SLOVENSKI STANDARD
SIST EN 4443:2012

01-maj-2012

Aeronavtika - Matice z eliptičnim objemom, samoblokirne, MJ-navoji, iz jekla FE-PA2601 (A286), odpornega proti vročini, prevlečenega z MoS2, klasifikacija: 900 MPa (pri temperaturi okolja)/425 °C

Aerospace series - Nuts, elliptical clinch, self-locking, MJ threads, in heat resisting steel FE-PA2601 (A286), MoS2 coated, Classification: 900 MPa (at ambient temperature)/ 425 °C

Luft- und Raumfahrt - Einnietmutter, blind, elliptischer Kopf, selbstsichernd, MJ-Gewinde, aus hochwarmfestem Stahl FE-PA2601 (A286), MoS2 beschichtet, Klasse: 900 MPa (bei Raumtemperatur)/ 425 °C

Série aérospatiale - Écrous à tête elliptique, à freinage interne, filetage MJ, an acier résistant à chaud FE-PA2601 (A286), revêtus MoS2, Classification: 900 MPa (à température ambiante)/ 425 °C

Ta slovenski standard je istoveten z: **EN 4443:2012**

ICS:

49.030.30	Matice	Nuts

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EUROPEAN STANDARD

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ICS 49.030.30

English Version

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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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Contents

Foreword

This document (EN 4443:2012) 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of an identical text or by endorsement, at the latest by September 2012, and conflicting national standards shall be withdrawn at the latest by September 2012.

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1 Scope

This European Standard specifies characteristics of self-locking elliptical clinch nuts with MJ threads in FE-PA2601, MoS_2 coated, for aerospace applications.

Classification: 900 MPa [1] / 425 °C [2]

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

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

EN 4444, *Aerospace series — Nuts, elliptical clinch, self-locking, in heat resisting steel FE-PA2601 (A286), MoS2 coated — Classification: 900 MPa (at ambient temperature)/ 425 °C — Technical specification* [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 tables 1 and 2.

Dimensions and tolerances are in millimetres. They apply before MoS_2 coating.

3.2 Materials

EN 2399 or EN 3639

3.3 Surface treatment

EN 2491

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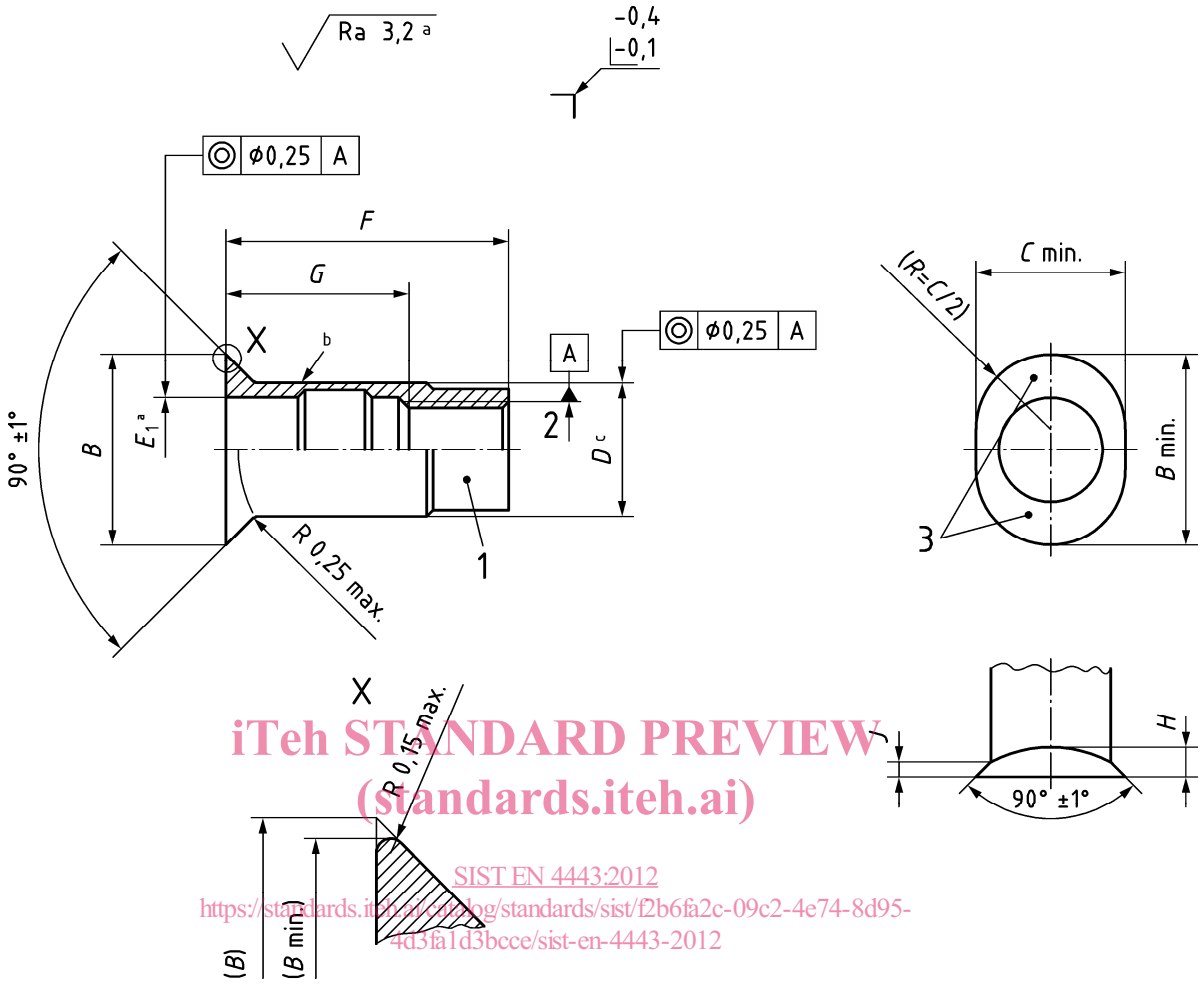
1) Corresponds to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

2) Maximum test temperature of the parts.

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

Values apply before MoS2 coating. Thread surface will be as achieved by normal methods of manufacture.



Key

1 Form out-of-round in this area to achieve the self-locking requirement (tooling marks permissible).
2 Thread
3 Marking
a Tapping marks are accepted in the E_1 diameter.
b 0,01 underhead swelling is accepted over a length less than ¼ of diameter D.
c Tolerance $^{-0,02}_{-0,07}$ on diameter D is applicable only on the nominal grip length.

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

Figure 1

Table 1

Dimensions in millimetres

Thread [a]		*B*		*C*		*D*	E_1	*H*	*J*
Code	**Designation**	$^{+0,15}_{0}$	min.	$^{+0,15}_{0}$	min.	$^{-0,02}_{-0,07}$	$^{0}_{-0,1}$	Ref.	Ref.
050	MJ5×0,8 – 4H6H	9,25	8,95	7,80	7,55	6,40	5,25	1,50	0,75
060	MJ6×1 – 4H5H	11,45	11,15	9,70	9,45	8,00	6,25	1,80	0,90
070	MJ7×1 – 4H5H	12,85	12,55	10,90	10,65	9,00	7,25	2,00	1,00
080	MJ8×1 – 4H5H	14,25	13,95	12,10	11,85	10,00	8,25	2,20	1,10

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

Table 2

Dimensions in millimetres

Grip length		Thread code																			
Code	nominal	050					060					070					080				
		Grip length		*F*	*G*	Mass [a]	Grip length		*F*	*G*	Mass [a]	Grip length		*F*	*G*	Mass [a]	Grip length		*F*	*G*	Mass [a]
		max.	min.	± 0,35	± 0,20		max.	min.	± 0,35	± 0,20		max.	min.	± 0,35	± 0,20		max.	min.	± 0,35	± 0,20	
030	3	3,50	2,00	11,80	5,60	1,20	3,50	2,00	13,80	7,80	2,33	–	–	–	–	–	–	–	–	–	–
040	4	4,75	3,25	12,80	6,70	1,29	4,75	3,25	15,00	9,00	2,49	4,75	3,25	16,30	9,40	3,28	4,75	3,25	18,00	9,80	4,01
050	5	5,75	4,25	13,80	7,70	1,38	5,75	4,25	16,00	10,00	2,65	5,75	4,25	17,30	10,40	3,47	5,75	4,25	19,00	10,80	4,22
060	6	6,75	5,25	14,80	8,70	1,46	6,75	5,25	17,00	11,00	2,82	6,75	5,25	18,30	11,40	3,65	6,75	5,25	20,00	11,80	4,43
070	7	7,75	6,25	15,80	9,70	1,55	7,75	6,25	18,00	12,00	2,98	7,75	6,25	19,30	12,40	3,84	7,75	6,25	21,00	12,80	4,64
080	8	8,75	7,25	16,80	10,70	1,64	8,75	7,25	19,00	13,00	3,14	8,75	7,25	20,30	13,40	4,02	8,75	7,25	22,00	13,80	4,85
090	9	9,75	8,25	17,80	11,70	1,73	9,75	8,25	20,00	14,00	3,30	9,75	8,25	21,30	14,40	4,20	9,75	8,25	23,00	14,80	5,06
100	10	10,75	9,25	18,80	12,70	1,82	10,75	9,25	21,00	15,00	3,46	10,75	9,25	22,30	15,40	4,39	10,75	9,25	24,00	15,80	5,27

[a] Mass ≈ quoted in kg/1 000 parts.