



AEROSPACE STANDARD

AS6405™

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Ratcheting Wrenches, Twelve Point, High Strength, Thin Wall

RATIONALE

This SAE Aerospace Standard (AS) covers reversible and nonreversible ratcheting wrenches for use in aerospace applications involving high torque, limited clearances, and generally clean conditions.

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Figure 1 Type I, Class 1 and 2, nonreversible and reversible ratcheting combination wrenches ratcheting end 7

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Documents

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1. SCOPE

This SAE Aerospace Standard (AS) covers high strength thin wall ratcheting box wrenches which possess the strength, clearances, and internal wrenching design so configured that, when mated with bihexagonal (12 point) fasteners conforming to the requirement of AS870 for inch sizes and ISO 4095 for metric sizes, they shall transmit torque to the fastener without bearing on the outer 5% of the fastener's wrenching points.

Inclusion of dimensional data in this document is not intended to imply that all products described herein are stock production sizes. Consumers are requested to consult with manufacturers concerning lists of stock production sizes. The dimensional limits of box and combination wrench lengths have been established to provide configuration control for tool storage applications.

1.1 Classification

Ratcheting wrenches covered by this AS shall be of the following types, classes, and styles, as specified:

1.1.1 Type I Ratcheting Combination Wrenches

- Class 1: Flat nonreversible

Style A: Short length

Style B: Regular Length

- Class 2: Angled head reversible

Style A: Short length

Style B: Regular Length

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AS478	Identification Marking Methods
AS870	Wrenching Configuration, Bihexagonal (12-Point) Drive, Design Standard for
AS954	Wrenches, Hand, Twelve Point, High Strength, Thin Wall
AS4984	Coating Requirements for Aerospace Hand Tools