



PROCESS
INDUSTRY
PRACTICES

COMPLETE REVISION
August 2018

Structural

**PIP STS05130
Structural and Miscellaneous
Steel Erection Specification**

PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

This Practice is subject to revision at any time.

© Process Industry Practices (PIP), Construction Industry Institute, The University of Texas at Austin, 3925 West Braker Lane (R4500), Austin, Texas 78759. PIP Member Companies and Subscribers may copy this Practice for their internal use. Changes or modifications of any kind are not permitted within any PIP Practice without the express written authorization of PIP. Authorized Users may attach addenda or overlays to clearly indicate modifications or exceptions to specific sections of PIP Practices. Authorized Users may provide their clients, suppliers and contractors with copies of the Practice solely for Authorized Users' purposes. These purposes include but are not limited to the procurement process (e.g., as attachments to requests for quotation/ purchase orders or requests for proposals/contracts) and preparation and issue of design engineering deliverables for use on a specific project by Authorized User's client. PIP's copyright notices must be clearly indicated and unequivocally incorporated in documents where an Authorized User desires to provide any third party with copies of the Practice.

PRINTING HISTORY

November 1994 *Issued*
December 1998 *Revision*
February 2002 *Technical Correction*

February 2011 *Complete Revision*
August 2018 *Complete Revision*

Not printed with State funds



PIP STS05130 Structural and Miscellaneous Steel Erection Specification

Table of Contents

1. Scope	2
2. References	2
2.1 Process Industry Practices.....	2
2.2 Industry Codes and Standards.....	2
2.3 Government Regulations.....	3
3. Definitions	3
4. Requirements	4
4.1 General.....	4
4.2 Products and Materials.....	6
4.3 Execution.....	6

Drawing

STS05130-01 – Field Located and
Field Fabricated Grating Openings

1. Scope

This Practice provides requirements for receipt, handling, erection, assembly, and field inspection of structural and miscellaneous steel. Structural and miscellaneous steel are as defined in *ANSI/AISC 303-16 - Code of Standard Practice for Steel Buildings and Bridges*.

2. References

Applicable parts of the following Practices, industry codes and standards, and references shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles are used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP STS03600 - *Nonshrink Cementitious Grout Specification*
- PIP STS03601 - *Epoxy Grout Specification*
- PIP STS05120 - *Structural and Miscellaneous Steel Fabrication Specification*

2.2 Industry Codes and Standards

- American Institute of Steel Construction (AISC)
 - ANSI/AISC 303-16 - *Code of Standard Practice for Steel Buildings and Bridges*
 - AISC 325 - *Steel Construction Manual*
 - ANSI/AISC 360-16 - *Specification for Structural Steel Buildings*
- American Society of Safety Engineers (ASSE)
 - ASSE A10.13 - *Safety Requirements for Steel Erection – American National Standard for Construction and Demolition Operations*
- ASTM International (ASTM)
 - ASTM A36/A36M - *Standard Specification for Carbon Structural Steel*
 - ASTM A307 - *Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength*
 - ASTM F3125/F3125M - *Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions*
- American Welding Society (AWS)
 - AWS D1.1/D1.1M - *Structural Welding Code – Steel*
 - AWS QC1 - *Specification for AWS Certification of Welding Inspectors*
- Research Council on Structural Connections (RCSC)
 - RCSC *Specification for Structural Joints Using High-Strength Bolts*
- Steel Deck Institute (SDI)
 - SDI *Design Manual for Composite Decks, Form Decks and Roof Decks*
- Steel Joist Institute (SJI)
 - SJI *Standard Specifications and Load Tables*