

Home Page

The screenshot shows the Access Engineering website interface. At the top, there is a navigation bar with links for ABOUT, HELP, ADMINISTRATION, and CONTACT US, along with social media icons and a user count of 0. The main header features the Access Engineering logo and the tagline "Authoritative content. Immediate solutions." Below this is a search bar with the text "Search Access Engineering" and a "GO" button, with options for "Advanced Search" and "Search within this title". A secondary navigation bar includes links for HOME, SUBJECTS, INDUSTRIES, TITLES (A-Z), and CURRICULUM MAPS, along with buttons for FREE TRIAL and SIGN IN. The main content area displays the title "Structural Steel Designer's Handbook, Fifth Edition" and lists the authors: Roger Brockenbrough, P.E., and Frederick S. Merritt, P.E. An abstract follows, describing the handbook as a comprehensive source of design codes and specifications for steel structures. A "Full details" link is provided. Below the abstract is a "Table of Contents" section with links for "A. About ASCE Press", "B. ABOUT THE EDITORS", and "C. CONTRIBUTORS". On the right side, there is a "Featured Content" section with three book covers: "DataVis Material Properties Interactive Teaching Tool", "PERRY'S CHEMICAL ENGINEERS' HANDBOOK 8TH EDITION", and "MARKS' STANDARD HANDBOOK MECHANICAL ENGINEERS".

Logo



URL

<https://www.accessengineeringlibrary.com/browse/structural-steel-designers-handbook-fifth-edition>

Subject

Engineering-- Handbooks, manuals, etc.;
Steel, Structural-- Handbooks, manuals, etc.

Accessibility

On Subscription

Language

English

Publisher

McGraw-Hill Education

Brief History

The handbook was published in 2011 by McGraw-Hill Education. The online access can be possible by AccessEngineering, an award-winning engineering reference tool for professionals, academics, and students that provides seamless access to the world's best-known, most-used collection of authoritative, regularly updated engineering reference information and also comprises dynamic online features, such as instructional, faculty made videos, calculators, interactive tables and charts, as well as personalization tools allowing users to organize crucial project information as they work.

Scope and Coverage

This comprehensive handbook begins by covering the properties of structural steel and the fundamentals of fabrication and erection, modern structural design methods applicable to buildings and other structures, such as roof systems and various types of bridges, are presented. Details on the design of members—beams, columns, and tension components—and of bolted and welded connections are also covered. Featuring contributions from renowned engineering experts, this is an invaluable working tool for structural steel designers. The handbook covers following category of subjects:

- Properties of structural steels and effects of steelmaking and fabrication
- Fabrication and erection
- Connections
- Building codes, loads, and fire protection
- Criteria for building design
- Design of building members
- Floor and roof systems
- Lateral-force design
- Cold-formed steel design
- Highway bridge design criteria
- Railroad bridge design criteria
- Beam and girder bridges
- Truss bridges
- Arch bridges
- Cable-suspended bridges

The handbook includes 380 figure, 229 tables, 7 graphs in its content.

Kind of Information

Structural Steel Designer's Handbook provides a convenient, single source of the latest information essential to the practical design of steel structures. This handbook is fully updated with the most recent design codes, standards, and specifications. This comprehensive volume begins by covering the properties of structural steel and the fundamentals of fabrication and erection. Modern structural design methods applicable to buildings and other structures, such as roof systems and various types of bridges, are presented. Details on the design of members—beams, columns, and tension components—and of bolted and welded connections are also covered. Featuring contributions from renowned engineering experts, this is an invaluable working tool for structural steel designers.

As for example, the article “Railroad bridge design criteria” includes points like, standard specifications, the design method, railroad operating environment, the general design considerations, design loads and forces, basic allowable stresses, fatigue design, fracture-critical member design etc. Another article “Arch bridges” contains the points like types of arches, arch forms, selection of arch type and form, comparison of arch with other bridge types, erection of arch bridges, design of arch ribs and ties, design of other elements, examples of arch bridges, guidelines for preliminary designs and estimates, buckling considerations for arches, example—design of tied-arch bridge.

Special Features

- The handbook gives provision for free trial for 30 days before purchasing the handbook.
- In this reference tool one can search separately all the tables, graphs, figures.
- Under this website, one can access other reference works 2015 International Building Code® Illustrated Handbook, Analog Filter and Circuit Design Handbook, CAM Design Handbook etc.
- Featured contents are highlighted at the home page of the site.

Arrangement Pattern

The content of the handbook is arranged topic wise. All the sub heading under each main heading are also arranged topic wise.

Remarks

This handbook is ready to use for the engineers for the latest information essential to the practical design of steel structures, like highway bridge, railroad bridge, beam and girder bridges, truss bridges, arch bridges, cable-suspended bridges etc.

Comparable Tools

- Mechanical Engineers' Handbook
(<http://onlinelibrary.wiley.com/book/10.1002/9781118985960>)

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