



REVISION SUMMARY

Rev	Date	Section	Page	Description
01	31-MAR-2005	All		Review and new issue entire specification
02	03-MAR-2007	All		Review and new issue entire specification
03	02-JUN-2017	All		Review and new issue entire specification
04	15-APR-2021	All		Review and new issue entire specification
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The revised parts are set in **bold** and *italic*



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1. GENERAL

1.1 Purpose

These instructions are applicable to Packing, Marking and Shipping of equipment and materials as specified in the respective Purchase Order. These instructions form an integral part of the Purchase Order issued by Danieli Corus B.V., further to be mentioned as DC BV.

1.2 Conditions

These general instructions as well as any additional instructions for specific items and/or projects are strictly to be adhered to.

The packing shall be suitable to ensure that under normal handling, shipping and storage conditions, no mechanical damage or corrosion shall occur to equipment and materials. Goods subject to corrosion shall be treated with an effective corrosion preventative, suitable for the type of material to be protected

1.3 Responsibility and Liability

Supplier will be held responsible for damages and losses if not following these instructions. In the event of claims by DC BV relating to damage to equipment and/or materials caused by contraventions of these instructions on the part of the Supplier, the latter will be held responsible for full reimbursement.

2. CLEANING AND PRESERVATION

2.1 Cleaning

All equipment, materials and parts shall be thoroughly cleaned inside and outside and shall be free from grease, oil, weld spatter, rust, contamination etc.

2.2 Preservation / Protective Coating

The temporary protective coatings shall be anticorrosive mixtures, water or solvent based, for heavy protection, and eventually also with mixtures addition of volatile corrosion inhibitors (VCI). Applicable by spray, brush, roller or dipping.

(VCI). Applicable by spray, brush, roller or dipping. Such temporary protective coatings shall be applied by Supplier before of the packaging, in order to protect the machined surfaces or the bevelled edges to be welded on site.

Before closing the packaging, the Packer shall check the conditions of the surfaces to be protected and if the temporary protective coating is not uniform or not yet dry, the Packer shall suspend the packaging activity and notify Danieli Corus or the Supplier.



3. PACKING

3.1 General

In principle, the size of the packages must be optimally adapted to the packaged good, especially with respect to space-saving and freight-saving packaging, and also a risk-free transportation and smooth assembly. The aspect of exceeding the loading gauge must also be considered in this case. The packaging must be designed such that damage is neither caused to the packaged good nor to the packaging due to tilting, shifting, swinging, swaying, lifting, etc. under normal conditions.

The Supplier will be held responsible for the correct and adequate packing of the equipment and materials so that these equipment and materials will arrive at destination undamaged.

The instructions herein shall be considered as general directives and minimal requirements, which are applicable to the packing of all equipment and materials. For packing of specific types of equipment and materials, additional requirements may be attached to these instructions or will be send separately by DC BV.

Suppliers who cannot meet the general and/or the specific requirements for packing shall contact DC BV immediately.

Generally, Danieli Corus identifies the following packing guidelines:

Seaworthy Packing Roadworthy Packing Air worthy Packing

3.1.1 Seaworthy Packing

The term seaworthy packaging procedure is intended to indicate that the packaging must additionally strengthen and withstand the conditions of maritime transport and then resist to more severe stresses.

Packing and conservation of goods shall be sufficient to protect them from damage during transit from point of supplier and storage at job SITE under conditions which may involve multiple handling, extended storage, exposure to moisture and the possibility of pilferage

The contents of cases shall be protected by waterproof and strong plastic foil.

3.1.2 Roadworthy Packing

The term roadworthy packaging procedure is intended to indicate that the packaging must withstand the conditions of road transport until SITE keeping into account that road conditions in some parts of the globe are better or worse than others.

Packing and conservation of goods shall be sufficient to protect them from damage during transit from point of supplier and storage at job SITE under conditions which may involve multiple handling, extended storage, exposure to moisture and the possibility of pilferage

The contents of cases shall be protected by waterproof and strong plastic foil in case the transport will be executed by open truck. In this case additional tarpaulin cover is also to be considered.



3.1.3 Airworthy Packing

The supplier shall be responsible for proper cargo packaging to ensure safe cargo transportation, standard handling and prevent damage to people, cargo (goods) and other property (TACT rules).

It is crucial to choose a high-quality packaging that corresponds to the contents. It must reliably protect the cargo from any accidental damage during handing and transportation. This is especially important for fragile cargo, which, in addition to the rigid outer packaging, must be appropriately labeled: have handling symbols "fragile", "do not drop", etc. Air cargo must have a good packing for its reliable placement and fastening onboard of the aircraft and safety during transportation, transport, transportation and warehousing (Federal Aviation Rules).

The packed cargo must not have sharp corners, protrusions and other things that could contaminate or damage the cargo space of aircraft and its equipment, as well as baggage and mail.

Metal, glass, ceramic, wooden, plastic and other packing for liquid and other goods to be transported by air must withstand excessive pressure depending on the altitude and temperature and ensure full protection against leakage, spillage or scattering of contents.

The packaging and labeling of <u>dangerous cargo</u> are subject to special requirements set out in IATA's Dangerous Goods Regulations.

3.2 Cases, crates and pallets

Wood treatment

All solid wood, used for packing or stowage shall be treated according to the international standard ISPM 15 and shall be stamped, or branded, accordingly. As these regulations are not the same for all countries, the procedure is always to be met for the country of final destination (see also annex ISPM 15 rule). The ISPM 15 rule can be found on www.ippc.int (see option Standard ISPM). On request, the ISPM 15 guidelines are available at the Danieli Corus expediting department.

Pallets

When materials are packed on pallets (wood or plastic), these should be solid double deck pallets that provide adequate load support during transportation and storage (under not always ideal conditions). The pallets should have a dynamic load capacity, enough to carry the total mass loaded on the pallet.

In general the top surface of the pallet must be flat.

The pallet design must enable safe transportation by forklift and storage on rough surface. Pallets have to be covered with sufficient wrapping. All corners, horizontal and vertical, have to be protected with cardboard protection strips. The pallet must be tight on all sides with steel or synthetic straps, at least three (3) straps per side. The strap shall not be fixed around the board clamps and shall never be nailed.

When stacking pallets, the bearing capacity of the lower pallets shall allow the total weight of all materials, including pallets.



3.2.1 Materials

The quality of cases, crates and pallets shall provide maximum protection against damage, breakage and pilferage during transport, storage and multiple handling, including handling by hoisting, lifting devices and forklift trucks.

Cases and crates must be made from new, treated wood (according to ISPM 15, latest version). Pallets must be made from wood or plastic.

3.3 Packing

All equipment and materials shall be properly fixed (by bolts, clamps, supporting beams, etc.) in such a way that internal movements will be impossible. Under the cover - depending on the case and crate length - a sufficient number of strong beams shall be placed and properly fixed in order to allow stacking of the cases and crates while avoiding any compression. These cover- beams shall be of the same type as used for the bottom.

Equipment parts and materials which may be subject to damage by vibration and/or shock, must be protected using shock-absorbing material or by using a tilt meter

All openings of equipment must be closed with wooden or plastic covers to prevent damage to the openings and entering foreign matter.

Straw, hay, wood wool and/or newspapers shall not be used as packing and/or filling material. The use of "Styrofill" or "Pelaspan Pac" as filling material is strongly recommended.

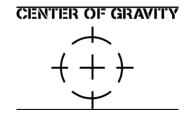
3.4 Waterproofing

Cases and crates including the cover, shall be internally lined with a strong type of waterproof paper or plastic foil. The bottom must be executed water tight.

Equipment and materials shall always be packed in a polyethylene foil (barrier) for extra (double) protection against rainfall. Those foils to be applied in such a way that possible penetration of water will be self-draining.

3.5 Centre of gravity

On cases and crates containing goods of which the center of gravity forms a risk to unbalance in the event of normal handling, the center of gravity shall be marked clearly using the international symbol.





3.6 Maximum weight and size limitations

For transport reasons the maximum weight and size limitations must be observed. It is intended that all equipment will be shipped by most economic and expeditious means. The design of packages is to be in accordance with the following maximum container dimensions:

a) General Purpose (Standard) Containers

Internal dimensions 20' container 40' container

Length	5.895 meters	12.029 meters
Width	2.352 meters	2.352 meters
Height	2.385 meters	2.385 meters
Door opening width	2.340 meters	2.340 meters
Door opening height	2.292 meters	2.292 meters

b) Open Top Containers

	Internal dimensions		
	20' container	40' container	
Length	5.895 meters	12.029 meters	
Width	2.350 meters	2.350 meters	
Height	2.380 meters	2.380 meters	
Door opening width	2.286 meters	2.340 meters	
Door opening height	2.251 meters	2.292 meters	
Top opening width	2.222 meters	2.162 meters	
Top opening length	5.425 meters	11.585 meters	

If the Supplier expects that a case, crate or loose piece exceeds these maximums, he shall contact DC BV immediately but at least 4 weeks prior to delivery date. In that case the packing of the products must be discussed and agreed with prior to shipping.

4. IDENTIFICATION: LABELING OF EQUIPMENT AND MATERIALS

All accessories, loose parts, items and/or spare parts shall be tagged with a securely attached metal or synthetic label. Any other marking is allowed only after agreement with DC BV or if specified in DC BV's Purchase Order and/or technical specification. The labels shall bear the applicable identification (tag/code) number in indelible paint.

Synthetic labels with pressed text are allowed.

For tag-/item-/code-number see appendixes or DC BV's Purchase Order or specification.



Supplier is responsible for sufficient and adequate identification of the supplied equipment or materials. Danieli Corus BV reserves the right to instruct vendor to take corrective actions in case of any non-conformities.

5. SHIPPING MARKS

5.1 General

The purpose of the marking is to identify the cases and crates and detail the weight to assure efficient and correct handling during transport and upon arrival at destination. All packages shall be marked or labeled in accordance with the data shown in the packing list and vice versa.

If applicable, specific instructions shall be supplied.

5.2 Location, language, application

Shipping marks shall be printed on all four sides and the topside of each pallet, case or crate.

The texts shall be printed by means of stamps, stencil-plates or electronically. The use of self-adhesive labels is not allowed.

Bundles and loose items shall be supplied with at least two labels, placed on each side of the package, bearing the shipping marks.

Marks to be A4 size minimum (21x29,7 Cm.) On larger packages preferably A3 size (42x29,7 Cm.)

For each project the shipping mark will be provided by the expediting department of DC BV.

5.3 International symbols for handling, transport and storage

The international standard symbols must be placed at significant spots. Instructions for storage shall be indicated on the packages, such as:

Storage in:

- Closed warehouse dry and frost-free (class A)
- Outer yard with covered tarpaulin (Class B)
- Outer yard without cover (class C)
- Air conditioned stores (class D)
- Any special precaution to be taken during storage (class E)

In case special storage conditions are applicable for the material/equipment delivered by the Supplier, Supplier shall inform DC BV prior to delivery by means of clear storage instructions.



6. SHIPPING DOCUMENTS

6.1 Packing lists

Generally DC BV will provide project specific packing list forms to Supplier. Also, Supplier is to present their own format packing list. In case consignment consist multiple trucks/containers, DC BV will require a packing list per truck/container.

All specifications regarding weights and measurements shall be metric

The packing list shall always refer to the corresponding Purchase Order and project number

Consignments without packing list will be refused.

Each package must contain one copy of the relevant approved packing list.

In case of container transport a total packing list for each container has to be issued, container number and seal number are also to be specified. The container packing list shall be attached to a package, situated right behind the container doors.

Spare parts and/or tools enclosed must be mentioned under separate heading.

Items not mentioned on the packing list will be considered not delivered.

6.2 Documents other than packing list

At no time documents other than the packing list may be enclosed in the pallets, cases and crates, unless otherwise clearly indicated by DC BV.

Documents such as installation, erection, operating and/or maintenance manuals shall be sent to DC BV in accordance with the Purchase Order requirements and/or Vendor Document List (VDL)

7. INSPECTION OF PACKING AND MARKING

In case a pre-inspection meeting is being held, the way of packing and marking will be discussed, and the inspection will be indicated in the quality control plan.

All packing and marking shall be subject to inspection. The inspection will be carried out by DC BV's Inspection Department or their representative or may officially be waived. In this case the waiver will be granted in writing.

Supplier needs to provide photos of the package(s) prior to delivery.

Equipment and materials may not be packed without permission and/or a release from the Expediting Department of DC BV or their representative.



Should packages arrive at port of shipment (or place of delivery as per agreed incoterm) in a damaged or poor condition, they will be repacked properly at the expense of Supplier. The supplier is entitled to carry out, at its own costs, any inspections which it deems necessary in order to verify the Packing and Marking of the materials are in accordance with the required specifications and/or Packing and Marking instructions.

8. FORWARDING INSTRUCTIONS

The Release for Shipment as per the delivery terms described in the Purchase Order, will be given by DC BV (Expediting Department) upon receipt of the by Supplier completed Release for Shipment Request (RSR). DC BV may choose to waive the issuance of a Release for Shipment Request if deemed unnecessary.

All packages must be left open and all loose pieces and bundles may not be transported until approval of packing list by DC BV is given. Possible storage up to maximum two months at Supplier's warehouse will be free of charge.

Partial shipments are only allowed upon approval of DC BV.