PACKAGING AND LABELLING REQUIREMENTS

Revision 003

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Revision History			
Revision	Revision Description	Author	Approver, Date
001	Release	Florina Curceanu	Florina Curceanu February 2017
002	Brand Revision	Liliana Bonilla Guillen	Florina Curceanu September 2021
003	Significant updates to improve clarity, and consistency to EBQR and other SE business documents.	Chris Leigh	Kate Siegal September 2026

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1. Purpose

The purpose of this document is to formally communicate Siemens Energy (SE) requirements and expectations to the global supply chain related to the packaging and labelling of product being shipped to SE sites or its customers.

The instructions described below are **minimum requirements** and product specific requirements could be added at time of purchase. This instruction is the basis for the acceptance of the packaging by SE or its representative. Following the requirements does not discharge the contractor from liability for damages or loss. In the case of damage incurred due to insufficient packaging, this document will take precedence in disputes unless otherwise stated.

The contractor should continuously improve their packaging methods and find best practice regarding packaging methods in terms of quality, cost, consolidation, environment and handling. Other packaging methods may be used if they are equivalent or more stringent then the methods described here and is approved by SE.

The SE supplier is responsible to package their product in such a manner that when it is received at its' final destination, (whether a SE facility, another supplier or a customer site) it is free from damage and meets fit, form and function requirements without the need for repair or rework. This requirement applies regardless of which party is responsible for freight or transportation.

Any changes regarding the packaging solution **must** be approved by SE in writing before changes are made.

Statutory packaging provisions that are valid in the countries supplying and receiving the goods must be taken into account when selecting packaging methods, systems and materials.

The packaging and labelling requirements are available to view and download from the SE Supplier Portal.

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2. Scope of Applicability

The packaging and labelling requirements are applicable to all suppliers, Partner Managed Inventory suppliers or partners who supply product related to SE contracts / purchase orders unless otherwise specified in the product definition, contract / purchase order, or repair scheme. The suppliers / partners shall impose the obligations of this document on its Subcontractors (if any).

Packaging standards for new purchase orders should be agreed at Request for Quote (RFQ) stage with SE.

Where the product is subject to Product & Process Qualification (PPQ), the packaging and labelling requirements should be agreed during the PPQ and formed part of the fixed process for the supplier to follow.

3. Definitions and glossary / terminology

Dunnage	The materials used to provide adequate support, bracing and protection of product during shipment i.e. padding in a shipping container to prevent unnecessary movement of load.
EBQR	Energy Business Quality Requirements
Exterior Package	Transportation box containing consolidated shipment of multiple boxes. Also called a tertiary package.
Four-way-pallet	Pallet that can be handled with forklift from all four sides.
Intermediate Package	The box or wrap enclosing one or more primary packages along with any required protective materials. Also called a secondary package.
Label	Information identifying the goods and permanently affixed on its container, package and on the product itself. Example: - Packaging Label.
Lifting Plan	Detailed document outlining how a specific lifting operation shall be carried out safely. Detailed to include weight, dimensions, centre of gravity, general shape, equipment, and risks specific to the lift.
Marking	Information applied on the product. Often defined in the drawing, purchase order or production order. Example: Dot Matrix or etching.
Package	Single unit in a shipment.
Polythene and Polyethylene	Both shall be regarded as being the same.

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PPQ	Product & Process Qualification
RFQ	Request for Quote
SE	Siemens Energy
Supplier Portal	Supplier facing portal holding forms and guidance material.
Unit Package	The first tie, wrap or container applied to a single item, a quantity of the same item, a set, or an item with all its component parts that constitutes a complete and identifiable packaging containing the unit of issue. Also called a primary package.
VCI	Vapour Corrosion Inhibitor

4. General Requirements

4.1 Packaging and labelling requirements

The supplier shall:

- Ensure that the products are packaged and labelled in accordance with the requirements of this document to a standard that will provide adequate protection against damage, deterioration, tampering and other risks during shipment, storage and subsequent distribution for a period of 12 months from the time of dispatch.
- Direct shipment to SE customer locations must be authorised by SE Supplier Quality.
- When drawing or design specifies that parts must be individually identifiable, a serial number list, with barcodes, must be included with the delivery. If the delivery is made up of multiple packages, the serial number list shall show which serial number is in each package.
- Perishable products must be supplied with expiry information on the product/label and on the delivery documentation.

4.2 Designing the transport packaging

The supplier shall:

Design the packaging considering the below points:

- The Package shall allow safe and appropriate **handling, lifting** (e.g. sufficient lifting lugs, slinging points) **and load securing.**
- The design loads are based on conditions resulting from **normal** loading during transport, storage and trans-shipment, including all cargo-handling operations.

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- When dimensioning the packages, standardized dimensions of transport vehicles, pallets etc. should be taken into account where possible. Package dimensions should allow transportation by truck, train, ship or aircraft from contractor to SE.
- When goods delivered on **pallet,** unless otherwise agreed with SE, the pallet shall have a bottom clearance of **at least 100 mm** for entering the arms of a forklift.

For the **next day air and small package shipping environment** (UPS, FedEx, DHL, etc.), warnings or stickers on shipping containers are good practice, however, will not change the basic nature of the transportation and handling system. Packages shall be capable of withstanding stacking, drops, kicks, collisions, rolling, tumbling and throwing in this system with no damage to parts and minimal damage to the packages.

4.3 Documented packaging and labelling requirements

The supplier shall:

- Establish a documented (product group / commodity specific) packaging and labelling instruction(s) with photos that shall be made available to personnel involved in the packaging and labelling to ensure that the product is consistently processed in a manner that meets the requirements this document.
- Ensure the aforementioned document (or series) shall be made available to SE upon request to ensure that the product is consistently protected, packaged and labelled in a manner that meets the requirements of this document.

  NOTE: If a third party sub-vendor packages the product, the requirements given above still apply.
- Establish a process to inspect all labels and identification markings prior to the shipment ensuring they are readable.

5. Packaging

5.1 General packaging requirements

- Ensure that the product is packed in a manner that will allow the product to be removed from the packaging without damaging the product or the package in the process.
- Ensure that the packaging material will not contaminate the goods enclosed.
- Wherever possible, use packaging which allows the reclamation of mixed materials with the minimum of effort (e.g., avoiding the use of bonding systems that prevent separation of individual materials).
- Ensure packaging is sufficient to prevent damage and preserve product integrity whilst also being minimized as far as is practicable to reduce waste.
- Where components have special finishes, e.g. plating, phosphate, etc. adequate packaging precautions shall be taken to prevent damage.

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- Use dunnage as necessary to provide adequate support, bracing and protection of product during shipment. **Wrap or bag the product** to ensure that dunnage material does not come into direct contact with the product.
- Establish appropriate precautions to prevent the ingress of foreign objects and contamination into components with orifices.
- Ensure that transportation caps, covers and plugs are plastic (not rubber) and of sufficient flexibility so that cracking will not occur. Shipping caps, covers and plugs shall be appropriate to the intended use and be removeable for inspection.
- Where necessary, a lifting plan must be provided.
- Where specified, product shall be packaged for export.
- When applicable, products shall be packaged in electro-static packaging.
- Stacking limitation must be observed.

NOTE 1: The use of self-setting packaging foams injected directly into boxes is not recommended.

NOTE 2: Prohibited dunnage materials are as follows:

Any material that may present a risk of being caught inside hollow components

- *Polystyrene loose chippings*
- *Shredded paper / tissue paper*

NOTE 3: PVC shall NOT, in any circumstances, be used in contact with Titanium alloys.

NOTE 4: To facilitate reclamation / recycling, the supplier will ensure that dunnage materials are not to be mixed (when possible).

NOTE 5: The use of staples is only acceptable for packaging construction / reinforcement and must not be used for closing / sealing any openings.

Note 6: All timber delivered to SE or its customers must be compliant to ISMP15 or equivalent.

5.2 Weight, size & shape of packages

The supplier shall:

- Ensure that the size, shape and weight of the packages used will not present difficulties to the normal handling.
- Indicate the heaviest side of the package when the centre of gravity is off centre.

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5.3 Pallets

- Overhang of the packages is NOT accepted.
- Goods shall be fastened with straps
    - Note that the straps shall not cover the marking or labelling of the goods, all markings and labels must be clearly visible.
    - If the straps are secured with bolts the nuts must not be welded. Straps shall have some form of protection between them and the component, possibly cardboard, foam or wood.
- When a package is physically too large or too heavy for safe manual handling it shall be attached to a pallet base to enable mechanical handling.
- Use pallets and bases that are in good condition.
- The pallet material must be suitable to carry the product load during transit and storage.

Goods belonging to the **same** or **different** purchase order number(s) **can be packed together** on the same pallet, assuming appropriate documentation is provided along with the goods to designate them as such.

5.4 Exceptionally large or heavy items / loads

Exceptionally large or heavy items / loads are defined as having the largest dimension of either height, width or length in excess of 2 metres (78.7 inches), or weight in excess of 1000kgs (1 ton or 2200lbs).

The supplier shall:

- Ensure the safe delivery and handling of exceptionally large or heavy items / loads.
- Provide a lifting plan that is reviewed by SE and shared with the freighter and the receiving site.

5.5 Reusable containers

Reusable containers managed by an inbound collection service may be introduced by SE.

The supplier shall:

- Ensure that reusable containers are fit for purpose. The supplier shall contact the SE packaging service provider when a reusable container has been deemed to be unfit for purpose.
- Store SE supplied re-usable containers indoors at all times. The minimum requirement is under cover, in a shelter, protected by three sides, a roof, and not in standing water.
- Ensure that reusable containers are NOT used to deliver any product other than those designated and labelled on the container.
- Have a process for **removing old labels** before reusing packaging.

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5.6 Plastic banding

The supplier shall:

Use plastic banding to package products *(when applicable)* – Metal banding shall not be used.

Note 1: Banding of multiple packages is not permitted where method of transportation to the delivery destination will include airfreight unless each individual package has release documentation and a receipt label attached (Not applicable to raw materials, forgings, castings etc).

Note 2: Shrink wrapping must not be used solely as the only means of securing packages.

5.7 Different packaging for different parts

Critical and Sensitive goods

Critical and sensitive goods are goods essential to the functionality, safety, or performance of industrial gas turbines, requiring protection to maintain their integrity. These parts may include precision-machined items, fragile components, or those with fine tolerances, delicate finishes, or specialized coatings. Any damage, contamination, or deviation from design could compromise their performance.

The supplier shall:

Ensure extra precautions are taken to goods or articles which are manufactured with fine tolerances. E.g. threaded bolts should be covered with a protective sleeve, and holes must be protected to avoid dirt and mechanical damage. **These items shall be packaged individually with a correct label stating the serial number** (where applicable). When these articles are consolidated, they must be fixed, secured and physically separated to avoid mechanical damage due to scratching, scuffing and indentations between articles or other damage created by forces that could arise during transport, transshipment or handling.

Hazardous goods

Materials to be shipped in accordance with international and local dangerous goods regulations shall always be packaged separately, marked and labelled in accordance with the relevant applicable dangerous goods regulations, and be shipped with a Material Safety Data Sheet (MSDS). All other relevant regulations have also to be met e. g. dangerous materials regulations of the used transport modes.

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Goods requiring boxes/crates

For items required to be packed in a box/crate, the box itself should be of solid construction such as the two examples shown below and be suitable for lifting with a forklift truck.



The lid shall not be attached with nails. Use screws to secure the lid in place. Where applicable, use plastic banding to secure boxes to pallets.

Wherever possible, component should be positioned in the box so that the component part markings or labels are visible after the package lid is opened.

Parts packaged in a box should be secured in place using a wooden frame or similar method inside the box, to prevent it from moving during transportation. Any supports that need to be removed in order to take the part out of the box should be held in place with screws from the outside instead of nails — so not to destroy the box when the component is being manoeuvred for inspection.

5.8 Corrosion Prevention

Goods that require VCI (Vapour Corrosion Inhibitor) protection, should have a solid piece of VCI in the box, have the component wrapped in VCI material, or have the box lined with VCI impregnated paper on all internal surfaces. Products that do not specifically require VCI could use an equally effective alternative method of corrosion prevention such as a sealed bag with a desiccant inside. All products that are susceptible to corrosion shall have an effective form of corrosion prevention.

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Unless otherwise specified on the definition or the contract/purchase order, supplier shall adhere to the process specification RPS 367 or equivalent for Corrosion Protection of Components during manufacture and storage.

6 Labelling

6.1 General labelling requirements

The supplier shall:

- Ensure that the products are labelled to a standard that will provide adequate identification and traceability of the product to the Certificate of Conformity and Packing Slips.
- Ensure that all information provided with the product e.g. labels, release documentation, references on the packaging etc., is stated in English unless otherwise authorised by SE.
- Enclose copies of release documentation with the component in the package.

6.2 Packaging Label

6.2.1 Packaging label information

The supplier shall:

Ensure that the packaging label is attached to all layers of packaging and contains the information shown in the table below.

If specified, barcodes will be included on the packaging label.

6.2.2 Packaging label requirements

The supplier shall: Include the following packaging label Information as a basic *(minimum)* requirement and / or when applicable.		Required	When Applicable
	PNR - Part Number – Part Number is the identity for the subject part, assembly or material item and is specified on the Siemens purchase order. Data format is: - "PNR [space], [the part number]"	√	
	Description - Data format is the description of the product i.e. key words taken from the component definition.	√	

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INFORMATION	**QTY** – Quantity refers to the total quantity of items (e.g. 1, 5, 10, 100) contained within the package. Data format is: - "QTY [space] [total number of items]". The unit of measure e.g. sets, rolls, kg/lbs, meters, feet etc) are only required when applicable.	√	
	PO – Purchase Order – Contractual document of requirements from Siemens Energy. Data format is: - "PO [space], [purchase order number]".	√	
	VC - Vendor Code - Data format is: - "VC [space] [supplier vendor code]".	√	
	COO – Country of Origin – The Country of Origin is the country the parts were manufactured. Data format is: - "COO [space] [name of Country]".	√	
	BNR - Batch Number – Batch Number is the unique number allocated covering Quantity of goods or material produced in a single manufacturing run. Data format is BNR [space], followed by the number		√
	SER - Serial Number – The Serial number is required on the label if the part is serialised, as instructed by the engineering component definition e.g. drawing / Siemens technical specification, Data format is: - "SER [space] [unique serial number]".		√
	DMF - Date of Manufacture – The Date of Manufacture is only required for perishable items. This must be the date the life limiting process was completed (e.g., etch date / cure date / manufacture date, Lube date) or the date the product expires. Data format is: - "DMF/EXP [space], [day, month and year separated by a period (i.e., DD.MM.YYYY)]". Cure dated parts must state the material group (A, B, X etc.)		√
Precautionary use data e.g. Hazardous material.			√

6.3 Ship from and to address Label

The supplier shall:

Ensure that a Ship 'From' and 'To' address label is affixed to the Exterior Package.

6.4 Weight and Dimensions Label

The supplier shall:

- Ensure that the label showing Weight and Dimensions is affixed to the Exterior Package.
- Weight shall be stated and will be inclusive of packaging material.
- Units of measure must be stated on the label.

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Weight and Dimensions Label Format (example)	
Weight of Package	25 KG
Dimensions of Package	25 cm X 25 cm X35 cm

6.5 Labelling for boxes supplied within Exterior Package and for the Exterior Package.

The supplier shall:

- Ensure that Packaging Label are affixed permanently to each box contained in Exterior Package.
- Ensure that the below listed labels are affixed permanently to the Exterior Package containing multiple boxes.
  - o Packaging Labels showing total Quantity per part
  - o Total Weight and Dimension Label showing details of Exterior Package.

NOTE 1: The Label on the outside of the Exterior Package is used by Goods receipt team to sort and fast track urgent parts through the receipt process. Details are checked against the Packing slip.

Note 2: When it is necessary to bag a part, the bag shall have a packaging label affixed

7. Health, Safety, and Environmental (HS&E)

General HS&E

- This document does not purport to address all of the safety concerns, if any associated with its use. It is the responsibility of the user of this document to establish appropriate health and safety practices, and to determine these limitations prior to use.
- The materials used in the packaging shall not be harmful to personnel and shall not require any special health precautions.
- Wooden boxes shall be free from splintered edges, and protruding staples, nails or screws.
- All packaging shall provide a safe means of storage clearly identifying any stacking limitations.
- All materials shall have a low adverse impact on the environment - materials which present disposal problems in the location of delivery shall not be used.
- The method of packaging shall enable removal of parts without risk to persons or the packaged item, with particular attention being paid to the protection of sharp edges and machined surfaces which present particular risk during unpacking.
- A caution label indicating HEAVY shall be applied to all boxes over 25 Kg or 55 lbs.

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Pictorial View of Packaging and labelling (Example)



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8. Reference guides for proper packaging per commodity: - Appendix A: -
Casings (including combustion components)



First Level packaging:

•Polythene Film

Dunnage:

- Bubble Wrap

Primary & Secondary Packaging:

- Reusable container designed for casing
- Wood / Plywood case
- Double or Triple wall Carton frame container

***** Special Attention *****

- Casing shall be immobilized within the case / carton
- Protection shall be provided to flange face.
- The Label as required by the requirements.

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