



AGCO NA SUPPLIERS PACKAGING MANUAL

This document pertains to all AGCO suppliers (domestic or international) who ship to AGCO sites located in North America





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1 PRINCIPLES

1.1 TARGETS AND AREAS OF APPLICATIONS

AGCO North America – mentioned as AGCO NA is a partner of the international industry of agriculture vehicles and machines. Our products have to meet the highest demand of quality. This packaging manual applies to all suppliers supporting us to realize our target.

The logistic conjunctions between AGCO NA and its suppliers are becoming closer and more extensive. Besides a competitive price, the logistic and qualitative performance of our associated companies has growing importance.

Our clients expect deliveries on schedule, outstanding quality, accuracy, and environmentally compatible products on economic/reasonable prices. This corresponds to our demand towards our suppliers.

This manual has been published in order to clearly represent the multiple demands on packaging.

The presented manual provides the basis for an optimal protection of each single part considering logistic, economic and ecologic aspects. Furthermore, it is in accordance with the Association of the Automotive Industry recommendations.

The following regulations are stipulated to guarantee a rational and undisturbed flow of material between suppliers and AGCO NA regarding:

- Optimal presentation of the boxes and the packaging
- Standardized measurements
- Coordinated measurements
- Optimal protection of the parts
- Optimization of road and freights (sea/air) transports

Based on the differences of various product groups, the descriptions in this manual are done relatively abstract. Special demands are to be discussed directly with the supplier, due to the mentioned priorities.

The choice of the package type and packaging means it has to be made in co-ordinance with the legal conditions, as:

- Comprehensive protection of the single parts from mechanical and chemical damages
- Formation of efficient loading units
- Optimal efficiency of the units
- Transportation safety device
- Easily to be cleaned; keep clean before using
- Easy-going discharge of the transport vehicles by floor conveyor
- Stackability
- Adherence to the given standard measurements
- Easy handling construction
- Easy removal of the single part
- Recyclable materials
- Distortion-free storage
- Heat-treated wood
- Cost efficient for both supplier and AGCO NA
- Must be properly secured w/o potential to damage to part or other parts
- Fully enclosed or partially enclosed
- Bagged or VCI bagged (if needed)

1.2 RECYCLING OF THE PACKAGING AND AVOIDANCE OF WASTE

Packing is to be planned based on economic and ecologic aspects. The waste-economic targets of the environmental legislation contain the respective ecological priorities:

- **Prevention of packing-waste**
Packing-waste is to be reduced most effectively.
- **Reduction of packing-waste**
Reusable and nonreturnable package are to be defined due to economic aspects. They have to be used only if really necessary.
- **Recycling of the packing**
Reusable and nonreturnable package must be recycled on the way of environmentally compatible.

In order to meet the demands of the packing regulations and to save the environment, the used materials must be environmentally compatible.

1.3 PERMITTED AND FORBIDDEN MATERIALS

The packaging material must be all recyclable and clearly marked (annex 1 for reference). The marking of the packaging must not exclude a material or energetic recycling.

Material	Permitted material	Non-permitted material
Synthetic material in general		
Non-returnable	Only PE, PP are to be marked (pictogram with label)	
Returnable	To be used: ABS, PE, PP to be marked	Not permitted: EPS except particular cases: PVC, PU, PC
Paper and paperboard container	VCI-papers, being used with paper/carton, have to be marked with RESY-symbol except particular cases: oil paper	
Packaging material synthetics		
Protective and insulating lids	PE natural colors (if not regulated differently)	
Packaging chips	According to the arrangements with AGCO	
Foam		
Disposable	PE	
Returnable	PE, PP	
Shrink and stretch film	Only PE	
Bag of foil	Only PE	
Expanded polystyrene (Styropor)	According to the arrangements with AGCO	

It could be necessary to use some rust protection material according to the goods involved. Volatile corrosion inhibitors (VCI), plastic, or paper are recommended.

Liquid rust protections are acceptable since the packaging have a plastic material to retain eventual leaks. In these cases, the oil should be applied on all the surfaces without painting.

The general requirements for rust protections are:

- *9 weeks of in-house storage without rust on the parts*
- *Sea freight without rust on the parts*

1.4 CORRECT CARGO-CONTROL

The cargo has to follow international regulations. Correct cargo control must be executed according to the way of transport and the art of loading (annex 2 for reference).

1.5 OPTIMIZATION OF THE BOXES

The supplier has to deliver boxes generally with a maximum filling. In case the filling degree changes, the supplier has to inform AGCO NA in advance.

An optimization of the filling degree is to be proposed by the supplier and to be realized in cooperation with AGCO NA.

When shipping via small package air carriers, the individual packages may not exceed a weight of 70kg/150lbs.

2 PACKAGING

Examples of standard packaging methods to be used for AGCO NA are below.

2.1 METALLIC TYPES

Disposable



Picture 1 - Disposable Rack

Returnable



Picture 2 - Returnable Rack



Picture 3 - Disposable Rack Empty



Picture 4 - Returnable Rack Empty

2.2 PLASTIC RETURNABLES

- Plastic returnable bins are a stackable and collapsible packaging solution to transport parts
- Must be properly identified with "Property of AGCO" tag and supplier tag
- Standard sizes of 32" x 30", 48"x 45", 57" x 45", 70" x 45"
- Standard heights of 25", 34", 44", 50"



Picture 5 – Returnable Bin with Plastic Parts



Picture 6 – Returnable Bin with Metal Parts



Picture 7 – Empty Returnable Bins Collapsed



Picture 8 – Full Returnable Bins Stacked




Picture 9 – AGCO ID tag



Picture 10 – Supplier ID tag

2.3 PALLETS

- Pallets with/without folding frame;
- *MUST* use heat-treated wood only
- *Wooden pallets are primarily used for transportation of bulk goods; In this case, the goods as well as the pallets are being interconnected with plastic strips (metallic strips should not be used).*
- *The packaging is to be bonded at least twice. In case of high weight, it should be bonded 4 times using plastic strips.*

	Wooden NA Pallet		
	<i>Tare Wt. (lb)</i>	<i>Max Payload (lb)</i>	<i>External Dimensions (in)</i>
	50	2,500	48 x 45

2.4 WOODEN AND CARDBOARD CASES

AGCO suggests using wooden cases as final package to optimize the transportation enabling the stacking process.

Suppliers may use cardboard cases, but only with prior approval from AGCO. It is not allowed to stack on incomplete layers, as well as on pyramids. Also make sure of a stable fit.

Internally, the parts must be arranged in layers separated by tabs corrugated plastic and protected with VCI plastic or paper, when needed. The components should be properly locked and the gaps between the parts must be filled. The package should be covered so that the components do not move during transportation.

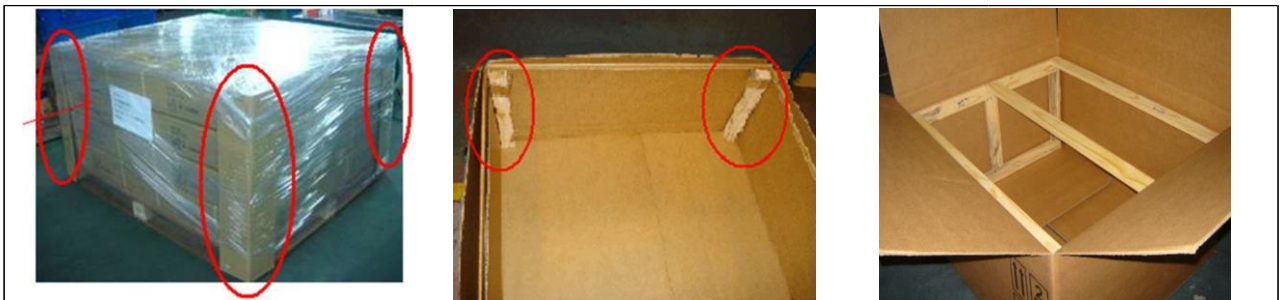
*We do not accept boxes that have pallets made of paperboard.
The closing must use two or more polyester or plastic tape. For safety reasons, AGCO will not accept packages with arched metal strips.
Packaging must resist impacts and weather changes, contain internal structure that supports stacking.*



Picture 11 - Samples of Wooden Boxes



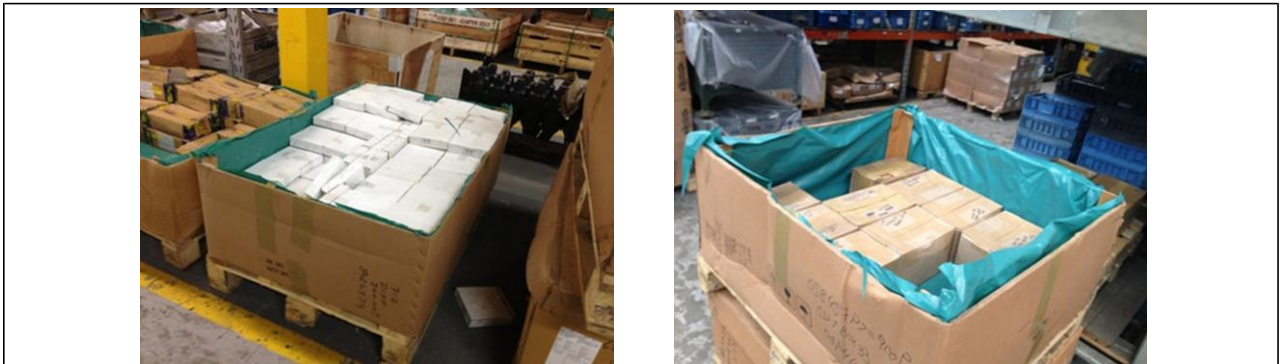
Picture 12 - Samples of Cardboard Boxes



Picture 13 - Samples of Reinforced Cardboard Packaging For Stackable



Picture 14 - Samples of Internal Arrangement



Picture 15 - Sample of Packaging with Internal Smaller Cardboard Boxes

2.5 STACKING

Examples of stacking



Picture 16 – Stacked Cardboard Boxes



Picture 17 – Stacked Cardboard Boxes
with Paper Angle Bead Support



Picture 18 – Stacked Wooden Crates



Picture 19 – Stacked Steel Racks



Picture 20 – Empty Stacked Wooden Pallets



Picture 21 – Empty Stacked Steel Racks

- We recommend having one of (4) standard heights - 20", 25", 34", or 50"
- This will allow for optimal stacking of 5, 4, 3, and 2 units, respectively
- Stackable packaging is critical for cube utilization

3 QUALITY

3.1 ACCEPTABLE QUALITY

The following criteria have to be kept:

- No crack in the structure
- No twisted feet
- No distortion in the corner columns
- Pallets have to be packed by strip at least 2-fold crosswise (using plastic tapes)
- Folding frames have to be stand firmly
- Racks must be properly painted (no rust)
- Racks must have proper identification

3.2 UNACCEPTABLE QUALITY

The following pictures show examples of unacceptable quality:

- Cracks in the metal structure
- Low quality pallets due to not acceptable material will not be allowed.
- Incorrect strip usage
- Missing internal protection for slipping/pushing
- Generally bad shape
- Missing unreadable label board



Picture 22 - Samples of Unacceptable Metallic Packaging



Picture 23 - Samples of Unacceptable Wooden Boxes
Quality



Picture 24 - Samples of Unacceptable Cardboard Boxes

4 DOCUMENTATION

4.1 DELIVERY NOTE

Please refer to annex 4- Export Instructions

4.2 PACKAGING PROPOSAL AND APPROVAL

The packaging proposal must be submitted to AGCO during the development phase. Suppliers are required to use the "Export Packaging" data sheet (annex 5). The packaging approval is part of the PPAP documents for quality procedures.

5 PACKAGING LABELING

5.1 IDENTIFICATION









AGCO suggests the use of NA AIAG standard for general identification. The picture below shows a model.

(1) Goods recipient (GR) AGCO Fendt 87616 Marktobendorf	(17) Dock (D) A	(2) Storage location (SL) 123-456	(18) Due date (DD) 2010-05-12	(19) Data matrix 
(3) Delivery note number / ASN (N) 12345678 	(4) Supplier address (SA) BHM			
(8.1) Customer item number (P) 1234567890 	(5) Net weight (NW) 90 kg	(6) Gross weight (GW) 190 kg	(7) No. of parcels (NP) 3	
(9) Purchase/Production order number (20 S) 123456 	(10) Item description/ Shipment designation (ID) AIR FILTER			
(12) Supplier number (V) 12345 	(8.2) Supplier item number (30 S) 123ABC		(11) Quantity/Contents (Q) 1 piece 	
(15) Parcel number/where applicable SSCC (S) 123456789 	(13) Shipping date (SD) 2010-04-12	(14) Change status, design (CS)		
	(16) Batch number/serial number (H) XXX123XXX 			

Picture 25 – AGCO NA Bar Code Label Example


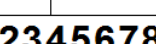





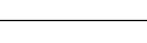
5.2 PRIMARY AND SECONDARY LABELS

Primary Label

(1) Goods recipient (GR) AGCO Fendt 87616 Marktobendorf	(17) Dock (D) A	(2) Storage location (SL) 123-456	(18) Due date (DD) 2010-05-12	(19) Data matrix 
(3) Delivery note number / ASN (#) 12345678 		(4) Supplier address (SA) BHM		
(8.1) Customer item number (P) 1234567890 	(5) Net weight (NW) 90 kg		(6) Gross weight (GW) 190 kg	(7) No. of parcels (NP) 3
(9) Purchase/Production order number (20 S) 123456 		(10) Item description/ Shipment designation (ID) AIR FILTER		
(12) Supplier number (V) 12345 	(8.2) Supplier item number (30 S) 123ABC		(11) Quantity/Contents (Q) 1 piece 	
(15) Parcel number/where applicable SSCC (S) 123456789 	(13) Shipping date (SD) 2010-04-12	(14) Change status, design (CS)		
(16) Batch number/serial number (H) XXX123XXX 				

Primary label shows 3 parcels (#7) with 1 piece each (#11) for both the same part number (#8.1) and purchase order (#9).

Secondary Label

(1) Goods recipient (GR) AGCO Fendt 87616 Marktobendorf	(17) Dock (D) A	(2) Storage location (SL) 123-456	(18) Due date (DD) 2010-05-12	(19) Data matrix 
(3) Delivery note number / ASN (#) 12345678 		(4) Supplier address (SA) BHM		
(8.1) Customer item number (P) 1234567890 	(5) Net weight (NW) 90 kg		(6) Gross weight (GW) 190 kg	(7) No. of parcels (NP) 3
(9) Purchase/Production order number (20 S) 123456 		(10) Item description/ Shipment designation (ID) AIR FILTER		
(12) Supplier number (V) 12345 	(8.2) Supplier item number (30 S) 123ABC		(11) Quantity/Contents (Q) 3 piece 	
(15) Parcel number/where applicable SSCC (S) 123456789 	(13) Shipping date (SD) 2010-04-12	(14) Change status, design (CS)		
(16) Batch number/serial number (H) XXX123XXX 				

For the part number described at primary label, **secondary label** consolidates number of pieces (#11) according to the number of parcels (#3) packed into the same consolidated package. The secondary label can be read and checked during logistics process without opening consolidated boxes.

- Handling units may be consolidated in larger packages (e.g. wooden boxes) to optimize both transportation and storage. Transit points (consolidation centers) are not allowed to open the consolidated package to check each labeled handling unit.
- Primary Label is the one placed on each handling unit, describing on field #11 the exact quantity packed in the handling unit.
- Secondary Label consolidates data from all handling units packed together in the same consolidated package. It must be applied on outer side of the consolidated package describing on field #11 the total quantity of pieces inside of it.
- For consolidated packages with more than one part number inside / purchase order, one secondary label per part number / purchase order must be applied.
- Both Primary and Secondary labels follow the same standard and layout



*Picture 26 - Handling Unit uses
Primary Label – One Label per Parcel*



*Picture 27 - Consolidated Package uses
Secondary Label – One Label per Part Number /
Purchase Order*

- When the handling unit is the main package, only the Primary Label placed on outer side of product is necessary.



Picture 28 - Primary Label only

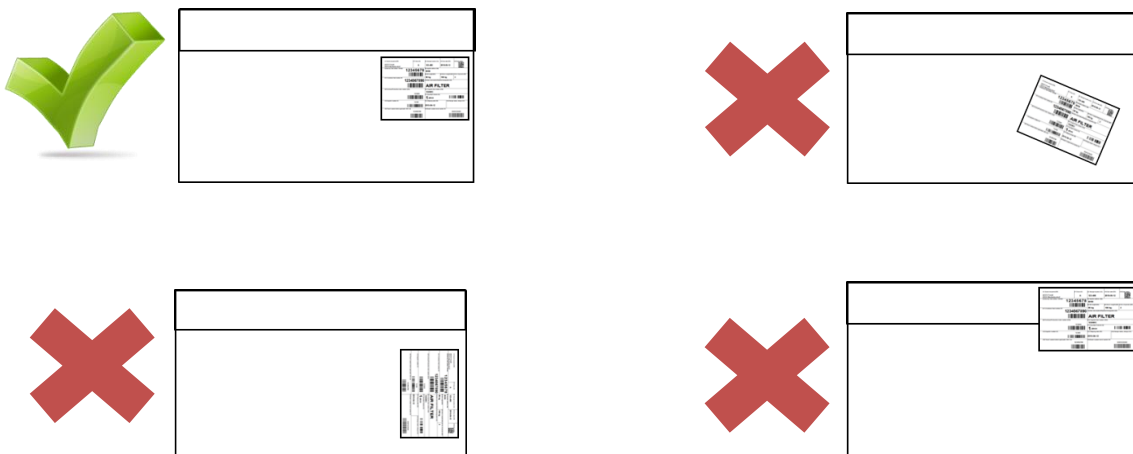
5.3 LABEL SPECIFICATIONS

- Size: 4.0 inches (102mm) high by 6.0 inches (152mm) or 6.5 inches (165mm) wide
- Color: White in color with black printing
- Adhesive types can be pressure sensitive or dry gummed as long as adherence to the package substrate is assured and application is wrinkle-free.
- **Label Usage: Normal vs. “Mixed”**
 - Whenever possible, individual cartons or Handling Units should contain a single part number. A single label should be applied to each carton / Handling Unit
 - If an individual carton or Handling Unit contains multiple part numbers, one specific label per part number should be applied to the carton / Handling Unit
- **Label Quantity and Placement**
 - Minimum 1 label per carton / Handling Unit. Even if multiple cartons containing the same part number are palletized and shrink wrapped, each carton on the pallet must be individually labeled
 - Labels may be applied directly to expendable packaging or held in integral document holders



Picture 29 – 1 Label per Handling Unit

- Labels should be placed on outer side of product that is visible when stacked/palletized, preferably one of the four corners of the carton and not under a taped area that can be torn off once the tape is removed
- Place in an upright position. Barcode should be read vertically. Avoid placing sideways or diagonally



Picture 30 – Ways to Place Label on Handling Unit

5.4 LABEL RETURNABLE PACKAGING

- Document holders are recommended to contain and protect labels in conjunction with returnable packaging.
- Adhesive-backed labels shall be applied directly to placards or to stretch/shrink wrap. **DO NOT APPLY LABELS DIRECTLY TO THE RETURNABLE**, unless the label stock is polyester material or equivalent **AND** the adhesive is classified as a “removable” type. The adhesive **must not leave a residue after the label is removed, and the label must be easily removed without tearing. The supplier is responsible for the removal of all old labels.**

5.5 LABELING TERMS AND DEFINITIONS

- Shipping Label
 - A label for a Handling Unit containing a single part number (SKU) from the same supplier
- Carton
 - A device which provides component protection, containment, ease of use, and information. A common type of carton is typically made of corrugated cardboard
- Handling Unit
 - A device which provides component protection, containment, ease of use, and information. Examples of Handling Units include cartons, crates, totes, racks, drums
- Consolidated Package
 - A larger box which contains more than one handling unit inside. Usually applicable to optimize transportation and material handling

5.6 SHIPPING PPAP SAMPLES

To be able to guarantee an exact identification of samples, prototypes and first production batch, the packaging has to be specially labeled.

The packaging for these cases are to be marked as follow. The label should be attached clearly visible on the packaging.

The dimensional standard for labels is 153 mm (6") in length and 97 mm (4") in height.

SAMPLES

NOT FOR PRODUCTION USE

SUPPLIER: _____

PART#: _____

PO#: _____ **SHIP DATE:** _____

REVISION #: _____








Assumption Beloit Hesston Jackson

PART LEVEL: _____ **ISIR** **PPAP**

Picture 31 – Sample Orange PPAP label


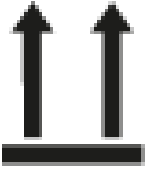






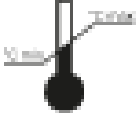
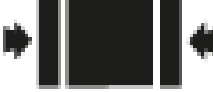






6 ANNEX 1

TABLE OF RECYCLE SYMBOLS

 PETE	<p>Polyethylene Terephthalate Ethylene</p> <p>PETE goes into soft drink, juice, water, detergent, and cleaner bottles. Also used for cooking and peanut butter jars.</p>
 HDPE	<p>High Density Polyethylene</p> <p>High Density Polyethylene HDPE goes into milk and water jugs, bleach bottles, detergent bottles, shampoo bottles, plastic bags and grocery sacks, motor oil bottles, household cleaners, and butter tubs.</p>
 PVC	<p>Polyvinyl Chloride</p> <p>PVC goes into window cleaner, cooking oils, and detergent bottles. Also used for peanut butter jars and water jugs.</p>
 LDPE	<p>Low Density Polyethylene</p> <p>LDPE goes into plastic bags and grocery sacks, dry cleaning bags, flexible film packaging, and some bottles.</p>
 PP	<p>Polypropylene</p> <p>PP goes into caps, disks, syrup bottles, yogurt tubs, straws, and film packaging.</p>
 PS	<p>Polystyrene</p> <p>PS goes into meat trays, egg cartons, plates, cutlery, carry-out containers, and clear trays.</p>
 OTHER	<p>Other</p> <p>Includes resins not mentioned above or combinations of plastics.</p>

7 ANNEX 2

CARGO SYMBOLOGY EXAMPLES

INTERNATIONAL PACKING SYMBOLS		
	FRAGILE HANDLE WITH CARE	
	PROTECT FROM HEAT	
	STACK LIMITATION IN UNITS 3	
	CENTRE OF GRAVITY	
	TEMPERATURE LIMITATIONS	
	USE NO HOOKS	
	SLING HERE	
	NO HAND TRUCKS	
IF PACKING IS RE-USED DELETE ALL OLD MARKINGS		

8 ANNEX 3

ISPM N°15



(Separate Attachment)

9 ANNEX 4

AGCO PACKAGING DATA SHEET AND SAMPLE



AGCO –
Packaging Data
Sheet Ver1.
(Separate
Attachment)

SAMPLE



Sample 1 AGCO -
Packaging Data
Sheet Ver 1
EXAMPLE
(Separate
Attachment)

10 ANNEX 5

STANDARD LABEL GUIDELINES



Standard Label Guidelines PPT (Separate Attachment)

11 PACKAGING GENERAL GUIDELINES AGREEMENT FOR SUPPLIERS

Please E-sign the “AGCO North American Packaging Manual” document. If you have any problems with the E-sign process, please contact AGCONAPackaging@AGCOcorp.com

...We acknowledge, understand, and agree to comply to the terms and conditions outlined in the “AGCO North American Packaging Manual”.

X _____

Supplier Acknowledgement (Please sign above)

Name: _____

Title: _____

Company: _____

Phone: _____

Email: _____