

Guide to AISC Manual

The *Manual of Steel Construction: Load & Resistance Factor Design* published by AISC is a comprehensive set of tables, charts, diagrams, and design rules used in professional practice. Because of time limit, it is possible only to cover a small, but important, portion of the AISC manual. Student are, however, encouraged to browse the manual. Another handy reference is the *Load & Resistance Factor Design Specification for Structural Steel Buildings*. In fact, this book is Part 6 of the AISC Manual, which can be also found as a separate volume.

Section Guide —See inside cover of the Manual.

Part	Description
1.	Dimensions and Properties
2.	Essentials of LRFD
3.	Column Design
4.	Beam and Girder Design
5.	Composite Design
6.	Specifications and Codes
7.	Miscellaneous Data and Mathematical Information
*	Index and General Nomenclature

Load & Resistance Factor Design (LRFD) Specification (or Part 6 of the Manual)

Section	Description
Specification	Set of design rules used in professional practice
Appendix	Supplementary design rules
Numerical Values	Tables to help make the design easier
Commentary	Explanations of the design rules plus a few extra things

Some Useful Sections of the AISC Manual

Pages	Description
1-26 to 1-43	Dimensions and properties of W-shapes
2-23	Design stress for compression members
3-16 to 3-30	Axial strength of columns (W-shapes)
4-14 to 4-21	Load factor design selection tables
4-24 to 4-27	Moment of inertia selection tables (W- and M-shapes)
4-35 to 4-60	Maximum factored uniform loads for laterally supported beams
4-113 to 4-166	Beam design moments
4-190 to 4-206	Beam diagrams and formulas (moment, shear, deflection, reaction)
6-17 to 6-23	Nomenclatures with references to LRFD Specifications
6-144 to 6-160	Numerical values
Last few pages	Index to the entire AISC Manual