Enhancing Supply Chain Management with Accurate Dimensioning Data

SICK, Inc

SICK is one of the world's leading manufacturers of sensors, safety systems, machine vision, encoders and automatic identification products for industrial applications. With more than 1000 patents, SICK continues to lead the industry in new product innovations. The diversity of its product line allows SICK to offer solutions at every phase of production in the logistics, automotive, packaging, electronics, food and beverage, and material handling markets.

6900 West 110th Street
Minneapolis, MN 55438
800-325-7425
info@sick.com
www.sick.com

"Surely we need better and more useful technology instead of simply more technology"

Dr. Erwin SICK, founder, SICK Inc.

Growth & Impact

Accuracy
Increased control over inventory

Efficiency
Improved storage utilization

Cost savings
Lower product loss and re-handling

Enhancing Supply Chain Management with Accurate Dimensioning Data

Achieve better inventory control and space utilization for a more efficient fulfillment center

How a retail chain used dimensioning data to optimize storage space and improve operations

Retailers today are faced with many different challenges that often require a change in supply chain management. From shifting retail formats to ever-changing technology to inventory management, logistical demands being placed on retailers are becoming increasingly complex and challenging.

Within the supply chain, inventory management and data integrity are key elements to the success of an operation. But finding an effective and automated solution to support these initiatives can be difficult. That's why one retail chain used SICK technology to determine a better solution for optimizing its supply chain management.

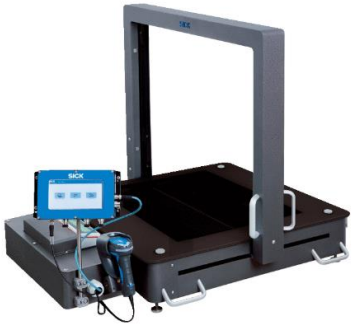
The Challenge: Accessing Accurate Dimensioning Data

This particular retailer deals with thousands of stock keeping units (SKUs) on a daily basis and was having a hard time accurately and efficiently monitoring inventory storage in their distribution center. When new items would come in, dimensioning data surrounding new items would often be entered into the warehouse management system (WMS), but most of the time the data would be default values and not be accurate to the item.

The worker would then pack the merchandise into totes, sometimes to the point of bursting. This would result in uneven distribution throughout the facility and often cause merchandise to spill out of the totes onto the conveyors as they moved through the facility. In addition, there was a lack of visibility to the data surrounding each SKU.

Enhancing Supply Chain Management with Accurate Dimensioning Data

Reduce costs by eliminating rework and lost or damaged goods



The Solution: Optimizing Storage Space

The implementation of a dimensioning-weighing-scanning (DWS) system can help to improve processes and operations in a retail supply chain. The Master Data Analyzer (MDA) from SICK provides this customer with a reliable way to optimize storage so there is no empty space in totes and avoids overstuffing totes. It also gives the customer access to all dimensioning data for each SKU.

When items arrive at the warehouse, a worker scans the barcode of each item. The MDA can read 1D or 2D barcodes. If the item is new and not currently in the system, the worker will place it on the MDA to analyze it and obtain the "master data" or dimensioning data of the item. The dimensioning data includes the object's length, width, height, weight, and volume.

This data is sent to the customer's WMS, which uses it to tell the worker exactly how many of each item to put in a tote. This data is then associated with the barcode for future scans, so the WMS can instruct the worker on how many to put in a tote. The tote is then sent to be stored in the facility so a worker can more easily pull items as needed by not dealing with overstuffed totes.

This retail chain installed over 60 MDAs at a new facility. The MDA can analyze items of varying shapes and sizes, even if they are in a polybag or other packaging. The maximum object size is 800 x 600 x 600 mm and it has a volume measurement accuracy of 5 x 5 x 5 mm, and weight determination accuracy of ±10g.

Because of its incredible accuracy and low error rate, the customer is able to scan items very quickly. In fact, you can scan as quickly as you can slide the read portal – it's that fast and accurate. Measurements can also be taken in both directions with the use of measuring automation light grids, which allows the MDA to measure the object regardless of its reflective properties.

Due to the success in this first facility, the customer has plans to buy another 60+ MDAs to further optimize operations in additional facilities.