

IV-09 PACKAGING, LABELING, PRESERVATION AND SHIPPING

Purpose

To explain supplier packaging, labeling, preservation, and shipping requirements.

References:

ASTM Section 00, Index, Volume 00.01, ‘Packing and packaging materials’.

Definitions:

- Supplier: a company that supplies components or products to ADVICS and/or its customers
- Unit Load: standard container package of one or more component parts that can be handled manually
- Packing Load: standard palletized shipping container of one or more unit loads
- Expendable: disposable packaging used for one-way deliveries
- Reusable: a pallet, bin, tote, or dunnage that has a shipment life greater than three-years
- Dunnage: packaging material within a unit or packing load to secure & protect contents
- Kanban: a key tool for JIT production.
- Kanban qty: refers to the fixed quantity of parts pulled during production process.

SUPPLIER RESPONSIBILITIES

General Requirements

1. This procedure establishes guidelines necessary to support just-in-time production and contains information regarding the transport and packing specifications for deliveries to ADVICS Manufacturing Plants.
2. It is required that the departments in the Supplier’s organization responsible for the packing, transport and dispatch, familiarize themselves with the contents of these procedures. Direct any questions to the ADVICS Manufacturing Plants Production Control Dept. (“PC”).
3. Supplier must comply with these conditions at all times. In cases where the supplier does not comply with these requirements, the resulting handling, repacking, and replacement costs are the supplier’s responsibility.
4. If the supplier is not able to deliver using mass-production packaging, the supplier must use the approved Temporary Alternative Packaging and contact ADVICS PC prior to shipment.
5. Packaging design must ensure that the product performance and characteristics will remain unchanged during packing, transit, and unpacking and should have compatibility with all material handling equipment.
6. Service Parts: All service part packaging, preservation, and shipping must comply with the requirements specified within this section.

REVISION: 2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE 18.AUG.2017		Page 1 of 11

Packaging

1. The guidelines outlined within this procedure and the Packaging Worksheet (IV-09-F01) is an integral part of the ADVICS Purchase Order.
 - Mass Production Packaging Worksheet must be submitted one year in advance of part SOP or prior to PPAP timing, whichever occurs first.
 - Suppliers using returnable packaging must submit the Temporary Alternative Packaging worksheet prior to mass-production for approval by ADVICS PC. Supplier must be able to procure the approved Temporary packaging with sufficient timing to prevent delivery delays.

2. Establish and maintain a procedure to ensure compliance to the ADVICS plant packaging requirements. Maintain documentation of all ADVICS specification requirements by part number. As appropriate, the supplier will update this documentation. ADVICS PC must approve the packaging specification.

3. Reusable dunnage:
 - ADVICS owned reusable packaging is packaging provided by ADVICS, and may only be used for the transport of component parts to ADVICS Manufacturing Plants. The transfer of such packaging to third parties may only take place with the express permission of ADVICS PC.
 - The supplier is responsible for proper handling of packaging to prevent damage or loss.
 - The total quantity of reusable packaging shall be agreed upon by the Supplier and ADVICS using the following formula:

$$TPI = EPs + SSs + WIPs + IT + Epa + SSa + WIPa + RT$$
 where:

TPI	Total Packaging Inventory, (days)
EPs	Empty Packaging at Supplier location, (days)
SSs	Safety Stock at Supplier location, (days)
WIPs	Work In Progress at Supplier location, (days)
IT	In Transit to ADVICS (days)
Epa	Empty Packaging at ADVICS (days)
SSa	Safety Stock at ADVICS (days)
WIPa	Work In Progress at ADVICS (days)
RT	Return Transit to Supplier location, (days)

 *Safety Stock at Supplier will be mutually agreed upon based on the production process. Supplier may purchase additional packaging above the agreed upon level at the Supplier's expense.
 - Supplier-owned reusable packaging is the use of suppliers' own reusable packaging and shall be coordinated with PC. Depreciation of such packaging caused by normal wear is to be borne by the supplier.
 - In the case of Direct Supply, packaging details may be defined by the OE customer. It is the Supplier's responsibility to ensure packaging is sufficient to maintain part quality during transportation. Packaging must be approved by ADVICS PC.

REVISION: 2	SUPPLIER REQUIREMENTS MANUAL	IV-09
REV DATE 18.AUG.2017	Uncontrolled if Printed	Page 2 of 11

4. Temporary Alternative Packaging

- Temporary Alternative Packaging is packaging that will be utilized by the supplier in the event that mass production packaging is unavailable.
- Suppliers using returnable packaging must receive approval of Temporary Alternative packaging prior to production launch.
- Cost details for Temporary Alternative packaging must be provided to and approved by ADVICS Purchasing and ADVICS PC.
- Supplier must be able to procure the approved Temporary packaging with sufficient timing to prevent delivery delays, which may require maintaining inventory on-site or at packaging supplier site.
- If use of Temporary Alternative Packaging is due to ADVICS issue, ADVICS will reimburse supplier for temporary use of expendable packaging. Cost details including invoices should be submitted to ADVICS PC for reimbursement.

5. Non-Conforming Packaging

- The supplier shall maintain a documented system for resolving packaging problems to:
 - Establish a procedure for timely review of and response to packaging problems by appropriate supplier personnel.
 - Ensures no packaging problems for which the supplier has responsibility.
- If non-conforming packaging is discovered at the supplier or ADVICS plant facility, the supplier must follow all PC instructions, including:
 - Notification: problem notification format and timing
 - Actions: special handling, labeling, sorting, and rework at both the ADVICS and supplier plant locations
 - Reporting: countermeasure response format, timing, and implementation

Note: Packaging-related sort and rework activity, including the use of temporary service workers shall be coordinated with the ADVICS Production Control and/or Quality department at the plant site.

7. Establish a system and implement a procedure to audit the part count per container. Supplier will audit the system on a random basis by a trained individual other than the person packing. Written documentation of the audit process is required.

7. Annual packaging cycle count; supplier will participate in semi-annual (twice per year) verification count of reusable packaging. This may include providing ADVICS with a documented inventory of reusable dunnage, or an on-site verification by ADVICS of dunnage inventory. Recurring packaging shortages may result in more frequent packaging inventory verification.

8. Supplier facilities must be adequate and properly maintained to meet packaging requirements and maintain the integrity of the goods.

REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 3 of 11

Standard unit and packaging loads:

1. Supplier will coordinate standard unit and packaging loads with PC.
2. PC will determine packing Load maximum weight, dimensions, and quantities. The packing load must be within the capability of ADVICS Mfg. Material Handling Equipment.
3. Unit Load maximum weights, dimensions, and quantities will be defined by PC. Individual packages must be able to handle manually according to safety work regulations. Unit loads will be determined by the ADVICS plant site location Production Control department
4. Kanban Quantity: To be specified by PC and/or manufacturing as needed.

Labeling

1. Develop labeling procedures based on ADVICS plant site requirements for production and pre-production material (See ADVICS Packaging and Labeling Standard). Labeling procedures must include audits of label content.
2. When bar-code labels are required, the supplier must provide an in-house reader and/or verifier to control bar-coding activities and quality.
3. Establish and implement an audit procedure to verify correct parts to labels.
4. Coordinate the receipt of any problem reports for labeling errors to correct current issues and avoid future errors.

Preservation

1. Establish and maintain a material handling system that eliminates the potential for damage throughout all operations and transportation to the ADVICS plant location.
2. Systematically review material handling processes and equipment to prevent damage to in-process parts and finished goods. At a minimum, review the following:
 - Appropriateness of transfer mechanisms and containers for the commodity produced
 - Parts damaged through in-house material handling
 - Process to address or resolve damage caused through material handling. The PFMEA is an appropriate method for this review procedure.
3. Establish a system to verify or audit material stores for inventory accuracy, quality condition, and shelf life.

Shipping

1. Ship all materials in conformance with all ADVICS requirements and transportation routings. The supplier will maintain a file (that includes documentation) showing compliance to the specified routings and shipping methods.
2. The supplier must have facilities adequate for shipping and receiving operations. At a minimum, the supplier will ensure an adequately maintained dock area that contains sufficient space for shipping/receiving activities.

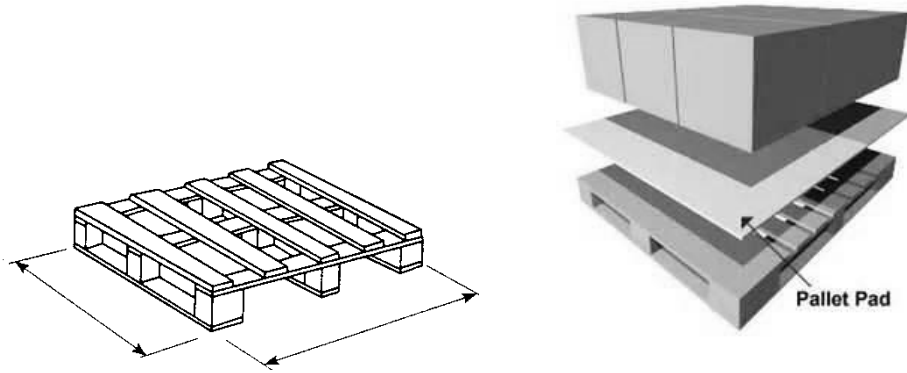
REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 4 of 11

General Conditions

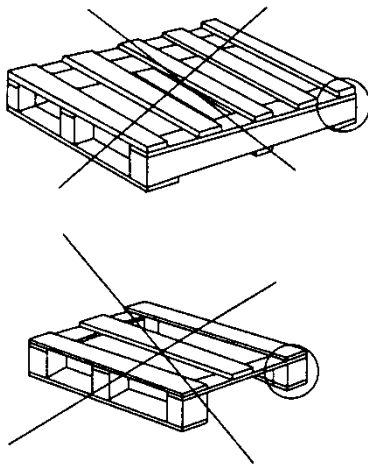
1. Do not alter, modify, or substitute the packaging or labeling without prior written approval from PC and ADVICS Purchasing.
2. Address all questions or concerns with this section directly to the ADVICS Manufacturing Plant Production Control department.

REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 5 of 11

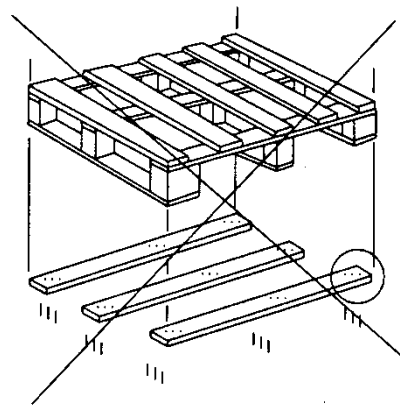
Expendable Packaging Requirements



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Pallets in half sizes

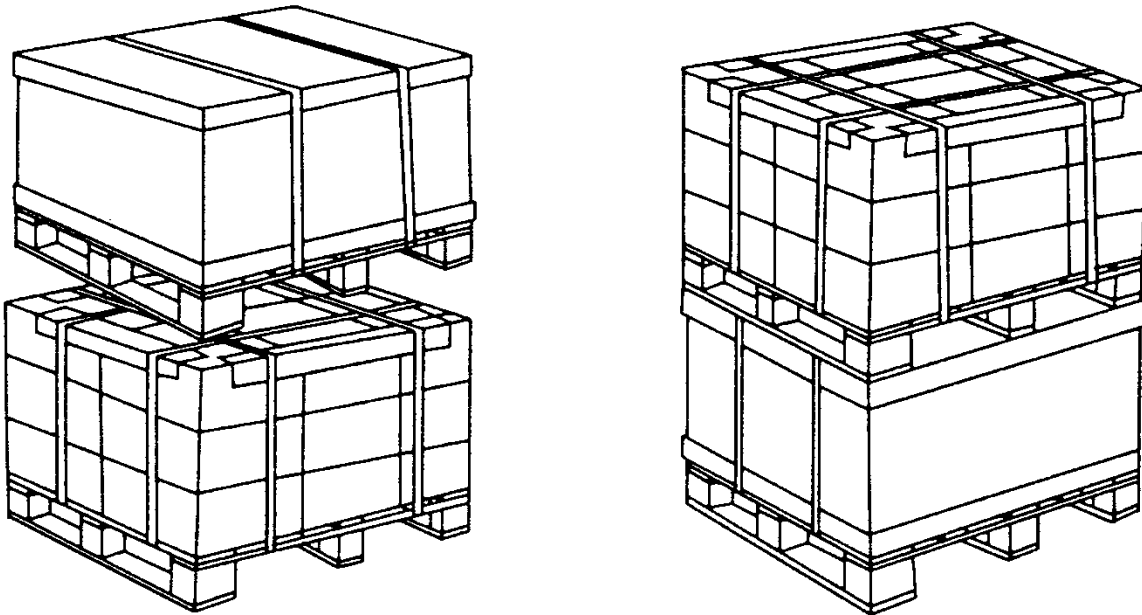


Pallets with 3 extra planks attached underneath, as shown

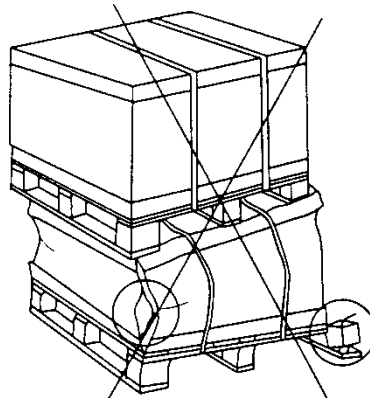
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1. Preapproval via the packaging worksheet is required for pallets used in expendable shipments. All deviations require written authorization of ADVICS (on worksheet.)
2. Deviation proposed pallets must be of adequate stability, i.e. they must be able to withstand all handling during transport.
3. Pallets shall be constructed as shown above under "CORRECT"
4. All expendable pallets are required to have a flat pad.

REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 6 of 11



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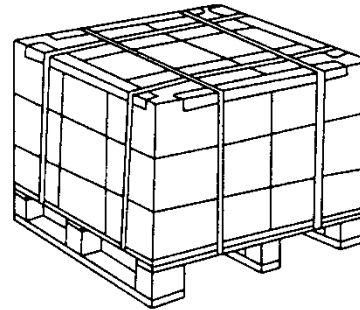
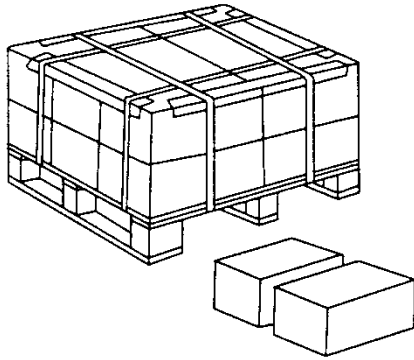


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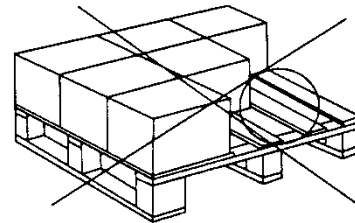
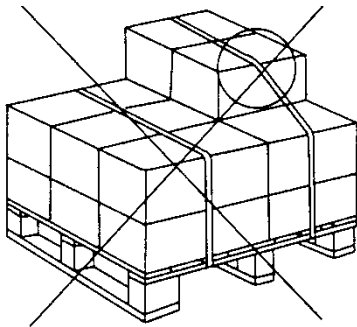
1. The strength of the packaging (pallets and cartons) must be of adequate. See relevant ASTM test specifications.
2. The delivery of cardboard cartons is required on pallets.
3. Two-layer stacking must be possible without deforming the lower cartons.
4. The security of the load is the responsibility of the supplier.
5. Fill all empty spaces in the cartons with a suitable dunnage material. Dunnage such as wood shavings, foam peanuts, shredded or crumpled newspaper, is not acceptable.

REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 7 of 11

Packing Unit Build Up



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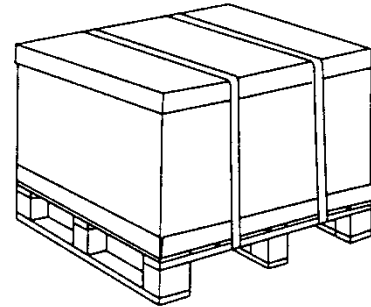
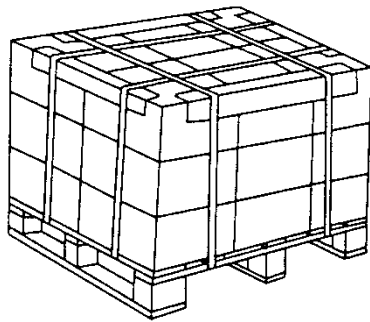


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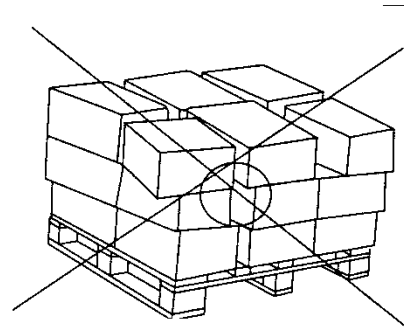
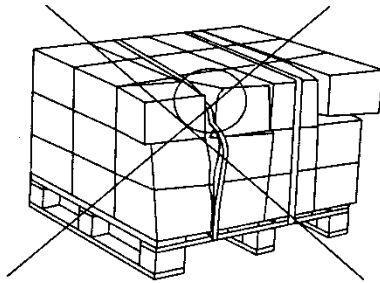
1. Partial layers of cartons are not acceptable.
2. Incomplete loads or units are not acceptable. In the event of such, use another part number to complete the load or unit. Two requirements when this is done:
 - The cartons of all part numbers are the same.
 - Label all cartons accordingly to the packaging specifications.
3. Partial layers of cartons require that you place empty boxes in the middle and label "EMPTY".
4. Pyramids of cartons or partially filled loading units are not acceptable.
5. Packing Loads that cannot be stacked are not permissible.

REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 8 of 11

Packing SecUREMENTs



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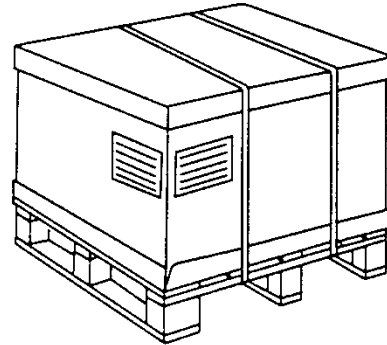
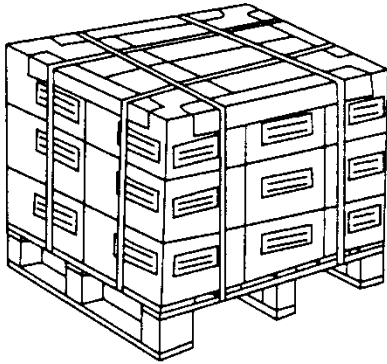


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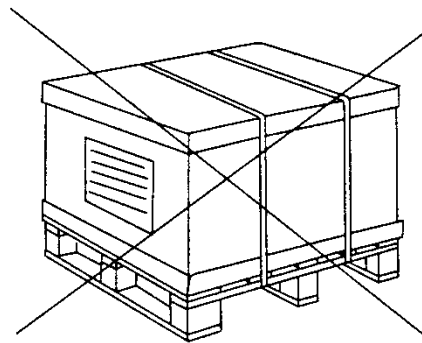
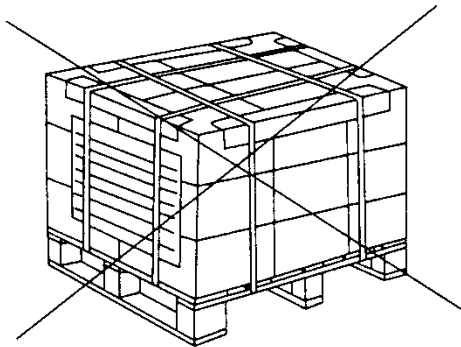
1. Strap/Band all packing loads with plastic bands and unit loads with tape or plastic bands.
2. Strap/Band length and crosswise when the packing load consist of a pallet and several cartons.
3. Add corner reinforcements if necessary to ensure the safety of the load.
4. Ensure the strapping damages none of the cartons.
5. Stretch wrap is a tool to maintain cleanliness and increase rigidity of the packing load, not always an effective replacement to plastic banding. The supplier is ultimately responsible for the security of the load when making this decision. In some cases ADVICS will specify which are required for your load, please confirm with your ADVICS Specialist.
6. Unit load must be easily accessible.
7. Special packaging is required for some products. A “special pack” is in poly bags, including desiccant bags on each layer, a pallet cap, and banded/stretch wrapped. Please get this information from your ADVICS Production Control contact.

REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 9 of 11

Labeling and Identification



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1. Identification marking is required on two adjacent sides (front and side surfaces).
2. If the loading unit consists of more than one unit, each unit requires identification.
3. The identification must comply with VDA guideline 4902 “Bar Code readable labels”, and include the following:

Supplier Name & Address	Supplier Part Number	Component Description
ADVICS Part Number	Drawing Issue Number	Traceability
QTY	Weight (Net, Gross)	Manufacturing Date

ADVICS RESPONSIBILITIES

- Establish and maintain a material handling system that eliminates the potential for damage throughout all operations and transportation to the supplier plant location.
- Participate in verification count of reusable packaging.

REVISION:	2	SUPPLIER REQUIREMENTS MANUAL Uncontrolled if Printed	IV-09
REV DATE	18.AUG.2017		Page 11 of 11