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Assembly tools for screws and nuts — Adjustable wrenches

Outils de manoeuvre pour vis et écrous — Clés à molette

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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).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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This document was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 10, *Assembly tools for screws and nuts, pliers and nippers*.

This third edition cancels and replaces the second edition (ISO 6787:2001), which has been technically revised. The main changes compared to the previous edition are as follows:

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— the reference number from ISO 1703:2005 has been updated;

— the values for test mandrel width across flats and torque values in Table 2 have been updated;

— a footnote in Table 2 with reference to ISO 1711-1:2016 has been added (moved from Clause 6).

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Assembly tools for screws and nuts — Adjustable wrenches

1 Scope

This document specifies the dimensions of adjustable wrenches and the admissible clearance of the adjustable jaw. It also specifies test conditions to test the suitability of tool performance.

NOTE The wrenches covered by this document are the ones identified in ISO 1703:2005 under reference number 1 1 01 04 0.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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4 Dimensions

The dimensions are given in Table 1.

Figure 1 shows only an example and should not influence the design of the wrench.

5 Technical specifications

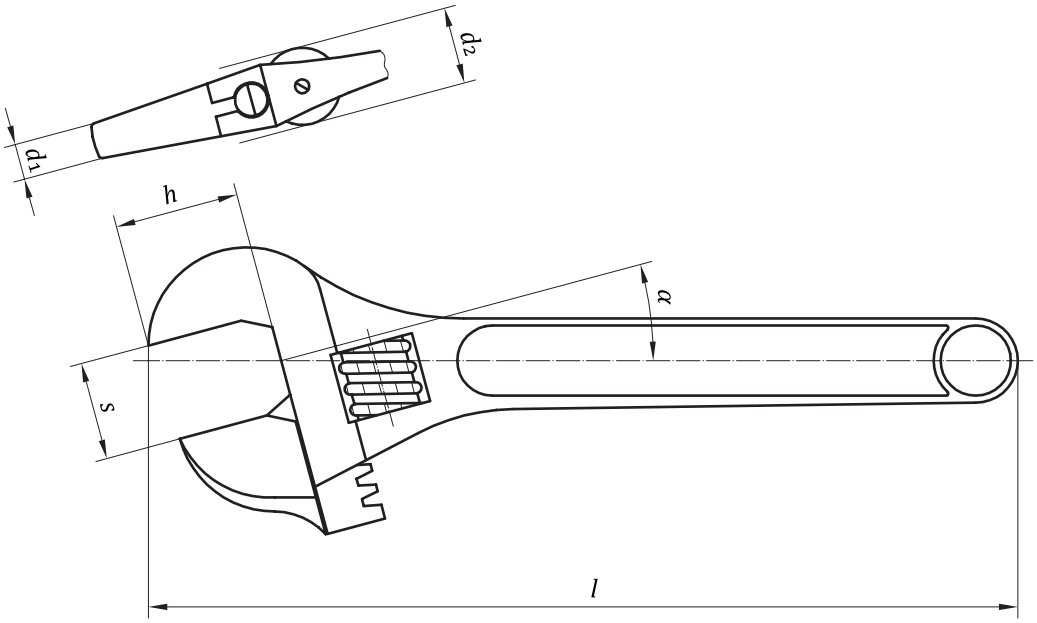
5.1 Clearance of adjustable jaw

The clearance, *c*, between the adjustable jaw and the fixed jaw shall be measured in accordance with Figure 2 by application of a low force at the jaw.

The clearance shall not exceed the maximum values for the specified sizes given in Table 1, irrespective of which side is to be checked.

The adjustable jaw shall be manufactured to permit free travel throughout the range of opening without binding or wedging.

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Key

d_1 thickness of the jaw tip
d_2 thickness of the head
h depth of the jaw
l length of the wrench
s opening of the jaw
α angle

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Figure 1 — Adjustable wrench

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Table 1 — Dimensions of adjustable wrench

Dimensions in millimetres

Length		**Maximum opening of the jaw**	**Depth of the jaw**	**Jaw tip thickness**	**Thickness of the head**	**Angle**		**Clearance**
l		s_{max}	h	d_1	d_2	α		c
nom.	tol.		min.	max.	max.	Form A	Form B	max.
100	+ 15 0	≥13	12	6	10	15°	22,5°	0,25
150		≥19	17,5	7	13			0,25
200		≥24	22	8,5	15			0,28
250		≥27	26	11	17			0,28
300	+ 30 0	≥34	31	13,5	20			0,30
375		≥41	40	16	26			0,30
450	+ 45 0	≥50	48	19	32			0,36
600		≥60	57	28	36			0,50

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