



THE HUMAN ELEMENT

ELEVATING WAREHOUSE SAFETY AND ERGONOMICS

2025 Newcastle Systems Industry Trend Report



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INTRODUCTION

In a world that's becoming increasingly interconnected and where cross-industry demands are constantly evolving, one sector remains steadfast: the warehousing industry. In 2025, the warehouse industry demonstrated ongoing growth and resilience despite a complex and rapidly shifting landscape that increasingly challenges its capabilities. Yet, all indicators suggest that warehousing will continue to serve as the backbone of supply chain infrastructure.

With expectations rising, warehouses have continued to turn their focus to emerging technologies to optimize efficiency, with an estimated **26%** of warehouses expected to be automated by 2027. Despite these efforts, many are missing the bigger picture, as these same technologies also threaten job security, with an estimated **19 million jobs** at risk due to automation. Coupled with manufacturing **turnover rates** currently around 40% and a steady decline in **Gen Z-ers in the workforce**, trends indicate a need to cater to the human side of warehousing, as the culture of companies is beginning to impact everyday operations.

**26%**

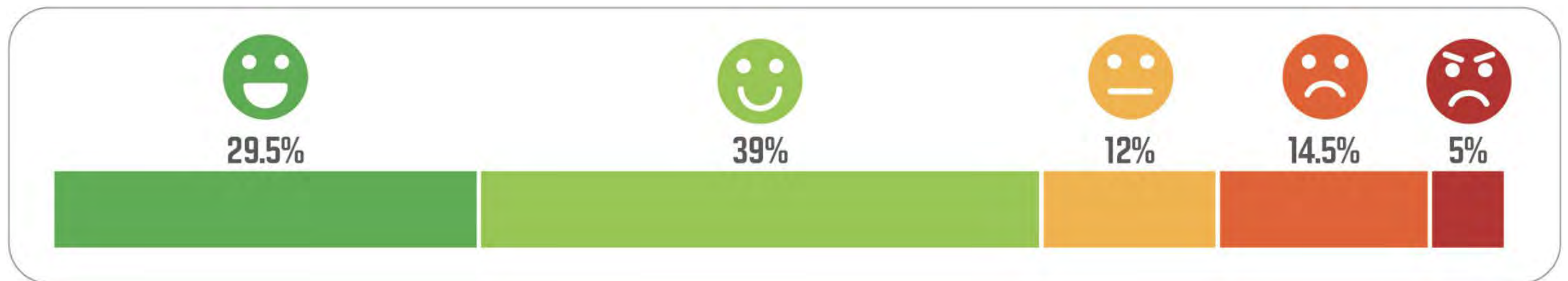
WAREHOUSES TO BE
AUTOMATED BY 2027

19M

JOBS AT RISK DUE
TO AUTOMATION

INTRODUCTION

Our recent [Worker Satisfaction Survey](#) shows that workers value companies that check in regularly, ask about workloads, and are transparent about health and safety. If these qualities are absent, burnout can rise quickly, and morale can plummet.



Survey Findings | These survey findings illustrate that thousands of warehouse workers nationwide feel somewhat or very undervalued by their employers.

As automation continues to reshape the industry, long-term success will depend on employers' ability to prioritize the human element — engaging, supporting, and retaining workers to drive sustainable growth and operational excellence. This report explores how advancements in safety and ergonomics are empowering warehouse employees, driving a more resilient workforce, and laying the groundwork for a more efficient and adaptable industry.

[DOWNLOAD FULL THE SURVEY HERE →](#)

BEST SAFETY PRACTICES SHAPING WAREHOUSE CULTURE

Ensuring safety in warehouses is crucial for protecting workers, maintaining productivity, and preventing costly incidents. By following best practices, such as proper training, clear signage, routine equipment checks, and organized breaks, facilities can create a safer, more efficient environment for everyone on the floor.



ONGOING EDUCATION FOR ALL EMPLOYEES

Conduct comprehensive safety training programs tailored to evolving tech and workflows.



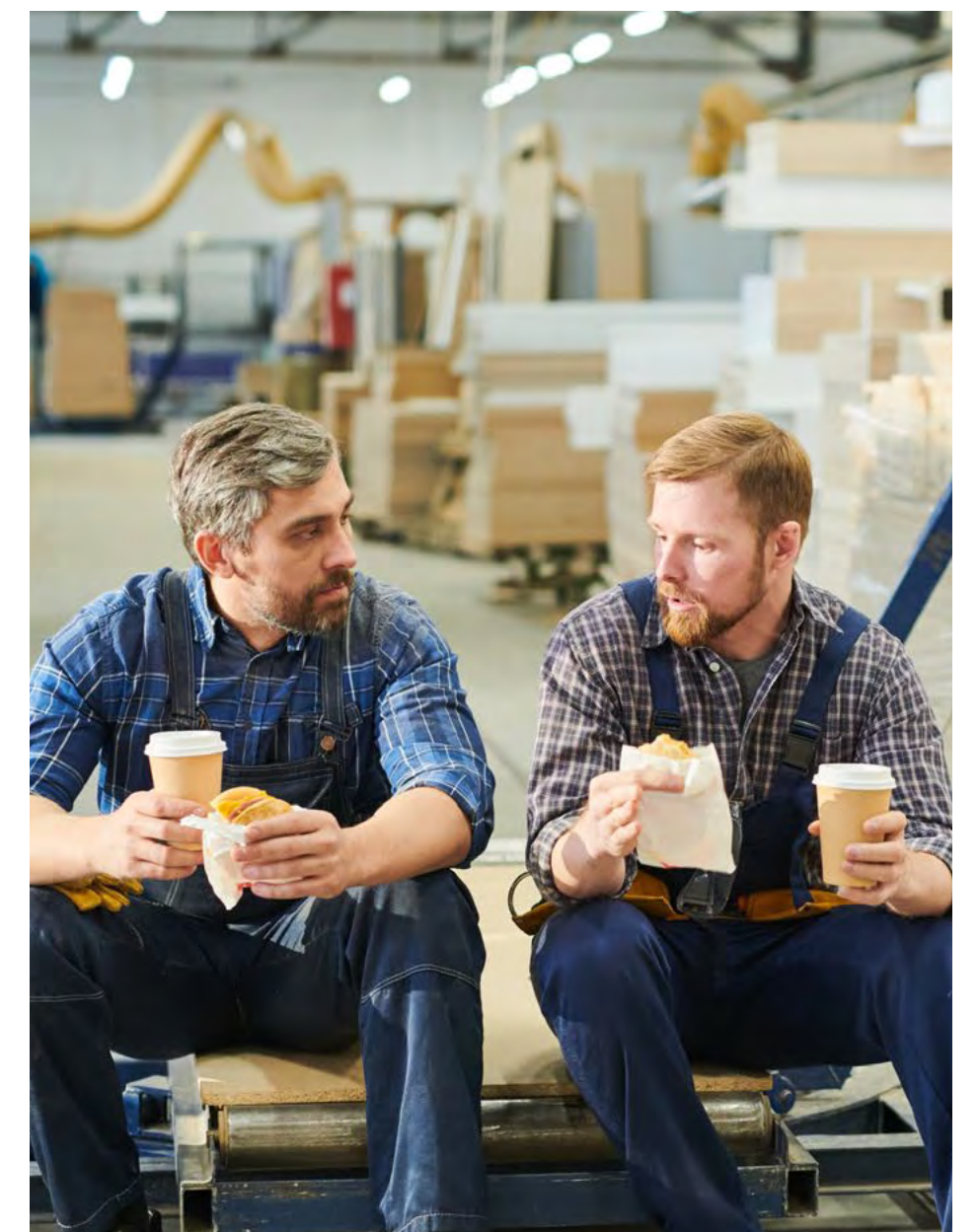
REAL-TIME HAZARD DETECTION SYSTEMS

Regular site evaluations can identify and mitigate hazards.



CLEAR AND CONSISTENT SIGNAGE TO PREVENT COLLISIONS

Anti-slip mats, regular floor cleaning, zoning, and pedestrian flow protocols can reduce cross-traffic incidents.



SCHEDULED MICRO-BREAKS

Short breaks can help prevent injuries such as poor posture, overexertion, and unsafe movements.

ERGONOMIC TOOLS REDUCING PHYSICAL STRAIN

Often, many look towards automation and the larger work processes when addressing failures. However, many times, the problems plaguing manufacturing are small at first but quickly grow into systemic issues that can remain largely unnoticed unless companies turn their attention towards their employees. With walking and lifting being among the key daily activities, those who invest in ergonomics tend to see the most ROI on their efforts.

Designed for, not against, or in competition with employees, ergonomic technology seeks to seamlessly integrate automated processes into everyday tasks, with a focus on injury prevention and employee enjoyment at the forefront of its design.

In 2023, the total cost of workplace injuries to employers was a total of \$176.5 billion. With many of these incidents being easily avoidable, ergonomic tools are designed to intrinsically improve every facet of a company. As an industry known for physical labor, this number can hurt revenue and damage the reputation. It is becoming increasingly important for companies to demonstrate that employees are safe and protected, rather than merely explain it.

A happy workforce is an efficient and loyal one



\$176.5B

**EMPLOYER COSTS DUE TO
INJURIES IN 2023**

ANTI-FATIGUE FLOORING SOLUTIONS

Cashier mats, standing pads, or workstation mats – anti-fatigue flooring goes by many names.

Regardless of this, they all serve the same purpose: to mitigate the effects of working on a hard, unforgiving surface, especially in warehouses, where concrete floors are often the most rigid and relentless.

Standing on hard surfaces causes a static posture that doesn't engage the muscle movement necessary for circulation. This leads to common complaints, such as aching, swollen legs, and sore feet. Walking on hard surfaces also puts significant strain on joints and the lower back. Upon contact with a hard surface, heel strike, or the initial point of contact when a person's heel lands on the ground before the rest of the foot, sends a shock wave through the skeletal system. Over time, these effects can evolve into debilitating musculoskeletal disorders (MSDs).

Many studies have highlighted the effectiveness of mats, with a study conducted by Mark Redfern at the Ford Motor Company demonstrating a 50% increase in circulation simply from using anti-fatigue mats. When it comes to the stresses on the skeletal system, a study by the University of Loughborough found a 35% reduction of heel strike with matting versus insoles or shoes alone.

Healthier employees mean a healthier work environment and a healthier bottom line. With anti-fatigue mats available at various price points and sizes, this can be a visible step in the right direction towards demonstrating to employees that safety is more than just company jargon, but rather a fundamental tenet of everyday operations.



**50% INCREASE
IN CIRCULATION**



**35% REDUCTION
OF HEEL STRIKE**



**SAFER WORKPLACE
& HEALTHIER
EMPLOYEES**

VOICE-PICKING & HANDS-FREE TECH

The margins for error are smaller than ever in an increasingly interconnected world that relies on warehousing. Rising expectations coupled with long hours often leave workers feeling strained and drained. As manufacturers strive to consistently improve turnover and the bottom line, many overlook the smaller processes that may be contributing to errors, which, if left unchecked, can snowball into larger problems.

A [recent survey](#) revealed that picking error rates in warehousing have improved to around 2%, but on average, each mistake costs around \$100. The mistakes are often granular, but they can contribute to creating distrust in services and can escalate when these experiences are shared and amplified online.



In addition, MSDs are becoming the leading cause of injury among warehousing and delivery workers, according to a recent [Government Accountability Office \(GAO\) report](#). Carpal tunnel syndrome and tendinitis, two of the most common workplace MSDs, are often caused by repetitive actions or overuse, such as typing or operating machinery. As these injuries continue to impact workers across industries, it's time for employers to take a closer look at even the most routine tasks and consider where improvements can be made.

Two such technologies addressing these errors are voice-picking and hands-free technology, which eliminate the need for pen and paper, freeing workers to focus on other tasks. This simple change is shown to [reduce up to 80%](#) of all picking errors and [reduce picking hours by 25%](#).

80%
FEWER ERRORS

25%
FASTER PICKING

\$100
SAVED PER MISTAKE

WEARABLE AND HANDHELD SCANNERS

Support surrounding the smaller operations day-to-day reinvigorates the workforce with a new sense of appreciation. A new technology can invite workers to reinvest and engage more with tasks that were previously too repetitive or too strenuous.

Handheld scanners, such as those offered by [Zebra Technologies](#), provide seamless technology that works in tandem with the worker. Wrapped around a worker's hand with minimal inputs required to use, these scanners truly make work a matter of a flick of the wrist.

The extra step of managing the scanner while picking can cost a worker three to five seconds per pick—that's more than 20 minutes of lost time per shift, or 4% of a picker's total shift time.



**3–5 SECONDS PER PICK →
20+ MINUTES PER SHIFT**



NEWCASTLE'S FOCUS ON THE “HUMAN ELEMENT OF AUTOMATION”

Newcastle Systems is redefining what it means to innovate with the worker in mind. Its approach to the **“human element of automation”** focuses on enhancing, not replacing, human productivity.

Newcastle's mobile-powered workstations bring technology directly to the point of task, reducing excessive walking, minimizing lifting risks, and offering adjustable-height surfaces to support ergonomics. These carts are designed with diverse workflows and body types in mind, making them easier to adapt to a wide range of employees and operational styles.

With a growing need to balance efficiency, safety, and employee satisfaction, Newcastle's solutions reflect a broader industry shift toward human-centered, flexible automation that prioritizes both people and performance.



NEWCASTLE'S FOCUS ON THE "HUMAN ELEMENT OF AUTOMATION"

Take a look at the [2024 Newcastle Systems Worker Satisfaction Survey Report](#) for our proprietary research on what makes a warehouse worker happy.

Client success stories: Share brief anecdotes or stats on injury reduction or improved productivity



"Respect for time is humanistic and outlives what we do; all workers are important in helping companies achieve their goals."



"This allows the worker to free up their minds for more important things; no need to walk to a PC and remember the data you need to add."



"Saving 12-30 minutes an hour of wasted time is appreciated by all levels – it's the one thing no one can create more of. We help."



"Reducing miles per day in a warehouse walking on concrete is a positive step towards worker respect, they are a competitive advantage if you can get them to come to work. Nice technology like carts helps, its proven (Zebra study)."

When workers thrive, companies achieve measurable improvements across operations

PRIORITIZING PEOPLE IN THE FUTURE OF WAREHOUSING

The bottom line is that warehouses and other industrial work environments must increase efforts to **make their spaces more welcoming, safer, and more conducive for employees to perform and enjoy their work**. By investing in people, warehouse operators can create a paradigm shift for the industry that will attract workers, make them feel more valued while at work, and encourage them to stay at their companies for a longer period of time.

Manufacturing and warehousing have often been overlooked or perceived as less rewarding and more physically demanding career paths. This perception must be changed, and it begins with administrators and owners making the conscious decision to support their employees for the betterment of their mission.

By integrating smart, mobile strategies, managers can:

- Put workers at the center of operations.
- Make them feel comfortable and empowered in their roles.
- Ensure employees are more productive and less prone to chronic injuries.



ABOUT NEWCASTLE SYSTEMS

At Newcastle, we've taken a different tack: Cost-effective tools that catapult efficiency into current operations, empower your workers, and double their productivity — *right now*, at a fraction of the cost of robots and retrieval systems. **We call it the Human Element of Automation.** The smartest route to automation often isn't replacing workers — it's empowering them!

With real-time data, mobile scanning, and printing on board, our mobile-power workstations provide everything your team needs to stay focused on high-value tasks with 100% accuracy. Plus, *workers love them*, boosting employee retention and helping to relieve staffing issues.



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