



MTS Systems Corporation Supplier Packaging/Labeling Standards

GENERAL INFORMATION

All requirements and standards stated in this supplement pertain to those specific requirements of MTS Systems Corporation. Suppliers are responsible for shipping quality acceptable packaging and parts to the point of use. Supplier packaging, either expendable or returnable, must comply with the standards described in these guidelines. All suppliers shall obtain a copy and must comply with the Quality Management System Requirements of ISO 9001:2008. It is the user's responsibility to assure that only the latest revision of this standard is used.

Note: All prior editions are obsolete and should not be used.

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1.0 Introduction

1.1 **Purpose:** To define packaging and labeling requirements to MTS suppliers.

1.2 **Scope:** This standard applies to all materials shipped to all MTS facilities and designated destination points.

1.3 **Partnership:** Packaging development requires partnership. It can only function as intended when both supplier and customer work together from proposal through implementation. And then, it is absolutely crucial that both parties adhere to authorized packaging. The key is open, two-way communication.

1.4 **Delivery Performance Evaluation:** Packaging will be part of the supplier performance metrics.

2.0 Supplier Responsibility

2.1 General Statements:

2.1.1 The supplier is responsible for designing and assuring packaging is capable to adequately protect the product during transport and storage. Parts must arrive at MTS or the designated delivery point without damage, rust/corrosion, or contamination. The supplier and MTS Category Leader shall agree upon prior to the first material shipment to MTS and/or designated delivery point. If MTS Engineering specifies/designs packaging requirements, suppliers must follow the given specifications.

2.1.2 Although packaging authorization may be required, such authorization does not relieve the supplier of their responsibility to ensure adequate packaging for proper delivery of parts.

2.1.3 Use of recyclable materials is encouraged when possible and cost effective. Use of salvaged pallets is prohibited.

2.1.4 Packaging must be designed to assure ease of handling and part removal.



- 2.1.5 Packaging shall not be a source of contamination. Barrier materials, (e.g. plastic bags), may be required. The supplier shall be responsible to wash returnable packaging when necessary.
- 2.1.6 Only MTS approved carriers should be used for shipping product. Routing guides available at: <http://www.mts.com/en/about/Suppliers/Resources/index.htm>
- 2.1.7 Packaging is part of the supplier manufacturing process and shall be included as appropriate in the supplier's Quality Plan when these "tools" are used.
- 2.1.8 Standard Packaging - Each supplier shall utilize a single size container, package, and/or pallet containing a standard quantity for each part number supplied. This requirement shall be valid for expendable and returnable packaging.
- 2.1.9 Shipments of chemicals must include a copy of the MSDS and all HAZMAT shipments must be packaged and transported within the applicable requirements of IATA, IMDG, CFR title 49-Transportation

- 2.2 **Submit Proposal:** All packaging "modifications" or "new" proposals require authorization from MTS Category Leader and/or Global Logistics Manager.

- 2.3 **Laboratory simulation testing** may be required and should be considered by the supplier to assure that the product and packaging will withstand "real-world" load conditions, handling, and any applicable transportation modes that may become necessary. If testing is required, contact the appropriate MTS Category Leader and/or Global Logistics Manager.

- 2.4 A **sample shipment** may be required to test and prove that the packaging withstands delivery conditions and to allow MTS to review the packaging.

- 2.5 **Returnable packaging** shall be used when it is cost effective or when it is needed to meet specific MTS objectives. When returnable packaging is not justifiable or feasible, environmentally friendly materials (recyclable) shall be used. If returnable packaging is required, suppliers shall be responsible for storing returnable packaging at their site.
 - 2.5.1 MTS expects suppliers to proactively support and participate in actions to assure that the following conditions always exist when returnable packaging is utilized:
 1. The supplier uses the agreed upon packaging specifications.
 2. Management of returnables and transportation logistics are performed in the most cost effective method compatible with delivery requirements.
 3. An established minimum number of containers are available at the supplier's location when they are needed.
 4. The supplier shall have authorized back-up packaging available. The internal dimensions and quantity of parts in the back-up packaging shall be the same as the authorized returnable packaging. The external dimensions shall not exceed the dimensions of the returnable packaging. Whenever back-up packaging is used, MTS shall be notified prior to shipping with an explanation.
 5. Parts must arrive at MTS without damage, rust/corrosion, or contamination.
 6. MTS owned packaging shall not be used for storage and shipment of non-MTS owned parts.
 - 2.5.2 In addition, suppliers are expected to notify MTS immediately in the event that containers are returned to the supplier:
 1. With supplied direct materials (parts) inside
 2. Not properly identified (e.g. incorrect address)
 3. Without the full complement of returnable packaging components in the correct proportions (e.g. no lids, or more lids than totes),



- 4. With trash or other foreign materials inside,
- 5. Not properly prepared for safe transport (e.g. totes are banded or stretch wrapped to the pallet versus being stacked loosely),

3.0 Packaging Requirements

3.1 **Container Requirements:** Suppliers must use either corrugated or returnable containers. Returnable container types require approval by the appropriate MTS Category Leader and/or Global Logistics Manager.

- 3.1.1 Expendable Containers: Corrugated (paper fiber board) packaging material must have strength to adequately withstand transportation and handling rigors from the supplier’s shipping dock to MTS’s receiving dock. Double walled containers are preferred and have the following additional requirements and/or preferences:
- 3.1.2 Containers should be marked with Edge Crush Test or Burst Strength certification. Desired minimum requirement is 44 ECT or 275 lb. burst strength.
- 3.1.3 Containers must withstand and protect product if pallets are double stacked
- 3.1.4 The use of metallic staples is prohibited
- 3.1.5 Weight of package in corrugated container shall not exceed 70 lbs.
- 3.1.6 Optimized use of space within container is desired to avoid excessive freight costs.
- 3.1.7 Stacking exceptions must be noted on the pallet load such as “DO NOT STACK, STACK ONLY 2 HIGH,” etc.
- 3.1.8 Markings to fragility and vertical direction must be noted when necessary to avoid damage
- 3.1.9 Fiberboard Corner Boards should be used as required to protect the pack
- 3.1.10 Do not use plastic peanut packing materials

3.2 Pallet Requirements

3.2.1 Pallets must be constructed of wood unless otherwise approved by MTS. Pallets must have minimum strength to withstand normal material handling and distribution. All pallets must be in usable condition. Pallets must have strength to support a stacked load. Material must never extend over the pallet edge.

3.2.2 **Pallet-Load Dimensions:** (Expendable or Returnable)

Type	Footprint size	
	Face	Depth
AIAG Standard	48" (122cm)	45" (114cm)
AIAG Standard	36" (92cm)	30" (76cm)
European Standard	120cm	100cm
European Standard	120cm	80cm

3.2.3 **Acknowledgement** (MTS prefers polyester strapping material that is friction or heat welded rather than secured with a metal clip)

- 1. Non-Metallic Strap (Do NOT use metal banding)
- 2. Stretch Wrap or Shrink Wrap
- 3. Special "Seat Belt" Pallets (must be approved)

3.2.4 **Weight Limitation:**

- 1. When possible Max. Shipping Pack = 2,000 Lbs. (909 Kg) or as uniquely specified (may be plant specific)
- 2. Max. Sub Pack < 70 Lbs. (32 Kg)

3.2.5 **Pallet Style/Type:**

- 1. Wood



- All wood pallets shall conform to ISPM 15 Standards. *Only use of heat treatments as noted in ISPM15 will be accepted. MTS does not permit the use of Methyl Bromide as a treatment.
 - 2. Standard for Wood pallets (NWPCA).
 - MTS prefers stringer, double deck, non reversible, wood pallets. Stringers for wooden pallets shall have a minimum height of 3½" (9cm).
 - 3. All pallets shall be 4-way entry.
 - 4. Pallets shall be capable of being conveyed by forklift, pallet jack or powered pallet jack.
 - 5. Wooden packaging shall be free of bark and pests in accordance with ISPM 15.
 - 6. Pallets must be configured to be able to lift without breaking with a forklift or pallet jack.
- 3.3 **Smallest packaging unit(s)** such as plastic bags or small boxes may be considered to package parts inside totes, cartons, and/or bulk containers. However, when these are used, they shall be marked with the MTS part number, quantity, and lot number or as uniquely specified. These barcoded labels must be in the formats utilizing symbology for code 39 or code 128.
- 3.4 **Mixed Loads**
- 3.4.1 Mixed loads should only be used when shipped quantities prevent full pallet loads for a single part number.
 - 3.4.2 A label indicating the pallet is comprised of a mixed load must be attached with specific part numbers and quantities contained in the mixed load.
 - 3.4.3 Similar part numbers must be grouped together to allow for ease of identification.
 - 3.4.4 Heavier items must not be placed on top of lighter weight containers.
 - 3.4.5 The load must be balanced while keeping similar parts together.
 - 3.4.6 If the top layer of the load is uneven, a "DO NOT STACK" label must be posted on all 4 sides of the load.

4.0 Labeling Requirements

- 4.1 **Introduction:** The quality of the information on labels is essential. Bar code labels are required and used to eliminate opportunity for error. Errors made because of label deficiency are serious in nature. Suppliers shall not include information relating to quality on shipping identification labels. The supplier shall not apply adhesive-backed color tags to any of the required labels described herein. Individual MTS facilities may deviate from the label requirements below. If a deviation is needed, the MTS facility will communicate that to the supplier.
- 4.1.1 **Label Size:** 4.0 inches (102mm) high by 6.0 inches (152mm) or 6.5 inches (165mm) wide
 - 4.1.2 **Label Quantity and Placement:** Minimum 2 labels per Shipping Pack on 2 different sides. (unless otherwise specified by a particular MTS facility)
 - 4.1.3 **Label Color:** White in color with black printing.
 - 4.1.4 **Adhesives:** Adhesive types can be pressure sensitive or dry gummed as long as adherence to the package substrate is assured and application is wrinkle-free. Note: If labels are applied to returnable packaging and/or product itself, the adhesive **must not** leave a residue after the label is removed, and the label must be easily removed without tearing. Paper is not preferred on returnable packaging.
 - 4.1.5 **Returnable Packaging:** Card 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 supplier is responsible for the removal of all old labels.
 - 4.1.6 **Human Readable Zeroes (0) Show** human readable zeroes (0) with a diagonal slash to differentiate them from alphabetic Os.



4.2 Shipping/Parts I.D. Label

4.2.1 Data Area and Titles

- 4.2.1.1 Part Number with bar code*
- 4.2.1.2 Material Description
- 4.2.1.3 Quantity with bar code*
- 4.2.1.4 MTS Purchase Order Number with bar code*
- 4.2.1.5 MTS Revision Level Number
- 4.2.1.6 Serial Number (if applicable)
- 4.2.1.7 Production date
- 4.2.1.8 Expiration date for those materials which have a shelf life. Individual container/packages within a multi-pack carton shall also be labeled with the expiration date.
- 4.2.1.9 Supplier lot number (if applicable)
- 4.2.1.10 Supplier Name and Address

*Minimum information requirements for bar codes. These barcoded labels must be in the formats utilizing symbology for code 39 or code 128.

4.2.2 Master Labels: Master labels are required when shipping multiple packages of the same part number on one pallet. (e.g. several small cartons inside a larger pallet box)

- 4.2.2.1 Individual packs (sub-packs) shall have a Part ID label on each pack as per 4.2.1.
- 4.2.2.2 When a shipping pack requiring a master label is stretch or shrink wrapped, securely attach the master label to the outside of the wrap.

4.2.3 Mixed Load Label: Mixed item packs are only permitted in conjunction with a mixed load label. The different part numbers within the mixed item pack must be separated and contained inside sub packs. Each sub pack must be individually labeled with at least one shipping/parts I.D. label or master label if applicable.

5.0 Documentation Requirements

5.1 Suppliers must supply a packing list and a Bill of Lading for each shipment of product to MTS facilities.

Packing list must contain, at a minimum, the following documentation:

- 5.1.1 Supplier: Name, Address, Phone Number
- 5.1.2 Dates: Product Ship Date
- 5.1.3 MTS Purchase Order:
 - 5.1.3.1 Number, Purchase Order Line Number for Product shipped
 - 5.1.3.2 Part Number
 - 5.1.3.3 Part Description
- 5.1.4 Quantity Shipped
 - 5.1.4.1 Quantity listed on the packing list must be in the same unit of measure as the quantity on the purchase order.

5.2 Any product shipment with packing list missing information will be quarantined and will not be processed until MTS Purchasing obtains the information from the supplier. Incidents of this type may incur a handling fee penalty.

5.3 **Bill of Lading** must be legible with clear information reflecting similar guidelines as the packing list.

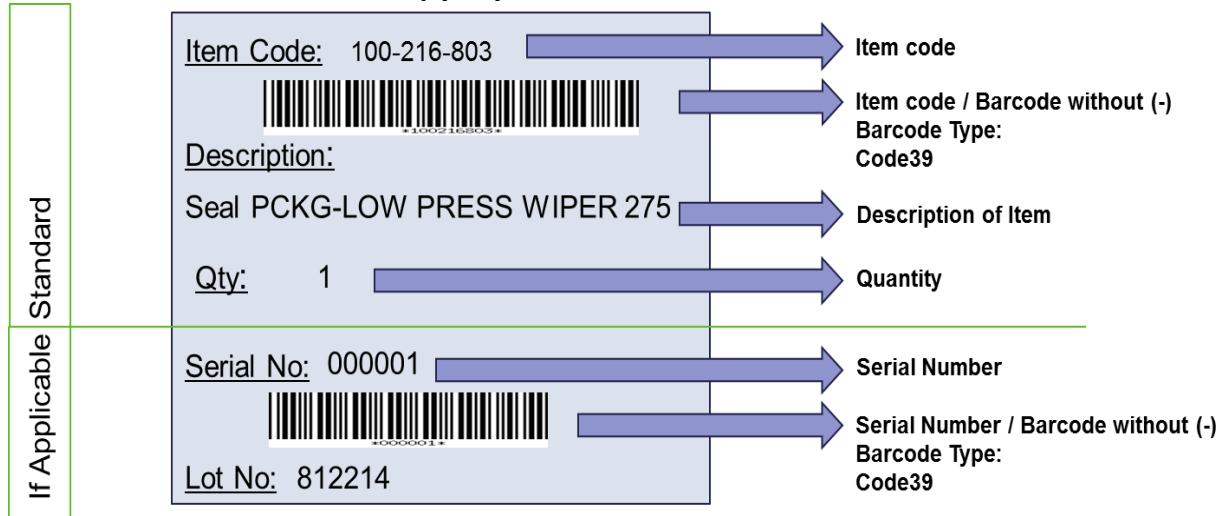
5.4 Other documentation:

- 5.4.1 Other documentation such as quality certifications, MSDS, conformance that are required to travel with the product must also be provided. It is the responsibility of the supplier to understand and comply with these requirements.

5.4.2 Commercial Invoice and other documents that are not to accompany the product but are necessary in the commercial transaction will be provided by the supplier to the appropriate MTS personnel.

6.0 Label Examples

Identification of Products and qtys by "Product label "



Identification of Products (Pallet Level)



Individual / Product on Pallet



Multiple Boxes on one Pallet
Maximum of 1 product per box
Each Box has individual Product label




Multiple Boxes on one Pallet
Maximum of 1 product per box
Mixed Products in one box
Each Box has individual Product label / or is labeled clear with ' Mixed Products label



Identification of Products (Box Level / Piece level)

Individual / Product In Box



Item Code:	100-216-803
Description:	Seal PCKG-LOW PRESS WIPER 275
Qty:	1

Multiple number of one product in one box



Item Code:	100-200-803
Description:	Tube xxxx xxxxxx xxxxxx
Qty:	10




Individual Product label on each inner package


Item Code:	100-200-803
Description:	Tube xxxx xxxxxx xxxxxx
Qty:	1

Mixed Products

Multiple Number of Products in one packing unit



Mixed Products	
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Item Code:	100-300-803
Description:	Tube xxxx xxxxxx xxxxxx
Qty:	10

Item Code:	100-200-803
Description:	Tube xxxx xxxxxx xxxxxx
Qty:	1