

SLOVENSKI STANDARD

SIST EN 4122:2018

01-julij-2018

Nadomešča:

SIST EN 4122:2005

Aeronavtika - Zakovičene matice, samovarovalne, iz toplotno odpornega jekla FE-PA2601 (A286), posrebreni navoji - Klasifikacija: 1100 MPa (pri temperaturi okolice)/650 °C

Aerospace series - Shank nuts, self-locking, in heat resisting steel FE-PA2601 (A286), silver plated on thread - Classification: 1 100 MPa (at ambient temperature) / 650 °C

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Luft- und Raumfahrt - Einnietmuttern, selbstsichernd, aus hochwarmfestem Stahl FE-PA2601 (A286), Gewinde versilbert - Klasse: 1 100 MPa (bei Raumtemperatur) / 650 °C

SIST EN 4122:2018

Série aérospatiale - Écrous à sertir, à freinage interne, en acier résistant à chaud FE-PA2601 (A286), argentés sur filetage - Classification : 1 100 MPa (à température ambiante) / 650 °C

Ta slovenski standard je istoveten z: EN 4122:2018

ICS:

49.030.30 Matice

Nuts

SIST EN 4122:2018

en,fr,de

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EUROPEAN STANDARD

EN 4122

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2018

ICS 49.030.30

Supersedes EN 4122:2004

English Version

**Aerospace series - Shank nuts, self-locking, in heat
resisting steel FE-PA2601 (A286), silver plated on thread -
Classification: 1 100 MPa (at ambient temperature) /
650 °C**

Série aérospatiale - Écrous à sertir, à freinage interne,
en acier résistant à chaud FE-PA2601 (A286), argentés
sur filetage - Classification : 1 100 MPa (à température
ambiante) / 650 °C

Luft- und Raumfahrt - Einnietmuttern, selbstsichernd,
aus hochwärmfestem Stahl FE-PA2601 (A286),
Gewinde versilbert - Klasse: 1 100 MPa (bei
Raumtemperatur) / 650 °C

This European Standard was approved by CEN on 22 January 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 4122:2018) 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 November 2018, and conflicting national standards shall be withdrawn at the latest by November 2018.

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

This document supersedes EN 4122:2004.

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

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EN 4122:2018 (E)**1 Scope**

This document specifies the characteristics of self-locking shank nuts in FE-PA2601, silver plated on thread, for aerospace applications.

Classification: 1 100 MPa¹ / 650 °C².

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2399, *Aerospace series — Heat resisting steel FE-PA2601 (X4NiCrTiMoV26-15) — $R_m \geq 900$ MPa — Bars for forged bolts — $D \leq 25$ mm*

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

EN 2786, *Aerospace series — Electrolytic silver plating of fasteners*

EN 3004, *Aerospace series — Nuts, self-locking, MJ threads, in heat resisting steel FE-PA2601 (A286) — Classification: 1 100 MPa (at ambient temperature) / 650 °C — Technical specification*

EN 3639, *Aerospace series — Heat resisting alloy FE-PA2601 — Softened and cold worked — Wire for forged fasteners $D \leq 15$ mm — $900 \text{ MPa} \leq R_m \leq 1 100 \text{ MPa}$ ³*

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

3 Required characteristics**3.1 Configuration — Dimensions — Tolerances — Masses**

See Figure 1 and Table 1.

Dimensions and tolerances are in millimetres. They apply after silver plating for thread surface.

3.2 Materials

EN 2399 or EN 3639.

3.3 Surface treatment

EN 2786 on thread and chamfers.

Thickness:

— thread \geq MJ6: 5 μm min. on thread flanks;

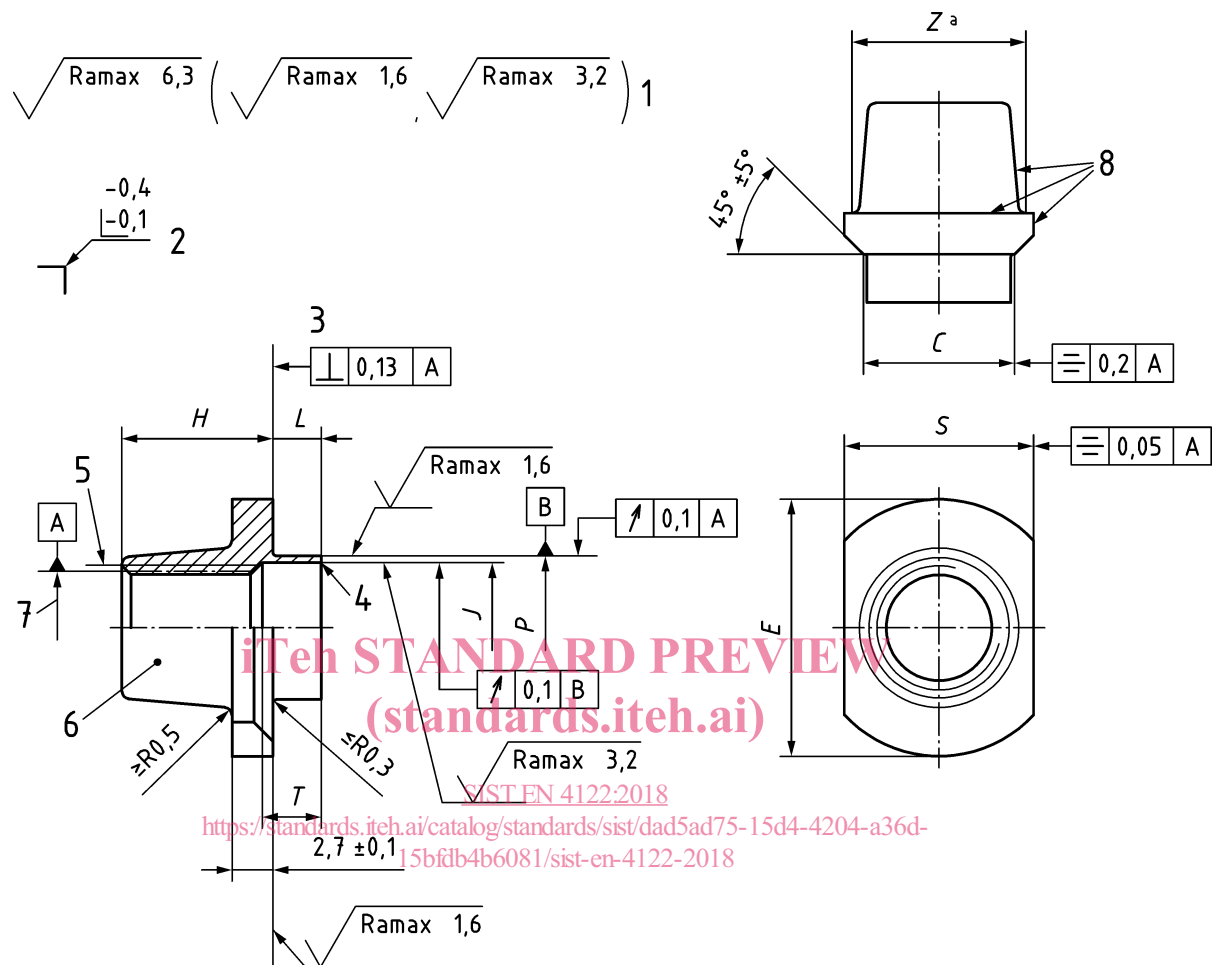
¹ Correspond to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

² Maximum test temperature of the parts.

³ Published as ASD-STAN Pre-Standard at the date of publication of this standard <http://www.asd-stan.org/>.

— thread MJ5: shall show complete coverage, without thickness requirement.

Coating may extend to counterbore and chamfers at manufacturer's option, without thickness requirement.



Key

- 1 values applicable before silver plating. Thread surface will be as achieved by normal methods of manufacture.
- 2 remove sharp edges 0,1 to 0,4.
- 3 not convex
- 4 chamfer or radius 0,08 max.
- 5 thread
- 6 form out-of-round in this area to achieve the self-locking requirement (tooling marks permissible).
- 7 pitch diameter
- 8 marking in these areas but not in locking area

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

^a Limit of the blend radius

Figure 1

EN 4122:2018 (E)

Table 1

Code	Thread ^a Designation	<i>C</i>	$\varnothing E$	<i>H</i>	$\varnothing J$	<i>L</i>		$\varnothing P$	<i>S</i>	<i>T</i>	$\varnothing Z$	Mass kg/1 000 parts ≈
		±0,1	±0,25	h14	+0,1 0	nom.	Tol.	0 -0,1	±0,1	±0,25	max.	
050	MJ5×0,8-4H6H	7	13	7	5,2	1,8	±0,10	6,5	9,5	2,4	8,5	2,7
060	MJ6×1-4H5H	8	14	8	6,2			7,5	10,5		9,5	3,35
070	MJ7×1-4H5H	9	16	9	7,2			2,8	8,5	11,5	3,4	10,5
080	MJ8×1-4H5H	10	17	10	8,2	3,2	±0,15	9,5	12,5	3,9	11,5	5,4

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

4 Designation

EXAMPLE

Description block

Identity block

NUT

EN 4122—050

Number of this standard

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Thread code (see Table 1)

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

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5 Marking

EN 2424, style A, as indicated on Figure 1.

6 Technical specification

EN 3004.