
**Assembly tools for screws and
nuts — Combination wrenches —
Lengths of wrenches and maximum
thickness of heads**

*Outils de manoeuvre pour vis et écrous — Clés mixtes de serrage —
Longueurs des clés et épaisseurs maximales des têtes*





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Contents

Page

Foreword	iv
1 Scope	1
2 Normative reference	1
3 Dimensions	1
4 Technical specifications	1
5 Designation	1
6 Marking	2
Bibliography	4

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

The committee responsible for this document is ISO/TC 29, *Small tools*, Subcommittee SC 10, *Assembly tools for screws and nuts, pliers and nippers*.

This fourth edition cancels and replaces the third edition (ISO 7738:2001), which has been technically revised with the following changes:

- a) This International Standard has been editorially updated, including editorial changes in the scope;
- b) the normative references have been updated;
- c) a new [Clause 4](#) about technical specifications has been included;
- d) additional opening sizes have been included in [Table 1](#);
- e) a bibliography has been added.

Assembly tools for screws and nuts — Combination wrenches — Lengths of wrenches and maximum thickness of heads

1 Scope

This International Standard specifies the overall length and the maximum head thickness of combination wrenches, offset (Form A) and offset (Form B).

NOTE Combination wrenches are listed in ISO 1703, under designation 1 1 01 05 0 (Form A) and designation 1 1 01 06 0 (Form B).

2 Normative reference

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 691:2005, *Assembly tools for screws and nuts — Wrench and socket openings — Tolerances for general use*

ISO 1711-1, *Assembly tools for screws and nuts — Technical specifications — Part 1: Hand-operated wrenches and sockets*

3 Dimensions

Dimensions shall be according to [Figure 1](#) and [Table 1](#).

The tolerances of the wrench opening, *s*, shall conform to those shown in ISO 691:2005, Table 1, “Tolerance class 1” series.

[Figure 1](#) of this International Standard is only an example and should not influence the design of the wrench.

4 Technical specifications

The technical specifications shall be in accordance with ISO 1711-1.

5 Designation

A combination wrench in accordance with this International Standard shall be designated by the following:

- a) “Wrench”
- b) reference to this International Standard, i.e. ISO 7738;
- c) series, i.e. short, medium, or long;
- d) Form, i.e. A or B;
- e) wrench opening.

EXAMPLE A modified offset (Form B) combination wrench, medium series, with the wrench opening of 12 mm is designated as follows:

Wrench ISO 7738 - Medium B 12