

Honeywell



ROAN SYSTEMS

WHAT TO CONSIDER WHEN TAKING STOCK OF YOUR DISTRIBUTION CENTER.



Introduction

In today's evolving world of omnichannel fulfillment, the operational requirements of your distribution center (DC) are more demanding than ever. At Honeywell, we work with thousands of DCs of all sizes, across a full spectrum of companies, fulfillment requirements and automation levels. We bring a deep foundational understanding of the businesses we serve, backed by expert research, domain experience, and experiential data to address the speed and complexity of modern DC operations.

Bruce Stubbs, director of supply chain marketing at Honeywell Safety & Productivity Solutions, comments: "If companies can't meet customer demands, they'll have to deal with lost sales, returned goods and other costly impacts."

With more than 130 years of on-the-ground experience, Honeywell is uniquely equipped to help you solve the challenges that your DCs face every day. We're partnering with industry leading companies to drive results, improve efficiencies, and help them reach and exceed their operational objectives.



Table of contents

- 4 [What we see: A study of today's DC.](#)
- 7 [DC size: Where do you fit in?](#)
- 12 [Honeywell end-to-end solutions for DCs.](#)

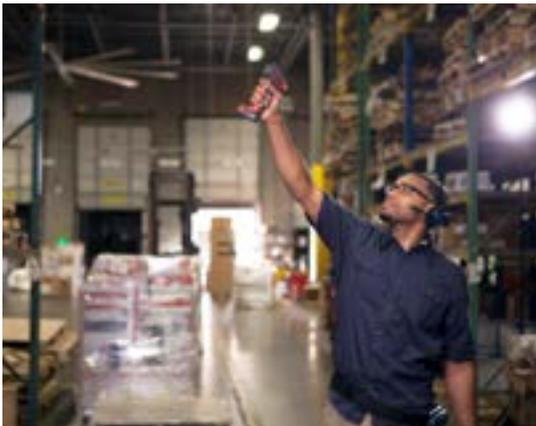
What we see: A study of today's DC.

Maximizing DC utilization and consistently maintaining peak performance—now and in the future—are common goals shared by DC operators. At Honeywell, this starts with identifying and evaluating your unique business requirements. The following areas represent some of the most common challenges DC operations encounter—whether in a single warehouse or across a network of facilities.



Capacity

Increased demand due to e-commerce sales, seasonal peaks and stock-keeping unit (SKU) proliferation are forcing companies to utilize their DCs to their maximum potential. In fact, capacity-related metrics were a top concern to DC leaders, according to the Warehousing Education and Research Council (WERC) DC Measures 2018 Trends & Challenges survey. Within the top 12 metrics in the annual survey, industry leaders cited the need to improve utilization for both average capacity and peak demand seasons.¹



Accuracy

Accuracy is among the most important issues facing DCs. It's no surprise that accuracy occupied two of the top 12 metrics for 2018 per WERC, including inventory-count accuracy and order-picking accuracy by location.¹ One of the chief culprits for errors begins with the analog or paper-based methods still used by many organizations for everyday tasks and workflows. This methodology is highly prone to introduce errors in every step of the process, and severely impairs receiving, inventory counting, picking and packing workflows. Companies are taking paper out of the equation and employing automation solutions, such as radio frequency (RF) scanners, light- and voice-directed picking, and mobile computers and scanners, which drive significant efficiency and accuracy improvements.





Consistency of performance

Maintaining consistent performance from year to year is a shared priority for DCs. According to WERC, best-in-class operators saw performance decline on 50% of the metrics as defined in the study. Whether the causes are a lack of essential technology, economic challenges, or an absence of capital to invest in infrastructure, performance suffered. Mitigating these challenges to achieve consistent performance is a top priority among DC leadership.¹

Labor

The integration of people, process and technology is the key to driving successful operations. Industry growth is outpacing the labor pool by six to one.¹ Understandably, five of the top 12 metrics for 2018, according to WERC, were employee-related: specifically: part-time workforce to total workforce; overtime hours to total hours; contract employees to total workforce; and the percentage of cross-trained employees.¹

The following three factors need to be addressed to achieve maximum operational efficiency from your DC's labor force:

Labor productivity

Your workforce needs the proper tools to enhance their output and improve efficiencies. These solutions need to provide real-time and historical insights into individual and collective performances.

Labor training

Workers need intuitive tools that reduce training time, help them continually learn, and improve their daily performances in order to complete tasks more efficiently and productively. Such tools also incentivize performance and forecast resource requirements.

Labor efficiency

A focused and well-organized workplace can help you outpace the competition. The integration of people, process and technology are what will drive success, with people leading the way.

Honeywell believes in putting people first and never forgetting that distribution and fulfillment is still a people-centric business where relationships are important.



89%
suggested

PEOPLE AND PROCESSES WERE OF PRIMARY IMPORTANCE



Improving processes

An essential part of making the digital transformation is improving upon existing DC processes. 89% of respondents in the WERC study suggested that people and processes have been primary areas of focus over the past two years.¹ And while people, processes and technologies must converge for operational efficiency, almost 35 percent of respondents are still not using warehouse management or execution software to coordinate warehouse activities.¹

Making process improvements requires a thorough review and evaluation of your existing processes. Once established, this documentation can be updated for continual process improvement, or entirely revamped to incorporate new workflows or automation.

Almost
35%

ARE STILL **NOT** USING A WMS TO MANAGE THEIR WAREHOUSES

Technology

While 30% more facilities have implemented a warehouse management system (WMS), in 2018 almost 35% were still not using WMS to manage warehouse workflows.¹ As companies increasingly invest in technologies, and robotics and autonomous vehicles gain traction, companies need the adaptability and flexibility to stay competitive. Read Honeywell's research brief "How Technology Can Improve Your Operations and Bring You Closer to Your Customer" to [learn more about how DC leaders are achieving this digital transformation](#).



DC size: Where do you fit in?

While there are many factors that can be used to assess your DC—such as the types and volumes of work that contribute to operational complexity—according to Gartner, size is a universal method to quickly classify the sophistication of DC operations.² Warehouse size refers to the three-dimensional footprint of the facility, the total number of storage locations within it, and the height and cubic capacity of the storage area.

Whether you are a small, medium or large DC, Honeywell has the exact set of solutions you are looking for. Continue reading to learn more.

The small DC

Used as either stand-alone businesses or part of a larger network serving as last-mile delivery facilities, it is understood that small DCs don't typically require the most sophisticated warehouse systems and technologies. DCs of this size can focus on adopting entry-level, yet essential, automation technologies to enhance workflow efficiencies and deliver process improvements.



Accuracy

It can be argued that accuracy is the most important concern in the warehouse. From receiving to all subsequent downstream workflows, including put-away, picking, shipping and loading, everything depends on the accuracies and efficiencies achieved in the preceding workflow.

Honeywell brings a wide set of solutions together that can influence positive outcomes in workflows throughout the small DC. They include the following:

- **Mobile computers that provide 1D and 2D imaging.** Utilizing mobile computers with imagers to scan product and label information, as well as capture additional data, is more productive (~25%) and accurate (~50%) than paper/manual-based methods. It ensures quality control and vendor compliance, and quantity received information is captured in real time.
- **Wearable solutions.** A growing number of companies have turned to hands-free computing solutions to streamline operations and improve productivity. The Honeywell Mini Mobile Wearable solution provides a hands-free solution increases productivity and improves ergonomics over handheld devices.



- **Voice-guided and hands-free solutions.** Honeywell's voice-guided solutions have proven to increase productivity by up to 35% and increase accuracy to 99.99%+ in a variety of tasks throughout the warehouse. For example, in picking processes where workers follow a series of instructions for specific pick locations, products and quantities, these tools provide needed guidance and verification at every step. Voice is available in over 35 languages and has been proven to dramatically reduce training and onboarding time, especially in peak seasons with highly transient workforces.
- **Material handling.** Automated material-handling solutions from Honeywell Intelligated optimize processes, increase efficiency and give businesses a competitive edge. Honeywell Intelligated designs, manufactures, integrates and installs complete material-handling automation solution. Small- and medium-sized DCs engage Intelligated as they consider future facility layouts (or retrofits of existing facilities) to maximize use of space and ensure logical layouts. This can help drive the ability to increase volumes in current DCs. In a building without much outward expansion capability, this can help support growth and buy some time before new facilities need to be considered.

The medium DC

The range of needs for medium-sized DCs can vary greatly. Within these larger square footage operations, Honeywell can assist in connecting workers, improving visibility to fulfillment activities, and increasing productivity and efficiency. Common solutions include:



- **Order-picking technology solutions**

With 50–60% of the average DC's workforce consumed in the picking workflow, productivity gains quickly add up to operational savings, especially in e-commerce DCs. Our integrated, best-in-class, order-picking technologies deliver maximum throughput and accuracy in high-velocity, high-SKU environments. Our voice-directed solutions are used by nearly one million mobile workers every day, and provide detailed instructions that guide workers to find specific locations, products and quantities. Light-directed solutions enable accurate, single-touch confirmation via pick-to-light automation to drive productivity improvements in high-pick-density environments.



- **Accuracy solutions**

To maintain DC productivity, the tasks of receiving and put-away must be performed with speed and accuracy. Accuracy in this workflow is critical to prevent costly cascading errors downstream and reduce “dock-to-stock” cycle times. Honeywell's mobile-computing technology provides the flexibility your organization needs to effectively manage these critical tasks. These mobile- and vehicle-mounted solutions feature advanced imaging technologies that capture data quickly on the first scan, thereby increasing speed, accuracy, productivity and visibility over traditional paper-based processes.



- **Vehicle-mounted computer solutions**

Our vehicle-mounted computer solutions turn forklift- and vehicle-based workflows into information technology platforms. Roughly, 25% of the average DC's labor is spent on receiving and put-away tasks. Equipping your forklifts with technologies—such as computers, barcode scanners, printers, radio-frequency identification (RFID), voice, lights and software—can reduce material-handling costs, optimize order fulfillment rates, and increase inventory accuracy with real-time tracking.

- **Material-handling solutions from Honeywell Intelligrated**

We see many medium-sized DCs exploring and adding varying degrees of material-handling solutions to augment and/or replace manual portions of the DC operations with elements of the Honeywell Intelligrated offerings such as:



- **Labor management software (LMS)**

Honeywell Intelligrated's Labor Management software allows you to effectively manage your labor and staffing needs, helping you to maximize labor productivity and minimize labor costs. Actionable insights allow you to accurately evaluate worker performance. Patented algorithms help forecast when workers may be at risk for leaving, giving you the ability to take proactive measures. Our LMS provides an effective way to manage labor productivity while improving training, process compliance and efficiency.



- **Sortation and conveyor systems**

Sortation and conveyor systems are the critical conduits for transporting, directing and routing product flows through busy DC environments. While conveyors are essential for moving product throughout a facility, sortation systems separate products for induction into individual lanes typically associated with an outbound destination. With the rise of e-commerce, sortation and conveyor systems have evolved from simply transporting cases for store replenishment to handling a variety of individual items and packaging types. Honeywell Intelligrated's award-winning solutions cover the full spectrum of throughput requirements—up to 20,000 items per hour.



- **Palletizing and depalletizing**

Keep your end-of-line packaging, distribution and fulfillment operations moving at industry-leading speeds—more than 200 cases per minute or more—with Honeywell Intelligrated's palletizers and depalletizers. Whether you're a manufacturer or an omnichannel retailer, you'll get the flexibility and dependability you need to stay at peak efficiency. Our engineers can install individual units or set up complete systems fully integrated with your existing conveyor and other material-handling equipment.

The large DC

Gartner defines large DCs as those greater than 250,000 square feet—roughly half the size of a professional football field. For large DCs, their focus shifts from rudimentary automation to sophisticated, connected technologies aimed at improving and optimizing processes, performance and throughput. Simply put, these facilities are engineered to support highly automated operations, from end to end. Competing at this tier requires the tools and technologies to coordinate activities, not only within a singular DC, but also across a network of locations.²

Honeywell offers a full range of performance-enhancing solutions for large DCs, often including those that benefit their smaller counterparts that we have previously mentioned: the small-and medium-sized DCs. Combining expertise and experience, we provide solutions designed to improve every aspect of DC operations on this scale.

Many of the large DCs benefit from material-handling solutions from Honeywell Intelligrated. These include:



Connected Distribution Center

Honeywell Intelligrated's Connected Distribution Center is built upon an industrial internet of things (IIoT) infrastructure to give companies a holistic view of their DC operations. From workers, automation systems and robotics to machine-level sensors and control systems, we're connecting every aspect of your DC to drive unprecedented throughput and performance. Through cloud-based, insightful analytics software, we're gathering data from key inputs to deliver vital information and trending data on asset health and operational status in real time. With the Connected Distribution Center, you can pinpoint problems and accelerate decision-making while increasing reliability, maximizing utilization and improving productivity.



Warehouse Execution Systems

Honeywell Intelligrated's Momentum software helps improve efficiencies, automate manual processes and fully optimize fulfillment operations. This unified platform reduces unsupportable, one-off customizations and allows you to select only the functions you need to meet your unique operational requirements.



Robotics

Robotics enable high-performance material-handling and fulfillment capabilities throughout your operations. We have more than 25 years of experience developing and implementing robotic solutions for dynamic, unstructured environments, such as distribution centers. Backed by extensive knowledge of DC workflows, we offer warehouse integration expertise, innovative technologies and a strong controls foundation to incorporate the benefits of robotics into your operation. From packet-picking and robotic singulation to unloading and depalletizing, we have a broad portfolio of patented robotic innovations and strive to continually engineer new solutions.

Honeywell end-to-end solutions for DCs

Honeywell is uniquely equipped to help you achieve logistical and operational excellence through smart end-to-end solutions. From identifying pain points to transforming distribution centers, our cutting-edge solutions—when combined—maximize operational potential and optimize outcomes. The range of solutions that we will explore across DC operations includes:

Mobile computing

Our rugged handheld and vehicle-mounted computers deliver multipurpose utility, improve worker productivity, and help get the job done safely and efficiently. They are also Android™ capable and developed on a common platform called Mobility Edge™ that provides easier and faster deployment and extends the life of the investment with future proofing of security and system development.

Scanning

Built for specific challenges and work environments, we offer a robust variety of industrial and handheld scanning solutions to meet your various needs. Most of these solutions also are capable of reading both near and far labels.

Printing

Our wired and wireless printer solutions are designed with built-in intelligence that improves efficiency and lowers costs, while satisfying high-demand printing needs.

RFID

Our smart tracking solutions offer the power of mobility, wireless networking and multi-protocol RFID capabilities.

Voice-directed work

Our Vocollect™ hands-free voice technology increases worker productivity, reduces errors and decreases training time—all while collecting data for actionable insights.

Material-handling systems

Honeywell delivers solutions for material-handling demands across a variety of industry applications—including automated train load-out systems and conveyor belt monitoring.

Software

We help companies make the digital transformation necessary to increase reliability, improve utilization and enhance productivity.

Services

Life cycle support services from Honeywell Intelligrated provides the services, parts and support needed to keep systems running at peak efficiency.

Industrial safety

Honeywell has an industrial-safety division that can be engaged to provide direction for safety elements deployed in the DC, such as forklift tethers, safety vests, safety eyewear and ear protection, eyewash stations, safety shoes, gloves, vests, etc.

Are you ready to see how your DC stacks up?

At Honeywell, we have extensive experience in successfully solving complex problems for a variety of e-commerce and omnichannel businesses. We're committed to solving your DC challenges through relentless innovation and a desire to deliver best-fit solutions. We provide access to the actionable insights and information you need to transform your business.

Our expert assessment teams will partner with you to understand your unique business requirements and identify where opportunities exist to optimize your workflows and increase efficiencies within today's competitive retail climate. Take your DC to the next level. Contact us today:



References

- ¹ WERC (2018) "DC Measures 2018 Snapshots in Time"
- ² Gartner (2017)
"Understand the 10 Dimensions of Warehouse Complexity Before Evaluating WMS Solutions"



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