



CONSTRUCTION SPECIFICATION AR-81 – METAL FABRICATION AND INSTALLATION

1. Scope

This specification is applicable to metalwork items not covered by other specifications. It is applicable to such items as trash guards, anti-vortex devices, and similar structures or parts. It is not applicable to concrete reinforcing steel, water control gates, fences, wells, piles, or pipe conduits.

2. Materials

Steel - Except as otherwise specified, steel shall be malleable, weldable, carbon steel.

Bolts, nuts, washers, rods, rivets, etc., shall be a material equal to the steel being fastened.

Aluminum - Except as otherwise specified, aluminum shall be ASTM alloy 6061-T6.

3. Fabrication

Metal items shall be fabricated to close fit, following requirements shown on the drawings. Welds shall be made all around in a manner developing as much strength as possible.

4. Protective Coatings

Galvanizing - Except as otherwise specified, items shown on the drawings to be galvanized, shall be galvanized according to ASTM A123, except bolts, screws, and other fasteners 0.5 inch or less in diameter may be coated with electro-deposited zinc or cadmium coating following ASTM B766 or B633.

Zinc Painting - For items specified to be painted with zinc paint, the surfaces shall be cleaned and painted as follows:

Cleaning - Surfaces to be painted must be clean and dry. Remove oil and grease using a solvent. Clean surfaces to be painted using sand blasting, power disk sanding, or wire brushing.

Paint - Apply 2 coats of zinc-rich cold galvanized compound using brush, or aerosol application (example: Rust-Oleum Professional Galvanizing Compound) or zinc dust - zinc oxide primer ASTM D79, D520, or D4146.

5. Erection

All parts of the metal structure shall be properly aligned and erected true and plumb, closely conforming to the drawings.