

---

---

**Aerospace — Nuts, anchor, self-locking, fixed, two lug, reduced series, with counterbore, with MJ threads, classifications: 1 100 MPa (at ambient temperature)/235 °C, 1 100 MPa (at ambient temperature)/315 °C and 1 100 MPa (at ambient temperature)/425 °C — Dimensions**

*Aéronautique et espace — Écrous à river, à freinage interne, fixes, double patte, série réduite, avec chambrage, à filetage MJ, classifications: 1 100 MPa (à température ambiante)/235 °C, 1 100 MPa (à température ambiante)/315 °C et 1 100 MPa (à température ambiante)/425 °C — Dimensions*



## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 3225 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 4, *Aerospace fastener systems*.

This second edition cancels and replaces the first edition (ISO 3225:1985), which has been technically revised.

© ISO 1998

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization  
Case postale 56 • CH-1211 Genève 20 • Switzerland  
Internet iso@iso.ch

Printed in Switzerland

## Introduction

The dimensions specified in this International Standard have been determined to allow production of a part that will satisfy the requirements of the procurement specification ISO 5858.

STANDARDSISO.COM : Click to view the full PDF of ISO 3225:1998

[STANDARDSISO.COM](https://standardsiso.com) : Click to view the full PDF of ISO 3225:1998

# Aerospace — Nuts, anchor, self-locking, fixed, two lug, reduced series, with counterbore, with MJ threads, classifications: 1 100 MPa (at ambient temperature)/235 °C, 1 100 MPa (at ambient temperature)/315 °C and 1 100 MPa (at ambient temperature)/425 °C — Dimensions

## 1 Scope

This International Standard specifies the dimensions of self-locking, fixed, two lug anchor nuts, reduced series, with counterbore, with MJ threads, of classifications: 1 100 MPa<sup>1)</sup>/235 °C<sup>2)</sup>, 1 100 MPa<sup>1)</sup>/315 °C<sup>2)</sup> and 1 100 MPa<sup>1)</sup>/425 °C<sup>2)</sup>.

This International Standard is only applicable for the compilation of aerospace product standards.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 5855-2:1988, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*.

ISO 5858:1991, *Aerospace — Self-locking nuts with maximum operating temperature less than or equal to 425 °C — Procurement specification*.

ISO 8788:1987, *Aerospace — Fasteners — Tolerances of form and position for nuts*.

## 3 Configuration and dimensions

See Figure 1 and Table 1. Dimensions and tolerances are expressed in millimetres. They apply after any surface coating(s) but before the application of any lubricant.

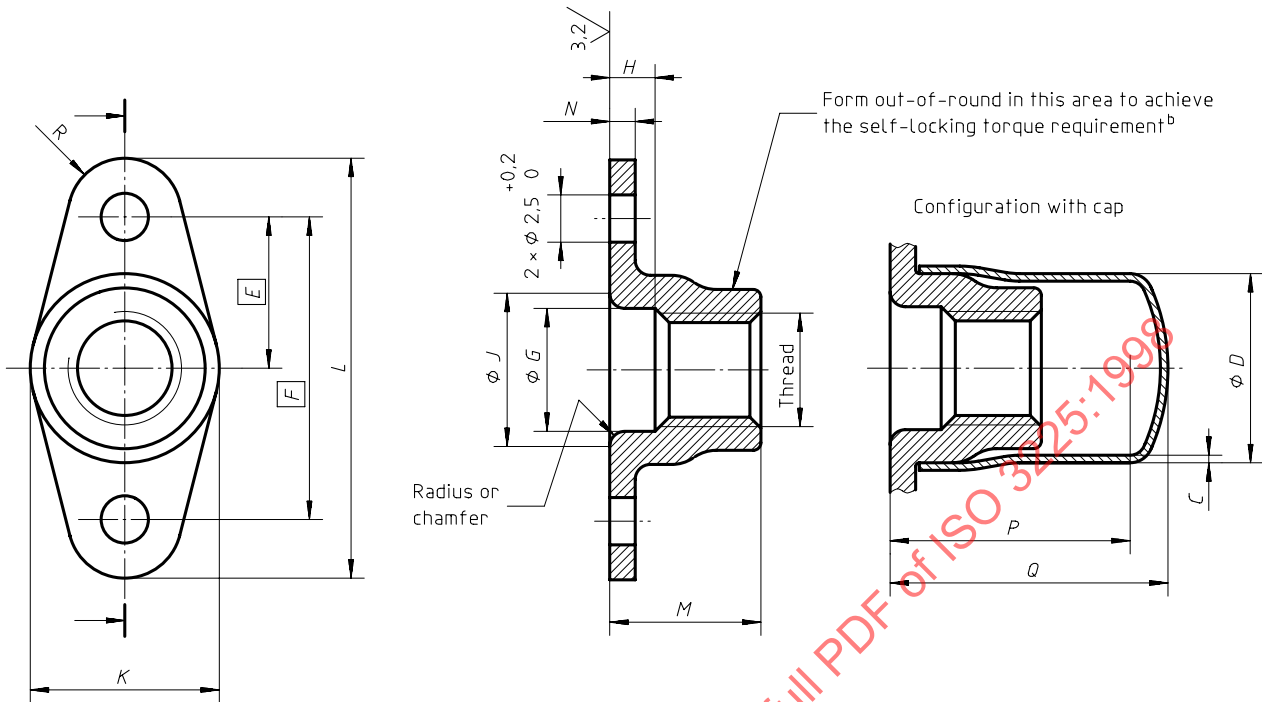
The metallic cap (optional) shall remain joined to the nut at the maximum operating temperature (type of attachment at the user's discretion). See ISO 5858 for the test conditions.

1) Corresponds to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

2) Maximum temperature that the nut is able to withstand, without permanent alteration to its original characteristics, after ambient temperature has been restored. The maximum temperature is conditioned by the surface treatment.

6,3 / (3,2)<sup>a</sup>

Remove sharp edges 0,1 to 0,4



Tolerances of form and position shall conform to those specified in ISO 8788. Details of form not stated are at the manufacturer's discretion.

- a These values, in micrometres, apply before any surface coating(s) is (are) applied. The values do not apply to threads, punched holes or shear edges the surface texture of which will be as achieved by the usual manufacturing methods.
- b Tooling marks permissible in this area

Figure 1

Table 1

Diameter code	Thread <sup>a</sup>	C	D	E	F	G	H	J <sup>b</sup>	K	L	M	N	P <sup>c</sup>	Q	R
		max.	max.			min.	min.	max.	max.	max.	max.	max.	max.	max.	≈
040	MJ4 × 0,7-4H6H	0,4	6,6	6	12	4,4	2,2	6,2	8	17,2	5,8	1,1	11	13	2,5
050	MJ5 × 0,8-4H6H		8,1	7	14	5,5	2,4	6,3	9	19,2	6,9		11,4	13,4	
060	MJ6 × 1-4H5H		9,2	8	16	6,5	2,7	8,7	10	22,2	8,1	1,35	12,7	14,7	

a In accordance with ISO 5855-2. In the self-locking zone, the tolerances apply before forming out-of-round.

b Measured at sharp corners (chamfered) or point of tangency (radiused)

c Maximum protrusion of the bolt