

Seco Tools LLC

General Packaging Instruction

Rev2 2019

This instruction stipulates the requirements for deliveries from External Suppliers to Seco Tools LLC Distribution Centers (DC).

The purpose for this instruction is to optimize cost efficiency and to minimize the environmental impact while giving appropriate protection to the products. The basis for the environmental concerns is to **Reduce, Reuse, or Recycle.**

Seco Tools LLC General Packaging Instruction	Date	Document id
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	Signed	Telephone

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1. ABSTRACT

This instruction stipulates primarily the requirements for deliveries from External Suppliers to Seco Tools LLC Distribution Centers (DC), The purpose for this instruction is to optimize cost efficiency and to minimize the environmental impact while giving appropriate protection to the products. The basis for the environmental concerns is to reduce, reuse, or recycle.

2. APPLICATION

The packaging instruction should be followed for all products that are shipped to distributions centers and production units. It is only in the cases where a specific packaging instruction has been written that this packaging instruction can be ignored.

When new packaging solutions are developed and designed, they must be according to this instruction, and in all steps must the concerns regarding reduce, reuse, and recycle be taken into account.

3. RESPONSIBILITY

The external suppliers are responsible for ensuring that:

- The product is packed so that it is shipped to Seco Tools UDC in such a way that it will arrive undamaged.
- That all possible cost-efficient manners have been taken.
- The shipment is according to this packaging instruction.
- Sufficient cushion material is used.
- All packaging material is according to environmental and other policies of Seco.

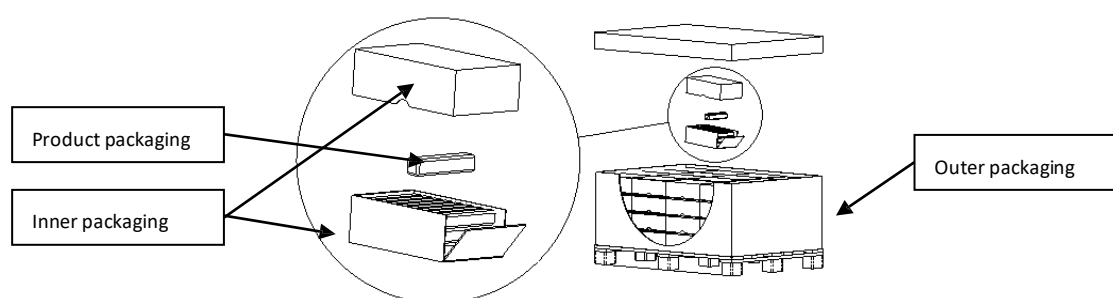
Seco is responsible for ensuring that:

- If requested by the supplier, inform the supplier about the fragility of the product that is being shipped.

Distribution centers further responsibility:

- To handle the incoming and outgoing goods in the most cost-efficient way
- Use the cassette box (inner packing) as much as possible for the inbound flow in order to minimize repacking.

4. DEFINITION PACKAGING



Picture 1

4.1. PRODUCT PACKAGING

The packaging nearest to the product and the packaging the product actually is in direct contact with.

4.2. INNER PACKAGING (CASSETTE BOX)

The inner packaging is the package that is put inside of the outer package with the product packaging inside of it. This packaging should be the cassette when possible. In some cases, when the product package is too big to fit inside the cassette, the inner packaging and the product packaging can be the same.

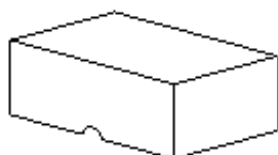
4.2.1. Cassette Box

The cassette box should preferably be neutral (non-branded) but in some cases branded and should only contain one specified product if possible. Picture 2.A

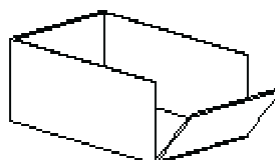
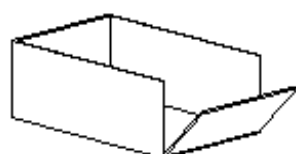
4.2.2. Mixed items in one Cassette box

- It's allowed to put different items in one cassette for low quantities with restrict that each item is packed separately by rubber-band or paper wrap.
- Mark on top of the lid with "MIXED" Picture 2.B.
Each product/brand must be packed in one cassette. NOT allowed to pack more than one brand in a cassette
- The main cassette box is specified in product drawing, 17.1/47 Product number 90002, and picture 2, external dimensions 292*196*110 mm (11,5 * 7,7 *4,3 Inches).

Picture 2.A



Picture 2.B



4.3. OUTER PACKAGING

The outer package is always the outer most packaging and it is the packaging that is handled during transportation, all other packaging is inside of this package.

4.4. ONE WAY PACKAGING

One-way packaging is a package that is designed and used only once and is after received by the last receiver recycled.

4.5. RETURNABLE PACKAGING

Is a packaging that is designed and used in a returnable flow, the receiver sends it back to the supplier or sender instead of recycling it.

5. PACKAGING DESIGN

5.1. BASIC CONDITIONS

When a new package is designed the package must be in accordance with this document. This is to be able to design a package that will have the lowest overall cost and appropriate product protection. The cassette box should be used when possible (The product packaging should be able to be packed in the cassette box as much as possible).

5.2. LIMITATIONS

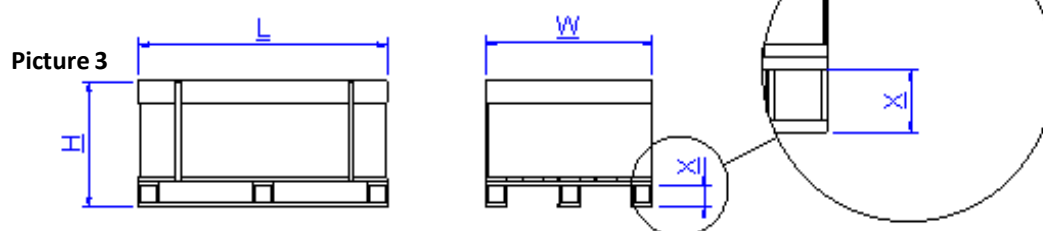
5.2.1. Weight

Maximum weight for manually handled Standard Packaging is 23 kg or 50 LB.

Receiver of shipment can give exemption for a maximum weight of 23 kg or 50 LB without base, pallet or runner.

5.2.2. Dimensions

- The height (H) should not exceed -1220mm 48 inches included the base. In Asia (APDC) the maximum height is 800 mm 32 ½ inches.
- Pallet, maximum external length (L) and width (W) is 1200x800 mm (47, 2 x31,5 in) for Europe and for the US it is 1220x1220 mm (48x48 in)
- For weights more than 23 kg the package has to have a base with a minimum space of 100 mm (3,9 inches) to provide for easy fork lift handling, in picture 3.
- The maximum weight of a packed ½ pallet 600x800 mm (23,6x31,5 in) 250 kg 1/1 pallet 1200x800 mm (47, 2 x31,5 in) 500 kg.



5.3. TRANSPORTATION

The outer package can be shipped as it is.

5.4. TESTING

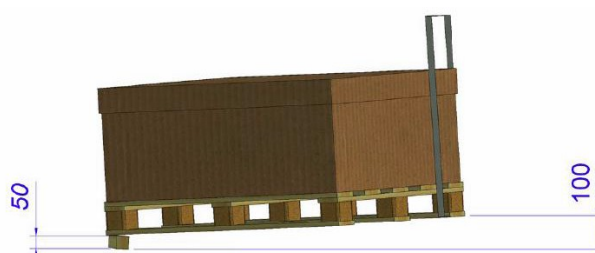
The package should be tested so it can be determined if the package is strong enough to protect the products. The testing should be done in a laboratory so the transport, handling, and storage can be simulated. The outer package must be able to withstand the stress that is generated by the two tests specified below, without any damage done to the package.

5.4.1. Drop test

The outer package should be dropped from a distance of 100 mm (3,9 inches) with the opposite side (picture 4) or corner (picture 5) elevated 50 mm (2 inches). Recommended test ASTM D 4169 DC 4



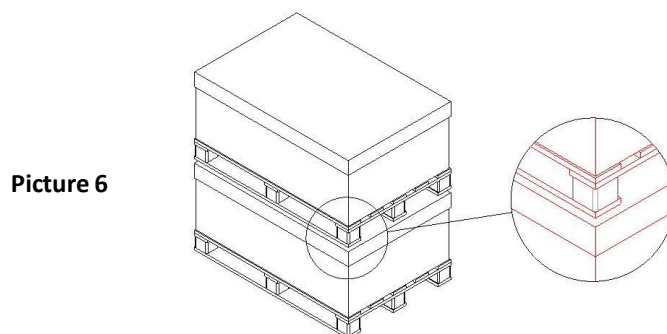
Picture 4



Picture 5

5.4.2. Compression test

To make sure the package will not collapse during transportation and storage the outer package should be tested with a load of 1500 kg that is also dislocated 30 mm (1,2 inches) in both directions as shown in the picture 6.

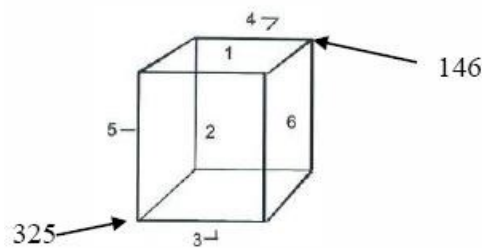


Picture 6

5.4.3. Test of cassette

The cassette and other inner packages made for less than 23 kg and without a base should be tested with a drop test. This drop test is made by dropping the box from 500 mm (19,7 inches) against the bottom (3), one of the long sides (5), one short side (2) and the two corners opposite each other 325 + 146. Picture 7

Picture 7



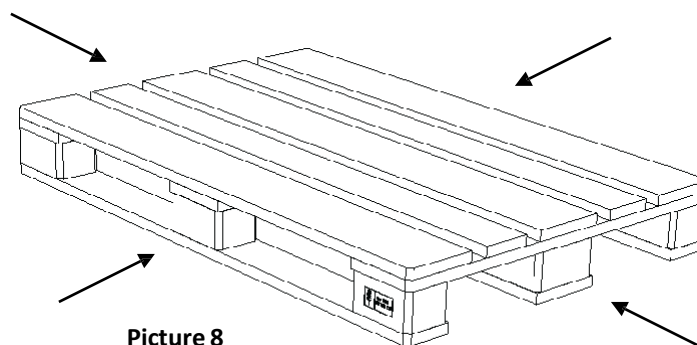
Packages with a weight over 23kg will have a base that allows in the greatest extent possible

5.5. HANDLING

to be handled with from all four sides with a forklift This is due to that packages exceeding this weight cannot be handled manually. A four-way pallet must have openings for the fork lift on all four sides. Picture 8.

It is the responsibility of the sender to make sure that their package is according to the receiving countries' regulations.

Suppliers to UDC (United Distribution Center) may send pallets only accessible from front and rear, which meets the US guidelines.



Picture 8

6. PACKAGING REQUIREMENTS

It is the sender's responsibility to make sure that the package does not violate any laws and regulations of the final destination of the shipment.

This paragraph is the requirements that have to be followed when designing a new packaging solution listed and explained. These are the most common ones and those that are most likely to affect the design.

6.1. ENVIRONMENT

Product packaging should be designed in a way so that the total environmental impact is held at a minimum level. Also in the cases when a standard packaging is chosen this must be considered. The product shall arrive undamaged so that no replacements deliveries are necessary.

The Suppliers environmental management system should be in accordance with ISO 14001, or equivalent. If the supplier is yet not certified it should have a plan for implementation.

However, these are just very brief summaries; it is the suppliers' responsibility to make sure their business is in accordance with these directives. Further information § Recycling

For safety precautions Sandvik has decided that all wood based packaging, such as plywood, chip board, and OSB-boards, should be marked according to ISPM 15, even though they are formally excluded from the phytosanitary regulations due to their production processes. All wood, processed/treated or not, must be all bark free.

6.2. CORROSION PROTECTION

If the product is sensitive to corrosion a corrosion protection should be used. The protection that is recommended to use is VCI. VCI stands for Vapor Corrosion Inhibitor and gives protection to the metal by VCI molecules make a protective layer on the metal to withstand corrosion. At Seco Tools we use CRC 3-36 Corrosion inhibitor. See Quality Requirements for more information.

6.3. FILLING

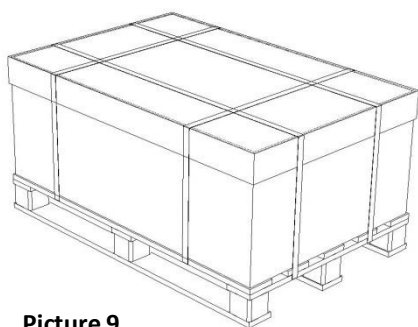
It is very important that the amount of air in both the cassette and outer packaging is minimized. In the cases where it is not possible to utilize the volume completely with products, the volume should be filled to avoid damages on the products.

- The empty space should be filled by using paper pad (recommended that the pad paper is of 100% recycle paper), for environmental reasons
- EPS and Styrofoam materials should be avoided.
- **Chips, shredded paper, as filling material is under no circumstance allowed.**

6.4. SEALING

All packaging should be closed properly.

- The outer packaging should always be sealed by using polyurethane band, as seen in picture 9 below. Steel strapping should be avoided due to Health & Safety and cost reasons.



Picture 9

The cassette is sealed by the lid. No strap band or tapes are allowed.

7.1. USE OF Seco Tools LLC LOGOTYPE

All marking of the packaging that in any way involves the Seco logo or any other Seco related logo or trademarks must be according to the Seco corporate identity or branding guideline. Any such usage of any logotype controlled by Seco shall only be used if actively requested by Purchasing.

7.2. USE OF BRAND WITHIN Seco Tools LLC

All branding must be according to each brand's specific guidelines. Questions regarding this should be addressed towards each PA (Product Area)

7.3. PROTECTIVE MARKING

If the packaging is sensitive and there is a need for a specific handling the outer package should be marked with appropriate symbols according to the ISO 780:1997, Pictorial marking for handling of goods. The most likely ones to be used are the following three.



The packaging must face this side up.



The packaging is extra sensitive to moisture.



The packaging has a limit of weight that can be stacked on top of it.

7.4. RECYCLING

Plastic product should be marked in accordance with ISO 1043-1:2001. The general recycling symbols in the standard. Picture 10.

Together with appropriate symbols the correct DIN material code and GB code should be included. Example for Polystyrene is shown in figure, DIN code "06" and GB code "PS".



Picture 10

Materials	DIN Materials Code	Codes	Description
Plastic	02	HDPE	High density polyethylene
	04	LDPE	Low density polyethylene
	03	PVC	Polyvinyl chloride
	01	PET	Polyester
	05	PP	Polypropylene
	06	PS	Polystyrene
Paper		WPP	Paper
		PB	Paperboard
		CB	Corrugated cardboard
		FB	Corrugated fiberboard
		NCFB	Non-corrugated fiber board
		FE	III Metal Steel
		ALU	Aluminum
Composite Materials		11	Plastic/aluminum
		12	Plastic/tin
		13	Plastic/mixed metals
		14	Plastic/glass
		21	Glass/aluminum
		22	Glass/tin
		23	Glass/mixed metals
		31	Paper or fiberboard/plastic
		32	Paper or fiberboard/aluminum
		33	Paper or fiberboard/tin
		34	Paper or fiberboard/mixed metals
		41	Paper or fiberboard/plastic/metal
Glass		GL1	Colorless
		GL2	Brown
		GL3	Green
Wood		NW	Natural wood

7.5 LABELING

All shipments should be labeled both on the outer packaging and on the inner packaging according to standard.

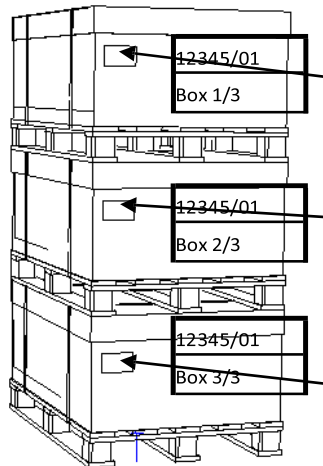
Each outer and inner package should indicate what is stated below,

In case an order has to be split into several the marking should contain order and box number as shown in picture 10:

BOX NO 1: BOX NO 2: BOX NO 3:

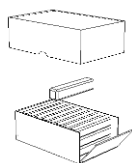
Picture 10

12345/01	12345/01	12345/01
Box 1/3	Box 2/3	Box 3/3

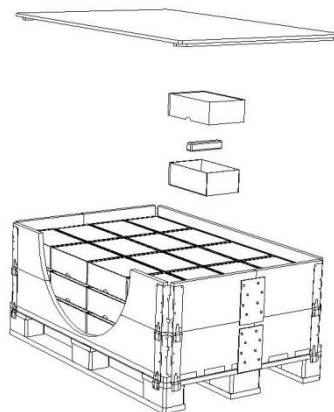


7.6 Seco TRANSPORT PACKAGING

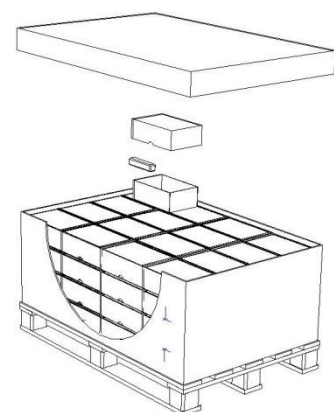
7.6.1. Standard Packaging



Picture 11



Picture 12

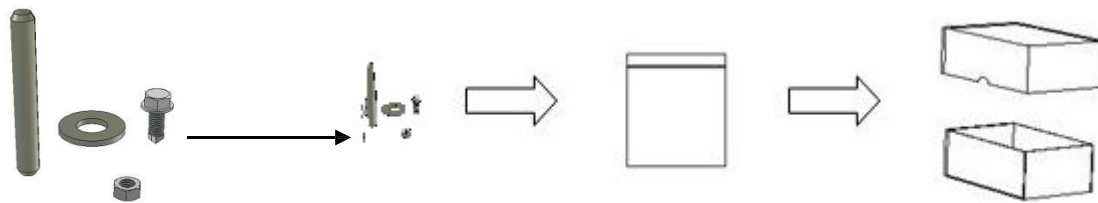


Picture 13

The pictures above show how a standard packaging should be packed. The product packaging is placed inside the cassette with the lid later placed on top (picture 11). After the cassette is full the cassette is placed inside of the outer package together with other cassettes until the pallet is full.

The pallet should either be a returnable solution with pallet collars and a returnable pallet (picture 12) or a one-way solution with a corrugated or plywood sleeve on a one-way pallet (picture 13).

If a product does not have a proper product package, or the product package is considered being too small to be placed by it inside the cassette, it should be placed inside a zipper bag and the zipper bag placed inside the cassette. Picture 14 shows this.



Picture 14

7.6.2. Special Packaging

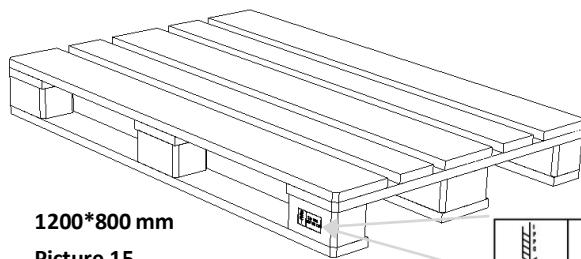
When the product, or the product package, is too big to fit inside a cassette or the transport package a special package is needed. The construction of special packaging shall be designed in accordance to the demand that is stipulated in this document to the extent that is possible.

7.8. PALLETS

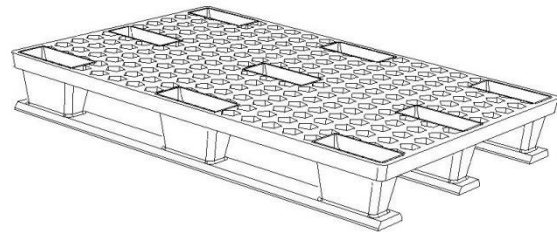
7.8.1. Returnable pallets

Returnable pallets should either be manufactured of wood, picture 15 or plastic, picture 16.

The measurements should be according to the sizes specified under limit dimensions.



1200*800 mm
Picture 15

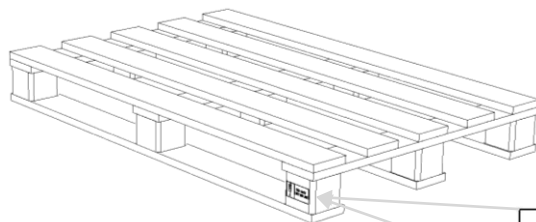


1200*800 mm
Picture 16

1200 * 800 mm corresponds to 48 * 32 inches

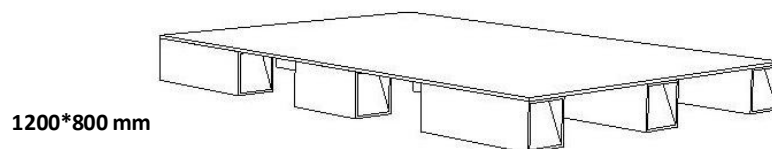
7.8.2. One-way pallets

One-way pallets should either be manufactured of wood, picture 17, plywood, picture 18, or corrugated, picture 19. **Chip-wood pallets is not allowed to use, picture 20**
The measurements should be according to the sizes specified under § Limitations.



1200*800 mm

Picture 17



1200*800 mm

Picture 19

200 * 800 mm corresponds to 48 * 32

7.8.3. Pallet dimension EDC

EDC (Europe) accept euro pallets 600x800 mm and 1200x800mm.EDC, Schiedam only

accept returnable Europe pallets.

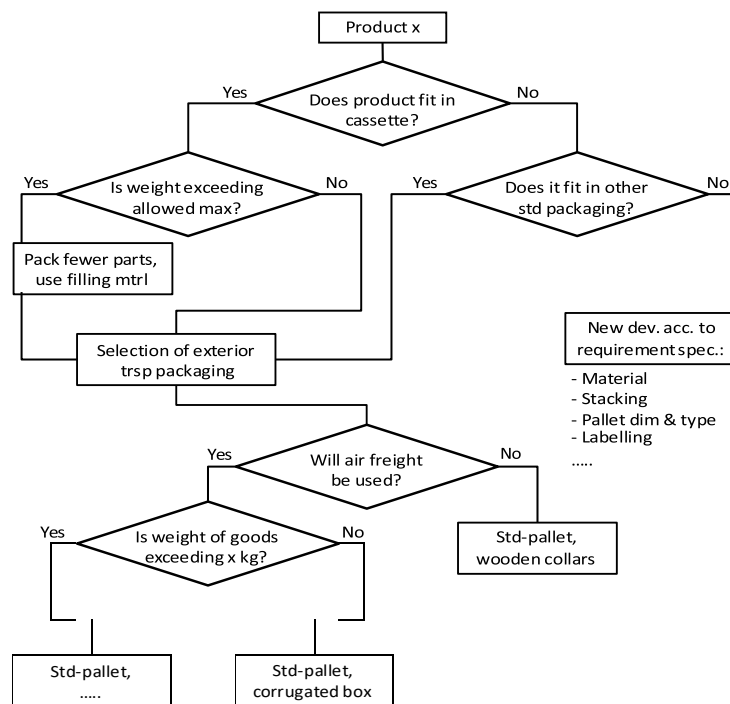
7.8.4. Pallet Dimension ADC

UDC (USA) accepts pallets up to 48 by 48 inches (1200 x 1220 mm)

Deviation from above pallet dimension, sender is request approval from the DC before sending the goods

8.CHOICE OF PACKAGING

When a new product is introduced it is important that it is shipped and packed according to this packaging instruction. To help determine if it is possible to use standard packaging, follow the figure below:



9 RELEVANT DOCUMENTS

9.1 Seco Supplier Code of Conduct

9.2 Seco Corporate Identity guideline

- ISO 14001

9.3 “Guidelines for Regulating Wood Packaging Material in International Trade”, published by the Secretariat of the International Plant Protection Convention. The latest version of this can be found at the International Phytosanitary Portal, <https://www.ippc.int/>