



WHITE PAPER

Beyond robotics: Why automation isn't the only solution to warehouse labour shortages

The intralogistics industry is at a crossroads. With skilled labour shortages intensifying, warehouses are exploring innovative solutions to maintain productivity and efficiency. Against this backdrop, robotics has emerged as a promising opportunity.

However, while robotics can be transformative in some cases, there are many other real-world solutions that may help businesses optimise their operations amid labour challenges.

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Robotic potential

Automation has become a buzzword in modern warehousing. Automated guided vehicles (AGVs), autonomous mobile robots (AMRs), robotic arms, and automated storage and retrieval systems (AS/RS) are revolutionising the way some warehouses operate. These systems promise to streamline workflows, enhance precision, and enable round-the-clock operations without human intervention. For instance, AGVs can transport goods across vast warehouse floors with pinpoint accuracy, while robotic arms can handle repetitive tasks such as picking and packing with high efficiency and accuracy.

Automated systems may not only speed up certain operations but also change reliance on operators for every task. When faced with workforce shortages, robotics can help fill labour gaps, and also enable human labour to be deployed towards more value-added tasks.

However, there are financial and operational barriers for many operations, which mean robotics isn't feasible, or even necessary, for every warehouse.



The reality check: not all businesses are ready for robotics

The financial investment required for robotic systems is substantial. For many businesses the capital required to implement automation is unfeasible. The return on investment (ROI) can also take years to materialise, making it a risky venture for companies with tight budgets. Instead, some businesses need to prioritise more immediate, cost-effective solutions.

Integrating robotics into an existing warehouse setup is also not a plug-and-play solution. It involves redesigning workflows, modifying storage systems, and establishing

seamless communication between robotic systems and human workers. This transition and training period can disrupt operations and lead to temporary inefficiencies.

While Yale Robotics solutions are efficient to deploy and don't typically necessitate infrastructure changes, some robotic systems will be incompatible with existing warehouses. This may require significant overhauls. Coupled with lengthy lead times for implementation, robotics can disrupt operations and strain resources.



Alternative solutions can address labour challenges – now!

For those that are not ready for robotics, there are other solutions to tackle labour challenges, all while optimising warehouses, managing costs, and addressing operational safety.

OPERATOR ASSISTANCE SYSTEMS

For example, operator assistance systems. These technologies provide real-time feedback and automated interventions to support operator safety and productivity. Advanced stability systems, collision avoidance systems, and location-based assist systems are examples of how technology can support human operators. Even long-standing technologies like pedestrian awareness lights can help operators without significant capital outlay.

These solutions help operators perform their tasks more efficiently and confidently. Investing in operator assistance also shows workers that a company cares about their wellbeing and safety. These factors can make an operator role more attractive, both for existing employees and to those a company is aiming to reach in a competitive recruitment marketplace.

ERGONOMICS

Ergonomics also plays a crucial role in improving the operator experience. Ergonomically designed lift trucks and warehouse equipment may help reduce operator fatigue and the likelihood of injury. From the seat, to the controls, right through to manoeuvrability. Employers should consider the truck and application requirements as a whole. For example, if equipment will work in hot or cold temperatures outside, is the cab optimised to help keep operators comfortable? Some lift trucks, like the Yale Series N, offer a wide range of options to help businesses tailor the truck to the particular ergonomic needs of operators.



FLEXIBLE EQUIPMENT

Providing flexible, multi-purpose equipment can also play a part. For example, a pallet truck or reach truck that can be used for a range of different tasks, or both inside and outside, reduces the need for operators to get on and off equipment. This simple change can improve comfort and operator experience across the shift. It can also increase efficiency, meaning more moves in less time, so more work is achieved by a pool of fewer operators.

In short, materials handling equipment that prioritises ergonomics may support increased productivity and job satisfaction, while helping to reduce lost time to physical injury. Ergonomic equipment can help keep operators at work, and working efficiently - preventing unwelcome strain on stretched workforces. Compared to full-scale robotic systems, these improvements to labour availability can be achieved with relatively low investment.

