

**Aerospace series —
Nuts, hexagonal, self-
locking, ball seat, in
heat resisting steel,
MoS₂ lubricated —
Classification: 900
MPa (at ambient
temperature) / 315 °C**

ICS 49.030.30

National foreword

This British Standard is the UK implementation of EN 3763:2010.

The UK participation in its preparation was entrusted to Technical Committee ACE/12, Aerospace fasteners and fastening systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Aerospace series - Nuts, hexagonal, self-locking, ball seat, in heat resisting steel, MoS₂ lubricated - Classification: 900 MPa (at ambient temperature) / 315 °C

Série aéronautique - Écrous hexagonaux, à freinage interne, orientables, en acier résistant à chaud, lubrifiés MoS₂ - Classification: 900 MPa (à température ambiante) / 315 °C

Luft- und Raumfahrt - Sechskantmuttern, selbstsichernd, für Neigungsausgleich, aus hochwarmfestem Stahl, MoS₂-geschmiert - Klasse: 900 MPa (bei Raumtemperatur) / 315 °C

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Foreword

This document (EN 3763:2010) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2010, and conflicting national standards shall be withdrawn at the latest by July 2010.

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1 Scope

This standard specifies the characteristics of self-locking hexagonal nuts with ball seat in heat resisting steel, MoS₂ lubricated.

Classification: 900 MPa¹⁾ / 315 °C²⁾.

They are intended to be used with washers to EN 3764 or suitable parts, see Annex A.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

EN 3764, *Aerospace series — Washers, concave, in heat resisting steel, passivated³⁾*

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defense Organizations*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

TR 3791, *Aerospace series — Materials for self-locking nuts, threaded inserts and screw thread inserts of temperature classes ≤ 425 °C⁴⁾*

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

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

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

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.

3) Published as ASD-STAN Prestandard at the date of publication of this standard.

4) Published as ASD-STAN Technical Report at the date of publication of this standard.

3 Required characteristics

3.1 Configuration — Dimensions — Masses

See Figure 1 and Table 1.

Dimensions and tolerances are expressed in millimetres and apply before MoS₂ lubrication.

Details of form not stated are at the manufacturer's option.

3.2 Tolerances of form and position

ISO 8788.

3.3 Materials

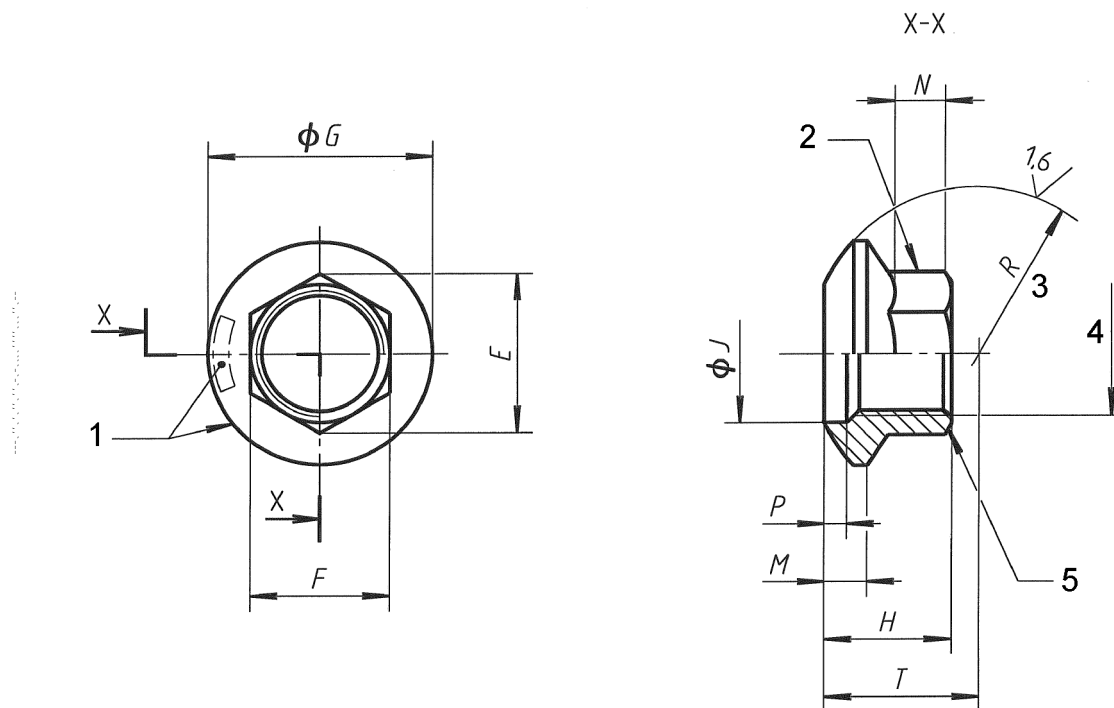
TR 3791.

3.4 Surface treatment

EN 2491, thickness not specified.

6,3 / [1,6] These values in micrometres apply before surface treatment. They do not apply to threads the surface texture of which will be as achieved by usual manufacturing methods.

Remove sharp edges 0,1 to 0,4.



Key

- 1 Marking (optional location, at the manufacturer's discretion)
- 2 Form out-of-round in this area to achieve the self-locking torque requirement. Tooling marks are permitted in this area.
- 3 Spherical
- 4 Thread
- 5 Chamfer, radius or broken edge

Figure 1

Table 1

Diameter code	Thread ^a	E ^b min.	F ^b	h12	G	H	J	M	N	P	R	T	Mass ^c
					± 0,2	max.	min.	min.	min.	min.	0 - 0,5		
050	MJ5×0,8-4H6H	6,5	6	h12	10,3	7,05	5,5	1,7	2	2,05	8	7,5	1,7
060	MJ6×1-4H5H	7,6	7		13	8,1	6,5	2,5	2,3	2,7	9	8,4	2,5
080	MJ8×1-4H5H	10,9	10	h13	17	9,7	8,5	3	3,2	2,5	12,5	11,75	6,5
100	MJ10×1,25-4H5H	13,2	12		21	11,95	10,5	4	3,3	2,95	16	15,1	11,3
120	MJ12×1,25-4H5H	15,5	14		24	13,46	12,5	4,5	4,5	2,65	18	16,9	17,4

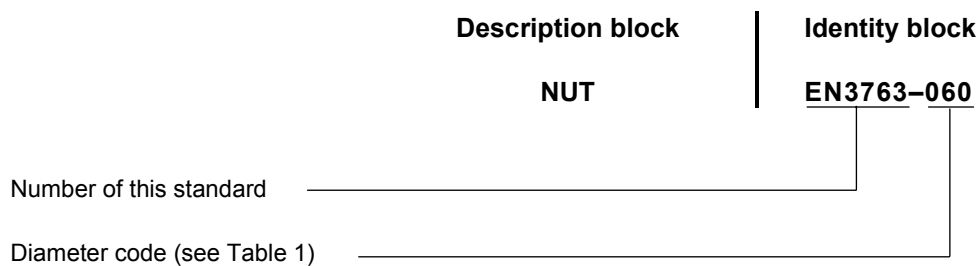
^a In accordance with ISO 5855-2. In the self-locking zone, the tolerances apply before forming out-of-round.

^b These dimensions apply before forming out-of-round, but finished nuts shall fit a standard socket wrench.

^c Approximate values (kg/1 000 pieces), given for information purposes only.

4 Designation

EXAMPLE



NOTE If necessary the originator code I9005 shall be placed between the description block and the identity block.

5 Marking

EN 2424, style N plus diameter code. See Figure 1.

6 Technical specification

ISO 5858, except for:

- Approval of manufacturers: see EN 9100;
- Qualification of products, nut and washer (EN 3764): see EN 9133.

Annex A (informative)

Assembly

A.1 Dimensions

See Figure A.1 and Table A.1.

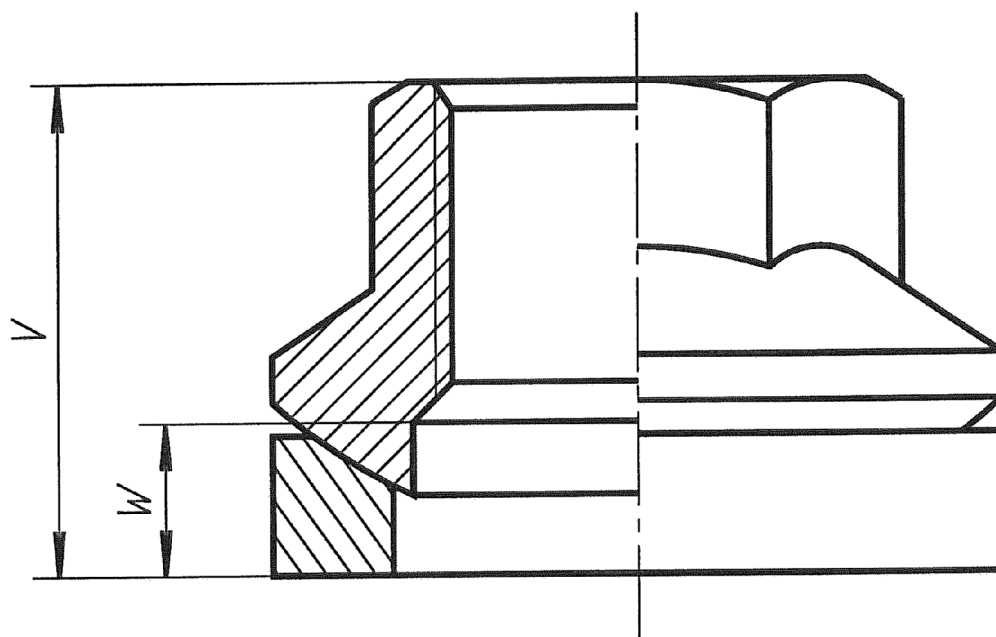


Figure A.1

Table A.1

Diameter code	V max.	W min.
050	8,25	3,05
060	9,1	3,5
080	11,4	4
100	13,95	4,75
120	16,25	5,25

A.2 Examples

See Figures A.2 and A.3.

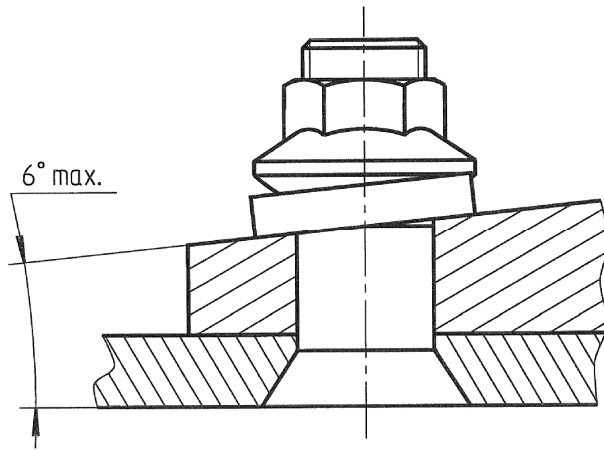


Figure A.2

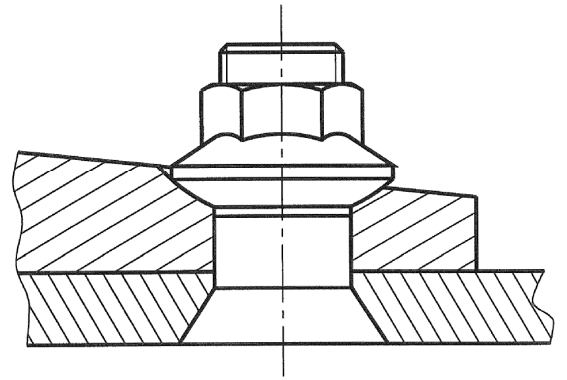


Figure A.3

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