A HELPFUL GUIDE TO FREIGHT PACKAGING

Understanding the role of proper packaging in safe, sustainable freight transportation

Why Proper Packaging Matters

Packaging is the first and most essential step in the freight shipping process. Proper packaging plays a crucial role in protecting your goods during transit and helps ensure your shipment is optimized for the journey ahead. Taking the necessary steps to package your freight well from the beginning can help you avoid:

- Freight damage caused by the normal rigors of interstate transporation by motor carrier, including handling, vibrations, impacts, or shifts during transit
- Shipping delays resulting from damage, additional handling, inspections, and re-packaging
- Unnecessary expenses incurred due to customer dissatisfaction, including the cost for product replacements and refunds

Keep reading to learn more about proper packaging, how it can keep your shipment safe, and the role it plays in helping your carrier move your freight more efficiently.

Minimize Your Dimensions

Dimensions are calculated by measuring the length, width, and height at their longest points. Obtaining accurate freight dimensions is an important first step in the packaging process because these measurements can:

- Help you choose the best packaging method for your shipment
- Help your carrier determine the equipment that will be needed to pick up, move, and deliver your freight
- Help ensure you receive the most accurate pricing information and avoid unexpected charges

As an LTL freight shipper, it's also important to understand how dimensions can impact your shipping costs. The classification of many commodities is determined by their density; given a constant weight, reducing a shipment's volume increases its density and reduces costs. With this in mind, you'll want to eliminate gaps or protrusions to minimize the shipment's length, width, and height as much as possible.

Choose Your Packaging

Once you've determined your freight's dimensions, the next step in the freight packaging process is to select your packaging materials. It's important to make sure you're tailoring your packaging materials to the type of freight you're shipping. Doing so offers several key benefits, including:

Protection: Different types of freight have varying levels of vulnerability to damage during transportation. By selecting appropriate packaging materials, you can provide the level of protection necessary to safeguard your freight.

Structural Integrity: Each type of freight has unique characteristics and weight distribution. Choosing packaging materials with sufficient strength, durability, and load-bearing capacity for your specific freight prevents the risk of damage during handling, stacking, and transport.

Space Optimization: Selecting packaging materials that are the appropriate size and shape for your freight supports efficient handling, loading, and unloading processes. Properly sized packaging allows for easy stacking, securing, and space optimization, which could reduce handling time and shipping costs.

Environmental Impact: It's important to choose packaging materials that align with your sustainability goals. Environmentally friendly options, such as recycled or biodegradable materials, help reduce the environmental impact of packaging waste.

Not sure which packaging options are best for your freight?

A few of the LTL industry's most common packaging options include:

Crates: Crates are wooden boxes specifically designed to enclose and protect freight. Crates offer a high level of protection during transit and are suitable for fragile or valuable shipments. When using this option, fully enclose and protect freight on all six sides, staple your shipping labels to the outside of the crate and indicate your freight's orientation using arrows.

For a complete list of crate design requirements, please refer to National Motor Freight Classification (NMFC) Item 245.

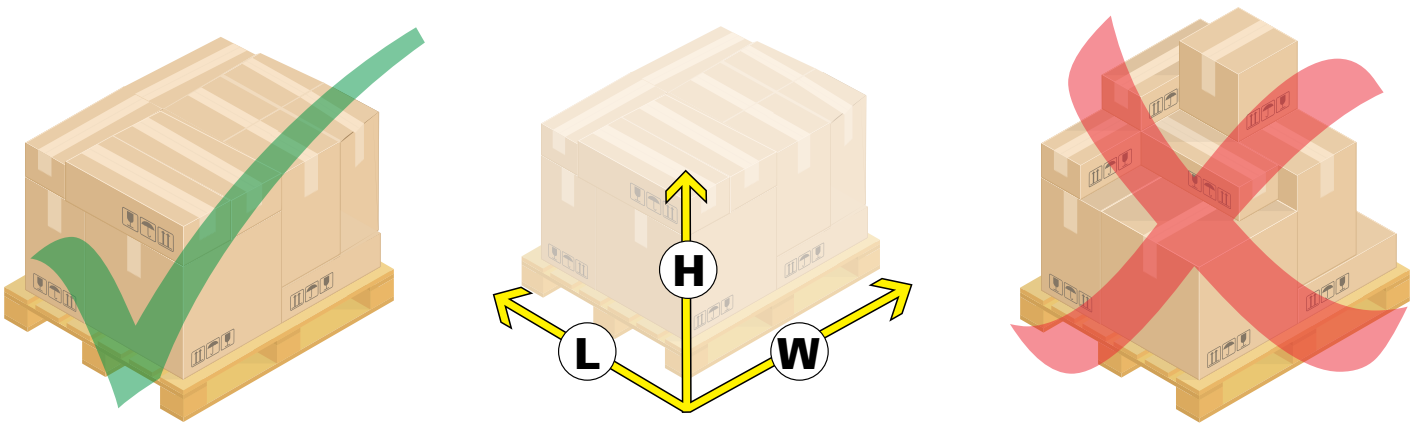
Bags, Barrels, Drums, and Boxes: These smaller packaging methods are suitable for shipments that require enclosure but do not need the extensive protection of a crate or tote. It's important to note that these packaging materials offer limited protection on their own and are more prone to loss and damage. All such items should be palletized for safe handling.

Palletizing Your Freight

Once you've packaged your freight, it's time to prepare it for shipping. Most LTL carriers require your freight to be secured on a pallet for enhanced protection and improved handling efficiency during transit. To ensure you're properly palletizing your freight for shipment, be sure to follow these important steps:

- **1. Encase your freight:** Once your freight is properly packaged to suit its needs, it's time to select an appropriately sized pallet. Standard pallets typically measure 48" x 40" with a maximum weight limit of 2500 lbs., but pallets can be customized to fit the specific dimensions of your shipment.
- **2. Inspect the pallet:** Before placing your freight on a pallet, carefully inspect the material for any existing damage or debris. If a pallet is soiled or its integrity has been compromised, your freight could be damaged in transit.
- **3. Arrange the freight on the pallet:** Start by placing the heaviest (and often, the largest) piece of freight on the bottom to create a solid base. Stack the remaining freight evenly on top and avoid stacking your freight too high. Reducing gaps in freight can also reduce dimensions and costs. Using pieces of cardboard between layers is a common and cost-effective method for achieving even stacking. Avoid creating gaps between pieces of freight, as this can cause shifting during transit.
- **4. Secure the freight and pallet:** Use straps or bands to secure the freight to the pallet, ensuring it is tightly bound. These straps should go over the freight and secure it to the pallet beneath. Then, apply shrink wrap around the entirety of the shipment to provide further stability and protection.

» **5. Label your freight:** Be sure to properly label your freight. This includes signage indicating any special handling instructions and appropriate forms of identification, such as a packing slip or bill of lading (BOL). Ensure all hazardous materials are appropriately accounted for and labeled according to regulations.



The Benefits of Green Packaging

Many LTL carriers have begun to adopt more eco-friendly shipping practices, but did you know shippers can also play a significant role in making the LTL industry more sustainable? If you're looking to adopt more green freight packaging practices, it may be helpful to:

Reduce Packaging Materials: Minimize the use of packaging materials by right-sizing the packaging to fit the size and weight of your freight.

Choose Eco-Friendly Materials: Select packaging materials that are recyclable, biodegradable, or made from renewable resources, such as corrugated cardboard, paper or plant-based packaging, compostable or biodegradable plastics, or recycled packaging.

Use Reusable Packaging: Consider reusable packaging solutions such as plastic totes, pallets, or containers.

Opt for Eco-Friendly Labels and Inks: Use eco-friendly label materials, such as recycled or FSC-certified paper, and choose inks that are environmentally friendly.

Collaborate with Eco-Conscious Carriers: Choose freight carriers that prioritize sustainability and demonstrate a commitment green shipping practices, such as using electric or alternative-fuel vehicles.

Your Freight Packaging Checklist

Think you've got it down? We've put together a handy checklist to help you prepare your next shipment:

» **Minimize the dimensions of your freight**

Reduce the shipment's length, width, and height as much as possible, then accurately capture these dimensions (as well as the weight).

» **Using those dimensions, select durable and properly-sized packing materials**

Choose appropriate materials that are durable, water-resistant, and clean to avoid damage in transit. Opt for eco-friendly packing materials when possible.

- **Ensure that your freight is properly secured to its packaging base**

  Properly secure your freight to a pallet base to prevent shifting and ensure safer transit.

- **Cushion and secure your freight with straps and/or wrap**

  Wrap individual pieces of a shipment together with straps or shrink wrap to prevent movement.

- **Weatherproof your freight**

  Shippers are responsible for protecting their freight against adverse weather conditions, so be sure to use an outside protective layer.

- **Properly label and identify your freight**

  Include any applicable handling stickers as well as a copy of your packing list and bill of lading. Also, maybe if your product can be affected by atmospheric conditions, it is your duty as the shipper to ensure that the cargo is sealed from moisture intrusion.

- **Record final dimensions and weight of your freight plus its packaging**

  Share this information with your carrier so they can plan your freight's transit and calculate more accurate pricing.

The Estes Advantage

At Estes, we're committed to going the extra mile for the people we serve. That's why in addition to our comprehensive suite of reliable freight transportation solutions, we also offer tools and resources to help you simplify your experience and make freight shipping easier:

- Download our Shipper's Guide for a deeper dive into freight packaging and to learn how to navigate some of the most common shipping challenges
- Explore the Shipping Made Simple section of our website for tips, tricks, and tools to help you ship smarter and boost your business' operational efficiency
- Visit our FAQ's page for answers about everything from shipping preparation and best practices to reporting and management

And if you're looking for a freight transportation provider whose practices align with your sustainability goals, visit the Environmental Stewardship section on our About Us page to learn more about our investment in electric trucks, alternative fuel vehicles, and solar energy as a nonpolluting, renewable resource!

At Estes, going the extra mile isn't just what we do—it's who we are.

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