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**Aeronavtika - Zakovne matice, samovarovalne, fiksne, rob 60°, z izvrtino za vijake, iz legiranega jekla, kadmiraane, mazane z MoS2 - Klasifikacija: 1100 MPa (pri temperaturi okolice)/235 °C**

Aerospace series - Nuts, anchor, self-locking, fixed, 60° corner, with counterbore, in alloy steel, cadmium plated, MoS2 lubricated - Classification: 1100 MPa (at ambient temperature)/235 °C

Luft- und Raumfahrt - Anniemuttern, selbstsichernd, 60° Eckflansch, mit zylindrischer Aussenkung, aus legiertem Stahl, verkadmet, MoS2-geschmiert - Klasse: 1100 MPa (bei Raumtemperatur)/235 °C

Série aérospatiale - Écrous à river, à freinage interne, fixes, d'angle 60°, avec chambrage, en acier allié, cadmiés, lubrifiés MoS2 - Classification: 1100 MPa (à température ambiante)/235 °C

**Ta slovenski standard je istoveten z: EN 3753:2010**

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**ICS:**

49.030.30      Matice      Nuts

**SIST EN 3753:2010**      **en,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 3753**

February 2010

ICS 49.030.30

English Version

**Aerospace series - Nuts, anchor, self-locking, fixed, 60° corner,  
with counterbore, in alloy steel, cadmium plated, MoS<sub>2</sub>  
lubricated - Classification: 1 100 MPa (at ambient temperature) /  
235 °C**

Série aérospatiale - Écrous à river, à freinage interne, fixes,  
d'angle 60°, avec chambrage, en acier allié, cadmiés,  
lubrifiés MoS<sub>2</sub> - Classification : 1 100 MPa (à température  
ambiante) / 235 °C

Luft- und Raumfahrt - Anniemuttern, selbstsichernd, 60°  
Eckflansch, mit zylindrischer Aussenkung, aus legiertem  
Stahl, verkadmet, MoS<sub>2</sub>-geschmiert - Klasse: 1 100 MPa  
(bei Raumtemperatur) / 235 °C

This European Standard was approved by CEN on 4 December 2009.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

SIST EN 3753:2010

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## Foreword

This document (EN 3753:2010) 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 August 2010, and conflicting national standards shall be withdrawn at the latest by August 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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## EN 3753:2010 (E)

## 1 Scope

This standard specifies the characteristics of 60° corner, counterbored fixed anchor nuts, with a self-locking feature achieved by forming the upper portion out-of-round, in alloy steel, cadmium plated, MoS<sub>2</sub> lubricated.

Classification: 1 100 MPa <sup>1)</sup> / 235 °C <sup>2)</sup>.

## 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 2133, *Aerospace series — Cadmium plating of steels with specified tensile strength  $\leq 1\,450$  MPa, copper, copper alloys and nickel alloys*

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

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

EN 2542, *Aerospace series — Steel FE-PL1502 (25CrMo4) — Annealed — Bar and wire —  $D_e \leq 40$  mm — For prevailing torque nuts*

EN 2543, *Aerospace series — Steel FE-PL1502 (25CrMo4) — Annealed — Sheet and strip —  $0,3 \leq a \leq 2$  mm — For prevailing torque nuts*

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*

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*

TR 3791, *Aerospace series — Materials for self-locking nuts, threaded inserts and screw thread inserts of temperature classes  $\leq 425$  °C <sup>3)</sup>*

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1) Corresponds to strength class of the associated bolt, the 100 % load of which it is able to withstand, when tested at ambient temperature, without breaking or cracking.

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 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 after cadmium plating but before MoS<sub>2</sub> lubrication.

Form and position tolerances shall be in conformity with ISO 8788.

#### 3.2 Materials

EN 2542, EN 2543 or TR 3791.

#### 3.3 Surface treatment

EN 2133, 5 µm minimum on threads and all surfaces which can be contacted by a 20 mm diameter ball. On all other surfaces a continuous deposit shall be present, plus EN 2491, thickness not specified.

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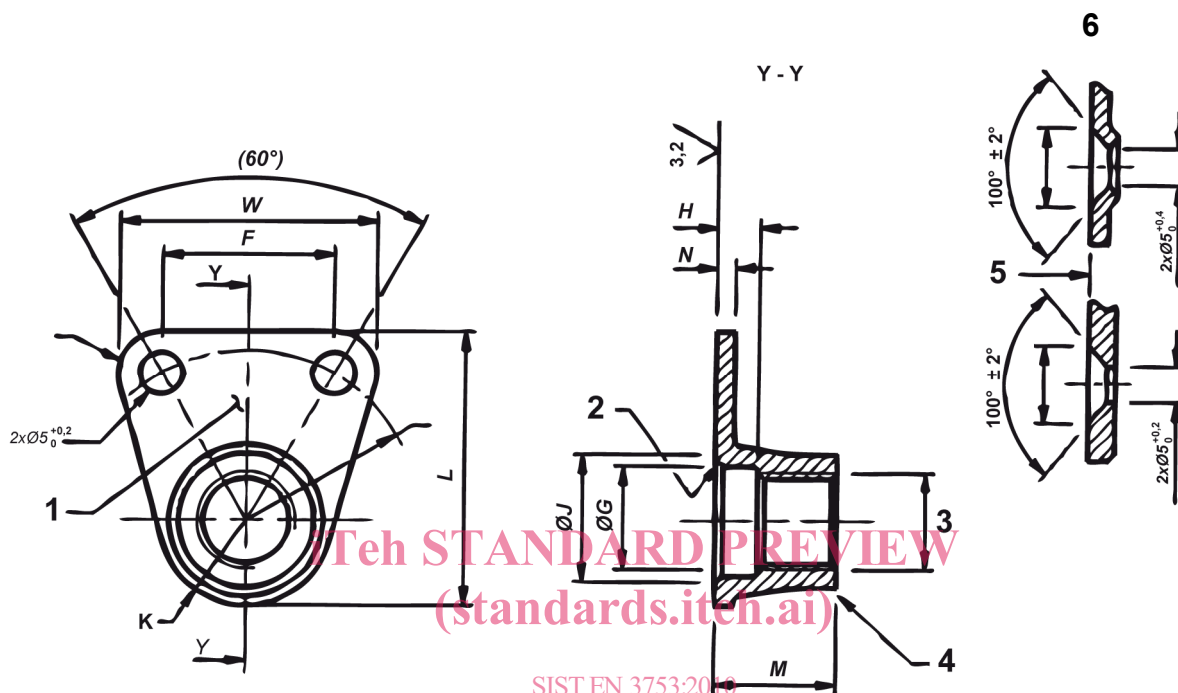
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## EN 3753:2010 (E)

$\sqrt{6,3}$      $\left[ \sqrt{3,2} \right]$     These values in micrometres apply before surface treatment. The values do not apply to threads and sheared edges the surface texture of which will be achieved by usual manufacturing methods.

Remove sharp edges 0,1 to 0,4.

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



## Key

- 1 Marking
- 2 Radius or chamfer
- 3 Thread
- 4 Form out-of-round in this area to achieve self-locking. Tooling marks are permitted in this area.
- 5 Bearing face of the nut
- 6 Alternatives: countersunk rivet holes (when specified by purchaser) may be dimpled or cut countersunk (at manufacturer's option).

Figure 1

Table 1

| Diameter code | Thread <sup>a</sup> | <i>E</i> | <i>F</i> | <i>G</i><br>min. | <i>H</i><br>min. | <i>J</i> <sup>b</sup><br>max. | <i>K</i><br>max. | <i>L</i><br>max. | <i>M</i><br>max. | <i>N</i> <sup>c</sup><br>max. | <i>R</i> | <i>S</i> | <i>V</i><br>± 0,25 | <i>W</i> | Mass<br>kg/1 000<br>pieces<br>approx. |
|---------------|---------------------|----------|----------|------------------|------------------|-------------------------------|------------------|------------------|------------------|-------------------------------|----------|----------|--------------------|----------|---------------------------------------|
| 030           | MJ3×0,5-4H6H        | 6        | 6        | d                | d                | 4,6                           | 3                | 10,9             | 3,2              | 1                             | 2,5      | 2,5      | 4,8                | 11       | 0,55                                  |
| 040           | MJ4×0,7-4H6H        | 8,5      | 8,5      | 4,4              | 2,2              | 6,2                           | 4                | 14,6             | 5,8              |                               | 3        |          |                    | 14,5     | 1,30                                  |
| 050           | MJ5×0,8-4H6H        | 9,5      | 9,5      | 5,5              | 2,4              | 7,3                           | 4,5              | 15,9             | 6,9              |                               | 3        |          |                    | 15,5     | 1,60                                  |
| 060           | MJ6×1-4H5H          | 11       | 11       | 6,5              | 2,7              | 8,7                           | 5                | 18,2             | 8,1              | 1,2                           | 3,5      | 3        | 5,7                | 18       | 2,40                                  |
| 080           | MJ8×1-4H5H          |          |          | 8,5              |                  | 10,9                          | 6,5              | 19,7             | 9,9              | 1,5                           |          |          |                    |          | 5,40                                  |
| 100           | MJ10×1,25-4H5H      | 13       | 13       | 10,5             | 3                | 12,9                          | 8,1              | 24,1             | 12               | 1,6                           | 4,5      | 3,5      | 6,6                | 22       | 8,60                                  |

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

<sup>b</sup> Is to sharp corners (chamfered) or point of tangency (radiused).

<sup>c</sup> Is applicable at the rivet hole location.

<sup>d</sup> Diameter code 030 does not have counterbore.

## 4 Designation

EXAMPLE

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Description block

Identity block

NUT

EN3753-060

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Number of this standard

Hole code (see Table 2)

Diameter code (see Table 1)

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

Table 2

| Option                             | Code       |
|------------------------------------|------------|
| Plain rivet holes                  | — (hyphen) |
| Dimpled or countersunk rivet holes | K          |