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Superseding MA4534

Socket Wrenches, Hand (Metric)

RATIONALE

Standard was rolled into the AS955 standard. This standard should be used only for historical purposes.

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## 1. SCOPE:

This SAE Aerospace Standard covers high strength commercial sockets and universal sockets which possess the strength, clearances, and internal wrenching design so configured that, when mated with hexagon (6 point) fasteners, they shall transmit torque to the fastener without bearing on the outer 5% of the fastener's wrenching points. This document provides additional requirements beyond ANSI B107.5 appropriate for aerospace use.

Inclusion of dimensional data in this document is not intended to imply all of the products described therein are stock production sizes. Consumers are requested to consult with manufacturers concerning lists of stock production sizes.

### 1.1 Classification:

Sockets and universal sockets covered by this document shall be of the following classes and styles as specified:

- a. Class 1 - Sockets, double hexagon (12 point)
  - (1) Style A - Regular length
  - (2) Style B - Long length
  - (3) Style C - Mid length
- b. Class 3 - Universal sockets, double hexagon (12 point)

## 2. APPLICABLE DOCUMENTS:

2.1 The following documents of the issue in effect on the date of invitations for bid or request for proposal form a part of this document to the extent specified herein.

2.1.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AS478	Identification - Marking Methods
MA1547	Wrench, Twelve Spline, Metric

2.1.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

- ASTM A 754 Coating Thickness by X-ray Fluorescence, Standard Test Method for
- ASTM B 487 Measurement of Metal and Oxide Coating Thickness, Examination of a Cross Section
- ASTM B 499 Measurement of Coating Thickness by the Magnetic Method, Standard Test Method for
- ASTM B 504 Measurement of Thickness of Metallic Coatings by the Coulometric Method, Standard Test Method for
- ASTM B 530 Measurement of Coating Thickness by the Magnetic Method: Electrodeposited Nickel Coatings of Magnetic and Nonmagnetic Substrates, Standard Test Method for
- ASTM B 568 Measurement of Coating Thickness by X-ray Spectrometry, Standard Test Method for
- ASTM B 571 Adhesion of Metallic Coatings, Standard Test Methods for
- ASTM B 748 Measurement of Thickness of Metallic Coatings by Measurement of Cross Section with a Scanning Electron Microscope, Standard Test Method for

2.1.3 ANSI Publications: Available from American National Standards Institute, 11 West 42nd Street, New York, NY 10036.

ANSI B107.5 Sockets Wrenches, Hand (Metric Series)

### 3. REQUIREMENTS:

#### 3.1 General:

Unless otherwise specified herein, all dimensions and attributes shall be in conformance with ANSI B107.5.

#### 3.2 Materials:

The materials used in the manufacture of the sockets and universal sockets shall be steel, the chemical composition and heat treatment of which shall be such as to produce tools conforming to the physical requirements specified herein. Failure under load shall not result in fragmentation of the socket. Powdered metal or cast steel shall not be used.

#### 3.3 Marking:

The sockets shall be marked in a permanent manner with the country of origin and the manufacturer's name, or with a trademark of such known character that the source of manufacture may be readily determined. In addition, the tools shall be marked in a permanent manner with the nominal wrench opening. Marking methods shall be in accordance with AS478.