



**International
Standard**

ISO 4033

**Fasteners — Hexagon high nuts
(style 2)**

Fixations — Écrous hauts hexagonaux (style 2)

**Fourth edition
2023-08**



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Contents		Page
Foreword		iv
1 Scope		1
2 Normative references		1
3 Terms and definitions		1
4 Dimensions		2
5 Requirements and reference International Standards		4
6 Marking and labelling		4
6.1 Marking on product.....		4
6.2 Labelling on package.....		5
7 Designation		5
Bibliography		6

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 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

This document was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 12, *Fasteners with metric internal thread*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 185, *Fasteners*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 4033:2012) which has been technically revised.

The main changes are as follows:

- M7, M18, M22, M27, M33 and M39 have been added;
- minimum height of the washer-face c_{\min} has been added;
- $d_{a,\max}$, $d_{w,\min}$ and $m_{w,\min}$ have been specified with two decimal places;
- $d_{w,\min}$ for M5 has been changed from $s_{\min} - IT16$ to $s_{\min} - IT15$ in order to have a larger bearing surface area and thus less contact pressure;
- for steel nuts, quenching and tempering condition has been specified in accordance with ISO 898-2, and property class 9 has been deleted;
- stainless steel nuts have been added;
- specifications for marking and labelling have been added as [Clause 6](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Fasteners — Hexagon high nuts (style 2)

1 Scope

This document specifies the characteristics of hexagon high nuts (style 2), in steel and stainless steel, with metric coarse pitch thread M5 to M39, and with product grades A and B.

If in certain cases other specifications are requested, property classes and stainless steel grades can be selected from ISO 898-2 or ISO 3506-2.

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 225, *Fasteners — Bolts, screws, studs and nuts — Symbols and descriptions of dimensions*

ISO 898-2, *Fasteners — Mechanical properties of fasteners made of carbon steel and alloy steel — Part 2: Nuts with specified property classes*

ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data*

ISO 1891-4, *Fasteners — Vocabulary — Part 4: Control, inspection, delivery, acceptance and quality*

ISO 3269, *Fasteners — Acceptance inspection*

ISO 3506-2, *Fasteners — Mechanical properties of corrosion-resistant stainless steel fasteners — Part 2: Nuts with specified grades and property classes*

ISO 4042, *Fasteners — Electroplated coating systems*

ISO 4759-1, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C*

ISO 6157-2, *Fasteners — Surface discontinuities — Part 2: Nuts*

ISO 8991, *Designation system for fasteners*

ISO 8992, *Fasteners — General requirements for bolts, screws, studs and nuts*

ISO 10683, *Fasteners — Non-electrolytically applied zinc flake coating systems*

ISO 10684, *Fasteners — Hot dip galvanized coatings*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology 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/>

4 Dimensions

Dimensions shall be in accordance with [Figures 1](#) and [2](#), and with [Tables 1](#) and [2](#). Unless otherwise specified at the time of order, the nuts are delivered without washer-face.

Symbols and descriptions of dimensions are specified in ISO 225.

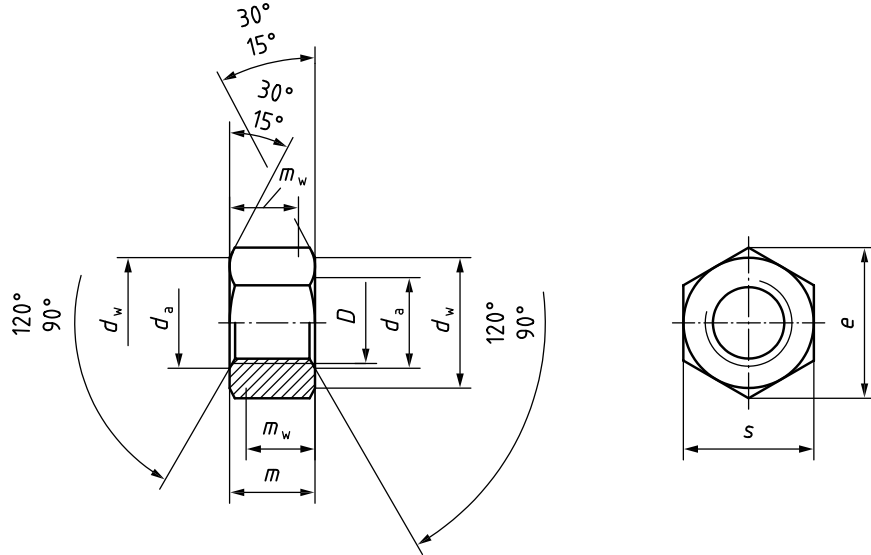


Figure 1 — Nut without washer-face

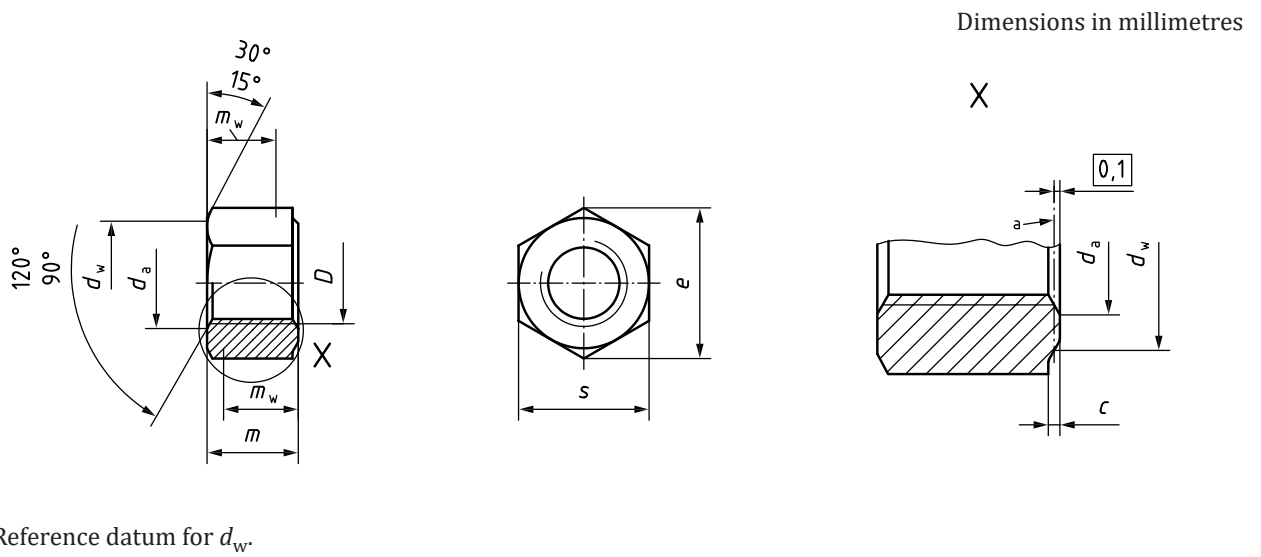


Figure 2 — Nut with optional washer-face

etc.

Bibliography

- [1] ISO 3506-5, *Fasteners — Mechanical properties of corrosion-resistant stainless steel fasteners — Part 5: Special fasteners (also including fasteners from nickel alloys) for high temperature applications*
- [2] ISO 3506-6, *Fasteners — Mechanical properties of corrosion-resistant stainless steel fasteners — Part 6: General rules for the selection of stainless steels and nickel alloys for fasteners*
- [3] ISO 16048, *Passivation of corrosion-resistant stainless-steel fasteners*



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