



WHY MODERN WAREHOUSES ADOPT AUTOMATED DIMENSIONING SYSTEMS?



In 2020, modern warehouses can no longer afford to compromise on speed, accuracy, or profitability in order to survive. With automated dimensioning systems, they can take their operations to the next level.



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INTRODUCTION

In today's rapidly-evolving world of warehousing technology, meeting the needs of customers is only half the battle. The other half is to proactively accelerate their order fulfillment process so that the customers get the benefit of convenience and speed. And that's not all – it will also lead to a lot more efficiency in their warehousing operations.

Recently, the warehouse managers have had access to a cluster of technologies to lessen their operational expenses and meet increasing market demand by ensuring delivery requirements on schedule. At the fulcrum of this change are dimensioning and weighing systems.



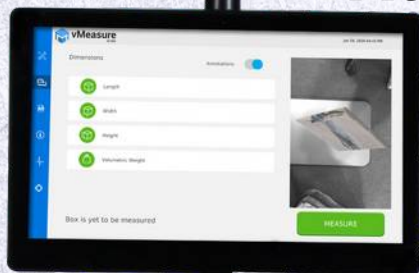
WHAT ARE DIMENSIONING AND WEIGHING SYSTEMS?



The term “dimensioning” refers to the process of estimating either the area or the volume that an object occupies. In other words, dimensioning is a technique of calculating the capacity of the storage, handling, transporting, and invoicing of merchandise. The dimensioning frameworks are fit for measuring the length, breadth, height, and width of the stock.

The weighing systems help calculate the weight (heaviness) of the object. The blend of dimensioning and weighing is integrated and deployed in many transport and logistics companies. As for dimensioning technologies, they are not only utilized in transport and logistics, but also deployed in postal organizations, shipping retailers, and small handling companies around the world.

VMEASURE ASSEMBLE & DEPLOY IN 15 MINUTES



Instantly measures the length, height, and width of any object and manage all your dimensioning needs with an AI-driven solution

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ROLE OF DIMENSIONING SYSTEMS IN MEASURING IRREGULAR SHAPES

One of the questions that gives sleepless nights to warehouse managers is how they can leverage dimensioning systems to measure irregular shapes accurately and seamlessly.

Until a few years ago, the most common method of measuring products, packages, or pallets involved utilizing a tape and a ruler.

Did you Know?

Logistic software Solution providers incorporate Automated dimensioning and edge AI into their solutions to improve warehouse productivity

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However, the evolution of automated dimensioning advancements has caused traditional dimensioning methods to slowly fade into obscurity. With automated dimensioning systems, warehouses managers have eliminated those tedious manual-driven measuring battles. Besides equipping them with the power of speed and accuracy, it has also led them to increase the level of quality assurance, improve time utilization, and reducing damage or postponements – thus enhancing the overall profitability. This is because dimensioning frameworks aren't standalone solutions.

They come equipped with deep dimensioning knowledge relating to the most popular industry case studies.

The dimensioning instruments are designed with SDK enhanced with several efficient algorithms and camera-based imaging that helps in calculating the length, width, and height of irregular objects.





MAJOR TYPES OF DIMENSIONERS

Large freight dimensioners

The large freight dimensioners are very effective in measuring the accurate length and width of pallets. Once they measure all four dimensions, they can be stacked to the trailer. Large freight dimensioners comprise equipment that can be synchronized with gauging scales, barcode scanners, and two-dimensional cameras to capture the overall load qualities of any shipment.

It can help them create a record that captures the dimensioning properties, as well as other relevant freight properties. These large freight dimensioners are also known as pallet dimensioners.





Cloud-based pallet dimensioners are best-suited to produce analytical reports based on all the dimensional information. Likewise, it can also deep-dive information on individual shipments.

Pallet dimensioners can assist companies in reducing pallet measurement time, labor costs, data entry errors, and - in some instances they can even help refute damage claims.

Package dimensioners

Package dimensioners are also known as parcel dimensioners. These are used to measure individual boxes and packages of various shapes and sizes.

Many shipping service providers are dependent on package dimensioners to accelerate their shipment journeys while ensuring maximum profitability.

Did you Know?

Automated dimensioning solutions built on Stereo-camera tech are faster and more accurate than other types of dimensioning systems

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4 REASONS WHY WAREHOUSES NEED AUTOMATED DIMENSIONING SYSTEMS



Several organizations have already started adopting large freight and package dimensioning systems in their warehouses. Here are four reasons why they are already realizing the benefits!

1. Increasing speed

Speed is the bread and butter of any automated warehousing solution to deliver the output instantaneously. And it's important to consider the speed of the equipment, along with how quickly the warehouse operator can place the object on the dimensioner and calculate the measurements.

The tracked data in the dimensioning equipment can be stored and utilized since information can be retrieved - whenever it is required.

2. Throughput optimization

In 2020, it is clear that customers of warehouses have no patience for late-deliveries. It is also critical to deliver the shipment with zero-harm because that can be a “make or break” moment for the customer. Dimensioning systems help in giving access to data so that warehouse can easily allocate a place for the product in the pallet - and ensure a smooth and streamlined shipment cycle.

3. Improved accuracy of shipping cost

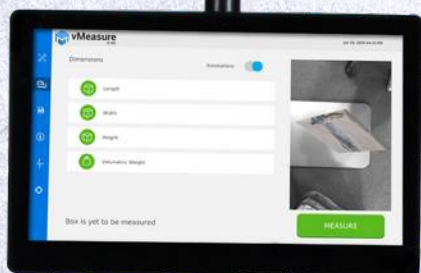
Identifying the accurate weight and dimension is important to estimate the actual cost. In this aspect, the dimensioning systems eliminate any chances of manual errors so that the customer does not feel like they have not gotten a fair deal.

4. Future capacity planning

Dimensional solutions can assist in planning the overall warehouse capacity so that operations can be agile, lean, and future-ready. It can be helpful in reorganizing the existing space or can be useful in planning a move to a new facility. The weight and dimensional solutions are very helpful in specifying the pallet racket if needed.



VMEASURE PARCEL PRO S100 100 PARCEL IN 15 MINUTES INCLUDING LOADING & UNLOADING TIME



Instantly measures the length, height, and width of any object and manage all your dimensioning needs with an AI-driven solution

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HOW CAN DIMENSIONERS BOOST WAREHOUSE EFFICIENCY?

Assist in increasing profitability

To start with, the dimensioners provide a systematic way to prevent higher than actual expenses due to the wrong dimensional data. They also help monitor costs systematically so that there is a best practice in place to ensure pricing accuracy.

Also, the dimensioners can be a gamechanger in analyzing the contrast between the declared value and actual value of the dimensional weights.

Did you Know?

By using Camera enabled Automated dimensioning solutions you can use bolt on AI applications for broken box detection or package optimization without additional investment?

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Accelerate freight dimensioning and weighing operations

As earlier discussed, these days, a majority of operators have stopped measuring the dimensions using measuring tapes since it is an ineffective and time-consuming process. With automated dimensioning solutions, warehouses can significantly reduce the measuring time to nearly less than a second! By doing so, the throughput of your facility goes up, which leads to increased revenue generation.

Optimize warehouses with cubing data

Logistics management and planning software tools can help boost the efficiency of the warehouse and the shipment of goods. To fully benefit from this advancement, an accurate dimensioning system is required so that the weighing data can be used to take the right decision at the right time. It also prevents the influx of inaccurate dimensional data that can result in errors during the arranging stage.



Some of the blunders include the type of freight that simply might not fit into the number of assigned trucks, and inadequate space in warehouses.

With dimensioning solutions, it is easy to get rid of the above blunders so that in the end, the job of the warehouse manager is simpler and a lot more efficient.



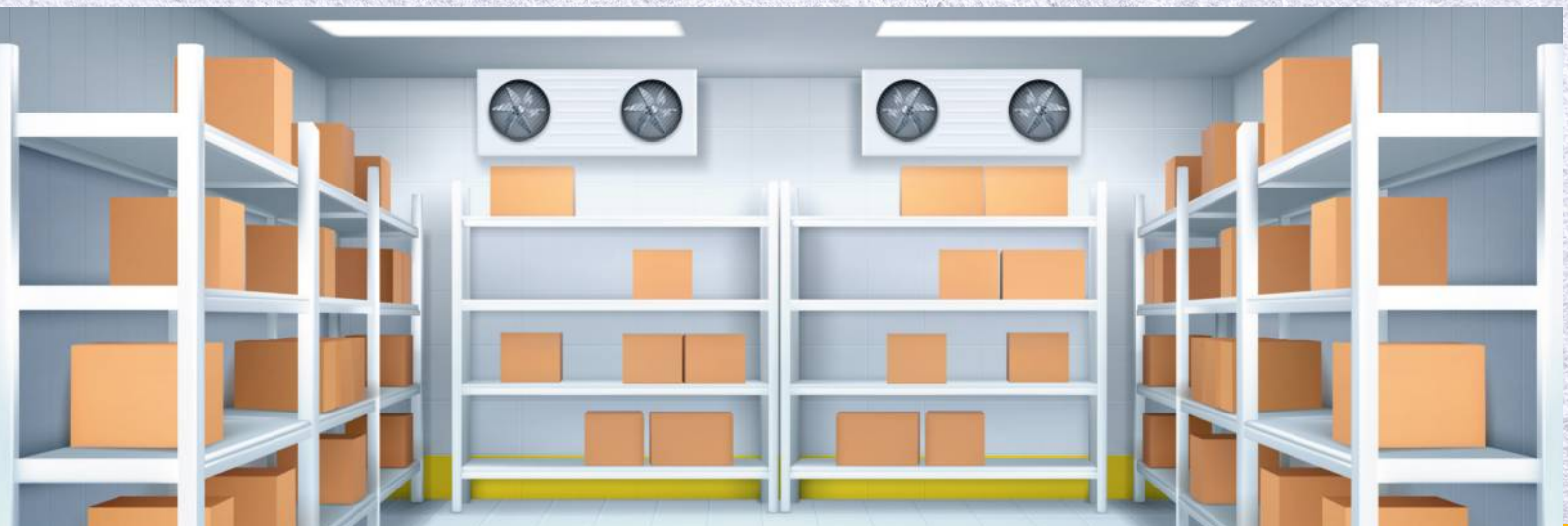
CONCLUSION

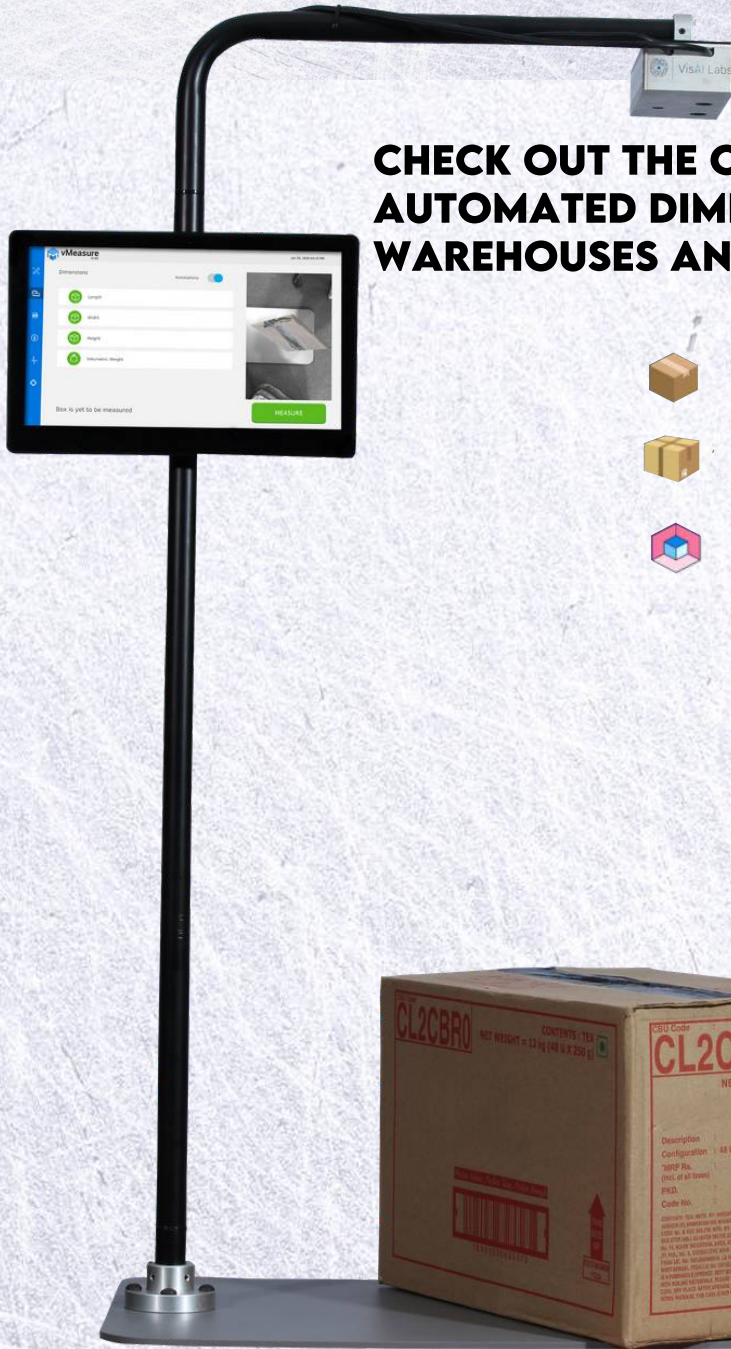
Focusing on sustained growth, several leading organizations – and emerging start-ups - have already begun adopting the latest in automated dimensioning systems. In fact, it could be argued that futuristic dimensioning is the lifeline of any profit-making warehouse.

In forthcoming years, the advancements in robotization can take automated dimensioning technology to a whole new level in which warehouses can enjoy more accuracy and efficiency than ever before.

Looking to make your warehouse operations leaner, smarter, and more cost-efficient?

See what VisAI Labs offer and let us help you leverage the power of automated dimensioning.





CHECK OUT THE COMPUTER VISION ENABLED AUTOMATED DIMENSIONING SYSTEM FOR WAREHOUSES AND ORDER FULFILLMENT CENTERS



Minimum Dimensioning: 10x10x10 cm



Maximum Dimensioning: 50x40x30 cm



Accuracy

+/- 5 mm for cubes and cuboids

+/- 10 mm for non-cuboidal shapes

Dimension:



Cubes



Cuboids



Polybags



Tubes



Irregular shapes

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