

Packing Specification

1. General

These recommendations give standard which represent the minimum prescriptions contractor/vendors and/or the packing company shall follow for the packing and protection of materials and equipment unless otherwise specification in the order.

It is therefore well defined that the contractor/ vendors shall proceed under their own responsibility and according to the general practice to the sea packing or sea protection of their supply.

These packing shall also be carried out in order to satisfy the transportation conditions.

The packing shall be strong enough to support, without damage, sea transportation as well as long duration storage in harbor facilities and/or site.

Important:

In no case, shall material/equipment belonging to different orders be packed in one single packing.

It shall be mandatory to pack the spare parts in separate packing. The spare part packages may be included in the main equipment packing.

2. Purpose:

All the materials are subject to certain fragility due to physic-chemical and mechanical risks of their own.

Therefore each material shall have its particular protection and packing taking into account:

- Different transpiration they will go through (vibration, shocks, etc...)
- Transshipment, heading and lifting
- Storage for more or less long periods in the open air.

Every packing should stay reliable for duration of one-year minimum.

3. Type of packing and protection recommended according to type of material.

3.1- Pallets

A: Concerned materials

All material delivered in pallets such as certain products in bags, brick, etc.

B: Protection

- Against humidity: plastic coating.
- Mechanical:
 - Corners reinforcement through metallic or iron angles.
 - Face protection to be insured by bituminous paper or cardboard the whole being secured by stainless steel strips.

3.2- Bundles

Constitution of bundles strapped by metallic strips, or dunnage in order to avoid twisting:

- Either by strips belting the bundle if it is not too heavy
- Or by U bars tied together by threaded rods with nuts and lock nuts
- Or by wedges, intermediate or circular wooden pieces to ensure protection against sharp edges and rigidity of the sets, the wedges being tied together by nails, bolts or strips.

A: Concerned materials

- Straight pipes of 6 to 13 m long
- Steel bars
- Plain sheets
- Structural steel
- Structures

B: protection

- Against corrosion: to be made in accordance with the particular conditions of the other. Note that pipes for oxygen handling shall be cleaned from grease before delivery.
- Mechanical:
 - Threaded ends shall be protected by screwed bushings
 - If necessary, ends shall be supplied with metallic plastic or wooden protective devices, bevel protectors/companion flanges ...
 - When handling stainless steel pipes.
- Do not use steel slings
- Do not hook up pipes by their ends
- Use leather straps.

4. Crates

a) Concerned materials

Vessels with external elements/equipment not allowing the utilization of cradles or the barge transportation such as piping, air coolers, steel structures, etc

b) Protection

Against corrosion: to be made in accordance with the particular conditions of the order and in every case:

- Machined parts shall be wrapped with adhesive plastic tape
- A rustproof material shall protect contact surfaces of metallic structural parts
- Pipe ends shall be coated with Kraft paper or jute cloth or fitted with proper protective devices.

Note: For CNG Cylinders wooden protective devices and pallet to enable lifting by forklift is necessary the ready crates and bundles to be packed in container (Clause6).

5. Full Packing Cases

a) Concerned materials

Sets requesting mechanical protection against shocks and eventually physico-chemical protection such as machined pieces, small fragile piping, and mechanical parts, valves, fittings, bolts, hand tools, insulation material, glass parts, kit cartons.

b) Protection

Against corrosion:

- Machined parts shall be wrapped with an adhesive plastic coating
- Tools, valves accessories shall be wrapped in paper with corrosive inhibitor
- Bolts and nuts shall be greased and wrapped in jute bags according to size.

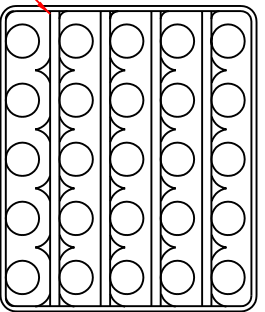
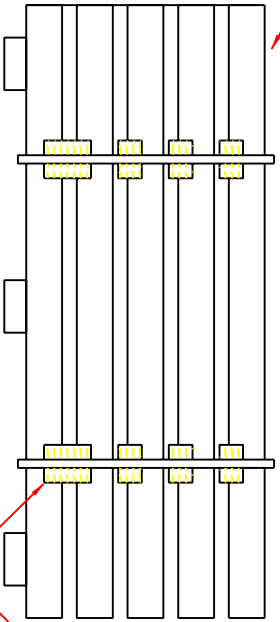
Mechanical: wooden case with one face planed, joined edge to edge, with Bituminous Kraft papers for internal with an overlapping coating. The cover shall be made of 2 layers of wood bituminous Kraft paper in between the 2 Layers.

6. Containers

Containers used for grouping parcels shall be in accordance with ISO 668 Standards.

All crates (for cylinders) and boxes (for kits) to be shipped in standard containers.

METALLIC STRIPE



METALLIC STRIPE

WOOD PROTECTION
FOR THREADED PIPES

