
**Fasteners — Hexagon weld nuts with
flange**

Fixations — Écrous hexagonaux à souder, à embase plate

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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. 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

The committee responsible for this document is ISO/TC 2, *Fasteners*, Subcommittee SC 12, *Fasteners with metric internal thread*.

This second edition cancels and replaces the first edition (ISO 21670:2003), of which it constitutes a minor revision.

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Fasteners — Hexagon weld nuts with flange

1 Scope

This International Standard specifies characteristics for hexagon weld nuts with flange, with sizes M5 to M16 (coarse thread) or $D = 8$ mm to 16 mm (fine pitch thread), of product grade A.

Weld nuts conforming to this International Standard are suitable for use with bolts of property classes up to 10.9 according to ISO 898-1.

2 Normative references

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 724, *ISO general-purpose metric screw threads — Basic dimensions*

ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread*

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

ISO 965-3, *ISO general purpose metric screw threads — Tolerances — Part 3: Deviations for constructional screw threads*

ISO 3269, *Fasteners — Acceptance inspection*

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

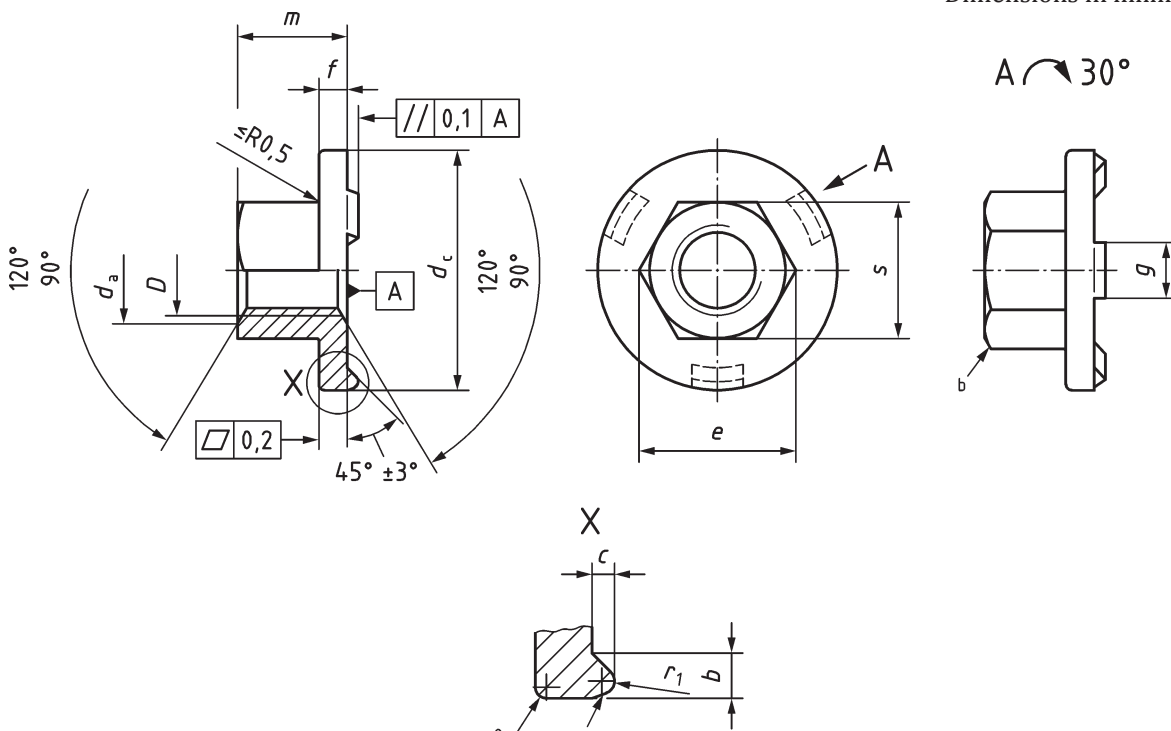
ISO 6157-2, *Fasteners — Surface discontinuities — Part 2: Nuts*

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

3 Dimensions

Nut dimensions shall be as given in [Figure 1](#) and [Table 1](#).

Dimensions in millimetres



Key

- a Pressing contour.
- b Pressing contour, at least 15°.

Figure 1 — Nut dimensions

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Table 1 — Nut dimensions

Dimensions in millimetres

Thread size		P_2^b	b	c	d_a	d_c	e	f	g	m		s	r_1	r_2	Approx. mass ($\rho = 7,85 \text{ kg/dm}^3$) per 1 000 pieces kg
D	$D \times P_1^a$									min.	max.				
M5	—	0,8	2,20	0,8	6	15,5	8,2	1,7	4,0	4,70	5,00	8	0,6	0,3	2,9
M6	—	1	2,70	0,8	7	18,5	10,6	2,0	5,0	6,64	7,00	10	0,6	0,5	5,7
M8	M8 × 1	1,25	2,70	1,0	9,5	22,5	13,6	2,5	6,0	9,64	10,00	13	0,8	0,8	12,2
M10	M10 × 1,25	1,5	2,95	1,2	11,5	26,5	16,9	3,0	7,0	12,57	13	16	1,0	1,0	21,8
	M10 × 1														
M12	M12 × 1,5	1,75	3,20	1,2	14	30,5	19,4	3,0	8,0	14,57	15	18	1,0	1,2	29,4
	M12 × 1,25														
M14	M14 × 1,5	2	3,45	1,2	16	33,5	22,4	4,0	8,0	16,16	17	21	1,0	1,2	45,8
M16	M16 × 1,5	2	3,70	1,2	18	36,5	25,0	4,0	8,0	18,66	19,50	24	1,0	1,2	63,1

a P_1 is the pitch of the fine pitch thread.

b P_2 is the pitch of the coarse pitch thread.