

IKEA and Other Leading Retailers Unitize Imported RTA Furniture for Distribution in North America



The Complexity of the Global Supply Chain

Global supply chains for the successful sales and distribution of RTA furniture in North America are becoming longer and more complex, as they span continents and link the world in commerce. To make the most of ocean-going containers, companies typically hand-stuff and floor-load product. While hand-stuffing containers maximizes cube utilization; offloading these containers once they arrive in North America is labor intensive, time consuming and subjects freight to possible damage.



Leading retailers such as IKEA address this challenge by unitizing their product as it moves between continents on ocean containers. But the question becomes: What sort of platform should be used to unitize product? Traditional wooden pallets are heavy, environmentally non-friendly, expensive and add weight, therefore displacing product.

Replacing Wooden Pallets

For IKEA and a growing number of leading retailers, the solution is the OptiLedge, which allows for the unitization of products without the negatives of a traditional wooden pallet.

Invented by IKEA in the 1990s, the OptiLedge is successfully addressing the challenge of unitizing product for international ocean transportation without the negatives of a traditional wooden pallet. Savings of \$200-\$300 per container have been common for retailers implementing the OptiLedge. The result is a leaner, smarter and more sustainable supply chain.

RTA Unit Load Example with OptiLedge



Shipping Challenge Specifics —

Market Segment: RTA Furniture

- Supply chains for the successful sales and distribution of RTA furniture have become longer and more complex

The Challenge

- Hand-loading ocean containers helps maximize cube utilization but creates excessive labor and handling

The Solution

- A growing number of leading retailers including IKEA are unitizing products using the OptiLedge

The Benefits

- No manual and / or flooring load at origin or receipt
- No wood used in importation or domestic supply chains
- Maximized freight cube utilization
- Realized savings of \$200—\$300 per FEU

Container Configuration with OptiLedge



Unitization in International Shipping

Unitization of product is a common practice in domestic transportation with benefits that are well known, including reduced damages as well as dramatically lower labor and handling costs. However, unitization of international, ocean-bound cargo is less common. The most often cited reasons are a fear of cube loss and a concern for the amount of weight and cost of traditional unit load platforms such as wooden pallets.

A typical 40-foot container loaded with RTA product takes 8 to 12 man hours to off-load whereas the off-load time for unitized product is under one hour. In addition, in most import supply chains, the product is handled multiple times: once at an import DC or trans-load facility and often again at a regional DC.

The Bottom Line on Unitization

Unitizing imported RTA product saves 15 to 23 (and often more) hours of labor per container, reduces damages and reduces the number of touches.

What about cube loss?

IKEA's experience with unitizing imported product results in overcoming potential cube loss in two ways:

1. Frequently with RTA product, there is already enough vertical space in the container to accommodate the OptiLedge or other platform.
2. Since unitized product is handled less--through a process of packaging evaluation--air can be removed from existing packaging to the extent that it more than makes up for the vertical space of the platform or OptiLedge. This eliminates cube loss, saves packaging and creates a more sustainable supply chain.

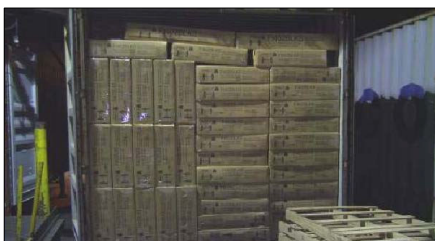
While IKEA (understandably) won't reveal details of their supply chain, as they are highly competitive in nature, OptiLedge can confirm that cube loss has not been a concern when unitizing import product.

Case Study Specifics—

The following analysis is based on an actual import scenario. While we're using actual numbers, due to confidentiality, we have withheld certain facts that do not affect the economic analysis. We have been given permission to use the facts, but asked not to identify the importer or the product.

The Facts:

This customer imports RTA furniture from China. Prior to unitization, the product was hand-loaded on the floor of 40'HC containers to an import DC in Southern California. The product was then shipped once again on the floor to a regional DC before being shipped to final destination on a wooden pallet.



Floor-loaded "hand-stuffed" product is either manually off-loaded onto pallets or floor-loaded onto another container.

Before Unitization:

Before unitization, the customer was off-loading by hand at an import DC and reloading on the floor for the subsequent shipment to a regional DC. This operation averaged 9 man-hours. At the regional DC, the product was off-loaded by hand again and stacked on wooden pallets. Once again, this operation took an

average of 9 man-hours. When the product shipped out, it shipped on wooden pallets to the final destination.

After Unitization:

Unit loads created using individual cartons. 52 of container for a total of result of creating scenario, no cube loss

Net Result:

By creating unit loads customer experienced a **container**. It's important include possible savings cost savings related to and storage of wooden



Loading efficiencies are gained at the origin as product is no longer hand loaded.

the OptiLedge consist of 7 those unit loads fit on a 40' HC 364 individual cartons. As a OptiLedge unit loads in this occurs.

with the OptiLedge, this net savings of **\$267.07 per** to note that this does not from reduced damages and the elimination of handling pallets.



At each subsequent node in the supply chain, product is handled by lift truck instead of by hand.

OptiLedge.

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