
CONSTRUCTION SPECIFICATION
INSTRUCTION FOR USE
CS-I-OR-081 METAL FABRICATION AND INSTALLATION

081.1 SCOPE

The work consists of furnishing, fabricating, and erecting metalwork, including the metal parts and fasteners of the composite structures.

081.2 MATERIAL

Unless otherwise specified, material shall conform to the requirements of Material Specification MS-OR-581, Metal. Steel shall be structural quality unless otherwise specified. Castings shall be thoroughly cleaned and subjected to careful inspection before installation. Finished surfaces shall be smooth and true to assure proper fit. Galvanizing shall conform to the requirements of Material Specification MS-OR-582, Galvanizing.

081.3 FABRICATION

Fabrication of structural steel shall conform to the requirements of Specification for the Design, Fabrication and Erection of Structural Steel for Buildings (Riveted, Bolted and Arc-Welded Construction), American Institute of Steel Construction.

Fabrication of structural aluminum shall conform to the requirements in the *Aluminum Design Manual* available from The Aluminum Association.

081.4 ERECTION

The frame of metal structures shall be installed true and plumb. Temporary bracing shall be placed wherever necessary to resist all loads to which the structure may be subjected, including those applied by the installation and operation of equipment. Such bracing shall be left in place as long as may be necessary for safety.

As erection progresses the work shall be securely bolted up, or welded, to resist all dead load, wind, and erection stresses. The contractor shall furnish such installation assisting bolts, nuts, and washers as may be required.

No riveting or welding shall be performed until the structure is stiffened and properly aligned. Rivets driven in the field shall be heated and driven with the same care as those driven in the shop.

All field welding shall be performed in conformance to the requirements for shop fabrication except those that expressly apply to shop conditions only.

081.5 PROTECTIVE COATINGS

Items specified to be galvanized shall be completely fabricated for field assembly before the application of the zinc coatings. Galvanized items shall not be cut, welded, or drilled after the zinc coating is applied.

Items specified to be painted shall be painted in conformance to the requirements of Construction Specification CS-OR-082, Painting Metalwork, for the specified paint systems.

081.6 ITEMS OF WORK AND CONSTRUCTION DETAILS

Starting at the top of page 081-3 prepare and outline job specific "Items of Work and Construction Details" (IWCD) in accordance with these instructions.