INTERNATIONAL STANDARD

ISO 8940

Second edition
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Aerospace — Nuts, anchor, self-locking, sealing, floating, two-lug, with counterbore, with MJ threads, classifications: 900 MPa (at ambient temperature)/120 °C, 900 MPa (at ambient temperature)/175 °C and 900 MPa (at ambient temperature)/235 °C — Dimensions

Aéronautique et espace — Écrous à river, à freinage interne, étanches, flottants, double patte, avec chambrage, à filetage MJ, classifications: 900 MPa (à température ambiante)/120 °C, 900 MPa (à température ambiante)/175 °C et 900 MPa (à température ambiante)/235 °C — Dimensions

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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.

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

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8940 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 8940:1988), which has been technically revised.

Introduction

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

Aerospace — Nuts, anchor, self-locking, sealing, floating, two-lug, with counterbore, with MJ threads, classifications: 900 MPa (at ambient temperature)/120 °C, 900 MPa (at ambient temperature)/175 °C and 900 MPa (at ambient temperature)/ 235 °C — Dimensions

1 Scope

This International Standard specifies the dimensions of self-locking, sealing, floating, two-lug anchor nuts, with counterbore, with MJ threads, for classifications: 900 MPa[1)]/120 °C[2)], 900 MPa[1)]/175 °C[2)] and 900 MPa[1)]/235 °C[2)].

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 5855-2:1999, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*

ISO 8788:2000, *Aerospace — Nuts, metric — Tolerances of form and position*

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.

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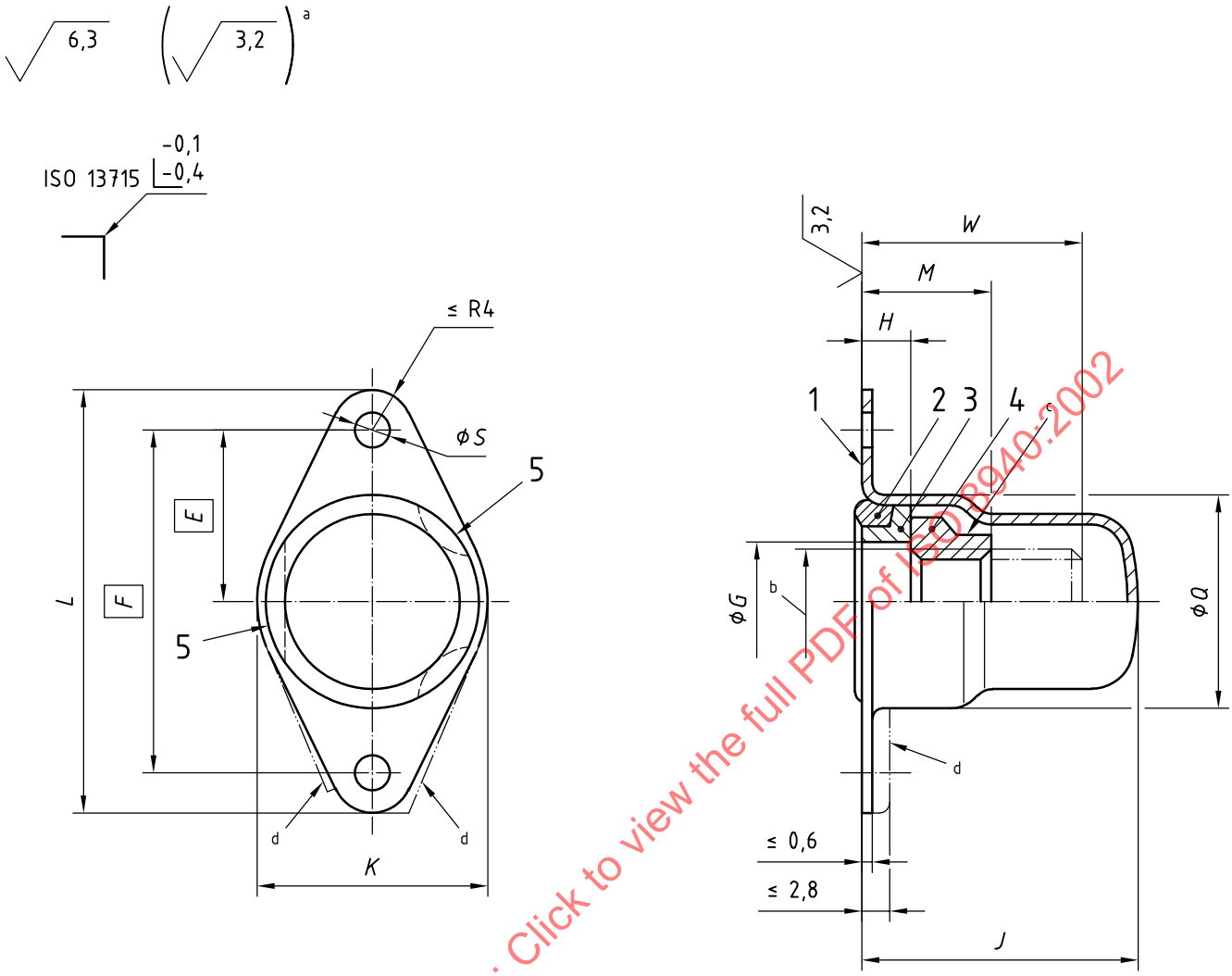
1) Corresponds to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

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 sealing ring material or by the surface treatment.



Key

1 Shell
2 Seal
3 Seal retainer
4 Threaded element
5 Threaded element anti-rotational device (form at manufacturer's discretion)

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 Thread.

c Form out-of-round in this area to achieve the self-locking requirement. Tooling marks permissible in this area.

d Choice of flange at manufacturer's discretion.

Figure 1

Table 1

Diameter code	Thread [a]	*E*	*F*	*G* min.	*H* min.	*J* max.	*K* max.	*L* max.	*M* max.	*Q* max.	*S* $^{+0,2}_{0}$	*W* [b] max.	Radial float of the thread element min.
050	MJ5 × 0,8-4H6H	9,5	19	6	3,4	16,2	14,4	24,6	7,9	12,5	2,5	14,4	0,5
060	MJ6 × 1-4H5H	11	22	7	4,1	19,2	17	29	9,5	16		17,4	
080	MJ8 × 1-4H5H	13	26	9		20,3	19,4	32,5	11,3	18,5	3	18,5	

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

[b] Maximum intrusion of the bolt.

Bibliography

[1] ISO 5858:1999, *Aerospace — Nuts, self-locking, with maximum operating temperature less than or equal to 425 °C — Procurement specification*

[2] ISO 13715:2000, *Technical drawings — Edges of undefined shape — Vocabulary and indications*