



BUILDING A BETTER PALLET

In the mix of high- and low- automation distribution centers throughout the grocery industry today, the reality of receiving non-conforming pallets is costly for everyone involved.

A pallet that's out of spec has to be removed from the standard receiving process and dealt with separately. The manufacturer risks having these products sit in limbo until they can be dealt with or they risk having their products returned.

In this case, the retailer may face out-of-stock shelves on those items. And the logistics operators lose valuable time and efficiency when they have to pull non-conforming pallets and deliver by hand.

The factors that contribute to building a better pallet trace all the way through the supply chain, from product development to manufacturing, packaging, shipping, receiving, and stocking.

As part of the GMA Supply Chain Committee, our goal is to identify the challenges that ultimately affect how we build the perfect pallet all along the supply chain, find the solutions to these challenges, and refresh the best practices for shipping container guidelines that were last updated in 1992.

Beyond that, we want to help quantify the impact of creating the perfect unit load and develop a platform to educate members about these guidelines.

ABOUT US

Atlantic is a member of the GMA Supply Chain Committee, a group made up of food industry professionals in manufacturing, retail, and logistics with a focus on distribution. All parties are members of the GMA (Grocery Manufacturer's Association) and are committed to improvement and progress in packaging and distribution.

This group is tasked with some tough but important goals:

- Identifying the challenges faced at every step along the distribution chain
- Discussing and brainstorming ideas that could help
- Proposing solutions that would ease these challenges on all sides
- Updating the existing standards to meet the needs of the modern distribution center
- Communicating these standards to GMA members in positions throughout the supply chain

As a committee, we meet virtually and in-person and we've also opened up these topics for discussion among other industry professionals, most recently at the TPA Supply Chain Conference. We welcome your input to help bring the best practices up-to-date, especially for automated systems.

BARRIERS TO BUILDING TO THE PERFECT PALLET

It seems straightforward. Stack it, wrap it, ship it. But there are several factors that contribute to building the perfect unit load. And because perfection is so elusive, we find ourselves facing many barriers when trying to palletize our products in a consistent and efficient manner.

WHAT ARE THESE BARRIERS?

1. Variety of products being packed

Consumer products manufacturers are often producing a wide range of products, even within one vertical. Beverages, for example, come in cans (short and tall), bottles (glass and plastic), boxes, 2 liters, gallon jugs, pouches, and more. Most manufacturers are shipping out a variety of products that each need their own unique packaging solution. There's not one approach to palletizing that fits every product. This constant shifting of product types, shapes, and sizes being palletized and coming through the stretch wrapper can lead to inconsistencies in the quality of the unit loads.

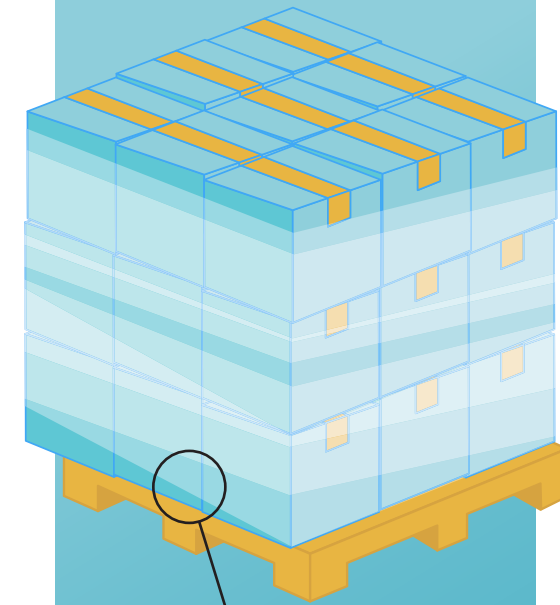


2. Changes in primary product design and packaging

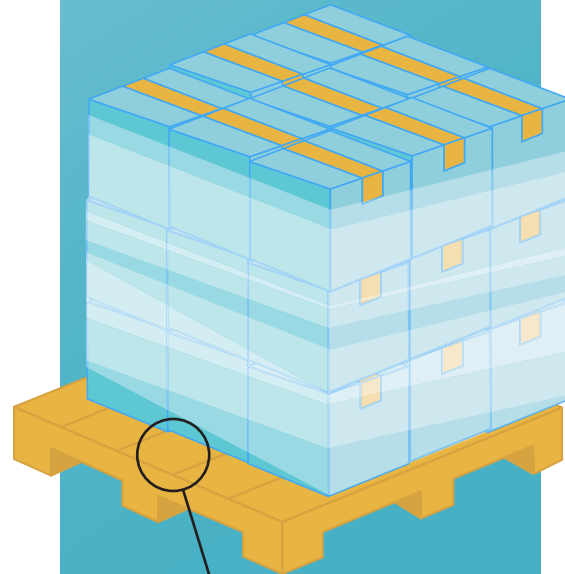
Any changes in primary product design can affect how a unit load is built. Creating a new 7.5 oz can, for example, when you've previously had only 12 oz cans will have a definite impact on your distribution. These smaller cans will fit onto a pallet differently than the standard cans and have the potential to cause overhang or underhang, compromise efficiency, and affect the rest of the supply chain.

3. Changes in secondary packaging to meet sustainability goals

Sustainability is a critical goal for many consumer products manufacturers. One way these companies are working toward this goal is to reduce the amount of packaging that holds the product itself - the primary packaging. The best example of this today can be found in plastic water bottles. You've probably noticed that some bottles have become a great deal thinner over the last several years. And that plastic lids for these bottles have become much more shallow. These changes in primary packaging for water bottles saves a significant amount of plastic. But it also affects the integrity of the water bottle and requires changes in secondary packaging (stretch wrapping on the load) to protect the products while in transit.



OVERHANG



UNDERHANG

4. Lack of Standards

Another challenge is that manufacturers on the shipping side and retailers on the receiving side often have different needs and objectives when it comes to deciding how a unit load is built. And these needs can vary with every vendor and every end user customer. A lack of clear standards industry-wide is one of the biggest barriers we face. And defining these standards is one of the objectives of the GMA Supply Chain Committee.

5. Proper Stretch Wrapping

Standards also come into play when stretch wrapping these loads for shipment. This stage of packaging is often the last line of defense for protecting the products, preventing damage, and promoting safety. But the lack of understanding of the science of stretch wrapping and all the factors that contribute to wrapping a successful load leads to inconsistency with almost every unit load shipped. And that leads to increased damage, unsaleables, out-of-stock items, and safety risks. Defining standards in stretch wrapping for the food and beverage industry is also something that the GMA Supply Chain Committee is tackling.

STEPS TO SOLUTIONS

1. Prevent Damage

We know that damaged products are a big problem for retailers. When they have to reject products due to damage, it affects the efficiency of their distribution centers and their on-shelf supply.

It's also a problem for manufacturers who are faced with costly returns, re-works and pallets of unsaleable goods.

Factors that affect pallet consistency are stack patterns on a pallet, labeling applications, and secondary packaging. With outdated and non-enforceable Industry Standard Guidelines, inconsistencies abound in all these areas, causing inefficiencies in both manual and automated distribution centers.

When we can solve the problem of damage and inconsistencies, unsaleables go way down and sales go way up.

One way to prevent damage is to [test for proper stretch wrapping application](#). Stretch wrapping serves a critical role in protecting products on a pallet. If stretch wrap fails during transit, all the other packaging components are vulnerable.

2. Establish Standards

At a meeting of the GMA Supply Chain Committee at the Packaging Solution Center in Charlotte, NC, we learned firsthand the intricacies of stretch wrapping for pallets. Through Atlantic's [Stretch University](#) session and demonstrations of the [TruMotion testing equipment](#), we learned just how important it is to get the details right. Film needs to be pre-stretched to a specific capacity. The tension setting is critical. And how the products are stacked, wrapped, and secured to the pallet all contribute to a successfully wrapped load.

We also learned that, even with the optimal stretch wrapping applied, it also matters that we monitor the machines to maintain optimal application over time.

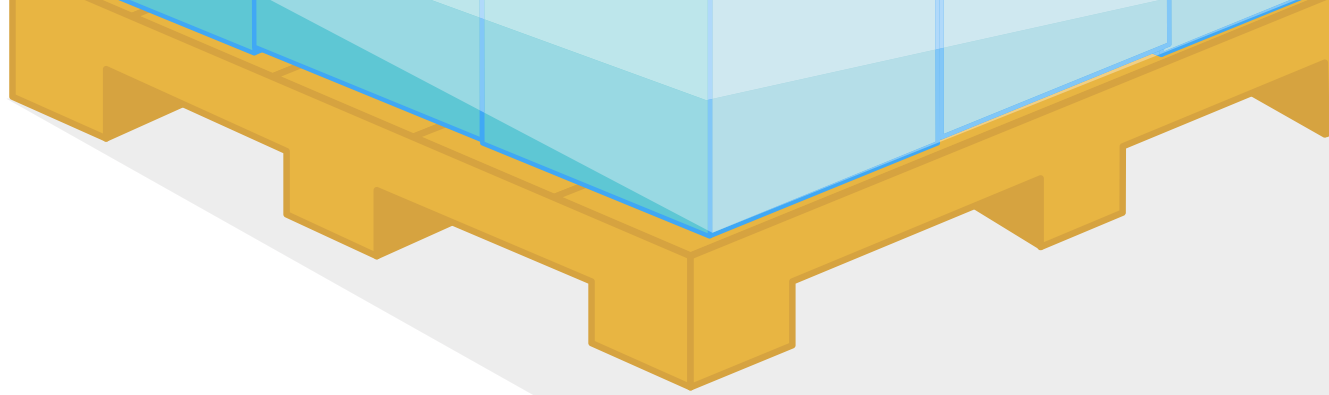
All of these elements can be tested, applied, and monitored in order to establish a standard, set it, and hold it over the long term.

In addition to standards in stretch wrapping, the GMA Supply Chain Committee is also working to refresh best practices in building unit loads and to establish industry-wide standards.

3. Improve Communication

Through in-depth discussions and input from all sides at the GMA Supply Chain Committee meeting, it was clear that productive communication is the key that could help to address the cause of most inefficiencies. This applies to parties along every steps of the supply chain - from sales and marketing, to R&D, package design, packaging, logistics, receiving, and distribution.

With a clearer understanding of how each decision affects every step of the supply chain, we can develop better industry-wide standardized processes and best practices that work for everyone up and down the chain.



GOALS

Developing these best practice guidelines is a goal of the GMA Supply Chain Committee and we're making steady progress in the right direction.

Develop Cost Model

In addition to these updated guidelines, the committee is also taking steps to measure and quantify the impact of creating the perfect unit load. This will establish a solid business case for adhering to the updated standards that may initially incur costs for suppliers but will ultimately save on damage and unsaleables.

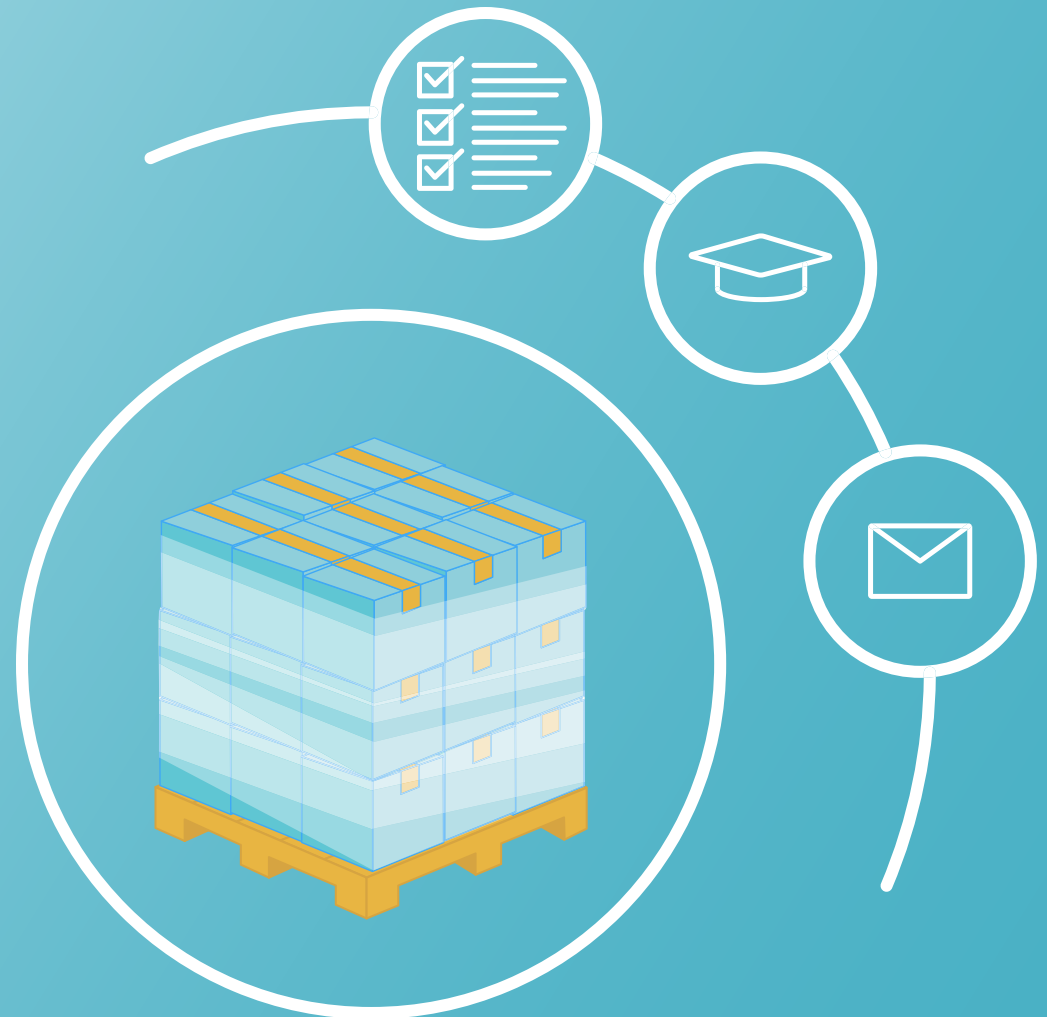
Provide Education

By educating our members on the new guidelines and the solid business case for adopting the standards, we stand a better chance of achieving the perfect unit load. As we gather data and research, we'll create online resources, formal findings, and best practices reports that speak to every step along the supply chain.

[LEARN MORE](#)

What to Do Next

Contact Atlantic's representative on the GMA Supply Chain Committee, Ric Lee, with your thoughts and feedback on the issues you're currently facing as well as any ideas you have for solutions. We welcome your input and want to be sure that we're covering all the appropriate challenges as we create the updated Industry Guidelines. We look forward to hearing from you!





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