

# Redefining Warehouse Efficiency.



**xDIM**  
DIMENSIONING ANYWHERE

**xDIM Mobile Dimensioning versus Stationary Systems**



# Abstract

The rapid growth of e-commerce and the increasing demand for efficient warehouse operations have underscored the need for accurate and speedy dimensioning solutions.

Traditional stationary dimensioning systems have served their purpose, but their limitations in terms of item flexibility and time consumption are more evident than ever before. This white paper introduces xDIM, a cutting-edge multi-mode, mobile dimensioning solution designed to revolutionize the warehouse and logistics industry. By comparing xDIM's time savings in dimensioning 15 items against stationary dimensioning systems, this paper highlights the advantages and benefits of adopting xDIM for enhanced productivity and streamlined, smarter operations.



## Mobile Dimensioning

Mobile dimensioning software, running directly from the tablet, and a portable Bluetooth scale enable dimensions and weight to be taken directly at an item's location within the facility. Workers no longer need to bring items to-and-from a stationary dimensioner or scale, improving process speeds and efficiencies.





## Introduction

In the age of fast-paced logistics and e-commerce, warehouses face unprecedented challenges in meeting customer demands while maintaining efficiency and accuracy. Dimensioning, the process of measuring an item's length, width and height, is a crucial aspect of warehouse operations, directly impacting shipping costs, storage optimization and customer satisfaction.

Stationary dimensioning systems, though functional, have limitations in terms of speed, flexibility and adaptability in dynamic warehouse environments. These limitations can make it difficult to ensure staff are capturing correct dimensional data. One survey found over half of responding warehouse and distribution center professionals often lack complete dimensional and weight data, and a quarter of respondents consider this a major issue in their operations.\*



The emergence of xDIM aims to address these drawbacks and optimize the dimensioning process for superior performance and accurate data.

## Dimensioning in the Air

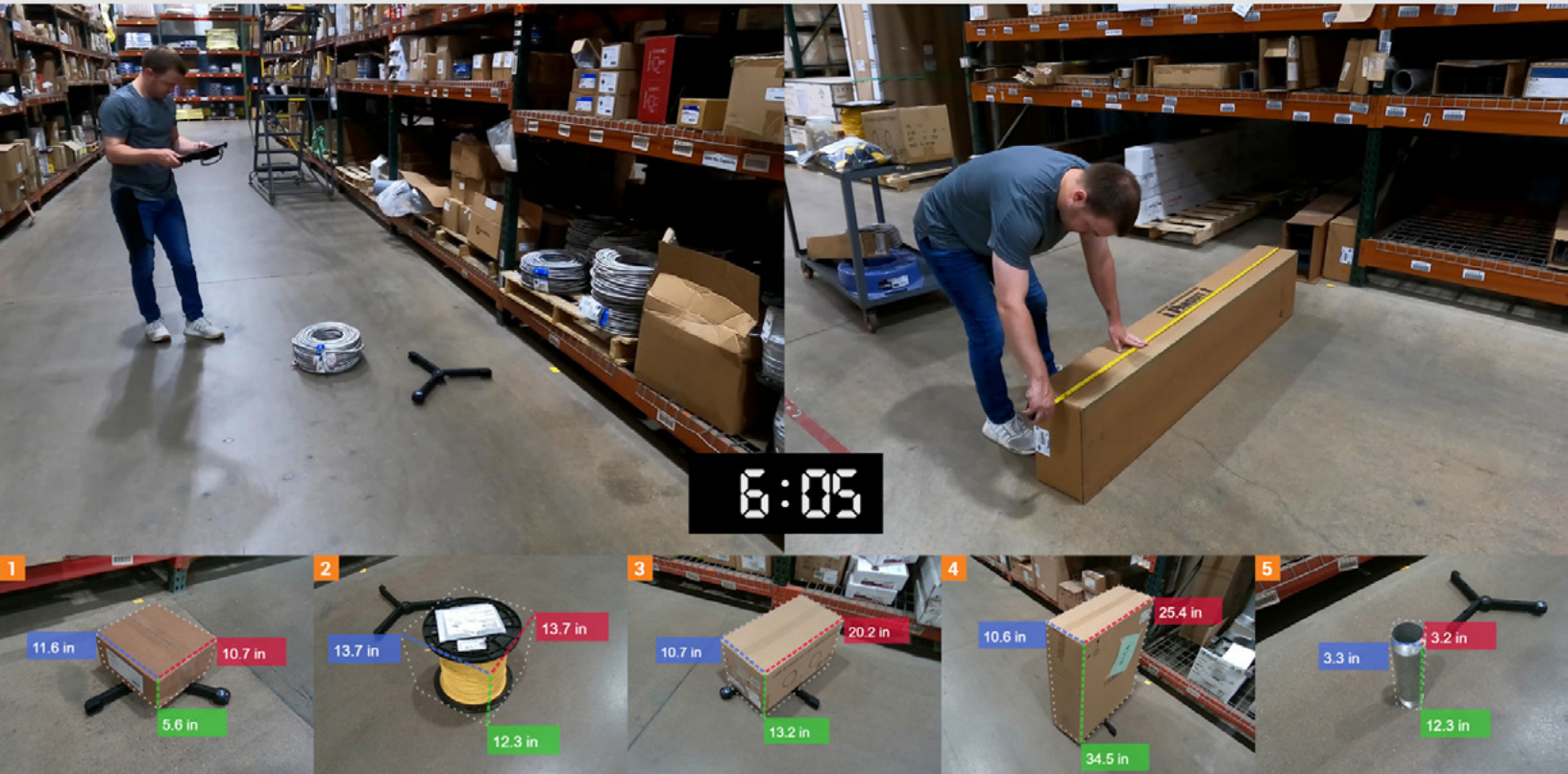
xDIM is an innovative multi-mode, mobile dimensioning and weighing solution designed to deliver speed, accuracy and efficiency in the warehouse and beyond. Unlike stationary dimensioning systems, xDIM is a portable, versatile tool that captures item dimensions with a simple point-and-click of a rugged tablet, anywhere in the warehouse.

The solution enables an entirely new workflow. Before, items were retrieved from their locations, taken to a fixed dimensioner and returned to their original location. With xDIM, item dimensions and weight are captured at the item's location – even from the 5th level rafters.



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## Methodology

To compare the speeds of the dimensioning systems, a single worker dimensioned a set of 15 items of varying shapes and sizes in a real warehouse environment. The worker had to locate each item, scan the location and item barcodes, and capture both weight and dimensions of each item.



### Step 1: Locate Items

**Stationary** – The worker prints a picking sheet giving direction on item locations. Worker walks to first item holding paper, pen and tape measure while pushing a large cart.

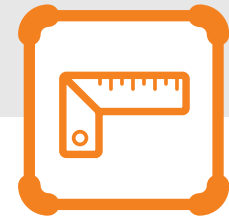
**xDIM** – The worker views the picking list from their rugged tablet giving direction on item locations. Worker walks to first item holding rugged tablet and wearing holster containing mobile scale.



### Step 2: Scan Items

**Stationary** – The worker uses a handheld barcode scanner to capture the location and product barcodes. A separate camera or smart phone is used to take photos of the items.

**xDIM** – The worker uses the integrated scanner and camera, both built into the tablet, to capture the location and product barcodes as well as images.



### Step 3: Capture Dimensions and Weight

**Stationary** – The worker places items below 48-inches\* on the cart and moves to a stationary dimensioner, placing the items one-by-one upon it to capture dimensions and weights. Items are then returned to their location in the warehouse.

**xDIM** – The worker places the item on the ground and aims the tablet at the item, capturing dimensions in seconds. The scale is removed from the belt holster and placed on the ground, on which items are placed to capture weight.

\*For items over 48-inches, a tape measure is used to manually measure the item and dimensions are recorded by hand on paper.

# Results

The results demonstrate a remarkable time difference between xDIM and the traditional stationary dimensioning system. On average, **xDIM outperformed the stationary system by nearly 40%**

in terms of time savings, with the stationary system taking 20 minutes and 15 seconds and xDIM taking 12 minutes and 20 seconds to capture the weight and dimensions of 15 items.

xDIM Mobile Dimensioning	Fixed Stationary Dimensioning
<b>12:20</b>	<b>20:15</b>

For this test, only items located within arm's reach were selected. However, substantial additional time would be added to the stationary dimensioner to account for moving up and down the racks to retrieve items on higher shelves. With xDIM, both dimensions and weight can be captured at the item's location, from the ground floor to the 5th level and beyond.

The reduction in time can be attributed to xDIM's mobile nature, allowing it to be taken directly to items, eliminating the need to transport items to a fixed measuring station. This inherent flexibility significantly reduces the time spent moving items, which has been reported to take 50% of total time consumed in order picking\*\*, resulting in faster workflows and processes.



Outside of significant time savings, xDIM also enables:



### Multi-mode dimensioning

The ability to dimension boxes, irregular items and pallets distinguishes xDIM from traditional stationary dimensioners, which are limited to a single type of dimensioning. Having a single system capable of dimensioning any item entering the warehouse streamlines the workflow and simplifies the dimensioning process.



### Less Human Error

When items are too large for a stationary dimensioner, workers may use a tape measure and pen-and-paper to record dimensions which can lead to inaccuracies and inconsistencies between users. xDIM's advanced technology ensures consistent and accurate measurements every time, regardless of who operates the system, minimizing human errors and improving data integrity.



### Real-time Data Capture

By integrating seamlessly with existing warehouse management systems, xDIM enables real-time data capture and analysis. Instant measurement recording and transmission to the central database empowers warehouse managers to access accurate dimensional information promptly, facilitating informed logistics and operational decision-making.

## Conclusion

In a competitive and fast-paced logistics landscape, adopting xDIM promises to elevate warehouse performance, optimize resource allocation, and enhance customer satisfaction. The versatility, efficiency, and accuracy of xDIM sets a new standard in the industry, dimensioning 40% faster than its stationary counterparts, enabling warehouses to meet the challenges of e-commerce and dynamic operational environments effectively.

As the industry evolves, mobile dimensioning will continue to play a pivotal role in driving efficiency and productivity in warehouses and beyond. With the potential for streamlined, smarter operations, xDIM stands as a transformative tool for warehouses seeking to excel in the ever-changing landscape of modern logistics.

The future of dimensioning lies with xDIM, and it is poised to redefine how warehouses measure, manage and optimize their inventory for a more productive and profitable future.



## Resources

\* 62% of respondents reported human error from manual process management as the no.1 root cause of inventory fulfillment issues.

[51 Warehouse Automation Statistics for Streamlining Operations \(g2.com\)](#)

\*\* More specifically, while 45% have 100% SKU weight and "dims" in the item master record, 55% lack complete weight and dim data. Lack of SKU weight and dim data also climbed slightly, with 24% calling it a major issue.

[2020 Warehouse/DC Operations Survey: COVID-19 pandemic hits, operations respond - Logistics Management \(logisticsmgmt.com\)](#)

[xDIM web page](#)

[xDIM Speed Comparison Video](#)

[xDIM Pallet Dimensioning Video](#)

[xDIM Irregular Dimensioning Video](#)



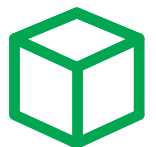
IRREGULAR  
DIMENSIONING



PALLET  
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LARGE BOX  
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