## PART II

### PACKING SPECIFICATION FOR BUNDLES

**REQUIREMENTS:** These requirements are in addition to any that may be in the material descriptions or other Saudi Aramco specifications, including Saudi Aramco Packing Specification 8314-02, which should be used in combination with this specification. Deviation from these requirements is not allowed without the Buyer's prior written approval.

1. **SKIDS:**
   
   1.1 A minimum of 2 rubbing strips/skids (minimum height 7.5 cm/3 in) must be positioned so that the bundle can be handled by a forklift truck and/or slings.

   1.2 Additional rubbing strips/skids must be spaced equally, as necessary, to distribute the load and prevent sagging.

   1.3 Rubbing strips/skids are not required for material bundled with steel strapping or wire alone; for example, small profile steel or small diameter steel pipe.

2. **SEPARATORS:**

   2.1 Separators should be used:

   2.1.1 If the pieces need protection from each other; for example, coated and/or galvanized steel (except uncoated galvanized conduit).

   2.1.2 If necessary to achieve and maintain a stable bundle configuration.

   2.2 Separators may be formed or flat, depending on the shape of the material bundled.

3. **SECURING POINTS:**

   3.1 Securing should be done either with unannealed steel strapping (minimum width 3.2 cm/1-1/4 in) or by tie-rod connectors between top and bottom skid members; for example, for steel "U" bars.
3.2 The tie-rod method should be used where steel strapping is inadequate to maintain the bundle configuration.

3.3 The number of securing points should be adequate to prevent sagging or deformation of the bundle during handling.

4. **BUNDLES OF EPOXY-COATED REINFORCING BAR:**

   4.1 Must be secured with unannealed steel strapping (minimum width 3.2 cm/1-1/4 in) placed over buffer strips of polyethylene or any other long-life material that will prevent the strapping from damaging the epoxy coating on the bars.

   4.2 Must be wrapped with an envelope of heavy-duty ultraviolet-(UV-) resistant polyethylene protective film, held firmly in place with epoxy-coated tie wire, and capable of being reclosed after a partial issue.

   4.3 Must be transported/stored on 75 by 75 mm/3 by 3 inch wood dunnage, with sufficient space between the bundles to allow them to be slung using nylon or other synthetic slings only. When lifting, a spreader bar and sufficient slings should be used to minimize load distortion and possible damage to the coating.

5. **SHEET MATERIALS:**

   5.1 Before securing, sheet materials should be enclosed in an envelope or over-wrap strong enough to prevent either movement of individual sheets or mechanical damage to sheet edges; for example, for sheet steel, a metal envelope; for sheets of other material, a fiberboard or plywood over-wrap.

   5.2 Bundles of very flexible sheets should be placed on a skidded platform to prevent sagging.

6. **UNIT WEIGHT:**

   With the exception of such items as fabricated steel, casing, etc., the single bundle weight should not exceed 5,000 kg/11,000 lb.

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