

PROVIDING INNOVATIVE SOLUTIONS WHICH OPTIMIZE SPACE &  
ORDER FULFILLMENT WITHIN THE SUPPLY CHAIN

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## Hidden Costs of Forklift Maintenance

*Discover How Telematics Can Help You Reduce These Costs*

More than ever before, companies are exploring telematic solutions to drive down costs associated with their forklift fleets as well as other material handling equipment. However, many of these organizations are focusing solely on the actual maintenance costs but are not taking steps to ensure ways to avoid these costs altogether or minimize them by reducing the amount of time a service provider is on site.

We are all familiar with the traditional labor and parts costs associated with repairing industrial equipment. Essentially, the more time a service technician spends working on equipment at your facility the more labor costs are incurred. But what if you could help to reduce the amount of time a technician spends at your facility by providing additional information that will enable them to diagnose your equipment quicker? With telematics you can!

Most telematic systems give you the ability to help control these costs by reducing the amount of time a service technician spends at your facility through fault code reporting, battery monitoring and scheduled maintenance reminders. The following are examples how a properly utilized telematic system can create maintenance efficiencies and reduce hidden maintenance costs of your material handling fleet.

**Fault Code Reporting** - This information can be a very valuable tool when it comes to troubleshooting an issue with a forklift and reducing repair times. A telematics system has the ability to pinpoint potential maintenance issues for a service technician, helping them to diagnose an issue quickly. Also, when this code is generated, it includes pertinent information including the exact time the code occurred, the current battery state of charge, and who was operating the truck during the time of the code. These capabilities can reduce maintenance costs by reducing the time it takes to repair a truck.

For example, once the service technician is on site they will ask questions about what exactly the truck was doing when the issue occurred. Based on the nature of large distribution centers, finding out who exactly was on what truck at the time a code came up can be a daunting and time-consuming task. Without having insight into the specific scenario in which the maintenance issue occurred, repair times can be increased, especially if the issue is intermittent. To take that one step further, if a truck is used by multiple operators but a particular code only occurs with the same operator, it can indicate that the code is induced by an individual's particular operational procedure and may not be truck related at all.

Additionally, there is nothing worse than to place a service call which has a service technician come to your facility, bring in all of their tools, work on a truck for over an hour and have the invoice state that the technician was "unable to duplicate issue". Regardless if the service technician found an issue or not, the forklift owner will still be on the hook for placing the service call.

Ultimately, there are several factors other than a service technician's technical ability that can affect the time it takes to repair a forklift. Utilizing a fault code reporting solution, you can ensure accurate and timely notification of the exact issue to the appropriate individuals, providing as much pertinent information as possible, which will ultimately help ensure the most efficient forklift repair. With labor being a major portion of overall maintenance costs, being able to reduce those costs will have a significant impact to your bottom line.



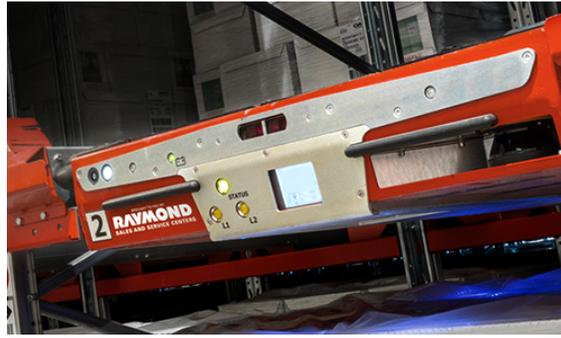
## Hidden Costs of Forklift Maintenance (Continued)

**Battery Monitoring** - This is by far one of the most significant cost-saving measures for reducing the hidden maintenance costs associated with a forklift. Oftentimes, an issue that seems to be related to the forklift itself is actually caused by the battery within it. Two primary drivers are batteries not being charged or not being watered properly. Many times they are easily addressed if you have the right data.

The battery monitoring functionality in a telematics system can give you the ability to see if your batteries are properly holding a charge and if they have been effectively watered. Those unwarranted maintenance costs can be virtually omitted by implementing a telematic battery monitoring system.

**Scheduled Maintenance Reminders** - Scheduled maintenance is typically a reoccurring event performed at a frequency determined by a specific timeframe or hours of use. There are several factors that can vary forklift usage including seasonal changes in workload or changes in size of the fleet. The capability to monitor a truck hour meter down to the tenth of an hour, and having the ability to automatically notify the proper personnel of when the proper time has occurred to perform maintenances will increase efficiencies in the scheduling of the work itself and better manage downtime when it occurs. It can also reduce instances of equipment having too many maintenance intervals, based on usage accumulation. Having the ability to utilize automatic alerts of schedule maintenance reminders will create additional maintenance efficiencies and help reduce overall forklift costs.

There is no question that the more information you have, the better. A telematics system can provide you the data that will enable your service technicians to repair your equipment faster and with a higher level of accuracy which saves you maintenance costs, but more importantly it reduces the amount of downtime associated with your forklift fleet.



**Finding ways to better utilize the available facility space is a constant challenge in distribution centers and manufacturing plants alike. That is why high density material storage solutions have been sought for decades. Ultra-high density storage usually means low-tech rack like drive-in with its slow through-put rates and high fork truck damage, or pallet flow racks with limited lane depth. While on the other end of the spectrum is a fully automated AS/RS (Automated Storage & Retrieval System) with high capital cost and requisite high ceilings.**

Fortunately, today there are technology-driven solutions to help you address this challenge and fill the void between these extremes.

A shuttle system is a very deep lane, medium-high speed, storage and retrieval solution that combines the labor and damage cost-savings benefits of semi-automation with the highest achievable storage density.

**How It Works:** A shuttle system consists of two parts; the storage structure and the shuttles, usually several shuttles per system. The storage structure is a self-supporting frame engineered to support loads up to 3,940 Lbs./pallet on a pair of parallel, horizontal rails similar to drive-in rack rails. This structure serves double duty as the track that the shuttles drive on as well as the support where the pallets rest. The second part is the working piece in the system. A fork truck picks up the shuttle as it would a pallet and then places it in the lane where put away or picking is to begin. Safety features include anti-skid pads and guide lights to help the driver pick the shuttle up correctly and a tilt sensor that will detect and sound an alarm if the shuttle starts to tip because it isn't on the forks correctly. With the push of a single button on the remote control unit, the driver tells the shuttle to either pick pallets out or put them away. When putting pallets away, the shuttle waits patiently until it senses that the driver has put a pallet in the rack. Once detected, the shuttle automatically lifts the pallet up and carries it deep into the

## How to Better Utilize Facility Space with a Shuttle System

rack, where it places the load within an inch of any pallets already stored in that lane before returning back to the front of the lane for the next load. It's just that easy. Pulling pallets out is simply the opposite process whereby the shuttle will continue to go into the rack and bring out loads as fast as the fork truck operator can take them away. The system can even improve count accuracy by counting out the correct number of pallets for the operator.

**What is the best application?:**

**Maximized Storage Density:** Shuttle systems provide the highest achievable storage density because it fills the available storage volume with a solid block of pallets. There are no length-wise aisles needed. The objective is to maximize the use of existing space thereby minimizing investment in new storage facilities.

**Reduced Labor and Equipment Costs:** The shuttle moves the pallets through the system autonomously while the fork truck operator moves the products to and from the system. Consider how much less time is spent driving lift trucks into and out of a rack system when there is a shuttle system there making those moves.

**Key Opportunities for a Shuttle System:**

Operations with any of the following:

- A high pallet to SKU ratio.
- No more room for pallets on the floor.
- Using a 3PL (3rd Party Logistics) facility to store an overflow of pallets.
- A high cost of product and rack damage in existing drive-in/thru rack.
- A need for more dock turns per day.
- A desire to decrease the cost of fork truck maintenance and labor.
- Inefficient material movement in existing drive-in/thru system due to "honeycombing".
- Interruptions due to pallets getting stuck in existing pallet flow systems and/or a need for deeper lanes than pallet flow can provide.
- A requirement to improve FIFO control
- Expensive climate-controlled storage environments needing better cubic storage utilization.

At the end of the day, the very deep, speedy and dense shuttle system is an excellent choice for appropriate applications that are looking to maximize their space.

To see a shuttle system in action go to this link, [www.associated-solutions.com](http://www.associated-solutions.com)

## In the Press

### Associated Recognized as one of Chicago's Largest Privately Held Companies

Associated has been recognized as one of Crain's Chicago Business' Largest Privately Held on their 2017 list. Tim Combs, President/CEO of Associated said,

*"We strive to satisfy the needs of our customers and look forward to the continued growth and development of our organization that will put us in an even better position to do so. Over the years, our success has been driven by our employee's efforts which have earned our customer's loyalty and dedication."*

### Associated Receives MHEDA's MVP Status

Associated has been awarded the prestigious MVP (Most Valuable Partner) Status for 2018 in a program from the industry's trade association, MHEDA (Material Handling Equipment Distributors Association) for the 7th consecutive year.

To be among the less than 5% of the association's membership earning the award, Associated successfully demonstrated a commitment to business excellence, professionalism and good stewardship.

*To view entire press releases, please visit our website at: [www.associated-solutions.com/about-us/news](http://www.associated-solutions.com/about-us/news)*

## Tax Provisions That Can Save You Money on Capital Expenditures

### What is the Section 179 Deduction?

The Section 179 Deduction has key tax saving provisions for U.S. businesses that could save you money on capital expenditures.

Essentially, Section 179 of the IRS tax code allows businesses to deduct the full purchase price of qualifying equipment and/or software purchased or financed during the tax year. That means that if you buy (or lease) a piece of qualifying equipment, you can deduct the FULL PURCHASE PRICE from your gross income. It's an incentive created by the U.S. government to encourage businesses to buy equipment and invest in themselves.

### How Section 179 works:

In years past, when your business bought qualifying equipment, it typically wrote it off a little at a time through depreciation. In other words, if your company spends \$50,000 on a machine, it gets to write off (say) \$10,000 a year for five years (these numbers are only meant to give you an example).

Now, while it's true that this is better than no write-off at all, most business owners would really prefer to write off the entire equipment purchase price for the year they buy it.

And that's exactly what Section 179 does – it allows your business to write off the entire purchase price of qualifying equipment for the current tax year.

This has made a big difference for many companies and the economy in general. Businesses have used Section 179 to purchase needed equipment right now, instead of waiting. For most small businesses, the entire cost of qualifying equipment can be written-off on the 2018 tax return (up to \$1,000,000).

### What This Means for Your Business:

This is translated to positive cash flow by reducing federal income taxes.

Qualified capital expenditures include but are not limited to lift trucks, warehouse systems and inventory storage equipment. The capital asset must be placed in service before December 31, 2018 to qualify for this tax advantage.

## 2018 SECTION 179 Example Calculation

### EQUIPMENT PURCHASES \$1,150,000

First Year Write-Off: \$1,000,000  
*\$1,000,000 = Maximum for 2018*

100% Bonus First Year Depreciation: \$150,000  
*Updated to 100% via 'Tax Cuts and Jobs Act'*

Normal First Year Depreciation: \$0  
*20% in each of 5 years on remaining account*

Total First Year Depreciation: \$1,150,000  
*\$1,000,000 + \$150,000 + \$0*

Cash Savings: \$402,500  
*\$1,150,000 x 35% tax rate*

EQUIPMENT COST AFTER TAX  
*Assuming a 35% Tax Bracket*

**\$747,500**



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## Asset Disposal Best Practices

**Depending on the process type, asset disposal can be an issue most organizations don't like to deal with unless there is some cost offsetting value. Pre-recession, value was not difficult to receive especially for forklift equipment. At that time, the scrap industry paid well for steel, regardless of the asset condition, and everyone could dispose of that "old truck" and cover all costs. Unfortunately, post-recession, scrap steel value decreased below asset value making the disposal process more complicated and less lucrative.**

**Today, there are a few different options depending on your need:**

- **Scrap Yard:** Send an asset over to the scrap yard for destruction. This option is often the most expensive but may be required depending on the condition of the equipment. Due to the EPA requirements for chemical

disposal, you will most likely need to contact your material handling provider to properly dispose of this asset. Costs associated with this method can vary depending on asset height, transportation and additional equipment needed to remove the asset.

- **Wholesale:** Disposal opportunity utilizing a wholesale vendor who is willing to purchase an asset or haul away at no cost at a chance for a second life. Most wholesalers will require these assets to be operational and in reasonable condition.
- **Trade-in:** Trade-in assets offset some cost of new or newer equipment. Trade for alternative model trucks that better fit the operation.

Today, asset disposal can be more difficult than it was in years past. However, your local material handling provider will be able to help you determine what is the best option for your business.



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### Associated University

Associated University was designed to provide supply chain management professionals with access to information on practical solutions concerning the industry's current hot topics.

This resource creates an interactive community that enables professionals to gain access to information covering today's most relevant supply chain management challenges and technologies. In addition to these sessions, Associated University offers tools, articles and discussions aimed at providing you with a vast library of resources to utilize.

These can be viewed at: [www.associated-solutions.com/associated-university/videos](http://www.associated-solutions.com/associated-university/videos)

### About Associated

Celebrating over 55 years of providing customers with innovative solutions that optimize space, labor and order fulfillment operations within their supply chain. Associated understands that handling materials in the supply chain should be more than material handling. By utilizing their unparalleled experience and industry best practices they are able to evaluate current methods and processes for storage, order fulfillment, labor and equipment utilization and recommend practical strategies to enhance their effectiveness and reduce overall cost.

Featuring leading-edge engineering, fleet optimization, material handling equipment and labor management solutions to complement industry-leading sales, service, rentals and parts, Associated has been the recipient of multiple awards in recognition of being a premier organization in the supply chain industry.

#### Our Locations:

- Illinois: Addison, Bloomington
- Indiana: Indianapolis, Fort Wayne
- Iowa: Ankeny
- Minnesota: Eagan
- Wisconsin: Appleton, Madison, Milwaukee

#### Contact Us:

877.638.8002  
[www.associated-solutions.com](http://www.associated-solutions.com)

