

GP 04-01-02	Structural Steel Design	August 2003
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Structural Steel Design

GP 04-01-02

Scope

- 1) [I] This Global Practice (GP) covers the design criteria for structural steel.
 - 2) [I] An asterisk (*) indicates that additional information from the Owner's Engineer, or that approval by the Owner's Engineer is required.
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1. Required References

- 1) [I] This Section lists Practices, Standards, and Specifications that are referenced and assumed to be a part of this document. Unless otherwise specified herein, use the latest edition.

1.1. Global Practices–ExxonMobil Engineering Practices

GP 18-07-01	Welding Procedures
GP 19-01-01	Paint and Protective Coatings

1.2. AISC–American Institute of Steel Construction

AISC S335	Specification for Structural Steel Buildings Allowable Stress Design and Plastic Design with Commentary
AISC S335-89S1	Supplement No. 1 to the Specifications for Structural Steel Buildings - Allowable Stress Design and Plastic Design
AISC S342L	Load and Resistance Factor Design Specification for Structural Steel Buildings

1.3. ASTM–American Society for Testing and Materials

ASTM A 370	Standard Test Methods and Definitions for Mechanical Testing of Steel Products
ASTM A 673/A 673M	Standard Specification for Sampling Procedure for Impact Testing of Structural Steel
ASTM A 1011/A 1011M	Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability

- 2) * [I] Local codes and standards may be substituted for those referenced herein, provided that:
- The resultant design meets the safety and serviceability requirements of this Practice.
 - Such substitution is acceptable to the local authorities and the Owner's Engineer.

2. Materials

- 1) * [I] Structural steel shall be of grades 36, 50, dual certified, and/or equivalent materials. Grade substitutions shall not be made without approval from the Owner's Engineer.
- 2) [R] Special materials, coating protection or increased material thickness shall be used where structural elements are subject to severe corrosion or wear. Corrosion protection shall be in

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