

SLOVENSKI STANDARD

SIST EN 4124:2018

01-julij-2018

Nadomešča:

SIST EN 4124:2005

**Aeronavtika - Zakovičene matice, samovarovalne, iz toplotno odporne zlitine na nikljevi osnovi NI-PH1302 (Waspaloy), posrebreni navoji, za odprtine 60° -
Klasifikacija: 1210 MPa (pri temperaturi okolice)/730 °C**

Aerospace series - Shank nuts, self-locking, in heat resisting nickel base alloy NI-PH1302 (Waspaloy), silver plated on thread, for 60° swage - Classification: 1 210 MPa (at ambient temperature) / 730 °C

Luft- und Raumfahrt - Einnietmuttern, selbstsichernd, aus hochwarmfester Nickelbasislegierung NI-PH1302 (Waspaloy), Gewinde versilbert, für 60° Aufweitung - Klasse: 1 210 MPa (bei Raumtemperatur) / 730 °C

Série aérospatiale - Écrous à sertir, à freinage interne, en alliage résistant à chaud à base de nickel NI-PH1302 (Waspaloy), argentés sur filetage, pour sertissage 60° - Classification : 1 210 MPa (à température ambiante) / 730 °C

Ta slovenski standard je istoveten z: EN 4124:2018

ICS:

49.030.30 Matice Nuts

SIST EN 4124:2018

en,fr,de

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EUROPEAN STANDARD

EN 4124

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2018

ICS 49.030.30

Supersedes EN 4124:2004

English Version

**Aerospace series - Shank nuts, self-locking, in heat
resisting nickel base alloy NI-PH1302 (Waspaloy), silver
plated on thread, for 60° swage - Classification: 1 210 MPa
(at ambient temperature) / 730 °C**

Série aérospatiale - Écrous à sertir, à freinage interne,
en alliage résistant à chaud à base de nickel NI-PH1302
(Waspaloy), argentés sur filetage, pour sertissage 60° -
Classification : 1 210 MPa (à température ambiante) /
730 °C

Luft- und Raumfahrt - Einnietmuttern, selbstsichernd,
aus hochwarmfester Nickelbasislegierung NI-PH1302
(Waspaloy), Gewinde versilbert, für 60° Aufweitung -
Klasse: 1 210 MPa (bei Raumtemperatur) / 730 °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 4124:2018) 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 4124:2004.

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, 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 4124:2018 (E)**1 Scope**

This document specifies the characteristics of self-locking shank nuts in NI-PH1302, silver plated on thread, for use in 60° cone holes, for aerospace applications.

Classification: 1 210 MPa¹ / 730 °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 2424, *Aerospace series — Marking of aerospace products*

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

EN 2959, *Aerospace series — Heat resisting alloy NI-PH1302 (NiCr20Co13Mo4Ti3Al) — Solution treated and cold worked — Bar for forged fasteners — $3 \text{ mm} \leq D \leq 30 \text{ mm}^3$*

EN 3005, *Aerospace series — Nuts, self-locking, MJ threads, in heat resisting nickel base alloy NI-PH1302 (Waspaloy), silver plated or uncoated — Classification: 1 210 MPa (at ambient temperature) / 730 °C — Technical specification*

EN 3220, *Aerospace series — Heat resisting nickel base alloy (NI-P101HT) — Cold worked and softened — Bar and wire for continuous forging or extrusion for fasteners — $3 \leq D \leq 30 \text{ mm}$*

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

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3 Required characteristics

<https://standards.iteh.ai/catalog/standards/sist/399497cd-ffd0-4dc3-83fe-ea8ea4286d49/sist-en-4124-2018>

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 2959 or EN 3220.

3.3 Surface treatment

EN 2786 on thread only.

Thickness:

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

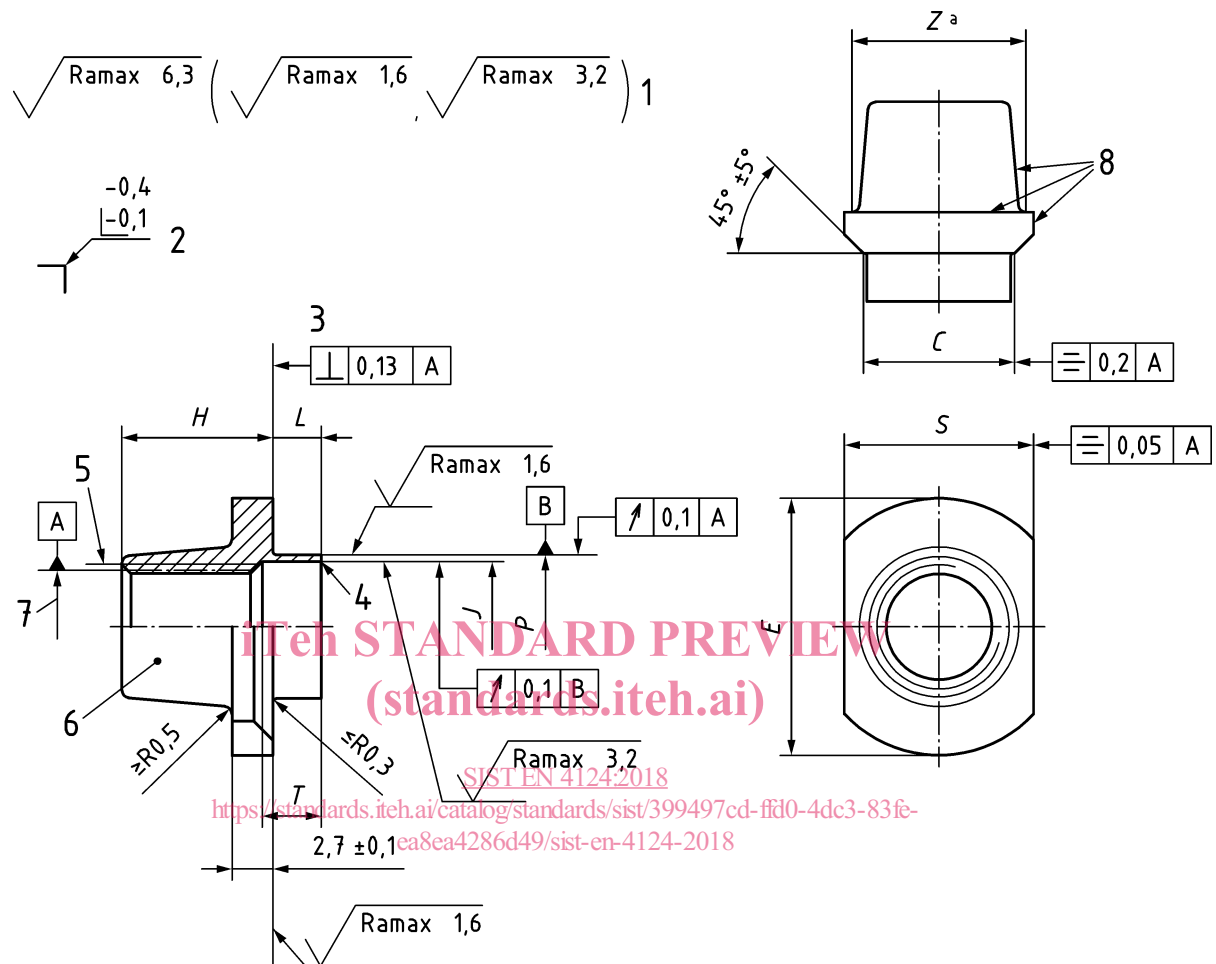
¹ Correspond to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

² Maximum test temperature of the parts.

³ Published as ASD-STAN Prestandard 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 4124:2018 (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
		$\pm 0,1$	$\pm 0,25$	h14	$+0,1$ 0	nom.	Tol.	0 -0,1	$\pm 0,1$	$\pm 0,25$	max.	\approx
050	MJ5×0,8-4H6H	7	13	7	5,2	1,8	$+0,1$ 0	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	$+0,15$ 0	8,5	11,5	3,4	10,5	4,18
080	MJ8×1-4H5H	10	17	10	8,2	3,2		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

NUT

Identity block

EN 4124-050

Number of this standard

Thread code (see Table 1)

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

5 Marking

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

6 Technical specification

EN 3005.