



Designation: F1789 – 17

Standard Terminology for F16 Mechanical Fasteners¹

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1. Scope

1.1 This terminology standard provides a compilation of definitions for terminology used for mechanical fasteners.

1.2 Terms in this terminology are organized alphabetically. In [Appendix X1](#) they are listed under fastener characteristic.

1.3 Additional definitions are shown in ANSI/ASME B18.12; IFI Glossary of Terms, IFI-139 and IFI-140; and SAE J412.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

[A563 Specification for Carbon and Alloy Steel Nuts](#)
[E456 Terminology Relating to Quality and Statistics](#)
[F432 Specification for Roof and Rock Bolts and Accessories](#)
[F2428 Guide for Selection and Use for Pelvic Ring Circumferential Compression Stabilization Devices \(PRCCSD\)](#)

2.2 ANSI/ASME Standard:³

[B18.12 Glossary of Terms for Mechanical Fasteners](#)

2.3 IFI Standards:⁴

[Glossary of Terms Relating to Aerospace Fasteners](#)
[IFI-139 Quality Assurance Requirements for Fastener Testing Laboratories](#)
[IFI-140 Carbon and Alloy Steel Wire, Rods, and Bars for Mechanical Fasteners](#)

¹ This terminology is under the jurisdiction of ASTM Committee F16 on Fasteners and is the direct responsibility of Subcommittee F16.91 on Editorial.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁴ Available from Industrial Fasteners Institute, 1717 E. 9th Street, Suite 1105, Cleveland, OH 44114. <http://www.indfast.org>

2.4 SAE Standard:⁵

[SAE J412 General Characteristics and Heat Treatments of Steels](#)

2.5 ISO/IEC Standards:⁶

[ISO/IEC 17011 Conformity assessment -- General requirements for accreditation bodies accrediting conformity assessment bodies](#)

[ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories](#)

3. Terminology

Mechanical Fastener Definitions

acceptance number—numerical value representing the maximum number of permissible non-conformances within a sample submitted for testing and acceptance of the population.

accredited laboratory—an organization found to be operating in conformance with the requirements of ISO/IEC 17025 by an accrediting body that has been found to be compliant to ISO/IEC 17011, and is recognized as a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA).

age hardened—precipitation of constituents within certain alloy metals to increase mechanical properties.

alloy group—materials grouped by their chemical designation and considered to be functionally or chemically similar for general purpose use.

alloy steel—steel is considered to be alloy when the maximum range given for manganese exceeds 1.65 % or a definite minimum quantity for any of the following elements is specified or required within the limits of the recognized field of constructional alloy steels: chromium, molybdenum, nickel, or any other alloying element added to obtain a desired alloying effect.

⁵ Available from Society of Automotive Engineers (SAE), 400 Commonwealth Dr., Warrendale, PA 15096-0001, <http://www.sae.org>.

⁶ Available from International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211, Geneva 20, Switzerland, <http://www.iso.ch>.