
**Aerospace — Nuts, anchor, self-locking,
fixed, single lug, 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, simple
patte, 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

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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 3168 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 3168:1986), which has been technically revised.

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Introduction

The dimensions specified in this International Standard have been determined to satisfy the requirements of the procurement specification of ISO 5858.

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Aerospace — Nuts, anchor, self-locking, fixed, single lug, with counterbore, with MJ threads, classifications: 1 100 MPa (at ambient temperature)/235 °C and 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, single lug anchor nuts, with counterbore, with MJ threads, for classifications 1 100 MPa¹/235 °C², 1 100 MPa¹/315 °C² and 1 100 MPa¹/425 °C².

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

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO 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 (type of attachment at the user's discretion) to the nut at the maximum operating temperature. See test conditions specified in ISO 5858.

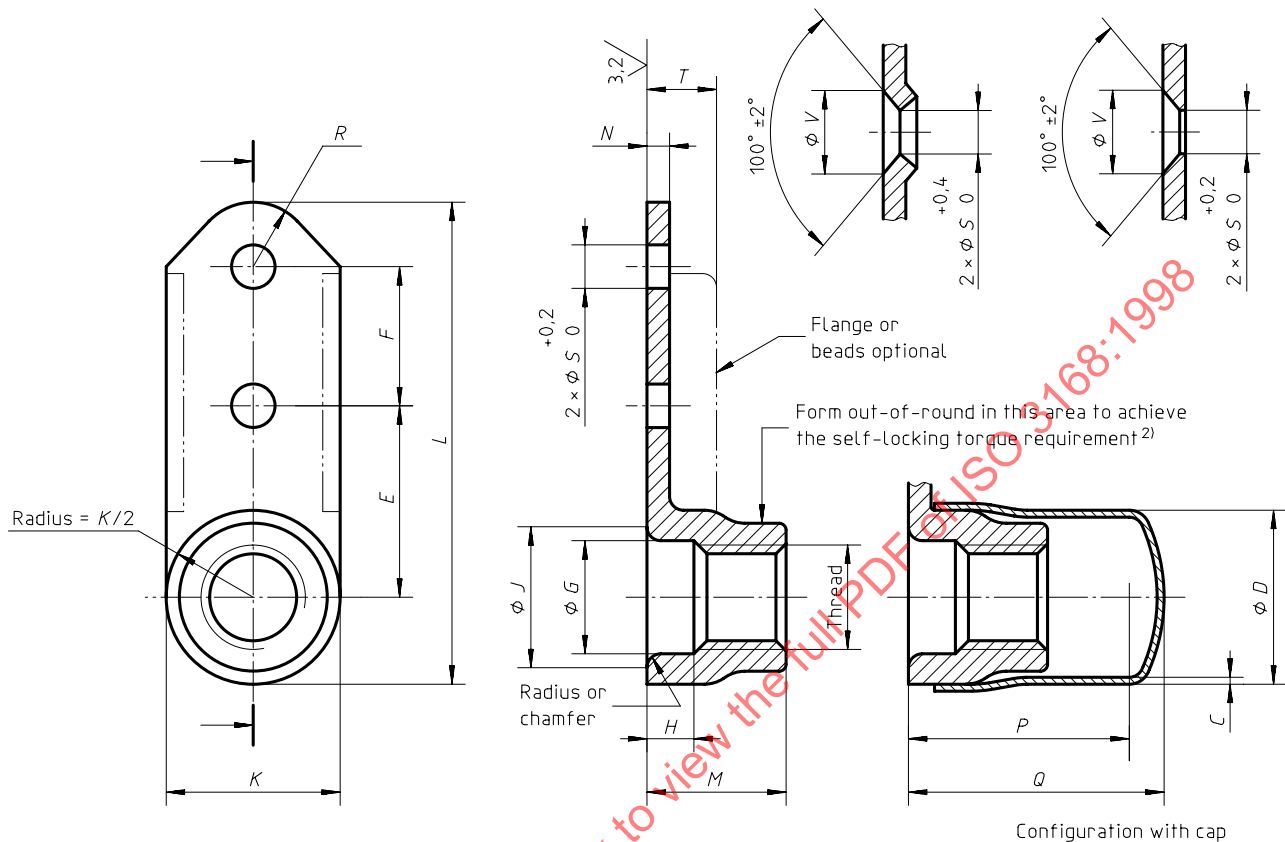
1) Corresponds to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

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.

$$6,3 / (3,2)^{1)}$$

Remove sharp edges 0,1 to 0,4

Alternatives: countersunk rivet holes (when specified by purchaser) may be dimpled or cut countersunk (at manufacturer's option)



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

1) 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.

2) Tooling marks permissible in this area.

Figure 1

Table 1

Diameter code	Thread ¹⁾	C max.	D max.	E	F	G min.	H min.	J ²⁾ max.	K max.	L max.	M max.	N max.	P ³⁾ max.	Q max.	R ≈	S	T max.	V ± 0,25
030	MJ3 × 0,5 – 4H6H	—	—	6	6	—	—	4,6	6	17,7	3,2	—	—	—	2,5	—	1,6	—
040	MJ4 × 0,7 – 4H6H	—	6,6	8,5	—	4,4	2,2	6,2	8	23,7	5,8	1,1	11	13	—	2,5	2,9	—
050	MJ5 × 0,8 – 4H6H	0,4	8,1	9,5	8	5,5	2,4	7,3	9	25,2	6,9	—	11,4	13,4	3	—	3,5	—
060	MJ6 × 1 – 4H5H	—	9,2	—	—	6,5	—	8,7	10	27,7	8,1	1,3	12,7	14,7	—	—	4	—
080	MJ8 × 1 – 4H5H	—	12,8	11	—	8,5	2,7	10,9	13	29,7	9,9	1,7	15	18	3,5	3	5	5,7
100	MJ10 × 1,25 – 4H5H	0,5	15	13	8,5	10,5	3	12,9	16,2	34,3	12	1,9	20,2	22	4,5	3,5	6	6,6

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

2) Measured at sharp corners (chamfered) or points of tangency (radiused).

3) Maximum protrusion of the bolt.