



JYSK STANDARD

Stacking and loading

Scope

This standard describes definitions and general requirements for stacking and loading of JYSK products.

Change-log

Section	Changes
5.1.2	Maximum dimensions permitted for 195x120 is corrected.



JYSK 6501

Edition 2 – 2024-11
Compliancequality@JYSK.com

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1 General requirements

Regarding pallets, special pallets and boxes, [JYSK 6001](#) must be complied with.

2 Dirt, dust, mold, fungus and pest infestations

The supplier must make sure that no unintended parts or particles are present inside the packaging.

This goes for products with unpleasant smells as well, as these will be seen as unappealing by customers and therefore unsellable.

Products that are dirty, dusty, moldy or infected with fungus or pests of any kind, living or dead, will be returned to the supplier.

All costs related to returning the products, including lost profit, will be forwarded to the supplier.

2.1 Moisture and condensation

The supplier must make necessary arrangements to ensure that products arrive at JYSK's distribution centers without damage caused by moisture and condensation.

2.1.1 Container conditions

The supplier must as a minimum ensure that the following conditions are met regarding container conditions:

- No corrosion or holes in the roof or sidewalls of container.
- Door locks and sealing must be in good and working condition.
- The container floor must be clean and dry (below 15% moisture content).
- No unpleasant/chemical smell must be found.

If the above not are met, the container must be rejected.

2.1.2 Loading conditions

The supplier must as a minimum ensure that the following conditions are met when loading:

- Pallets, slip sheets, and packing materials must be dry (below 15% moisture content).
- Ventilation holes must be sealed with tape when using "in container" dry bags.
- Ventilation holes must be free and open when no "in container" dry bags are used.
- Loading of the goods into the container was made under dry conditions.

The supplier must always include at least the following considerations:

- Route
- Transit time
- Time of the year
- Climate

If an external specialist is needed, below are recommended by JYSK:

- Absortech. Absortech can be contacted by this [LINK](#). The code N2200 must be stated.
- MicroPak Ltd. MicroPak can be contacted by this [LINK](#).

Dry bags must be placed as necessary:

- Inside plastic bags if the goods are packed/wrapped with plastic.
- "In box" and "in container" dry bags to protect goods and boxes.

2.1.3 Fumigation

It is by law not allowed to use dimethyl fumarate (DMF) as anti-fungal agent in any types of consumer products.

If contrary to expectations, fumigants or cleaning detergents containing CMR (Carcinogenic, Mutagenic and Reprotoxic chemicals) substances are detected upon arrival in harbor or JYSK DC, the supplier must undertake all handling and test costs.

3 Loading plan

The supplier must consider the loading and draw up a comprehensive loading plan.

The loading plan [JYSK 60106](#) must be sent to and approved by [JYSK SCO](#) before first delivery.

4 First shipment

The first delivery must be a test delivery for [JYSK SCO](#) to check against the loading plan. The first shipment template [JYSK 10214](#) must be filled out by the supplier and sent to [JYSK SCO](#) before first delivery.

After receiving the document SCO will give feedback and changes must be made for the next delivery.

5 Critical loading dimensions

At JYSK DCs, goods received are transferred onto 3 basic platform or cage dimensions. Therefore, deliveries by truck, container, loose loaded and slip sheet must be loaded in accordance with below prioritized dimensions.

The 3 main dimensions are (listed by priority):

1. Main dimension 120 cm x 80 cm, see 5.1.1
2. Main dimension 195 cm x 120 cm, see [5.1.2](#)
3. Main dimension 240 cm x 120 cm, see 5.1.3

Note: If the goods can fit within the priority 1 dimensions, then the priority 1 dimensions must be followed.







Size	Cage	Pallet/platform
120x80 cm	 <p>Cage 1</p>	 <p>EUR pallet</p>
195x120 cm	 <p>Cage 2</p>	 <p>Platform 1</p>
240x120 cm	 <p>Cage 3</p>	 <p>Platform 2</p>

Table 1 - Main dimensions of pallet/platform types

5.1.1 Priority 1 - 120x80 cm

Goods must be stacked to meet the priority 1 dimensions (EU pallet dimension (surface area)) of 120x80 cm and a maximum weight of 1000 kg.

If it is not possible to meet the dimensions of 120x80 cm, a tolerance of 6 cm, making the maximum dimensions 126x86 cm, is permitted.

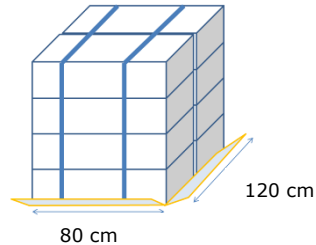


Figure 1 - Cardboard boxes stacked to EU pallet dimension of 120x80 cm

5.1.2 Priority 2 - 195x120 cm

If it is not possible to meet the priority 1 dimensions, the priority 2 dimensions of 195x120 cm and maximum weight of 1350 kg must be prioritized.

If it is not possible to meet the dimensions of 195x120 cm, a tolerance **is accepted**, making the maximum dimensions **200x130** ~~126x86~~ cm, permitted.

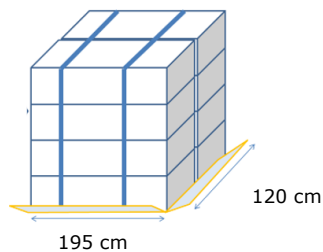


Figure 2 - Cardboard boxes stacked to priority 2 dimensions of 195x120 cm

5.1.3 Priority 3 - 240x120 cm

If it is not possible to meet the priority 1 or 2 dimensions, the priority 3 dimension of 240x120 cm and maximum weight of 1350 kg must be followed. If it is not possible to meet the dimensions of 240x120 cm, a tolerance of 10 cm is permitted making the maximum dimensions 250x130 cm.

The priority 3 dimension of 240x120 (250x130) cm is the absolute maximum dimension permitted.

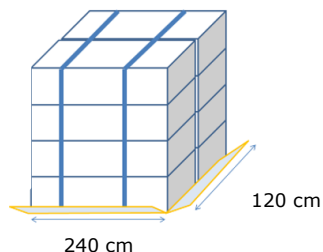


Figure 3 - Cardboard boxes stacked to priority 3 dimensions of 240x120 cm

6 Stability requirements

Unit loads must be stable and comply with unit load stability test requirements in [JYSK 6001](#).

Stability can be improved by means of paper sheets, “anti-sliding pads” or friction adhesive used between the individual layers.

If paper sheets are used between layers to stabilize the unit load the sheets must:

- Cover the full area between the boxes
- Be minimum 300g/m²

7 Methods of binding/holding cardboard boxes together

The cardboard boxes that are placed on top of the slip sheet or pallets must be held together by wrapping with plastic foil or with strapex/PP straps. It is important to have enough wrapping or strapping to prevent boxes coming loose during transit.

If it is not possible to secure the boxes with foil or strapex/PP straps enough to ensure stability, a master box must be used, see [8.1.3](#).

There must not be any kind of loose wire ends or plastic ends on the outside of the boxes.

Securing goods with tape is not allowed.

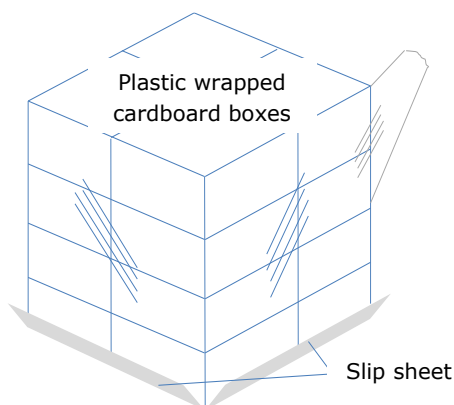


Figure 4 – Plastic wrapped

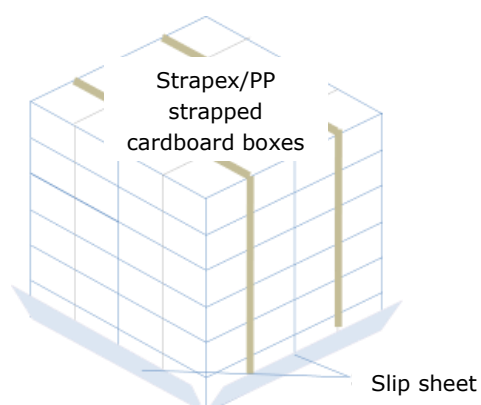


Figure 5 – Strapex strapped

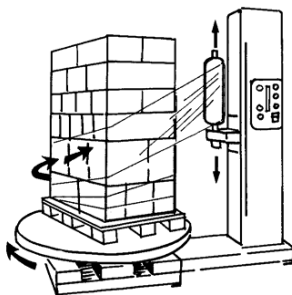


Figure 6 - Stabilizing with stretch film

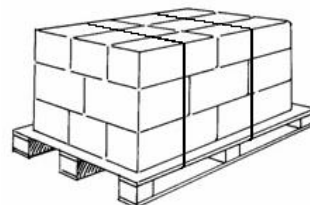


Figure 7 - Bond stacking with strapex

8 Master boxes

8.1.1 Definition of a master box

A master box must be used for unstable unit loads and/or to ensure efficiency when unloading the container and to ensure stable pallets in the high bays of the distribution centers. A master box can only be used for delivery to the distribution centers.

A master box can be a traditional folded cardboard box with or without a lid, or a special built "pallet" for carpets, oil cloth, mirrors, parasols and the like.

Any empty space in the container must be filled up with loose handling units.

8.1.2 When to use a master box

If you need more than 8 handling units to fill one layer on a 120x80cm pallet, or the height of the first layer does not exceed 10cm, a master box should be used. If it is not possible to secure the boxes with foil or strapex/PP straps enough to ensure stability, a master box must be used.

8.1.3 Construction

The master box must be constructed or filled up, so it is strong enough for stable stacking in the container and still be stable when strapex/wrap has been removed in the DC.

If the handling unit is in a cardboard box, the master box should as a starting point be 3 cm lower than the top product. If this is not possible a lid should be used.

The master box must be labelled in accordance with *unit load* labelling in [JYSK 6101](#).

Below dimensions for master boxes must be prioritized by the supplier (WxLxH):

1. 80x120x80 cm
2. 80x120x100 cm
3. 80x120x150 cm
4. 80x120x200 cm

The dimension of a master box must not exceed W86xL126 cm unless approved by SCO@JYSK.com.

8.1.4 Loading master boxes on slip sheets

An example of loading master boxes on slip sheet can be seen in [JYSK 60102](#) (English speak) / [JYSK 60103](#) (Chinese speak).

8.1.5 First delivery with master boxes

The master box must be approved by SCO@JYSK.com before first delivery.

The first delivery must be a test delivery according to 4.

8.1.6 Picture examples of master boxes

 <p><i>Master boxes without lids in a container</i></p>	 <p><i>Master box where the box is 3 cm lower than the cardboard boxes</i></p>
 <p><i>Master box with a lid</i></p>	 <p><i>Master box where the lid is taken off</i></p>
 <p><i>Special design master box for carpets</i></p>	 <p><i>Empty space between slip sheet loaded with loose collies</i></p>

Table 2 - Picture examples of master boxes

8.2 Wrap/foil

The most effective method is to ensure stability is to use stretch film which also protects against dirt and water.

It's only allowed to wrap the upper 2 cm of the pallet with the stretch film as shown below. The space for the forklifts must be kept free to efficient handling.

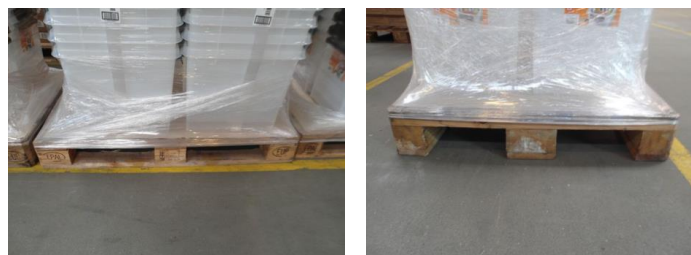


Figure 8 - Products wrapped with foil

8.3 Strapex/PP straps

8.3.1 Sealing method of strapex/PP straps

When using strapex or PP straps, the straps must only be sealed using either heat sealing or plastic buckle. Metal buckles/clips is not allowed.







Heat sealing 	
Plastic buckle 	
Metal buckle not allowed 	

Table 3 – Sealing methods of strapex/PP straps

Metal buckle
– **not allowed**

8.3.2 Edge protection of strapex/PP straps

When using strapex or PP strap, a piece of cardboard or a plastic edge protector must be placed at the edges of the cardboard box to prevent the box from being damaged by the straps.



Figure 9 - Correct edge protection on cardboard boxes

9 How to place boxes on the pallet

When placing boxes on the pallet, below must be followed:

- Boxes must be placed on the largest surface ensuring the best possible stability while also insuring the best possible loading.
- If the cardboard boxes cannot be kept within the dimensions of the pallet, for example furniture boxes, contact the [JYSK SCO](#) so other packing procedures can be implemented which take the handling in JYSK DC's into consideration.
- The unit load height for pallets must comply with height requirements for slip sheet in [10.3](#), if delivered in container.

10 Slip sheet requirements

JYSK requires cardboard boxes to be stacked on slip sheet when possible, to ensure more efficient unloading with automatic equipment in the DC's, see [JYSK 60104](#) on how JYSK unloads slip sheets.

10.1 Slip sheet dimensions

Generally, slip sheet must be adjusted to fit the unit load in size.

The dimension of a slip sheet must never be less than W43 cm and L63 cm, as these dimensions would fit a EUR pallet by adding more cardboard boxes.

10.2 Securing the boxes on slip sheet

When securing boxes on slip sheets, the flaps of the slip sheet must not be wrapped/foiled or strapped together with the boxes as it will lose its intended purpose.

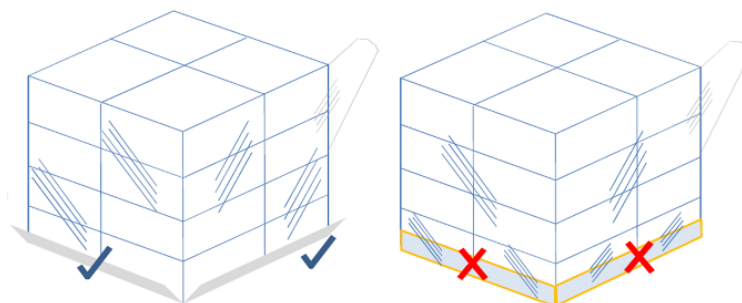


Figure 10 - Wrapped boxes on slip sheet

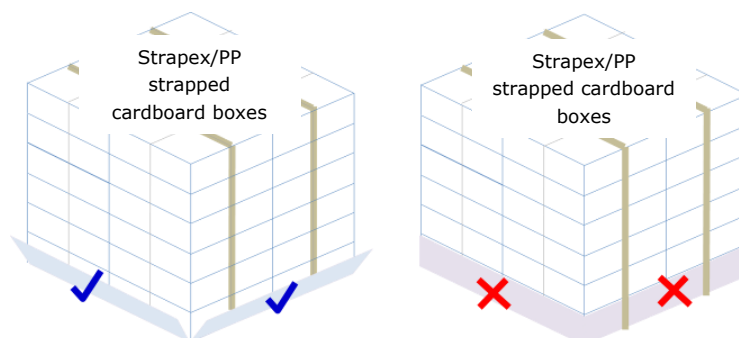


Figure 11 - Strapex/PP strapped boxes on slip sheet

10.3 Maximum height of unit load on slip sheet

The maximum height of unit load on slip sheets must be (listed by priority):

1. Single slip sheet
 The maximum height for cardboard boxes stacked on 1 slip sheet is 2 meters.
2. 2 slip sheets
 If stacking on 1 slip sheet becomes unstable, JYSK allows cardboard boxes to be packed on 2 separate layers of slip sheets. The bottom slip sheet must be maximum 1,5 meter high, and the top layer must maximum be 1 meter high. Making the combined height maximum 2,5 meters.

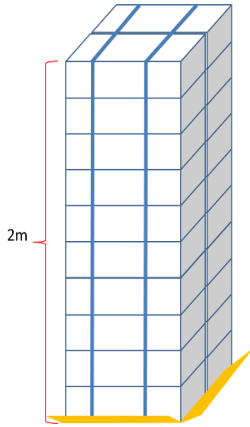
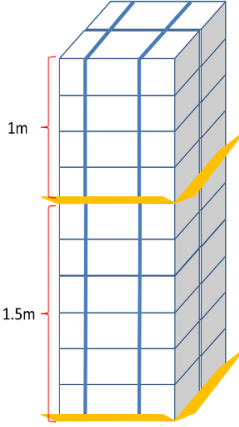
1 priority	2 second priority (only allowed if single slip sheet is not possible)
	

Table 4 - Maximum height of slip sheets incl. box boxes

10.4 Loading with slip sheets

Examples of loading slip sheets into container are made available as [JYSK 60102](#) (English speak) / [JYSK 60103](#) (Chinese speak).

When loading with slip sheets below general requirements must be followed:

- Slip sheet flaps must always face the door
- Priority is to maximize container loading
 - Cardboard boxes <160 cm long can be loaded any direction that provides maximum loadability
 - Cardboard boxes ≥160 cm long must be loading in accordance with [10.4.1](#)
- Containers must be filled to maximum as much as possible

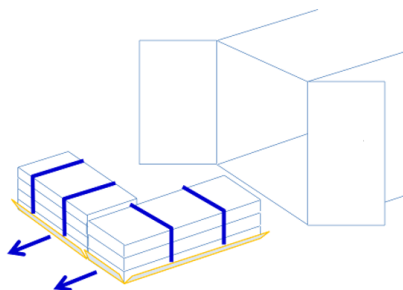


Figure 12 - Illustration of loading with slip sheet flaps facing the container rear door without any sealing

10.4.1 Loading of long cardboard boxes with slip sheet into container

When loading long cardboard boxes longer than 160 cm with slip sheets into containers, the long side of the cardboard boxes must face the container door.

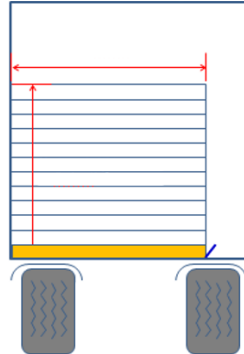


Figure 13 - Illustration of rear view of container loaded with cardboard boxes longer than 160 cm

10.5 Ideal cardboard boxes arrangement on slip sheet

Ideally the cardboard boxes must be placed lying flat on the slip sheet fitted to *Priority 1* measurements in [5.1.1](#), see [Figure 14](#).

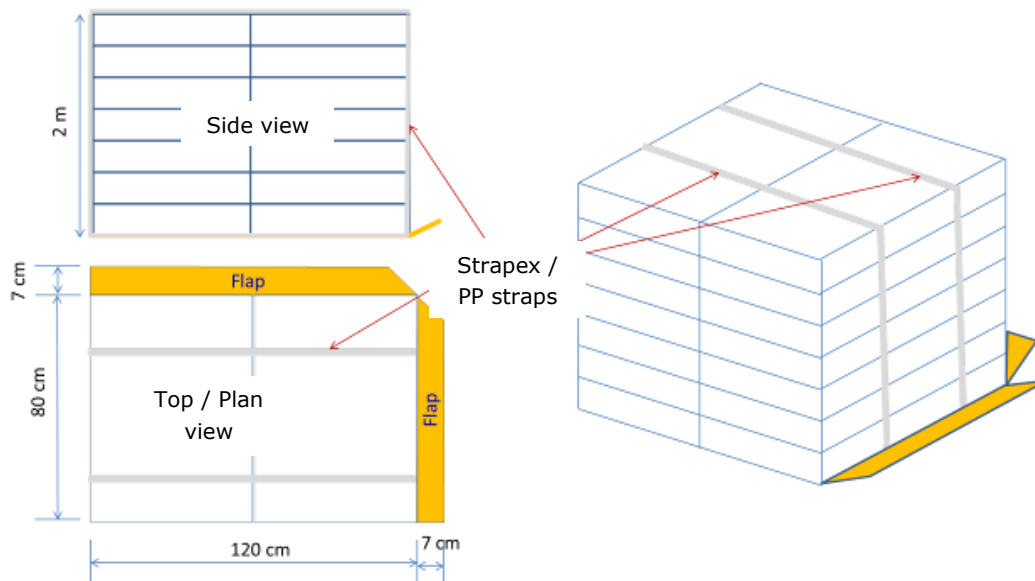


Figure 14 – Cardboard arrangement on EU pallet dimension

10.5.1 Special cardboard boxes arrangement

If there is excess space on the slip sheet, cardboard boxes can be vertically stacked in the middle only, see [Figure 15](#).

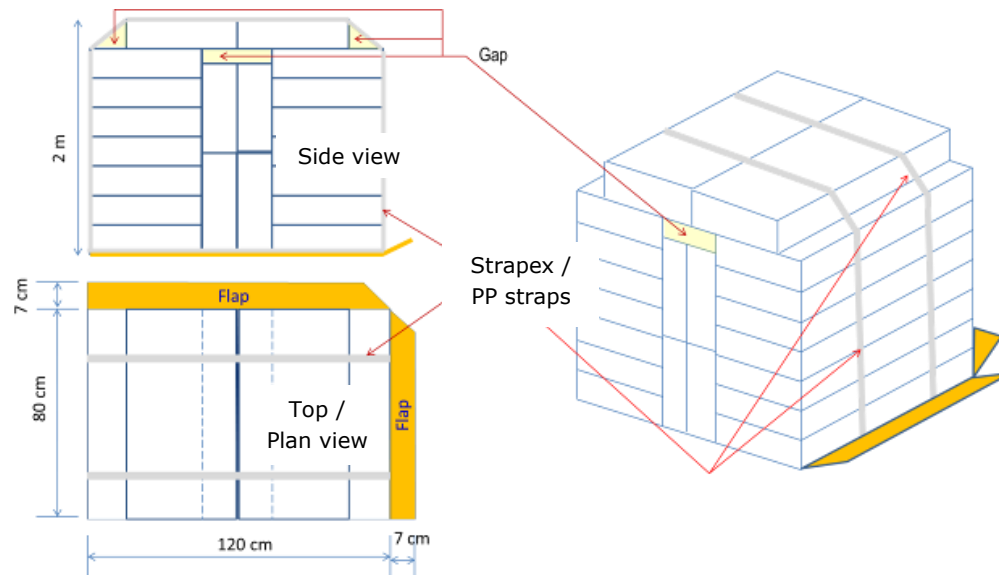


Figure 15 - Cardboard arrangement on EU pallet dimension with vertically stacked boxes in the middle

11 Loading in container

11.1 Loading of shipment which consist of more the one product number

If the delivery consists of more than one color, size or pattern, the products must be separated from each other.

To indicate where one product stops, and another starts a kind of punctuation mark e.g. a cardboard or the like must be used. There must only be one product number per slip sheet/pallet.

See below example of loading a container with 3 different product numbers.

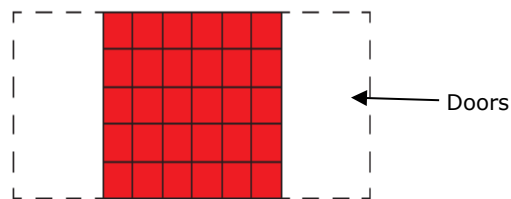


Figure 16 - End of the container

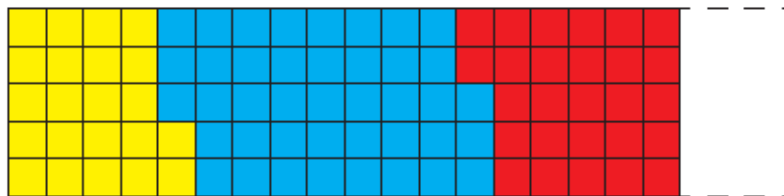


Figure 17 - Side of the container

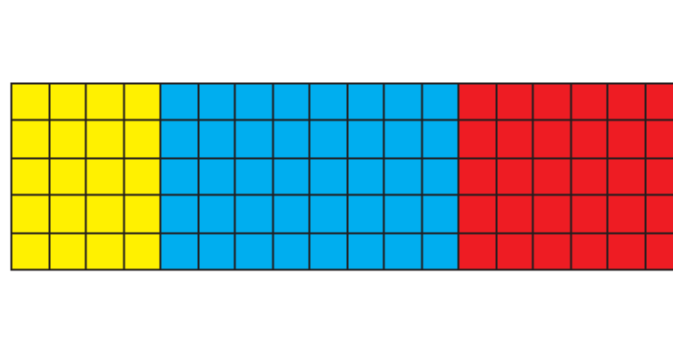


Figure 18 - Top of the container

11.2 Loading products with multiple cardboard boxes/handling units into container

For products that are packed in more than 1 boxes/handling units, all the boxes and handling units must be loaded in the same container to make a complete set. E.g. a product that is packed in 3 handling units (1/3, 2/3 & 3/3) and all handling units 1 on one slip sheet or pallet, handling units 2 on another slip sheet or pallet and handling units 3 on a different slip sheet or pallet, see [Figure 19](#).

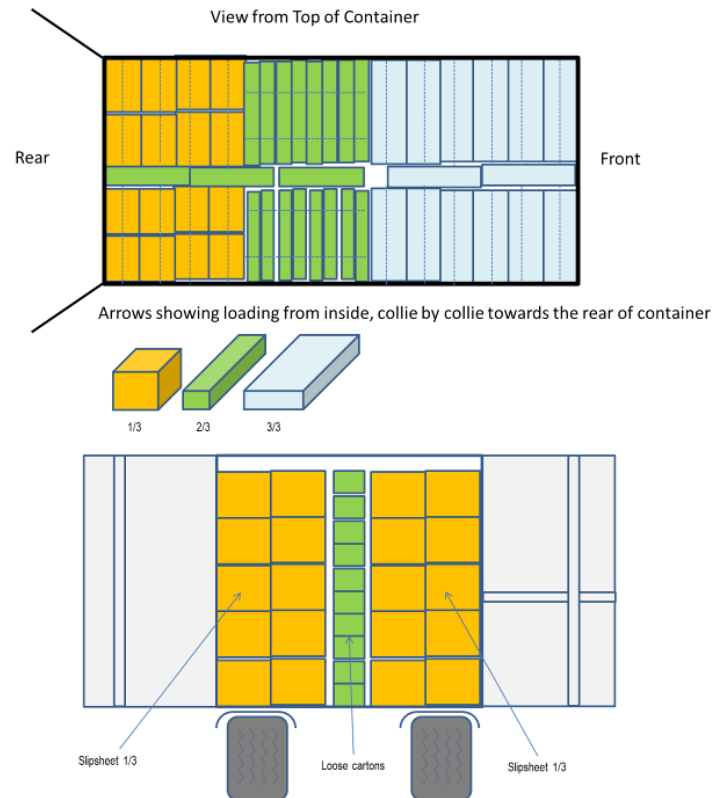


Figure 19 - Example of products with multiple handling units packed in sets in same container seen from top and rear view of container

11.3 Filling up the unused space

When the slip sheets or pallets have been loaded into the containers, the remaining space must be filled with loose cardboard boxes to maximize the loading. The loose loaded boxes must be placed in the same direction as the boxes on the slip sheets or pallets.

JYSK requires all loose cardboard boxes must be placed in the middle and on the top, see [Table 5](#). If the loose boxes are placed in the side of the container, the plastic film the boxes are wrapped in will stick together.

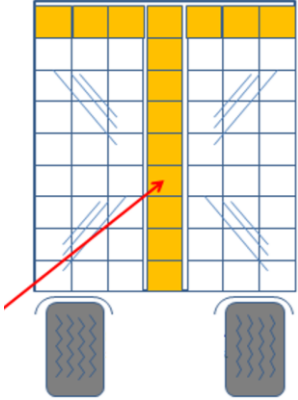
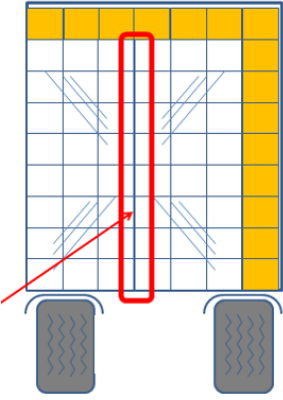
Correct way of loading loose boxes	Incorrect way of loading loose boxes
	

Table 5 - Rear view of container filled with slip sheet and loose boxes (shown as the yellow boxes)

If the product is packed in long boxes, JYSK permits the boxes to be loaded on the sides of the containers.

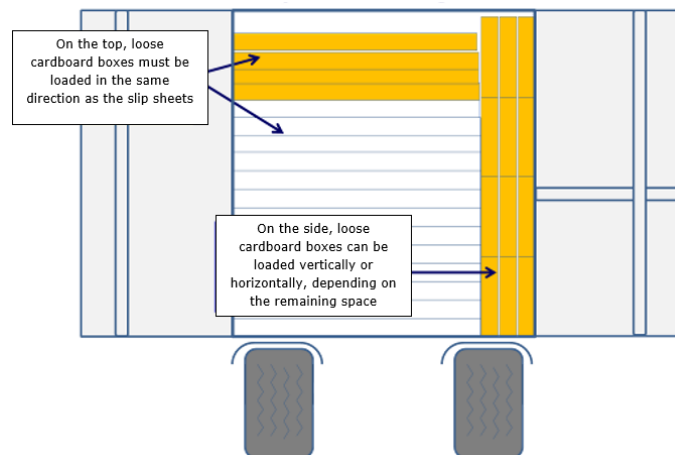


Figure 20 - Rear view of container loaded with long boxes

11.4 Safety net in container

To prevent goods from falling off when container doors are opened, as a safety precaution, safety net must be fixed in all containers at the back of the container before sealing the container doors.

The net must comply with below:

- Must be made of polyamide or PP.
- The strings must have a minimum thickness of 3,5mm and must be able to hold the load when doors are opened.
- The size of the masks must not exceed 15x15cm.

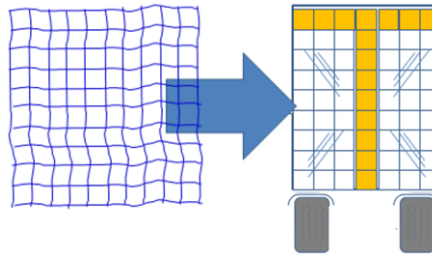


Figure 21 – Safety net in container

Container with fixed safety net	Container without safety net
	

Table 6 – Example off the reason for fixed safety net when opening container

11.5 Loading of pallets

EUR pallets must be loaded as below:

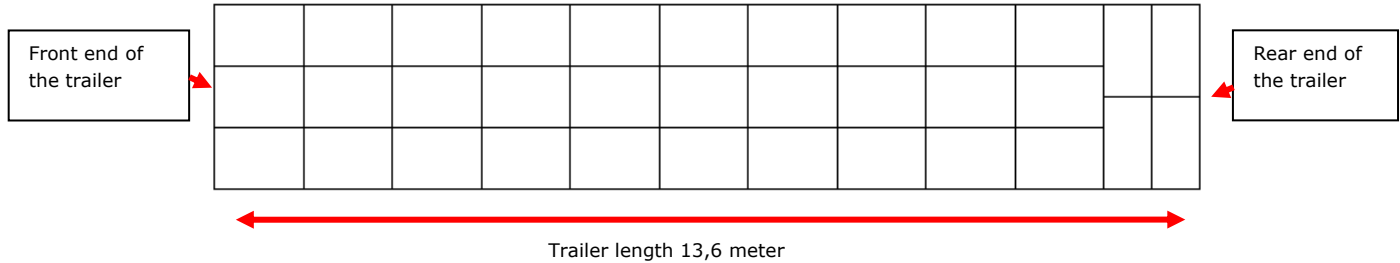


Figure 22 – Loading of pallets

This pattern is to avoid damaged pallets during loading and unloading. The loading pattern should be 3 pallets per row with 10 rows = 30 pallets and then 2x2 pallets loaded across in the trailer = 4 pallets.

This makes a total of 34 pallets in a standard trailer.

11.5.1 Special pallets

Special pallets are one way pallet specially made for the specific product, e.g. stacking chairs. Special pallets must comply with below:

- Each pallet must only contain one product number.
- The opening of the pallet must face the rear end/opening of the container.
- When the palletized cargo leaves excess space, the supplier is requested to fill out the space with loose handling units. The loose handling units must be placed between the pallets i.e. not in one side of the container.

11.6 Special pallets for stacking chairs

For special pallets with stacking chairs, the pallet including the stacking chairs and all packaging must be as high as possible, but maximum have a total height of 255 cm.



Figure 23 - Example of stacking chairs on special pallet

11.7 Loose loaded in container

Only odd-shaped products where the unutilized space will be significant are accepted as loose loaded in the containers can be loosed loaded in container. All other products must be on either slip sheets, pallets or one-way pallets.

Loose loaded must be approved by [JYSK SCO](#).

JYSK reserves the right to invoice the costs associated with the extra time used for unpacking to the supplier if the supplier.

Truck with odd-shaped products	Container with odd-shaped products
	

Tabel 6 - Examples of odd-shaped products

12 Unloading at JYSK DC's

To ensure the best possible work environment for the JYSK DC workers, mostly slip sheet forklift or clamp forklift is used when unloading goods.

12.1 Unloading slip sheets

The slip sheet forklift is used for unloading containers loaded with slip sheets. See [JYSK 60104](#) for video of the JYSK slip sheet forklift working.

12.2 Clamp forklift

The clamp forklift can be used to unload containers and trucks. See [JYSK 60105](#) for video of the JYSK clamp forklift working.