



## POWERING IMPROVEMENT THROUGH ROBOTIC LIFT TRUCKS

Automation strategies to obtain desired productivity, offset labor market challenges and mitigate avoidable damage spend

**A**s though the tough labor environment was not enough, soaring throughput targets and rising safety expectations are pressing operations to do more. As intensive industries look for ways to stay ahead, robotic lift trucks offer potential to solve longstanding, nagging issues operations have simply “dealt with” for years or even decades.

But what are those challenges? As automation technology has matured, robotic lift trucks have become an increasingly powerful, flexible solution to shore up labor needs while exceeding productivity targets.

We surveyed a range of industries, from food and beverage to manufacturing and more to identify where automation can address long-festering challenges and provide a competitive advantage.

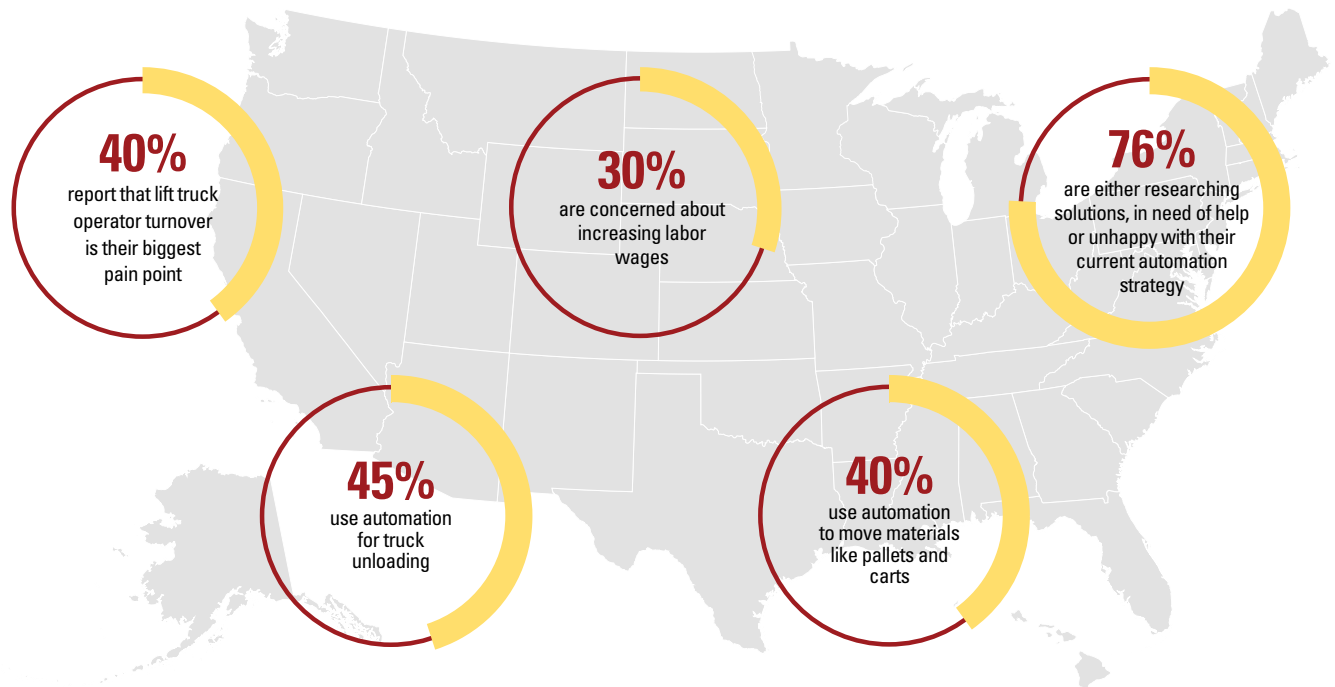
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*\*Results above based on a survey of 500 respondents within the United States to diagnose the top challenges and automation needs that operations are facing.*

### // REDUCING TURNOVER AND LABOR COSTS

Meeting or beating aggressive productivity targets leaves no room for uncertainty — everything needs to be planned and executed with precision — especially staffing. But maintaining staffing levels is a persistent challenge.



Employee turnover, sick days and other unexpected absenteeism pose a constant threat of disruption. High turnover doesn't just limit your ability to achieve targets and grow topline revenue – it can drive up costs, putting a serious dent in already thin margins. The expenses and time required to recruit, hire and train new employees causes not only holes in the labor force, but also intense competition for the limited available labor pool. This high turnover, competition for available labor, talks of unionization and other government regulations may drive up wages, making it even more difficult and costly for facilities to secure and retain the workforce they need. Turnover is a nagging, steadily growing challenge that's plagued operations seemingly forever. Thankfully, you don't have to accept high turnover, and the major costs associated with it, as just status quo.



### // USING ROBOTICS AS A CONTINUITY SOLUTION

Robotics offer a practical, powerful strategy to achieve steady productivity, guard against disruptions to critical workflows and even combat one of the root sources of employee turnover.

Robots don't require frequent rest breaks, take vacations, call out of work or quit. They don't experience fatigue or slumping productivity as their shift goes on or mind if they are scheduled to work nontraditional hours. Robotics deliver reliable performance in accordance with their programming, hour after hour, day or night.

Robotics also excel at efficiently completing repetitive tasks, which can help free up workers to focus on more engaging, value added tasks. That's not only a pleasant byproduct for your employees – it can also help boost employee productivity and your ability as an employer to retain top talent.

Academic research shows that organizations augmented by automation technologies are 33% more likely to be more engaging, "human friendly" workplaces, in which employees are 31% more productive. That makes robotics not just a tool to plug holes in your labor pool, but also a tool to help reduce the churn – a study by Gallup found that organizations with better employee engagement realize substantially better retention, fewer accidents and higher profitability.





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## // MANAGING COSTS WITH ROBOTICS

In addition to helping keep costs in check by curbing turnover, automated solutions like robotic lift trucks can also help reduce other costs:

- Wages
- Workers' compensation
- Insurance
- Retraining

Overall savings realized by using robotic lift trucks can help operations quickly achieve a return on their investment, possibly even within two years or less for multi-shift operations. And unlike fixed automation like sorters and conveyor-based systems that can require a significant upfront investment and a commitment to changing all or part of a facility, robotic lift trucks lend themselves to a flexible, phased approach. After all, not every business has resources so vast it can afford to behave as an incubator, committing massive sums to experiments to refine technology for unknown outcomes. In many cases, automation is a big step for operations and it *has* to work.

Because they can be deployed as an individual unit or scaled to an entire fleet, robotic lift trucks allow operations to demonstrate ROI and proof of concept before making a full investment.

Infrastructure-free navigation enables robotic units to be deployed relatively quickly to workflows where the need is most urgent before expanding an automation strategy to other applications and types of robotic lift trucks. As the need arises, additional units can be deployed in a timely manner. Think of this as adding on a room to a house, rather than constructing a new house in its entirety.

## // ADDRESS CHANGING NEEDS – SOLVE PROBLEMS YOU MAY NOT HAVE KNOWN ABOUT

Traditional fixed automation may provide an operation with the solution they need at the time of installation, but it can be challenging and resource-intensive to reconfigure. The pace of change is faster than ever, so a best-fit automation strategy requires flexible solutions that can nimbly adapt to address changing needs and business conditions.

Managers may have once resigned themselves to living with the rigidity of fixed automation, but the flexibility offered by robotic lift trucks means that is no longer a necessary concession. From manufacturing to food processing facilities, robotic lift trucks can help operations nimbly respond to changing circumstances.

### THE ADAPTABILITY OF ROBOTICS

#### Facility layout changes

Simple reprogramming of a single robotic lift truck or entire fleet with the new CAD layout and application protocol

#### Unforeseen operational challenges that fall outside of the robotic day-to-day application

Take manual control of the robotic lift truck with dual-mode capability

#### Fluctuations in demand and staffing at facilities across supply chain network

Quickly deploy additional units as needed or re-deploy existing units to different facilities in the network to balance capacity



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### // MORE CAPABILITY THAN UNLOADING AND TRANSPORTATION

Truck unloading and material movement are the most popular uses for automation identified by the survey. The steady performance and consistent adherence to programmed safety protocols make robotics an effective resource for these tasks, but as the range of robotic lift trucks has expanded to include reach trucks, tow tractors and counterbalanced stackers, so too has the scope of robotic capabilities. Robotics can be an efficient solution for a spectrum of applications and workflows, such as:

- Handle smaller width pallets and stack or unstack loads
- Sequencing in assembly operations and kitting separate items to be supplied as one unit
- Deposit and retrieve loads from as high as 30 feet

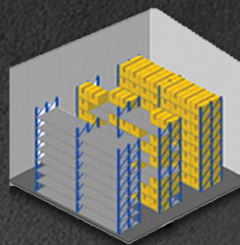
For example, a beverage bottling facility that struggles to source labor from the surrounding rural and suburban communities may have once resorted to paying their lift truck operators over an hour both ways from the nearest major metropolitan area. To reduce labor dependency, the operation could use a robotic lift truck to transport pallets of raw ingredients. Once the drinks are packaged and palletized, a robotic lift truck might retrieve loads from the conveyor and transport the finished product to storage, before retrieving when ready to be staged for a trailer.

Similarly, for an automotive manufacturing operation, rather than using limited labor to move all required parts to feed the assembly lines, a robotic lift truck can transport components. The robotic lift truck can transport at a regular cadence, uncoupling at the assembly line and then coupling with an empty cart to return to the loading area, ready to return with the next batch of components.

## WHAT CAN ROBOTIC LIFT TRUCKS HELP YOU DO?



RECEIVING



PUT AWAY



PALLET &  
CART MOVEMENT



## POWERING IMPROVEMENT THROUGH ROBOTIC LIFT TRUCKS


### // AN INCREASINGLY PRACTICAL SOLUTION

Automation drivers like labor cost and availability are not abating anytime soon. Together with technological advances, new and existing challenges will make robotics an even more vital and effective means to reach peak performance. However, the right strategy will vary for every operation and application. The most effective use of robotics relies on an assessment of where and how your own operation can best stand to gain from using robotics.

For more information on robotics, [complete this contact form](#) to contact a Hyster automation expert or call (800) 497-8371.



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