SLOVENSKI STANDARD
SIST EN 3034:2009

01-maj-2009

Aeronavtika - Matice, samozapiralne, šestrobe, z robljeno podložko, iz toplotnoodpornega jekla FE-PA92HT (A286), posrebrene - Klasifikacija: 1100 MPa/425 °C

Aerospace series - Nuts, self-locking, hexagonal with captive washer - In heat resisting steel FE-PA92HT (A286), silver coated - Classification: 1100 MPa/425 °C

Luft- und Raumfahrt - Sechskantmuttern, selbstsichernd mit Bördelscheibe - Aus hochwarmfestem Stahl FE-PA92HT (A286), versilbert - Klasse: 1100 MPa/425 °C

Série aérospatiale - Écrou hexagonaux avec rondelle captive auto-freinant, en acier résistant à chaud FE-PA92HT (A286), argenté - Classification : 1 100 MPa/425 °C

Ta slovenski standard je istoveten z: **EN 3034:2009**

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English Version

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Foreword

This document (EN 3034:2009) 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of an identical text or by endorsement, at the latest by August 2009, and conflicting national standards shall be withdrawn at the latest by August 2009.

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1 Scope

This standard specifies the dimensions of self-locking, silver coated hexagonal nuts with captive washer and MJ-thread in heat resisting steel FE-PA 92 HT (A286) for aerospace applications.

Maximum test temperature of the parts is 425 °C.

2 Normative references

EN 2399 Aerospace series - Heat resisting steel FE-PA2601 (X4NiCrTiMoV26-15) - Rm ≥ 900 MPa - Bars for forged bolts - D ≤ 25 mm

EN 2424 Aerospace series — Marking of aerospace products

EN 2516 Aerospace series — Passivation of corrosion resistant steels and decontamination of nickel base alloys

EN 2786 Aerospace series — Electrolytic silver plating of fasteners

EN 3152 Aerospace series — Nuts, self-locking, MJ threads, in heat resisting steel FE-PA2601 (A286), silver plated or uncoated — Classification: 1 100 MPa (at ambient temperature) / 425 °C — Technical specification

EN 3638 Aerospace series — Heat resisting alloy FE-PA2601(X6NiCrTiMoV26-15) — Consumable electrode remelted — Solution and precipitation treated — Sheet, strip and plate — 0,5 mm ≤ a ≤ 10 mm

EN 3639 Aerospace series — Heat resisting alloy FE-PA2601 — Softened and cold worked — Wire for forged fasteners — D ≤ 15 mm — 900 MPa ≤ R_m ≤ 1 100 MPa[1]

ISO 5855-1 Aerospace — MJ threads — Part 1: General requirements

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

3 Required characteristics

3.1 Configuration – Dimensions- Tolerances

Configuration shall be in accordance with the figure; dimensions, tolerances and masses shall conform to the figure and the table. Details of form, not stated are at the manufacturer's option. Dimensions apply after coating.

3.2 Material

Nut: Heat resisting steel FE-PA 92 HT according to EN 2399, EN 3638 or EN 3639.

Washer: Heat resisting steel FE-PA 92 HT according to EN 3638 or steel FE-PA 15.

[1] Published as ASD Prestandard at the date of publication of this standard.

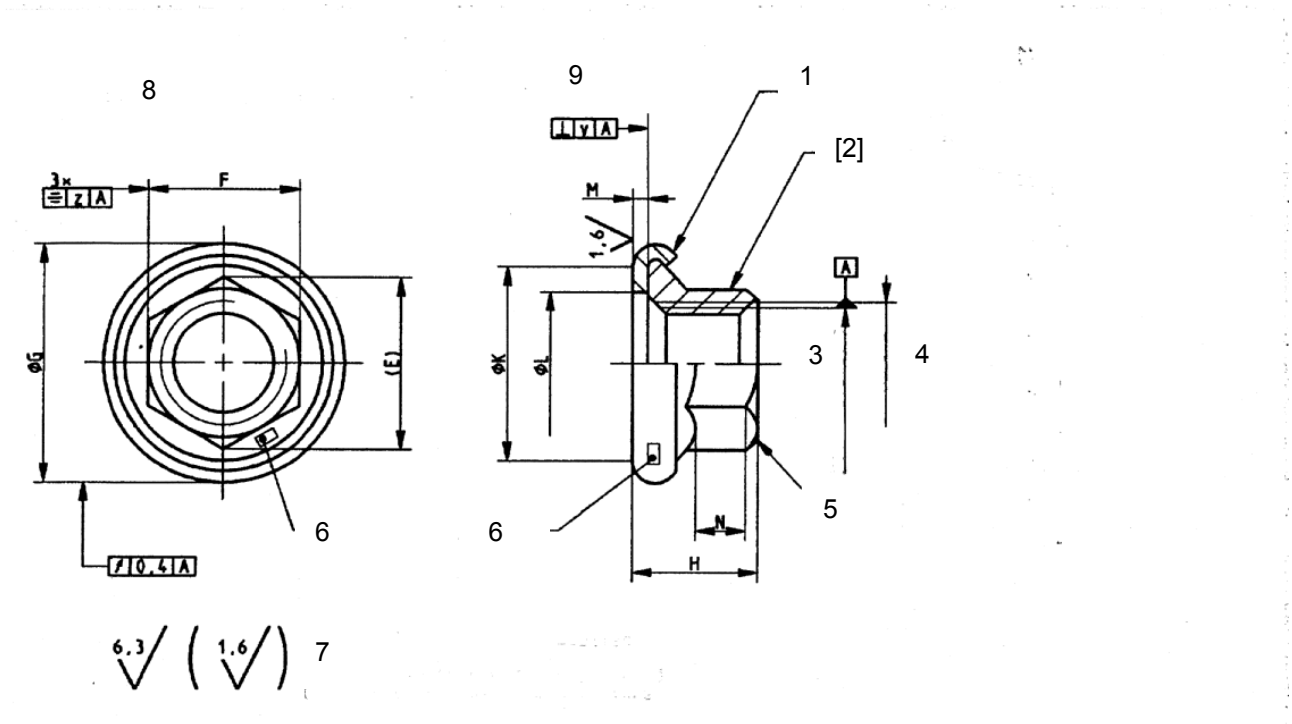
3.3 Surface treatment

Nut: Silver coat to EN 2786, coating thickness 5 µm to 15 µm.

On nuts MJ 6 and larger, the coating thickness shall not be less than 5 µm, measured at the pitch diameter.

Nuts MJ 5 and smaller shall show complete coating coverage on the threads.

Washer: Passivated to EN 2516.



Key

1 Washer shall be free to rotate on the nut

2 Form out of round in this area to achieve the self-locking torque requirements, tool marks acceptable

3 Pitch-diameter

4 Thread

5 Chamfer, radius or broken edge

6 Marking in these areas permissible (2 x)

7 These values are to be applied before silver coating. Thread's surface will be achieved by normal methods of manufacture

8 Remove sharp edges to 0,1 mm to 0,4 mm

9 Bearing surface may be flat to concave, but shall not be convex

Figure 1 — Configuration

Table 1 — Dimensions and masses

Thread[a]		E	F[b]		G	H	K	L	M	N[c]	y	z[d]	mass kg/1 000 part approx.
Code	Designation	min.		Tol	max.	max.	min.	max.	min.	min.			
030	MJ3 x 0,5 – 4H6H	4,2	4	h 12	7,2	3,4	5,2	3,8	0,4	1,2	0,1	0,2	0,35
040	MJ4 x 0,7 – 4H6H	5,3	5		8,6	4,4	6,4	4,8	0,4	1,5	0,1	0,2	0,60
050	MJ5 x 0,8 – 4H6H	6,5	6		10,9	5,6	7,6	5,8	0,4	2	0,1	0,4	0,91
060	MJ6 x 1,0 – 4H5H	7,6	7		12,4	6,0	9	6,8	0,4	2,3	0,1	0,4	1,18
070	MJ7 x 1,0 – 4H5H	8,7	8		13,9	6,9	11	8	0,4	2,7	0,1	0,4	1,77
080	MJ8 x 1,0 – 4H5H	10,9	10	h 13	15,4	7,8	12	9	0,4	3,2	0,13	0,4	3,43
100	MJ10 x 1,25 – 4H5H	13,2	12		18,6	9,6	14,7	11	0,4	3,8	0,13	0,4	5,20
120	MJ12 x 1,25 – 4H5H	15,5	14		21,7	11,4	18,5	13	0,4	4,5	0,15	0,4	10,70

a Thread in conformity with ISO 5855 part 1 and part 2. In the self-locking zone, the tolerances apply before forming out-of-round.

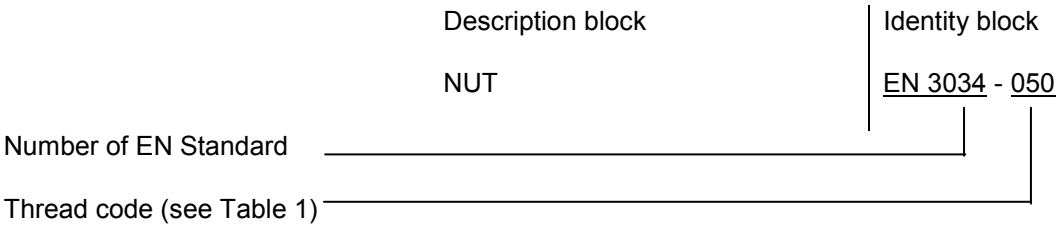
b Across flats dimensions apply before forming out-of-round, but finished nuts shall fit a standard socket wrench.

c Wrench pad engagement.

d These values apply before forming out-of-round.

4 Designation

Each hexagonal nut shall only be designated as in the following example:



NOTE If necessary, the design code I 9005 may be introduced between the description block and the identity block.

5 Marking

Each hexagonal nut shall be marked in accordance to EN 2424, class F.