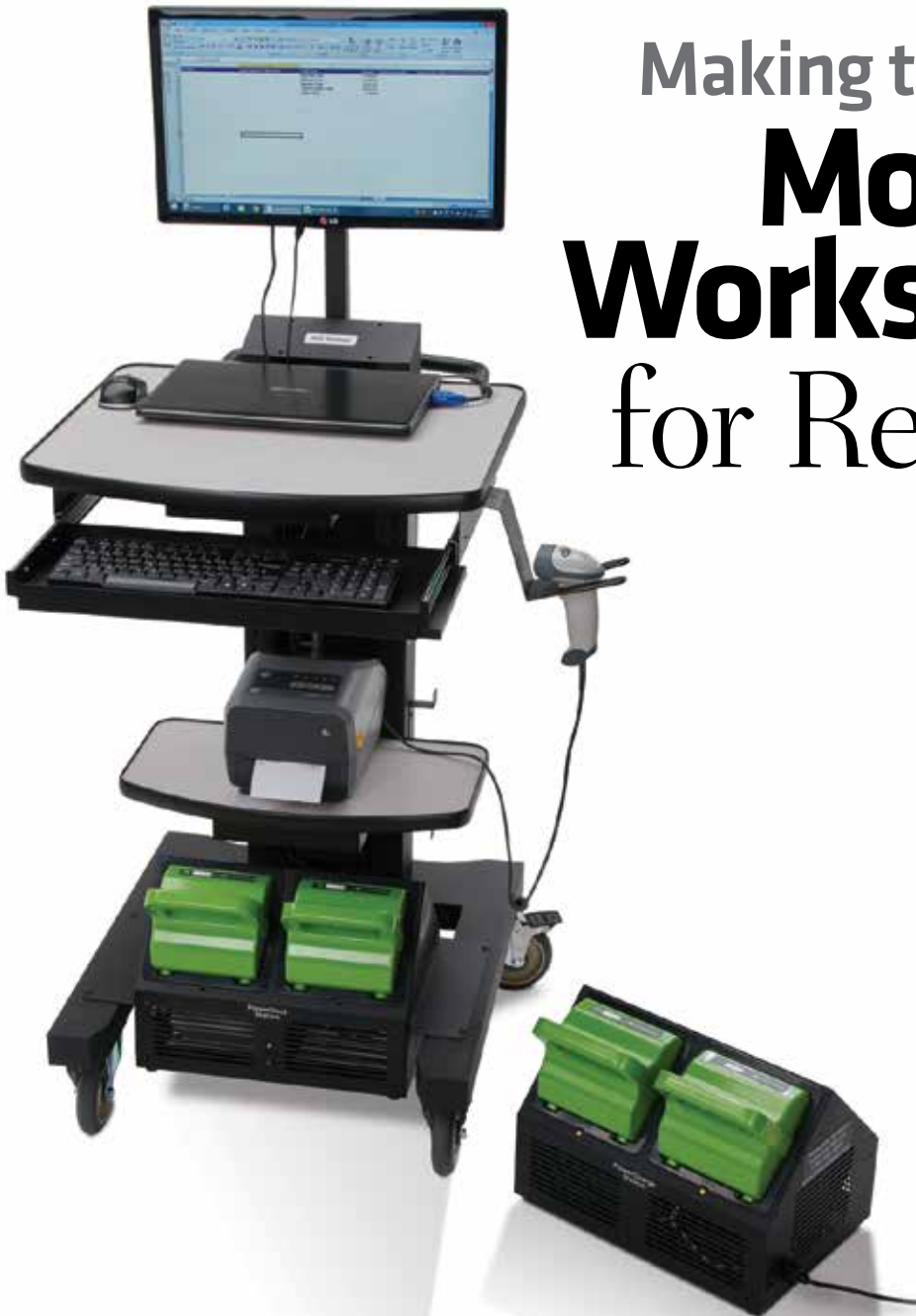


**MAKING
THE CASE**

Making the Case for
**Mobile
Workstations**
for Receiving





Making the Case for Mobile Workstations for Receiving

By eliminating paperwork and relying on mobile carts that are equipped with an integrated power system, companies can effectively boost dock-to-stock cycle time, reduce labor by as much as \$10,000 per worker, eliminate improperly labeled products, and minimize inaccurate inventories.

IN TODAY'S FAST-PACED DISTRIBUTION ENVIRONMENT, the room for error has shrunk just as the need for a higher volume of smaller, personalized orders has increased.

Pushed to do more with less, and to keep workers as productive as possible in the midst of a labor crunch, warehouse and distribution center (DC) managers need state-of-the-art tools that help them achieve their goals while also minimizing errors and ensuring high levels of customer satisfaction.

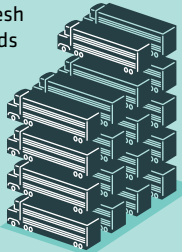
The problem is that the receiving area is prone to errors—just one of which can have a tenfold impact across the rest of the warehouse or DC.

Left to chance, the un-optimized receiving process not only erodes a material handler's overall efficiency, but it can also create key labor, productivity and profitability issues.

For example, in many of today's warehouses, poor and inefficient physical layout can diminish the size and importance of receiving—a critical juncture where labels are added, items are counted and reconciled, pallets are broken down, and shipping errors are reported—and at a great detriment to an entire operation.

“All of these activities must be supported and optimized,” says Kevin Ledversis, Newcastle Systems’ sales director. “By focusing on reducing receiving errors and inefficiencies, companies can significantly improve the flow of their entire warehouses while also ensuring higher levels of accuracy.”

California's largest supplier of fresh berries offloads **18 TRUCKLOADS** of produce every day in a single facility...



By implementing **MOBILE RECEIVING STATIONS** that run on their own battery power, the company reduced the processing time for each truck from **45 MINUTES** TO **30 MINUTES**

TRANSLATING INTO A SAVINGS OF ABOUT \$22,000 ANNUALLY
based on a total of **4.5 HOURS** saved daily

California’s largest supplier of fresh berries, for example, offloads 18 truckloads of produce every day in a single facility. By implementing mobile receiving stations that run on their own battery power, the company reduced the processing time for each truck from 45 minutes to 30 minutes—translating into a savings of about \$22,000 annually, based on a total of 4.5 hours saved daily.

Ledversis says that organizations 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 two hours or better, but the industry average is more like eight hours (at best).



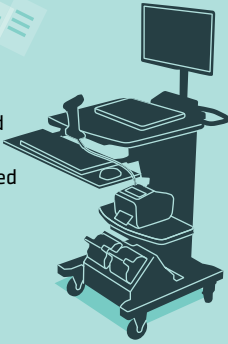
Many companies have inventory sitting for days on their docks. That timeframe may have worked during a time when companies established their own shipping schedules based on their individual capabilities, but it doesn’t fly in an era where customers want their orders in two days or less.

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.

“Companies have to be able to squeeze as much as they can out of every hour worked,” says Ledversis. “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.”


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



MINIMIZE **INACCURATE** inventories



In an operation where thousands of cartons are coming into a facility on a daily basis, for example, 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 batch’s instead of one order at a time”.
- 4** Docks are underutilized 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, managers 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,” says Ledversis. “I’ve seen people walking four hours a day without any production. When they convert to mobile power, they find they have freed up almost half a shift of productivity they never knew existed.”

“I’ve seen people walking four hours a day without any production. When they convert to mobile power, they find they have freed up almost half a shift of productivity they never knew existed.”

—Kevin Ledversis, Newcastle Systems

Finally, by eliminating paperwork and relying on mobile carts that are equipped with an integrated 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,” says Ledversis, “the benefits are remarkable.” •

Common receiving challenges defined

While all activity starts at the point of receiving, true productivity and high performance can't be realized unless these **FIVE** challenges are solved

For most warehouses and DCs, all activity starts at the point of receiving, where accuracy, cost control, efficiency, cleanliness, safety and security must all be balanced against the need for optimal productivity, minimal errors and high performance. In their quest to achieve this balance, logistics managers face challenges such as:

1

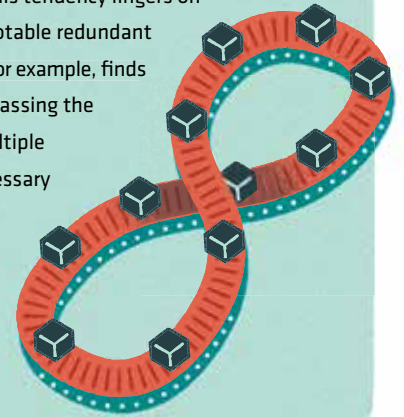
HIGH LABOR COSTS

With labor constituting about 65% of the operating budgets of most warehouses and DCs, human resources present key challenges for today's logistics managers. A typical warehouse uses expensive equipment and employs a large labor force, for example, both of which present a challenge that's, for the most part, unique to warehousing operations. In today's business world, the two major strategies for addressing labor-related problems include maximizing available labor and replacing labor with automated systems.



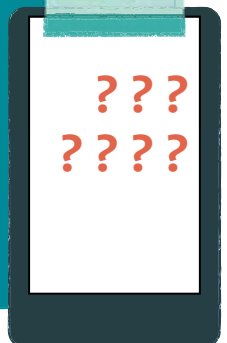
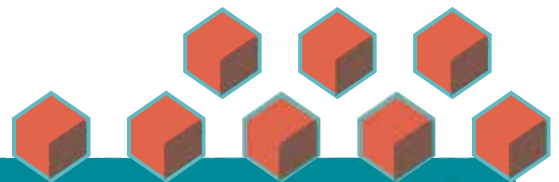
2 REDUNDANT PROCESSES

Traditionally, warehouse employees have handled a product several times due to the nature of the warehousing process. This tendency lingers on in current practices. A notable redundant process in warehouses, for example, finds one warehouse worker passing the same ticket through multiple articlehands. While necessary in some instances, such redundant procedures are time-consuming and increase the cost of labor.



3 INACCURATE INVENTORY DATA

Inaccurate inventory causes problems such as maintaining improper stock levels and buildups of obsolete inventory. Picking problems also arise when pickers rely on inaccurate information, leading to inefficient processes. Other costs of inaccurate stock information include increased expenses, lost revenue, low productivity and unhappy customers.



CONTINUED 



4 POOR FACILITY LAYOUT

In warehousing, efficient use of space is a critical success factor. Inadequate storage space and inefficient use of available storage are common problems in facilities plagued by poor layout. The optimal layout factors in both the floor space and the vertical space available for use. In addition to maximizing the use of space, a good layout maximizes the use of equipment and labor, accessibility to all items and the security of all items.

5 SEASONAL BUSINESS FLUCTUATIONS

Fluctuations in demand pose serious challenges for warehouse and DC operators. Managing seasonality in demand requires timely and accurate information about manufacturing, retailing and the industry. Information gaps between the warehouse and other relevant entities or the industry limit the ability of the distributor to monitor and respond to changes in demand effectively. To overcome these challenges, warehouses must use timely and accurate information in planning and forecasting demand as well as in providing supply chain visibility.



Solution

Proper combination of state-of-the-art equipment and motivation

Common warehouse problems such as **REDUNDANT PROCESSES**, **POOR FACILITY LAYOUT**, **SEASONALITY IN DEMAND**, and **INACCURATE INVENTORY INFORMATION** require robust systems that keep managers informed about changes and gaps that require attention.

The good news is that the right combination of state-of-the-art equipment and technology applications are helping logistics operations rise above these issues and work smarter, better, and faster.

By using barcode technology to streamline the warehousing process, for example, managers can effectively remove redundant processes while maximizing resource utilization. And, rearranging products to match changes in demand helps minimize the negative impacts of seasonal demand, while developing the right mix of expertise through workforce planning helps managers hone the skills necessary for successful labor force practices.

“A combination of the right skills and motivation, along with the right equipment and tools will not only enhance employee productivity, but also the overall performance of the warehouse.”

Kevin Ledversis, sales director at Newcastle Systems

What are Mobile-powered Workstations?

DESIGNED TO PROVIDE TRUE MOBILITY anywhere in a facility, mobile-powered workstations are helping warehouse and DC managers solve their most pressing pain points while also enhancing worker productivity, operational efficiency and organizational profitability.

Whether the goal is to cut down on the amount of time a worker spends walking back and forth to retrieve labels and paperwork, eliminate the time spent bringing product to a workstation for processing, or give workers access to a full PC or laptop out on the DC floor, a mobile workstation helps achieve those goals—and more.



Operations with high volumes of receiving have achieved up to 65% higher velocity and over \$10,000 of savings per position per year by using mobile workstations.

Operating in any environment equipped with a hard floor and Wi-Fi, mobile workstations fill a critical need in the today's fast-paced warehouse or DC, where reducing man hours, errors, touch points, and paper all create unnecessary waste. Designed to optimize your existing distribution environment, a mobile workstation solution will include:

- A heavy-duty cart built to not only take the inevitable bumps and scrapes that come from working in and around all kinds of heavy equipment and shelving, but will also protect your workstation equipment worth thousands of dollars.
- An ergonomic design that ensures employees of any size or strength can easily manipulate the workstation without much effort.
- A rechargeable power source that can effectively run your workstation at full capacity for an entire shift and be durable enough not to need frequent replacement. Hot-swappable batteries are also available for multi-shift operations.
- Options to customize the configuration to accommodate any of the potential tools you might have associated with your workstation including high-capacity thermal printers, handheld scanners, monitors and even more unique items like dimensional scanners.

As a simple, low-cost option, Newcastle's mobile workstations incorporate common, static devices often used on the receiving dock—such as computers and barcode printers—and mobilize those tools in ways that truly optimize worker time and facility layout.



So, instead of workers having to walk over to a static workstation to print labels or use a computer 100 or more times during a shift, they can literally wheel all of that equipment along with them on an independently-powered cart.

“We have one automotive customer that was already running a well-oiled DC, but they’re now saving \$70,000 in labor costs annually by using our carts,” says Kevin Ledversis, sales director for Newcastle Systems.

“You can literally bring our station right up to the pallet that needs to be received, break it down into a manageable project, and cut down on double-handling of those orders.”

—John O’Kelly, president, Newcastle Systems

Other operations with high volumes of receiving have achieved up to 65% higher velocity and over \$10,000 of savings per position per year by using mobile workstations. Those case studies are getting more attention these days, and starting to move the needle for logistics operations seeking straightforward, affordable ways to streamline their receiving operations.

“There are a lot of companies that want to go paperless, but that still lack an automated system for inventory management,” says John O’Kelly, Newcastle Systems’ president. Once those firms realize that they can effectively reduce the amount of time it takes to unload a trailer and pull it away from the dock, he adds, they begin to see the true advantages of making that happen on a regular basis. That, in turn, pushes them to explore options like mobile workstations.

“You can literally bring our station right up to the pallet that needs to be received, break it down into a manageable project, and cut down on double-handling of those orders,” O’Kelly explains, noting that today’s multi-SKU pallet environment makes that proposition even more enticing for managers. “Companies need to be able to receive those pallets quickly, and the best time to do that is right when they come off the trailer.” •



Case Study: Direct Relief Speeds up Handling of Crucial Healthcare Supplies

With limited storage space in its 24,000-square-foot building, receiving and shipping products quickly is crucial for this non-profit.

NON-PROFIT ORGANIZATIONS HAVE TO WORK SMART, as every dollar they can save in distribution can be re-directed to those who most benefit from their work. That's why Direct Relief invests in technology to reduce its processing time and costs.

Based in Santa Barbara, Calif., Direct Relief has been helping the needy of the world for nearly 70 years. The organization was founded by two successful businessmen who fled the Nazis during World War II to help friends who stayed behind in Europe rebuild their lives after the war. It has since grown into an effective relief network that provides medicines and health supplies to refugees and the disadvantaged within 80 countries including the U.S.

“In the first month that it went live, we had an increase of 40% of the number of batches that we received. We did them more accurately and in 20% less time. We’ve also been able to cut the time it takes to pack and ship by almost 70% due to the increased efficiency.”

—Thomas Tighe, president and CEO, Direct Relief

Direct Relief operates a single distribution facility in Santa Barbara, with pharmaceutical companies and medical manufacturers donating most of the medicines and supplies distributed by the facility. Storage space is limited in the 24,000-square-foot building, which means receiving and shipping products quickly is crucial. Adding to the need for efficiency is a desire to get these products to the



people who need them as quickly as possible.

“As the old saying goes, ‘If it’s worth doing, it’s worth doing right.’ That’s particularly true if it’s the right thing to do,” says Thomas Tighe, president and CEO. “The right thing is to serve people who get sick sooner than they would simply because of where they are born or their income status. So for us, every efficiency that we can squeeze out really does get to the point of helping more people—that’s our bottom-line equivalent.”

Besides gaining efficiencies, Direct Relief also strives to reach 100% accuracy when distributing medicines. Since the company’s inventory is

comprised of donated items, its SKUs are constantly changing—an element that only exacerbates the complexity.

To improve speed while still maintaining accuracy, Direct Relief recently moved to paperless processing and implemented Newcastle Systems' mobile carts with integrated power supply. The 12

“The carts have worked great. We started with five carts and within two weeks we ordered seven more. Once we got them on the floor and set up, everyone was clamoring to work with them.”

—Sean Copeland, operations manager, Direct Relief

carts are currently used for inbound receiving, double-checking picked orders, and as mobile pack stations.

The industrial carts feature Newcastle's new PowerSwap Nucleus Lithium Power System that can run just about any peripheral Direct Relief could want on a cart. The receiving carts, for instance, carry a laptop, monitor, scanner, printer, an electronic scale, supplies, and a wastebasket. Both the carts and medicines are wheeled to storage locations or forward picking bins for direct putaway, which saves additional handoffs and assures that the products are placed in correct locations.

“We are not tied to a wall plug with the battery system, so it allows us to be mobile now,” explains Sean Copeland, operations manager. Similarly, the carts used in the packing area also contain computers and other peripherals, including printers to create shipping labels and packing lists. The cart's batteries provide more than enough power to operate for the entire shift, but they are also “hot-swappable” should the need arise for more power.



“They are very flexible and with the ability to hot swap, we’re not losing any of the work we are doing,” adds Copeland. “The carts have worked great. We started with seven carts and within two weeks we ordered five more. Once we got them on the floor and set up, everyone was clamoring to work with them.”

Direct Relief's combination of paperless processing along with the carts has led to some impressive results. “In the first month that it went live,” says Tighe, “we had an increase of 40% of the number of batches that we received. We did them more accurately and in 20% less time. We’ve also been able to cut the time it takes to pack and ship by almost 70% due to the increased efficiency.” •

Making the case for Mobile Workstations for Receiving

The true ROI for industrial engineers, directors of operations, CFOs and IT

MAKING THE CASE FOR INDUSTRIAL

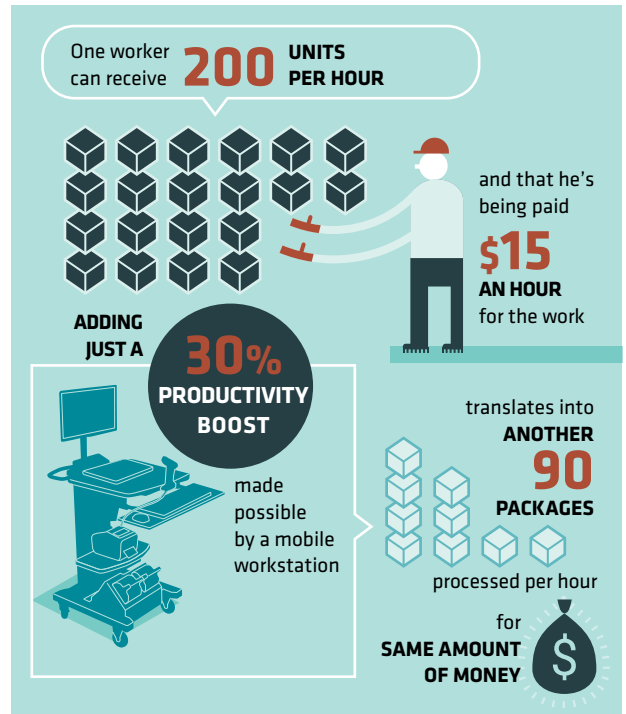
ENGINEERS: Loss of productivity and inefficiencies such as wasted steps taken on the way to the printer on a fixed desk, inaccurate inventory counts, improper labeling, time delays, manual processing and incorrect shipments can all make life difficult for today's industrial engineers—most of whom are tightly focused on time studies.

Let's say one worker can receive 200 units per hour, and that he's being paid \$15 an hour for the work. Adding just a 30% productivity boost to the equation—made possible by a mobile workstation—translates into another 90 packages processed per hour for the same amount of money.

"It's all about receiving and processing more units during the same—or less—amount of time," says Kevin Ledversis, Newcastle Systems' sales director. "Mobile workstations provide optimal ROI for engineers who see fairly immediate benefits when workers don't have to repeat their steps and run back and forth to static stations all day."

MAKING THE CASE FOR DIRECTORS OF OPERATIONS:

OPERATIONS: Centered on getting the goods out the door in good condition and on a time schedule that meets—or exceeds—their customers' demands, directors of operations gain from the higher velocities made possible by mobile workstations. Goods that sit out on the dock for two days—and that create bottlenecks for today's orders—can quickly thwart even the best-laid plans for a director of operations.



"Anything that speeds up the receiving process while also saving money for the company is music to the ears of a director of operations," says Ledversis. Struggling to find and keep reliable labor right now, those directors are also focused on accuracy—a measure that directly impacts customer satisfaction.

With mobile workstations, directors of operations can make jobs easier for workers and, in turn, make a positive impact on customer service. "When you can save a director of operations \$75,000 a year while also helping him receive 30% more product," says Ledversis, "they get interested in mobile workstations pretty quickly."



MAKING THE CASE FOR THE CFO:

Less walking equals higher efficiency, and higher efficiency positively impacts the company's bottom line. This simple equation gets CFOs interested in mobile workstations, according to John O'Kelly, president at Newcastle Systems.

"We've seen some pretty significant efficiency changes come about when mobile workstations are deployed," says O'Kelly, "with some companies improving their receiving velocity by up to 65%. For high volume operations, that could easily equate to over \$100,000 of savings per location per year." That's exactly the kind of ROI that would appeal to today's CFO, who needs to be able to prove the fastest possible return from an investment.

MAKING THE CASE FOR THE CIO:

Less focused on labor and productivity and more focused on maximizing their companies' infrastructure—such as Wi-Fi access points, laptop computers, and wireless printers—IT departments like the mobile aspect of today's workstations and the fact that they come with swappable batteries.

"They already have the devices and they don't need the software, but they need a durable, powered cart that can carry those important components," says Ledversis. "From the IT perspective, carts allow better utilization of the warehouse and its wireless infrastructure."

They're also straightforward to implement, basically just requiring a simple relocation of printers, tablets, barcode scanners, and mobile printers to a cart. "From there, IT just has to make sure the equipment can pick up the Wi-Fi signal," says O'Kelly, "and the rest basically just takes care of itself." •

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—Kevin Ledversis, Newcastle Systems

Closing Arguments: Untether your Receiving Department and Watch Productivity Rise

DO YOUR EMPLOYEES feel like their time is being wasted? Are your operators moving goods excessively before putaway and walking a lot to do their work at fixed stations? Do workers wait around for goods that they need to put away?

If you answered yes to any of these questions, then it's time to eliminate the movement of goods to a stationary printer for labeling and instead process loads right at the dock.

Unlike other processes used daily by thousands of other businesses, the receiving process for most businesses looks pretty similar:

- 1 A large truck or container is backed up to the receiving bay.**
- 2 Its contents are emptied onto the receiving area floor by forklift (pallets), or by hand or extendable conveyor (individual cartons and boxes).**
- 3 Whole pallets or boxes are labeled separately with barcodes to assign location to put away and other information relevant to business.**
- 4 Repeat.**

A vital component of this four-step process is the worker, who has traditionally walked to and from fixed printers or computers to get the job done. In fact, this continual movement can eat up a high percentage of the average facility's or company's total warehousing costs. That means companies can essentially *double their productivity* by simply eliminating this repetitive motion.

In fact, one Top 100 U.S. retailer recently increased its intake from 16.6 cases per hour to 27.1 cases per hour, a 63% increase, which subsequently reduced overtime by 75% and provided a payback on mobile workstations of less than six months after investing in a

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mobile receiving process.

"Anyone who is creating wait times is adding waste to downstream departments, says Kevin Ledversis, Newcastle Systems' sales director. "If the receiving process is slow then the material handler has to wait to put away the load, the pickers can't pick what hasn't been slotted, packers can't prepare orders they don't have, and the same applies to the shipping department. That flow or velocity of the entire process is what separates the A-players from everyone else. They're just better and if you want to compete you need to improve your overall process."

By adding mobile power to their processes, warehouses can reduce transport, waiting and motion by up to 50 percent. These are important gains for companies that are operating in a world where e-tailers like Amazon are pushing the "next-day" and "two-day" envelope

hard, and where the pressure to operate in a lean, waste-free manner is high.

"The bottom line is that we're not talking about rocket science here; we're simply presenting a viable solution to a problem that shippers/receivers haven't thought about much until now," says

John O'Kelly, Newcastle Systems' president. "Where the focus used to be on the functional aspects of the manufacturing process, for example, less attention was paid to logistics and warehousing."

And within the latter, a growing number of companies want to be able to "cut the cords" and allow their most expensive investment—labor—to move freely around the facility and do its job in the most efficient manner possible.

"Tether a human being to a unit that's plugged into a wall somewhere and you basically force that person to walk back and forth all day, racking up completely unproductive time along the way," says Ledversis. "Today's companies want flexible, mobile workers who can go anywhere and work at the point of activity, and not the other way around. That's exactly what we give them with our mobile workstations." •