



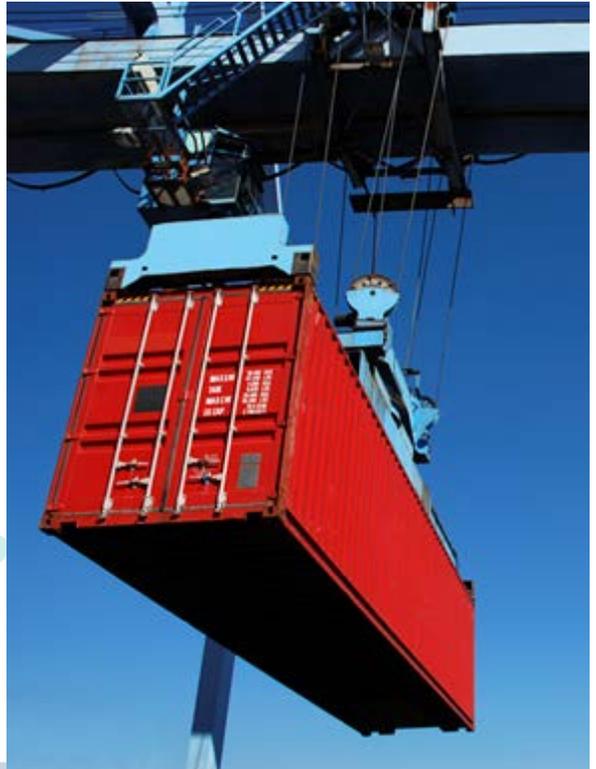
## CONTAINER LOADING GUIDELINES

As the shipper, you are the responsible party for the packing and loading of your cargo into the shipping container(s) it will be transported in.

While you have the freedom and flexibility to pack and load your cargo as you see fit, you should be aware of proper loading practices.

Improper loading of cargo can lead to damage of your goods. Customs may examine your container if an x-ray shows improper and unprofessional loading as it may be a sign of concealing unusual items. This will cause an intensive exam of your shipment which may cause additional delays and significant expenses.

Household and Personal Effects Shippers should be especially carefully with loading since they have less experience with proper loading practices.



### Key factors to consider when loading a container include:

1. Weight Distribution
2. Space Utilization
3. Cargo Variation & Compatibility

### Important Notes:

1. Careful planning should be done before the time comes to load your cargo into a container.
2. There are special laws and regulations that you are responsible for knowing and being in compliance with for the shipping of hazardous materials.

*Hazardous materials regulations are in Title 49 of the Code of Federal Regulations, Parts 100-178 and published in the International Maritime*

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*Dangerous Goods Code.*

**1. Weight Distribution** – The weight of your cargo should be evenly spread over the entire area of the container's floor.

If the weight of your cargo is densely concentrated, distribute its weight with bedding.

You may not exceed the maximum mass/weight capacity of a container (Payload) with the cargo you load into it.

Rating – Tare = Payload  
(See Glossary for more details)

**2. Space Utilization** – Use the whole space of the container, wall to wall, filling empty spaces with dunnage.

Packing a container tightly will help keep cargo secured in place so it does not move around and become damaged. Straps may also be used to secure cargo.

**Example:** Do not stack cargo all the way to the top in the back half of a container, but load over the entire area of the floor in the bottom half of the container.

**Important Note:** *Do not put direct pressure on container doors. Utilize a proper fence or gate if needed.*

**3. Cargo Variation & Compatibility** – Careful attention must be paid to the stowage of varying items in a shipping container.

Weight, size, density, and properties such as solid or liquid, and even odors of commodities are factors to be considered when loading your cargo into a container.





Even dense “hard to damage” commodities can be damaged if loaded improperly.

Heavier items should never be loaded above items of lesser weight for risk of crushing.

High-density packages loaded next to low-density packages also create risks of crushing or otherwise damaging cargo.

Cushioning material should be placed between items and dunnage used to fill voids to prevent movement and chafing damage.

Containers of wet goods should not be loaded above dry cargo. If dry and wet cargo are loaded on the same level, dunnage should be used to raise dry cargo off the ground to prevent damage in the event of leakage.



**Note:** When stacking, cargo tiers should be made level.

UNIVERSAL CARGO

## Glossary

**Dunnage** - loose materials used to support and protect cargo in a ship's hold; also: padding in a shipping container (Merriam-Webster)

**FEU** - forty-foot equivalent unit. Method of measuring vessel load or capacity, in units of forty-foot long containers.

**Payload** - the maximum permitted mass or weight of cargo for a container, including the dunnage and cargo securement arrangements that are not associated with the container in its normal operating condition; equivalent to Tare subtracted from Rating.

**Rating** - the maximum gross mass or weight of a container plus its contents. For TEU (20' dry container), the rating is 24,000 kgs or 52,900 lbs. For FEU (40' dry container) the rating is 30,480 kgs or 67,200 lbs.

**Tare** - the mass or weight of empty container; also called: Tare Mass and Tare Weight. A 20' dry cargo container may weigh 1,800 kgs - 2,400 kgs; a 40' dry cargo container may weigh 2,800 kgs - 4,000 kgs, and a 40' high cube dry cargo container may weigh 3,900 kgs. to 4,200 kgs.

**TEU** - twenty-foot equivalent unit. Method of measuring vessel load or capacity, in units of containers that are twenty feet long. A 40' long container measures 2 TEUs.