companies established their own shipping schedules based on their individual capabilities, but it doesn't fly in an era where customers want their orders in two days or less. Product waiting to be received is very costly as it impacts inventory turns, customer service and order cycle times. It also creates space issues and congestion in companies that can't handle the volume.

Spending eight hours or more moving products from the dock and into their respective places in the warehouse - or cross-docking the goods and getting them back out the door quickly - isn't an efficient way to use one of logistics' biggest expenses: human labor.

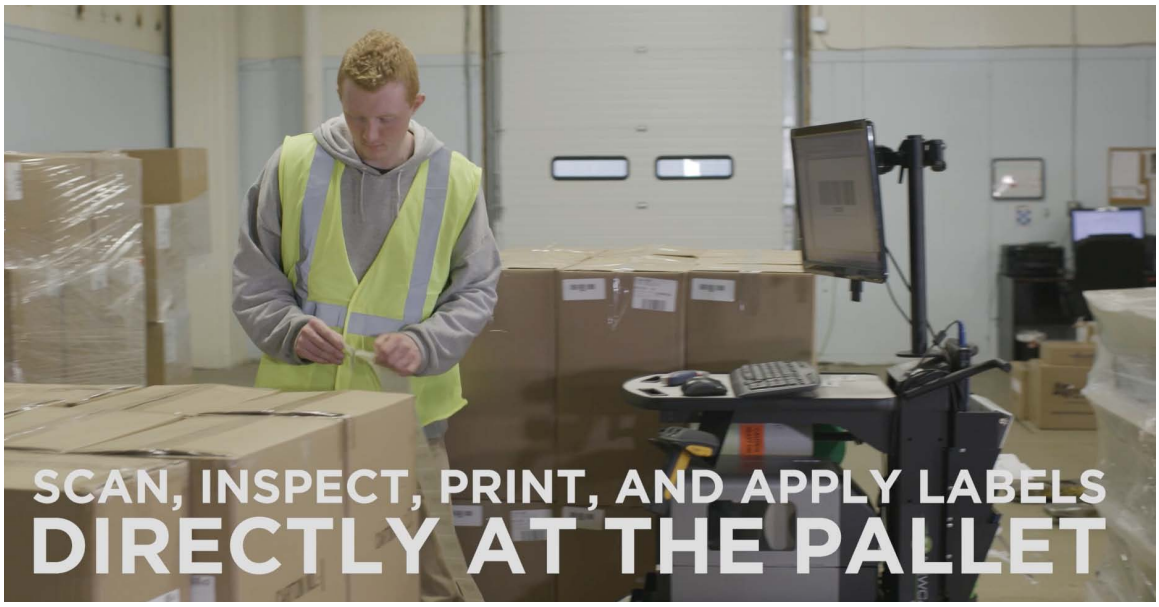
Shippers have to be able to squeeze as much as they can out of every hour worked, However, if those workers are forced to walk back and forth to printers or wait around for orders or information to come from upstream departments, the wasted hours start to accumulate pretty quickly.

For example, in an operation where thousands of cartons are coming into a facility on a daily basis, printing and retrieving labels for those cartons one pallet - or even one truckload - at a time generates hundreds or even thousands

of extra steps. It also leads to the following problems:

1. Receiving docks get backed up, leaving trucks idling outside waiting for an open bay or material handler.
2. Inventory needs to be handled multiple times to make room for new receipts and overflow.
3. Workers spend countless hours walking back and forth in their areas entering data and printing labels. They then need to marry the proper labels to the proper order. It's the marrying process that causes errors in a lot of companies because workers are trying to do this in batches instead of one order at a time.
4. Docks are under utilized due to the slow process of putting away incoming product (i.e. they could be freed up for shipping, etc.).

By minimizing unnecessary "touches" and the number of steps that workers have to take on the warehouse floor, shippers can essentially double workforce productivity while also eliminating costly waste. It's really simple math. If you cut your motion in half you can double productivity. For example, people who walked four hours a day without any production, after converting to mobile power find they have freed up almost half a shift of productivity they never knew existed.



Finally, by eliminating paperwork and relying on mobile carts that are equipped with a portable power system used to power laptops, barcode printers or scanners, companies can effectively boost dock-to-stock cycle time, reduce labor by as much as $10,000 per worker, reduce the number of improperly labeled products and minimize inaccurate inventories.

When you take paper out of the equation, and then factor in the many other advantages of using mobile carts for receiving, the benefits are remarkable.

LeanCor
SUPPLY CHAIN GROUP

About LeanCor: Advancing the World's Supply Chains

LeanCor Supply Chain Group is a trusted supply chain partner with a mission to advance the world's supply chains. LeanCor's three integrated divisions – LeanCor Training and Education, LeanCor Consulting, and LeanCor Logistics – specialize in lean principles to help organizations eliminate waste, drive down costs, and build operational excellence.

"We Teach. We Consult. We Do."

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About Newcastle: Powered Process Improvement

Newcastle Systems is the recognized innovator of mobile powered workstations and portable power systems specifically designed to make warehouses, manufacturing facilities and retail floors more efficient.

Its extensive customer list is a who's who of successful global companies that thrive on continuous improvement to separate themselves for the competition.

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