



## Designation: **A992/A992M – 11** **A992/A992M – 11 (Reapproved 2015)**

# Standard Specification for Structural Steel Shapes<sup>1</sup>

This standard is issued under the fixed designation A992/A992M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope\*~~Scope~~

1.1 This specification covers rolled steel structural shapes for use in building framing or bridges, or for general structural purposes.

1.2 Supplementary requirements are provided for use where additional testing or additional restrictions are required by the purchaser. Such requirements apply only when specified in the purchase order.

1.3 When the steel is to be welded, a welding procedure suitable for the grade of steel and intended use or service is to be utilized. See Appendix X3 of Specification **A6/A6M** for information on weldability.

1.4 The values stated in either inch-pound units or SI units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.5 The text of this specification contains notes or footnotes, or both, that provide explanatory material; such notes and footnotes, excluding those in tables and figures, do not contain any mandatory requirements.

## 2. Referenced Documents

2.1 *ASTM Standards*:<sup>2</sup>

**A6/A6M** Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling

## 3. General Requirements For Delivery

3.1 Material furnished under this specification shall conform to the requirements of the current edition of Specification **A6/A6M** for the ordered material, unless a conflict exists, in which case this specification shall prevail.

## 4. Materials and Manufacture

4.1 The steel shall be killed, and such shall be confirmed by a statement of *killed steel* on the test report, or by a report on the presence of a sufficient quantity of a strong deoxidizing element, such as silicon at 0.10 % or higher, or aluminum at 0.015 % or higher.

4.2 The steelmaking practice used shall be one that produces steel having a nitrogen content not greater than 0.015 % and includes the addition of one or more nitrogen-binding elements, or one that produces steel having a nitrogen content not greater than 0.012 % (with or without the addition of nitrogen-binding elements). The nitrogen content need not be reported, regardless of which steelmaking practice was used.

## 5. Chemical Composition

5.1 The heat analysis shall conform to the requirements in **Table 1**.

5.2 In addition to the elements listed in **Table 1**, test reports shall include, for information, the chemical analysis for tin. Where the amount of tin is less than 0.02 %, it shall be permissible for the analysis to be reported as “<0.02 %.”

5.3 The steel shall conform on product analysis to the requirements prescribed in **Table 1**, subject to the product analysis tolerances in Specification **A6/A6M**.

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee **A01** on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee **A01.02** on Structural Steel for Bridges, Buildings, Rolling Stock and Ships.

Current edition approved ~~May 1, 2011~~ ~~Sept. 1, 2015~~ ~~Published May 2014~~ ~~September 2015~~. Originally approved in 1998. Last previous edition approved in ~~2006~~ ~~2011~~ as ~~A992/A992M – 06a~~ ~~A992/A992M – 11~~. DOI: ~~10.1520/A0992\_A0992M-11~~ ~~10.1520/A0992\_A0992M-11R15~~.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

\*A Summary of Changes section appears at the end of this standard