INTERNATIONAL STANDARD

ISO 3209

First edition
1989-10-15

Aerospace — Nuts, anchor, self-locking, floating, two-lug, with counterbore, with MJ threads, coated or uncoated, classification 1 100 MPa/235 °C, 1 100 MPa/315 °C or 1 100 MPa/425 °C — Dimensions

Aéronautique et espace — Écrous à river, à freinage interne, à filetage MJ, flottants, double patte, avec chambrage, revêtus ou non revêtus, de classification 1 100 MPa/235 °C, 1 100 MPa/315 °C *ou* 1 100 Mpa/425 °C — *Dimensions*

Reference number
ISO 3209 : 1989 (E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3209 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*.

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Introduction

The dimensions laid down in this International Standard have been specified so as to satisfy the requirements laid down in ISO 5858 : — [1], *Aerospace — Self-locking nuts with maximum operating temperature less than or equal to 425 °C — Procurement specification.*

1) To be published.

Aerospace — Nuts, anchor, self-locking, floating, two-lug, with counterbore, with MJ threads, coated or uncoated, classification 1 100 MPa/235 °C, 1 100 MPa/315 °C or 1 100 MPa/425 °C — Dimensions

1 Scope

This International Standard lays down the dimensions for floating, two-lug counterbored anchor nuts, with MJ threads, coated or uncoated, with a self-locking feature achieved by forming the upper portion out-of-round and with a classification of

— 1 100 MPa/235 °C; or

— 1 100 MPa/315 °C; or

— 1 100 MPa/425 °C.

This International Standard is intended solely for the drawing up of product standards appropriate for aerospace use.

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

3 Configuration and dimensions

See figure 1 and table 1. Dimensions are expressed in millimetres.

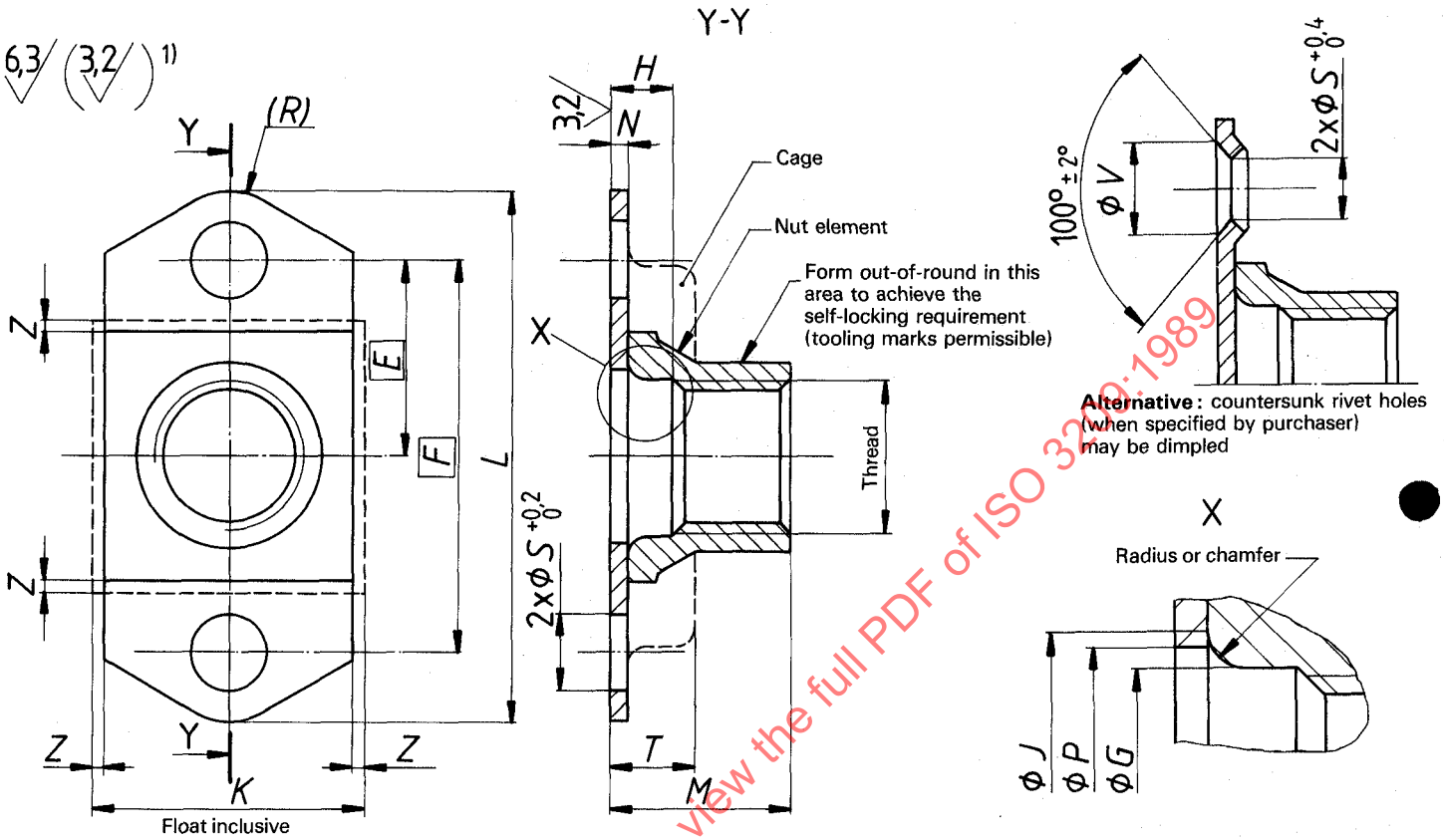

Figure 1 [2]

Table 1 [3], [4], [5]

Size code	Thread [6]	*E*	*F*	*G* min.	*H* min.	*J* [7] max.	*K* max.	*L* max.	*M* max.	*N* [8] max.	*P* min.	*R*	*S*	*T* max.	*V* ±0,25	Radial float *Z* min.
030	MJ 3×0,5—4H6H	8,5	17	[9]	[9]	4,6	11	23,2	4	0,9	4,5	3	2,5	4,5	4,8	0,5
040	MJ 4×0,7—4H6H	8,5	17	4,4	2,2	6,2	11	23,2	5,8	0,9	5,5	3	2,5	4,5	4,8	0,5
050	MJ 5×0,8—4H6H	9,5	19	5,5	2,4	7,3	12	25,2	6,9	0,9	6,5	3	2,5	4,5	4,8	0,7
060	MJ 6×1—4H5H	11	22	6,5	2,7	8,7	13,5	29,2	8,1	0,9	7,5	3,5	2,5	4,6	4,8	0,7
080	MJ 8×1—4H5H	11	22	8,5	2,7	10,9	16	29,2	9,9	1,1	9,5	3,5	3	5,5	5,7	0,75
100	MJ10×1,25—4H5H	13	26	10,5	3	12,9	18	35,2	12	1,1	11,5	4,5	3,5	6	6,6	0,75

1) These values, in micrometres, are applicable before any coating is applied. This requirement does not apply to threads, punched holes or sheared edges, the surface texture of which will be as achieved by the usual manufacturing methods.

2) Details of form not stated are left to the manufacturer's discretion.

3) The dimensions and tolerances are applicable after any coating has been applied, but before the application of any dry film lubricant.

4) Remove sharp edges 0,1 to 0,4.

5) The tolerances of form and position are laid down in ISO 8788.

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

7) Measured to points of tangency (radiused) or to sharp corners (chamfered).

8) Sheet thickness, applicable at the rivet location.

9) This nut does not have a counterbore.