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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

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Aerospace — Nuts, spline-drive, self-locking, with MJ threads, coated or uncoated, classification 1 100 MPa/650 °C, 1 250 MPa/760 °C, 1 550 MPa/235 °C or 1 550 MPa/650 °C — Dimensions

Aéronautique et espace — Écrous cannelés à freinage interne, à filetage MJ, revêtus ou non revêtus, de classification 1 100 MPa/650 °C, 1 250 MPa/760 °C, 1 550 MPa/235 °C *ou* 1 550 MPa/650 °C — *Dimensions*

Reference number
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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.

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 9157 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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0 Introduction

The dimensions laid down in this International Standard have been specified so as to satisfy the requirements laid down in ISO 5858 or ISO 8641 (depending on the classification of the nut).

1 Scope

This International Standard lays down the dimensions for nuts, with spline drive per ISO 7403, MJ thread, a self-locking feature achieved by forming the upper portion out-of-round, coated or uncoated, and with a classification of

- 1 100 MPa/650 °C; or
- 1 250 MPa/760 °C; or
- 1 550 MPa/235 °C; or
- 1 550 MPa/650 °C.

2 Field of application

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

3 References

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

ISO 5858, *Aerospace — Self-locking nuts with maximum operating temperature less than or equal to* 425 °C *— Procurement specification.*[1]

ISO 7403, *Fasteners for aerospace construction — Spline drive wrenching configuration — Metric series.*

ISO 8641, *Aerospace — Self-locking nuts with maximum operating temperature greater than* 425 °C *— Procurement specification.*

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

1) At present at the stage of draft.

4 Configuration and dimensions

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

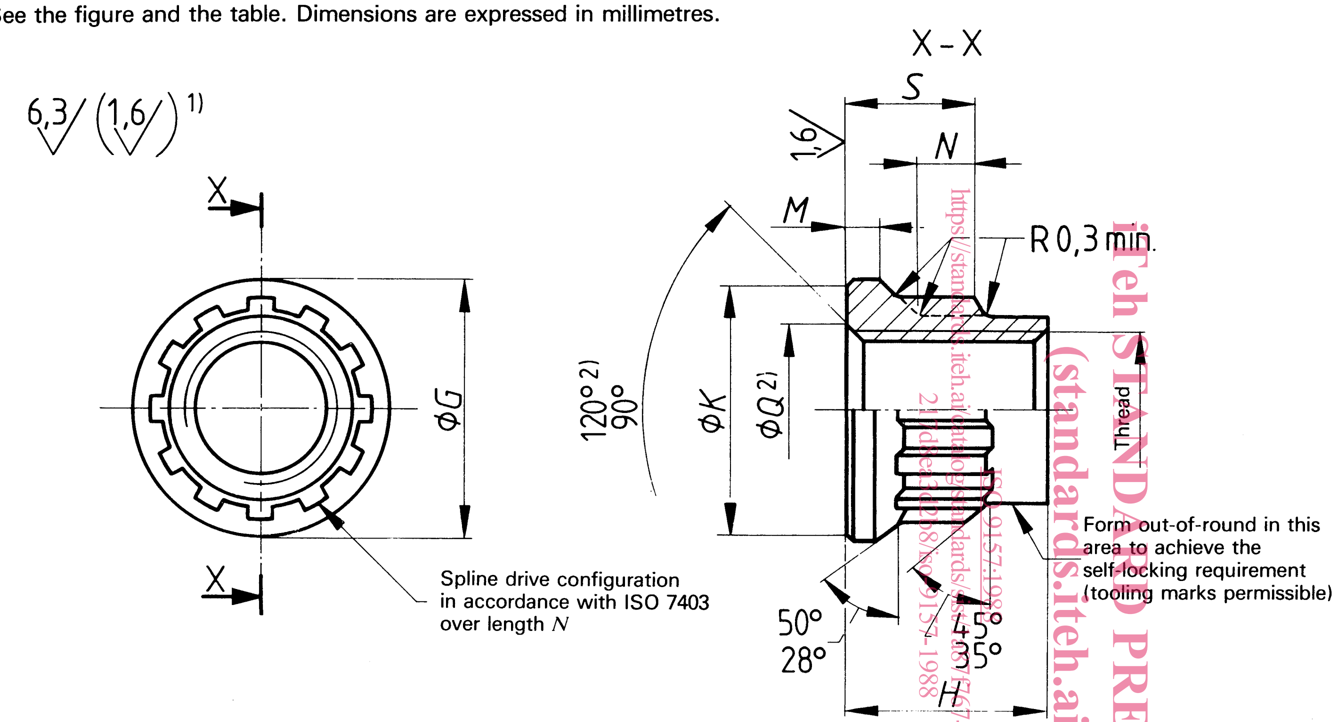

Figure 3)

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Table 4), 5), 6)

Size code	Thread 7)	Spline drive ISO 7403 Dash No.	G max.	H max.	K min.	M min.	N 8) min.	Q max.	Q min.	S max.
040	MJ 4 × 0,7 – 4H6H	**060**	7,4	5,6	6,7	1,2	1,8	4,8	4,2	4,2
050	MJ 5 × 0,8 – 4H6H	**070**	9,1	7	8,3	1,2	2	5,8	5,2	4,9
060	MJ 6 × 1 – 4H5H	**080**	10,6	8,1	9,8	1,2	2,3	7,1	6,3	5,5
070	MJ 7 × 1 – 4H5H	**090**	12,1	9,1	11,3	1,2	2,6	8,1	7,3	6,1
080	MJ 8 × 1 – 4H5H	**100**	13,6	10,4	12,8	1,2	2,8	9,1	8,3	6,7
100	MJ10 × 1,25 – 4H5H	**120**	16,8	13	15,8	1,2	3,1	11,1	10,3	8,1
120	MJ12 × 1,25 – 4H5H	**140**	19,9	15	18,8	1,4	3,5	13,1	12,3	9,5
140	MJ14 × 1,5 – 4H5H	**170**	23	17,5	21,9	1,7	4	15,2	14,4	10,7
160	MJ16 × 1,5 – 4H5H	**190**	26	20	24,9	1,9	4,7	17,2	16,4	12,3
180	MJ18 × 1,5 – 4H5H	**220**	29,1	22,5	28	2,1	5,6	19,2	18,4	13,7
200	MJ20 × 1,5 – 4H5H	**240**	32,3	25	31,2	2,3	6,8	21,2	20,4	15,8
220	MJ22 × 1,5 – 4H5H	**270**	35,4	27,5	34,3	2,5	8,3	23,2	22,4	17,6
240	MJ24 × 2 – 4H5H	**300**	38	30	36,9	2,7	10,1	25,3	24,5	19,4

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) All forms of entry (radius or chamfer) are permissible within these limiting dimensions.

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

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

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

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

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

8) Wrench pad engagement.

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