

# Portal Load Planner Guide

Envirotainer offers a free load planning service that is available on the Resources tab of the Customer Portal. This tool allows Users to calculate how many Envirotainer containers are needed to ship their product load. The Load Planner will also limit the product load up to the maximum net weight of the selected container type.

The information required to perform a load plan is:

- Envirotainer container type
- Pallet type
- Product shape, quantity and weight

The terminology used in the Load Planner is described below:

- **Get From Template**- Allows the user to fill Load Planner form with saved template.
- **Unit of Measure**- Imperial or Metric units can be selected in the User's account profile setting.
- **Container type Help me Select** – Selecting this will display the various container attributes.
- **Container type**- The Envirotainer container intended for use.
- **Pallet Type**- Users can select a standard US, EU pallet or enter their custom pallet information
- **Pallet Weight**- Users can change the default weight (25kg) of the pallet
- **Product name**- Users can assign a name to the product being loaded
- **Product Type**- The shape of the product (box or cylinder/drum)
- **Group**- Users can choose to load different product types in the same container
- **Add Product**- Users can calculate up to 5 different product types
- **Delete**- Users can delete a Product Type from the calculation
- **Save as Template**- User can save the completed form as a template for later use.
- **Calculate**- Performs the load calculation and provides the results
- **Result**- Shows how many pallets and containers are needed for the product selected.
- **Down Load Report**- Provides a detailed Load Plan in PDF format that can be downloaded

# Load Planner

The screenshot shows the 'Load Planner' interface. At the top left, there is a 'Get from Template' button. On the top right, there is a 'Unit of measure' link. The main content is divided into two sections: 'Container Information' and 'Load Information'.  
**Container Information:** This section has a 'Container type' label with a 'Help me select' link. It contains three columns of container options, each with a 'REQUIRED' label. The first column is for 't Container' with options 'RAP t2' and 'RKN t2'. The second is for 'e Container' with options 'RAP e2' and 'RKN e1'. The third is for 'Releye®' with the option 'Releye RLP'.  
**Load Information:** This section has a 'Pallet type' dropdown menu with a 'REQUIRED' label. Below it is a 'Products' section with a 'Max 5' limit. It features a table with columns: 'Product Name', 'Type' (with a dropdown set to 'Box'), 'Length' (with a unit dropdown set to 'cm'), 'Width' (with a unit dropdown set to 'cm'), 'Height' (with a unit dropdown set to 'cm'), 'Weight' (with a unit dropdown set to 'kg'), 'Quantity', and 'Group' (with a checkbox). A 'Delete' button with a trash icon is on the right. Below the table is an 'ADD PRODUCT' button. At the bottom right of the interface are 'SAVE AS TEMPLATE' and 'CALCULATE' buttons.

## How to perform a calculation

The Load Planner will calculate the number of Product (either Boxes or Cylinder/Drum) that can fit on the selected pallet with no overhang to the max allowed container height.

- 1) In the Container Information section, choose the container type, either from the t Container, e Container or Releye Container option.
  - a. You can choose more than one model from each container type. For example, you can choose to include both RAP t2 and RKN t2 container types in your calculation.
  - b. Additional products will be added to the Load Planner (such as CryoSure and Releye RAP) as they become available.
- 2) In the Load Information section, choose pallet type (size) they will be using. The drop-down list allows users to select US pallet (40" x 48" x 6.7"), EU pallet (120 cm x 80 cm x 14.4 cm) or enter custom pallet information.
  - a. If either US pallet or EU pallet is selected, the standard dimensions and weight for that pallet type will be populated. Remove the selected pallet type by clicking the 'x' and then enter another pallet type as described above.

This screenshot shows the 'Load Information' section of the interface. The 'Pallet type' dropdown menu is set to 'EU Pallet' and has a close button (x) next to it. The dimensions are populated as follows: Length is 120 cm, Width is 80 cm, Height is 14.4 cm, and Pallet Weight is 25 kg.

- b. If a Custom pallet is selected, the User must enter the length, width, height, and pallet weight themselves. Note the Load Planner does not allow the User to enter Custom pallet dimensions that exceed the length and width of the selected container type
- 3) In the Load Information section, they user will enter the Product information. They will assign a product name and then select the Type (either a Box or Cylinder/Drum). The dimensional information, weight and quantity will then be entered.
  - a. Users can co-load up to 5 different product types by clicking ADD PRODUCT.
  - b. A product can be deleted by clicking on the red Delete button
  - c. The User can also group more than one product to be Grouped (loaded) together on the same pallet. In the example below, the user has decided to group product 'metex' and 'triamac' together on the same pallet by checking the Group box and selecting 'A' (from the drop down list to the right of Group). Also, product 'supilate' and 'zantor' will be loaded together on a separate pallet in Group B.

Load Information

Pallet type	REQUIRED	Length	Width	Height	Pallet Weight	Max Weight
US Pallet	X	121.9 cm	101.6 cm	16.5 cm	25 kg	1300 kg

Products Max 5

Product Name	Type	Length	Width	Height	Weight	Quantity	Group	Delete
metex	Box	20 cm	20 cm	20 cm	1 kg	150	<input checked="" type="checkbox"/> A	Delete
triamac	Box	17 cm	17 cm	17 cm	2 kg	35	<input checked="" type="checkbox"/> A	Delete
supilate	Box	23 cm	23 cm	23 cm	1.59 kg	30	<input checked="" type="checkbox"/> B	Delete
zantor	Box	32 cm	32 cm	32 cm	6 kg	10	<input checked="" type="checkbox"/> B	Delete

[ADD PRODUCT](#)

[SAVE AS TEMPLATE](#)
[CALCULATE](#)

- 4) After finishing step 1,2 and 3 above, click the CALCULATE button and the load plan will be calculated. The results will display:
  - a. the number (and type) of pallets and the number (and type) of containers.
  - b. Total number of units (Product) used in the shipment
  - c. Image of how the product will be loaded on the pallet
  - d. Net product weight of the highest (most product loaded) and lowest (least product loaded) pallets
  - e. Total gross product weight of the shipment
  - f. Total Units (product) per container

## Result

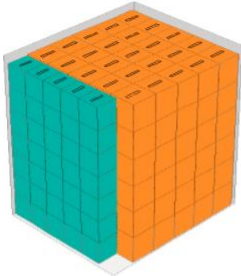
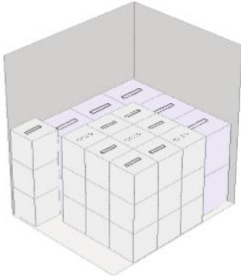
Summary

**2x** US Pallet → **1x** RAP t2

**1x RAP t2**

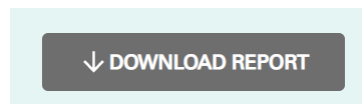
Shipment Statistics

Total Units in Shipment	225
-------------------------	-----

Product Data	Highest	Lowest
Net Product Weight	220 kg	107.7 kg

- g. A more detail Load Plan can be downloaded (in PDF format) by clicking the **DOWNLOAD REPORT** button.



### Frequently Asked Questions

Q: Why do I need to select a pallet type?

A: To allow airflow around the product, Envirotainer recommends loading product boxes on a pallet- not directly on the floor of the container. The Load Planner allows users to select standard US or EU pallets or enter information specific to the custom sized pallet they use.

Q: Does the Load Planner allow product boxes to 'overhang' the pallet?

A: No. The number of boxes will be calculated based on the dimensions of the pallet and height of the container. If you want to allow for overhang, then create a Custom Pallet and increase the dimensions according to the amount of overhang you want to allow.

Q: What if I want to hand load product boxes in the container?

A: Envirotainer recommends loading product boxes onto pallets and not hand stacked on spacers. However, you can create a Custom Pallet that is at least 2 cm high to the maximum interior dimensions of the container if you plan to hand load on spacers.

Q: What are the interior dimensions of the container?

A: Referring to the respective Operations Manuals, the interior dimensions of the containers are noted below. Note that the User should consider dimensional tolerances of the custom pallet and allow sufficient space between the pallet and container walls to facilitate the loading process.

Q: Does the Load Planner consider the dimensional tolerances of the pallet or product?

A: No. While the Load Planner will allow users to create a Custom Pallet up to the internal dimensions of the selected container, it is recommended to allow sufficient space between the pallet and container walls to facilitate the loading process.

Container Model	Main loading space (L x W x H)
RKN t2	1415 x 1355 x 1360 mm (55.7 x 53.3 x 53.5 in)
RAP t2	2535 x 2065 x 1420 mm (99.8 x 81.3 x 55.9 in)
RKN e1	1340 x 1315 x 1315 mm (52.7 x 51.7 x 51.7 in)
RAP e2	2465 x 2055 x 1260 mm (97 x 80.9 x 49.6 in)
Releye RLP	2457 x 1354 x 1320 mm (96.73 x 53.31 x 51.97 in)

Q: How to perform a load calculation for a Deep Frozen shipment?

A: The Load Planner optimization calculation does not allow space to load dry ice on top of the cargo. Depending on the size of the boxes and dry ice quantity, half of the boxes on the top row should be removed from the total number of boxes calculated to make space for the dry ice.

Q: What if I want to allow the product to be oriented in any direction?

A: the Load Planner only calculates with the product in the orientation it was entered. Specifically, the Height dimension will always be vertical. The next revision of the Load Planner will allow product to be loaded in any orientation. For now, the User must change the Length/width/height dimensions if they are wanting to allow the boxes to be loaded in another orientation

Q: What if I don't want to stack my product boxes?

A: If the User does not want to allow product stacking, they must reduce the product quantity until only one layer is calculated.

Q: What if I have questions or issues with the Load Planner?

A: Please contact Envirotainer at [support@envirotainer.com](mailto:support@envirotainer.com)