Packaging & Labelling

Requirements

For Suppliers Shipping

To Atmus Filtration Quimper

plant

Prepared by
Atmus Filtration purchasing & Lean Manufacturing departments

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1. Introduction

The Packaging Manual has been developed to assist suppliers in selecting packaging which satisfies production part quality, economic objectives ergonomics expectations and environmental rules.
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Atmus Filtration has introduced an initiative to standardize the dimensions of inbound packaging.
Two categories of packaging have been selected:

– A range of **durable** pooled containers
– A range of **expendable cardboard boxes**

– Details of these two packaging categories can be found in section **4.** Use of packaging with alternative dimensions will only be accepted on an exception basis and must be approved by the relevant receiving plant Contact, prior to introduction.

A major part of Atmus Filtration's environmental policy is the removal of unnecessary packaging and the conversion from expendable to durable containers, where it is economically viable.

Remember, the responsibility for ensuring product quality from your factory to the point of use remains with you, the supplier of the product.

A) European based suppliers shipping to Atmus Filtration:

All quotations must be based on the most appropriate container selected from the relevant category of packaging to meet the receiving plant's preferences. Where the plant's preference is for durable packaging, if the supplier wishes to submit an alternative expendable proposal, it must be accompanied by a business case study, which includes consideration of both packaging and freight costs, justifying the economics.

B) Non-European based suppliers shipping to Atmus Filtration:

Suppliers already shipping in expendable packaging should continue. However, durable alternatives are available and would be preferred if business case demonstrates an economic advantage, and if the logistics of packaging return are feasible.

2. HSE requirement

- Packaging unit Maximum load: 12 Kg
- Packaging unit Maximum size 600x400
- Wooden and carboard **pallet box is prohibited.**
- The use of **stapple is prohibited.**
- The thickness cardboard must be adapted.
  (reduce the quantity of material)
- Pallet size Maximum 1200x800
- The maximum height of any Handling Unit must not exceed **1200 mm high**
- Material authorised & recycling:
  =>PP, HDPE translucid, LDPE translucid, mono material not composite authorised, ink glue and adhesive tape. Site IPC (directive European)

3. Atmus Filtration Facilities

This Packaging Guideline is only valid for components that are shipped to Atmus Filtration Quimper.

If you require any further information, please get in touch with your normal contact in the Atmus Filtration Purchasing organisation.

4. Introduction to Lean Manufacturing

Atmus Filtration's objective is to be a World-Class Lean Manufacturer. A key enabler of the lean manufacturing process is the packaging for production part shipments from the supply base.

Using optimum sized containers, material flows through the system and line-side ergonomics are improved. The overall effect for packaging is a shift from large packs containing many hours stock, to small lot packaging, containing an agreed target level of stock.

When combined with the Synchronous Material Flow programme, small lot packaging has the following benefits within Atmus Filtration plants.

- Eliminates waste at all stages of the production cycle.
- Manual delivery replaces mechanical delivery to line-side. Fork-lift movements can be replaced by dedicated replenishment cycles.
- Reduction in physical space requirements. Line-side stock location and market-place storage areas can be reduced.
- Improves direct labour efficiency. The containers can be **ergonomically** presented to the operator to maximize their efficiency.

- Increases inventory turn-over rates.
- Reduces non-value-added inventory.
- Smoothest production flow.
- Reduces batch sizes. Modular small lot packaging can be ordered in smaller units whilst maintaining level load units.

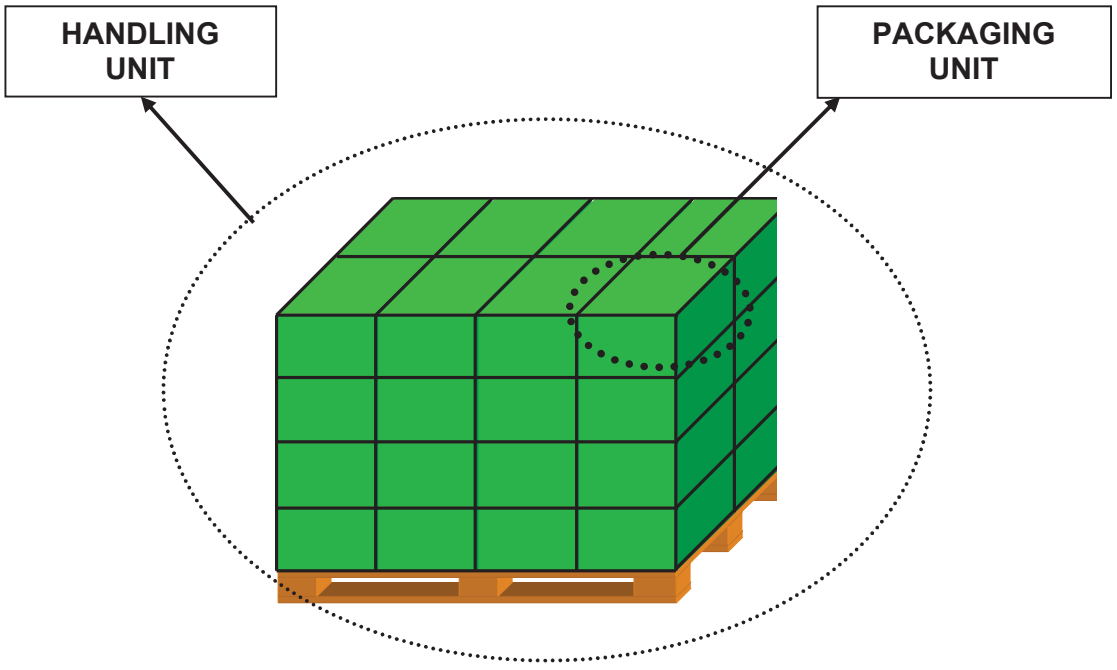
These benefits are not exclusive to the receiving plant. With the necessary focus on material flow processes, the supplier can also realize all these efficiencies.

5. Packaging user guide:

To classify packaging easily, Atmus Filtration use following definitions:

5.1. Handling Unit (H.U)

Packaging including **pallet**, **lid** and given quantity of **packaging units** with components.
This handling unit is used to transport components between Supplier and Atmus receiving plant.



Wooden one-way Pallet

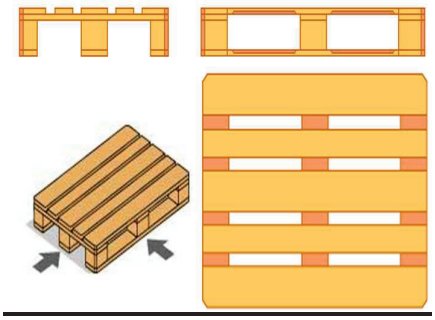
Wooden pallets must be compliant with **ISPM15 regulation**. Fumigation process must be in accordance with local, French and EU regulations.

Nominal dimensions ± 10 mm		
L	**W**	**H**
800	600	144
1200	800	144

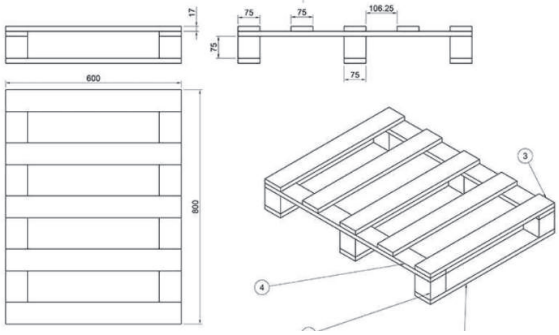
Atmus Quimper standard

Atmus deviation required

1200 x800



800X600



Returnable Lid:

Nominal dimensions ± 10 mm		
L	**W**	**H**
800	600	53
1200	800	53

5.2. Packaging Unit (P.U)

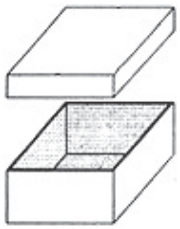
Returnable or **non-returnable**, with given quantity of components, for example: plastic box ready for direct use on production line, without need of component repackaging.

Target Stock Time is for each packaging unit to contain a quantity **equivalent to 1-4 hours** of production and in any case the packaging unit should not exceed more than ¼ of daily production requirement with an objective pack weight of not more than **12kg**.

5.3. Cardboard box requirements

- All bandings must be plastic – the use of **steel banding is prohibited.**
- The use of **stapple is prohibited.**
- There must be sufficient banding correctly applied to hold all the packs in place.
- The pack must be strong enough to stack safely, both in static storage and transit.
- The edges of the boxes must be protected by a strip that stops the banding from biting into the boxes.
- No packs protrude beyond the pallet base.
- The pallet is a full perimeter, four-way entries, fully expendable type and meets phytosanitary requirements ISPM 15 where necessary.
- Standard Pallet Size: Intra-Europe either a 1200x800 mm
- Import cardboard boxes must respect ICCA 0312 standard.

OK



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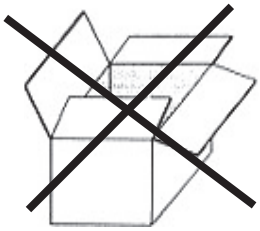


- The maximum height of any Handling Unit must not exceed **1200 mm high** for maritime IS0 container shipments and for normal freight movements unless specifically approved by Atmus Filtration receiving plant.
- **Pyramid loads are not acceptable** under any circumstance.

5.4. Standard dimensions

Individual cardboard boxes appendix A1:

Code	Dimensions L	W	H
C3	1200	600	200
C6	1200	400	200
C9	600	400	300
C10	600	400	250
C11	600	400	200
C12	400	300	300
C13	400	300	200
C14	400	300	150
C15	300	200	200
C16	300	200	125
C40	300	200	90

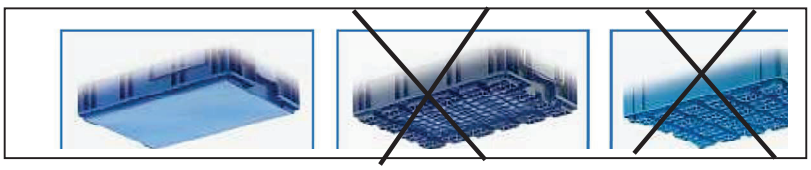
Atmus Quimper standard

Atmus deviation required

5.5. Durable Packaging Specifications

Code	Dimensions L	W	H	Volume
RL-KLT VDA 3147	300	200	147	5 l
RL-KLT VDA 4174	400	300	174	15 l
RL-KLT VDA 6280	600	400	280	51 l

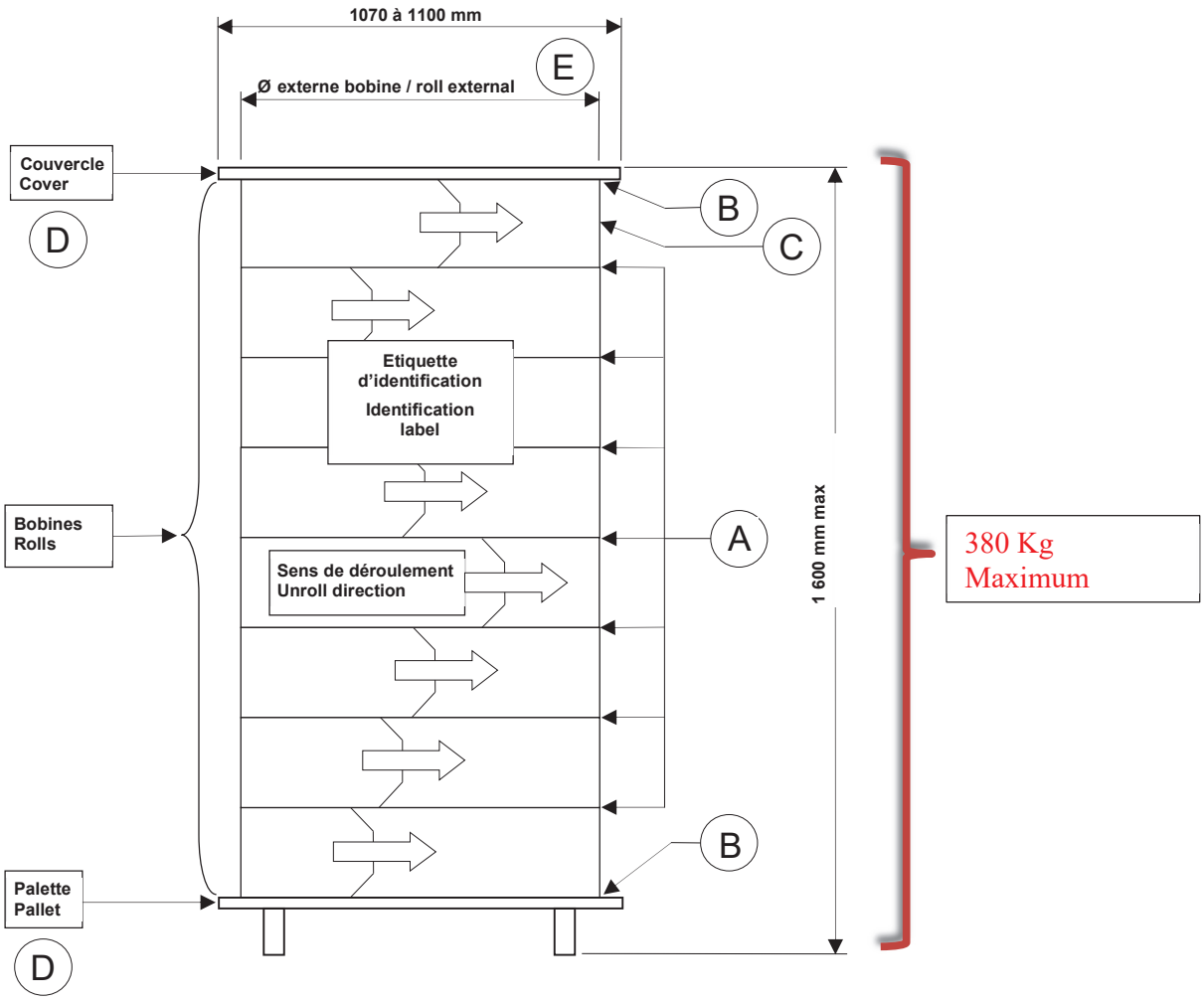
Atmus recommends the smooth base in order to improve the slide on conveyor.



5.6. Media Packaging Specifications

Spindle inside diameter: 76 mm 0/+3 (no out of round
External dimensions: see scheme
Rolls external Ø:
Cellulose: Ø 1000 to Ø 1050 mm
Multilayers on cellulose: Ø 950 min.
Direction of winding: Outer wire side (lines)
Maximum junctions in a roll : 2
Junction without overlapping.
The adhesive tape for the junction must have a color different from the medium one.
The junction must withstand a temperature of 60°C mini.
The junction tensile strength must be at least equal to the medium one.
The adhesive tape for the junction must be visible from the outside of the rolls from both sides.
No damage (cut, bending, hole …) on the outer of the roll before packaging

A - Separation layer between rolls
B - Protection layer
C - Overall external protection: stretch wrapping waterproof film
D - Pallet and cover: wood



6. How to Interpret These Packaging Requirements

All the suppliers must refer to this Packaging Guideline when completing a Request for Quotation, from Atmus Purchasing.

- Atmus long-term objective for parts shipped between European locations is to use fully durable containers, where economically viable.
- Where these standard durable packs are not feasible or economically viable, the use of expendable cardboard boxes or supplier owned durable racks may be considered but must be approved following the Atmus guideline by the authorized person, prior to introduction in the concerned Plant.
- In order to optimize the Atmus process, these durable packaging units should represent a Target Stock Time of **1-4 hours** with an Objective pack weight of not more than **12kg**.

6.1. Select a suitable packaging unit

- Use the Packaging Specifications as above to determine the most appropriate containers (returnable or expendable).
- Once choices are made between returnable and expendable containers then use the Packaging Guideline as detailed on next page to select most suitable packaging.
- Where parts do not fit in a standard container or excessive internal dunnage is required then special returnable racks or containers should be considered.
- For parts shipped from outside of Europe or in circumstances where there is a significant and demonstrable total cost saving then expendable packaging can be considered.
- Target is for each packaging unit to contain a quantity equivalent to **1-4 hours** of production and in any case the packaging unit should not exceed more than ¼ of the daily production requirement.

7. Supplier Owned returnable Packaging

- A supplier already has his own range of dedicated containers specifically tailored to suit their production system/ Kan Ban system.

- It may represent the lowest 'Total Cost' option because of the improved pack density of a dedicated rack or the proximity of delivery and receiving locations may allow a small dedicated durable loop.

- In the above circumstances Special Returnable packaging will be accepted by Atmus plants as long as the following guidelines are followed:

- Packaging must be compatible with facilities and processes already used within the plant and the type of pack to be used must be agreed in advance by the receiving plant.

- A robust logistics process for container returns has been agreed and can be supported within Atmus Filtration plant and all costs have been fully included in the overall 'Total Cost' comparison supplied by supplier and validated by Atmus Filtration purchasing (regardless of supply chain responsibility).

- The Supplier must ensure that the correct quantity of containers is available to support the entire logistics chain at the approved daily production volume, delivery/return frequencies and stock holding agreed with the plant.

- A sample of the prototype rack or pack has been developed and formally submitted for approval to Atmus Filtration plant prior to bulk series production or ordering of racks/containers.

- The Supplier is responsible for all costs associated with the design, development and provision of an initial prototype as well as costs associated with any testing and transportation required during the approval/sign-off process.

- All Packaging must be maintained in clean and safe condition by the Supplier so as to ensure efficient operation within the plants and guarantee defect free transit of parts to Atmus Filtration.

- For this option, specifications, development and gaining agreement and sign off by Atmus Filtration receiving plant is necessary.

- Atmus plants will sign off racks and containers to approve handling and operation within their plant. However, the Supplier is responsible for the design and development of the production pack to fit all variants and design levels of the sourced part and to ensure quality of part is maintained at any time.

8. Standard Expendable Packaging

Non - European Suppliers:

Suppliers shipping from outside Europe to Atmus Filtration's Quimper plant should use expendable packaging. Returnable packaging may be developed where the business case has been agreed by Atmus receiving plant & Purchasing.

Refer to the table in appendix A1 (Cardboard box requirements) to select a cardboard box appropriate to your product, volume, and shipping frequency.

Note: Cardboard boxes have modular dimensions, which allow combinations of different sizes to be assembled into a standard Unit load that is compatible with all **European transport modes.**

European Suppliers:

For European based suppliers returnable packaging is the standard, any exception will have to be approved by Atmus Quimper through a deviation.

The parts must only be shipped on standard pallet sizes: or (**600x800mm Atmus Quimper Standard)** for the 1200 x 800 mm Atmus deviation required

9. Emergency Expendable Packaging

Expendable packaging is only to be used for emergency shipments when approved returnable containers are not available due to unforeseen circumstances (internal packaging can be expendable for standard containers). It is essential that an emergency expendable packaging solution is developed and a few shipments worth are always available at the Supplier location.

THE EMERGENCY EXPENDABLE PACKAGING MUST EXACTLY REPLICATE THE RETURNABLE SOLUTION IN SIZE & PACK DENSITY.

This is absolutely mandatory since the part ordering and external and internal logistics systems are based specifically on the container size and part quantity.

All emergency expendable packaging must comply with the Do and Do Not.

10. Packaging Approval Process

When the Supplier has received confirmation of sourcing from Atmus, the Supplier should refer to the following steps to gain packaging approval.

Step 1 – Review RFQ (request for quotation)

- Check specifications and costs originally submitted on RFQ.

Step 2 – Complete the PSDS (**P**ackaging **S**pecification **D**ata **S**heet)

Step 3- Obtain receipt of approval:

- The Supplier must be given packaging approval by Atmus before shipments may commence.
- To obtain this approval Atmus plant may request a trial shipment prior to deliver the first production parts. This could be in addition to any shipments made during the **PPAP** (Production Part Approval Process). Contact the Plant to determine if a trial is required.

Step 4 – Ship parts to receiving Atmus plant:

- Retain a copy of the approved "Supplier Packaging specification" form and proceed with shipments.

Please Note: a signed "PSDS (**P**ackaging **S**pecification **D**ata **S**heet)" does not discharge the Supplier from responsibility to maintain part quality through the complete supply chain to point of use.

11. Labelling

a) All containers, Individual cardboard boxes, durable boxes, Large and Small Containers **must be labelled in accordance with the ODETTE standard:** Global Transport Label - European Profile LL08 Version 2.2 published in September 2022

Global Transport Label - European Profile | Odette

LL08_GTL-European -Profile_V2.2.pdf

b) Only the following labels are accepted by ATMUS:

A5: for handling unit (page 33 of LL08)

Figure 18 - A5 Master Label for homogeneous loading unit

SLC1: for inner packaging (page 34 of LL08)

Figure 21 - Single Label in SLC format 210 x 74 mm for inner packaging

Blister label: for inner packaging (page 35 of LL08)

Figure 24 - Blister Label 150 x 25 mm

c) A tool provided by Odette to generate Global Transport Labels (European Profile) that meet the standard Odette LL08 (VDA 4994) is available at the following link:

Odette GTL Generator | Odette

Be careful only two sizes are currently supported by the Generator:

A5 (210mm x 148mm)
SLC1 (210mm x 74mm)

d) Data matrix:
The message structure is according to AFNOR NF Z 63-400 / DIN 16598 (§7.2.4 in page 43 of LL08).
The DI (Data Identifier) used on the data matrix are explained on the §7.2.5 (page 44 of LL08)
The following information at minimum must be coded on the data matrix with the order:
Supplier name / Part number ATMUS / Quantity / Batch number / Expiry date (if applicable)
Example:
Supplier name: Blanket Supplier Release number (unique number visible on PO)

Blanket Release 51000079-315, 0

PN: 224466
Quantity: 2000
Batch Number: 4501
DLU: 20240717 (YYYYMMDD)

.3L51000079^P224466^Q2000^IT4501^14D20240717

e) Bar code:
The barcode is a code 128 barcode (page 40 of LL08)

f) Individual cardboards must not be printed with irrelevant trade names or product descriptions under any circumstances.

g) Individual cardboard boxes must be identified with two labels placed on adjacent corners and parallel to the top edge of the pack.

h) If the part is packed in an FLC or KLT, the label holders must be used.

i) Adhesive labels must be used on expendable packs. Only non-adhesive labels may be used with durable containers. Adhesive labels must never be sticked to returnable containers. If other types of labelling are not possible the label may be tied on.

j) Packaging Units (Individual cardboard boxes, returnable containers, etc.) may not contain more than one part number and must be individually labelled.

k) Any Handling Unit load made up of multiple Packaging Units (Individual cardboard boxes, durable containers, etc.) must have a master label summarising the contents.

l) Where the Handling Unit load contains more than one part number, as may occur when the receiving plant is ordering by packaging unit quantity, (i.e. a mixed load), this must be identified with a mixed load label.

In addition to this label,
- A mixed load manifest or packing slip must be attached to the pallet detailing the contents of the load (part number, quantity, number of packaging units).
- Or a master label for each part number must be present on the pallet, indicating pallet contents.

12. Supplier Owned Returnable Rack Information

The choice of container should be mutually agreed between the Supplier and the receiving Atmus plant. Contact the Plant Packaging Engineer or Atmus staff in order to provide assistance and direction on this decision. It is far better that this is agreed early in the sourcing process to ensure that the chosen container type is feasible and that the total cost calculation is as close as possible to the final solution.

The following guidelines should also be adhered to:

- The containers must be robust enough to withstand a rigorous industrial environment. It is the Supplier's responsibility to maintain, clean and repair damaged or dirty containers.
- If the pack is not a self-contained unit, then containers must be easily assembled into palletised Unit loads.
- Confirm the existence of a logistics process for container return and agree a container control system between Supplier and Atmus receiving plant.
- Ensure that **sufficient containers** are available given the intended logistics process. Use the DPV (daily production volume), and shipping frequency to determine this. The final number of containers must be agreed by the relevant Plant Packaging Contact.
- Agree piece price implications with Purchasing. Ensure that the cost for container control and return freight have been included in supplier's costs unless

other arrangements have been negotiated with Purchasing and the receiving Atmus plant.

- Arrange a test shipment into the plant and ensure that you obtain formal agreement of the rack from the receiving plant before purchasing production volume of the container.
- Remember responsibility to ensure part quality and continued safe ergonomic use of supplier owned durable containers remains the responsibility of the Supplier at all times.

13. Packaging and part handling recommendation

The supplier must submit to Atmus Filtration Quimper all needed requirements for handling recommendations for the packaging and parts.

Such as: stacking rules, humidity or heating thresholds, how to handle parts, …

14. User Information Do or Do Not

Handling Unit:

DO ensure that all containers are clean, serviceable and free from redundant labels, prior to loading.
DO report complaints to your Third-Party contact if received containers are in an unacceptable condition.
DO pack containers to utilize at least 95% of internal volume.
DO ensure that the lugs clip into the dedicated location points on the container when fitting the dust cover.
DO ensure that the maximum dimensions of any layer pads or trays allow unrestricted entry.
DO NOT mix different part numbers within the same container.
DO NOT use any form of banding on the container.
DO NOT compromise access to pallet base with banding straps.
DO NOT use steel banding as it is difficult to remove and can cause injury.
DO NOT use shrink or stretch-wrap.
DO NOT use staple

Internal Packaging:

DO ensure that part quality is maintained using the minimum of internal packaging.
DO ensure that it is not possible for parts to tangle during transportation (consider banding parts together to minimise the risk).
DO ensure that all expendable dunnage is recyclable.
DO ensure that expendable dunnage can be easily removed.

Labelling:

Container labels are based on the current ODETTE standard, printed on white weather resistant paper of weight 160-170g/m2 with black text.

DO locate "A5" sized ODETTE label in label holder, ensuring label is of sufficient thickness to remain securely located in holder. (If unavoidable, a small sticker may be required to secure a label. This must be a "low adhesion" sticker, one sticker per label, with majority of sticker on label and not container).
DO use a minimum of two ODETTE labels, on adjacent sides of the container.

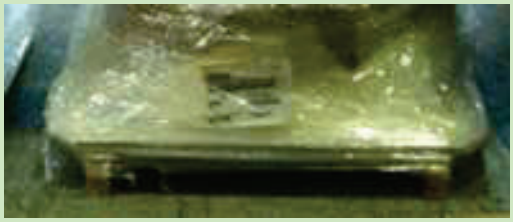
Returnable Packaging Units Do's and Don'ts:

DO assemble packaging unit loads on pallet base and cover 1200x800 mm or 800X600mm.
DO use two plastic bands to secure the packaging units & cover to the pallet base.
DO position packaging units on pallet base with product labels facing outwards.
DO use minimum of one ODETTE standard label, coloured white, **per packaging units.**
DO ensure that packaging units are "brick built" to ensure stability of Unit load.

DO NOT exceed a Unit load height greater than 1000mm.
DO NOT mix loads of cardboard boxes and durable packaging units.
DO NOT exceed the gross weight **of 12 kg** for each packaging unit.

Media Packaging Units Do's and Don'ts:

DO	DO NOT
	
The totality of pallets and rolls must be covered by four layers of polyfilm A paper sheet must be placed between the pallets and the rolls to protect them The pallets mustn't be damaged	
PALLET	
	
A wooden tray on top to cover the media rolls The rolls mustn't exceed of it and the tray must be cover of polyfilm	
TOP OF PALLET	

DO	DO NOT
 A paper sheet must be placed between each roll to protect them	
MIDDLE OF PALLET	
 A wooden pallet tray on top to protect the media roll The rolls mustn't exceed of it	
BOTTOM OF PALLET	