



SLOVENSKI STANDARD
oSIST prEN 3542:2022

01-februar-2022

Aeronavtika - Vložki s spiralnim navojem, samozapiralni, vgrajeni pogon s tangenti (tanged insertion drive), iz toplotnoodporne zlitine na nikljevi osnovi Ni-PH2801 (Inconel X750)

Aerospace series - Inserts, screw threads, helical coil, self-locking, tanged insertion drive, in heat resisting nickel base alloy NI-PH2801 (Inconel X750)

Luft- und Raumfahrt - Draht-Gewindeeinsätze, MJ-Gewinde, spiralförmig gewunden, selbstsichernd, Einsteckantrieb mit Zapfen, aus hochwarmfester Nickelbasislegierung NI-PH2801 (Inconel X750)

Série aérospatiale - Inserts, filets de vis MJ, bobine hélicoïdale, autobloquants, entraînement par insertion à brides, en alliage à base de nickel résistant à la chaleur NI-PH2801 (Inconel X750)

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Ta slovenski standard je istoveten z: prEN 3542

ICS:

49.030.30 Matice Nuts

oSIST prEN 3542:2022 **en,fr,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 3542

December 2021

ICS 49.030.30

Will supersede EN 3542:2018

English Version

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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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 (prEN 3542:2021) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 3542:2018.

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prEN 3542:2021 (E)

Introduction

For design and assembly procedures see EN 3044 and EN 2945.

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1 Scope

This document specifies the characteristics of inserts, self-locking, helical coil, tanged insertion drive, with MJ screw threads in NI-PH2801 material, for aerospace applications.

Maximum test temperature: 550 °C.

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 2943, *Aerospace series — Inserts, MJ and M screw threads, helical coil — Technical specification*

EN 3018, *Aerospace series — Heat resisting alloy NI-PH2801 (NiCr16Fe7Ti3Nb1Al1), with consumable electrode remelted — Cold drawn wire for the manufacture of thread inserts $D \leq 3$ mm*

EN 3044, *Aerospace series — Installation holes for inserts, screw thread, helical coil, self-flocking — Design standard*

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

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

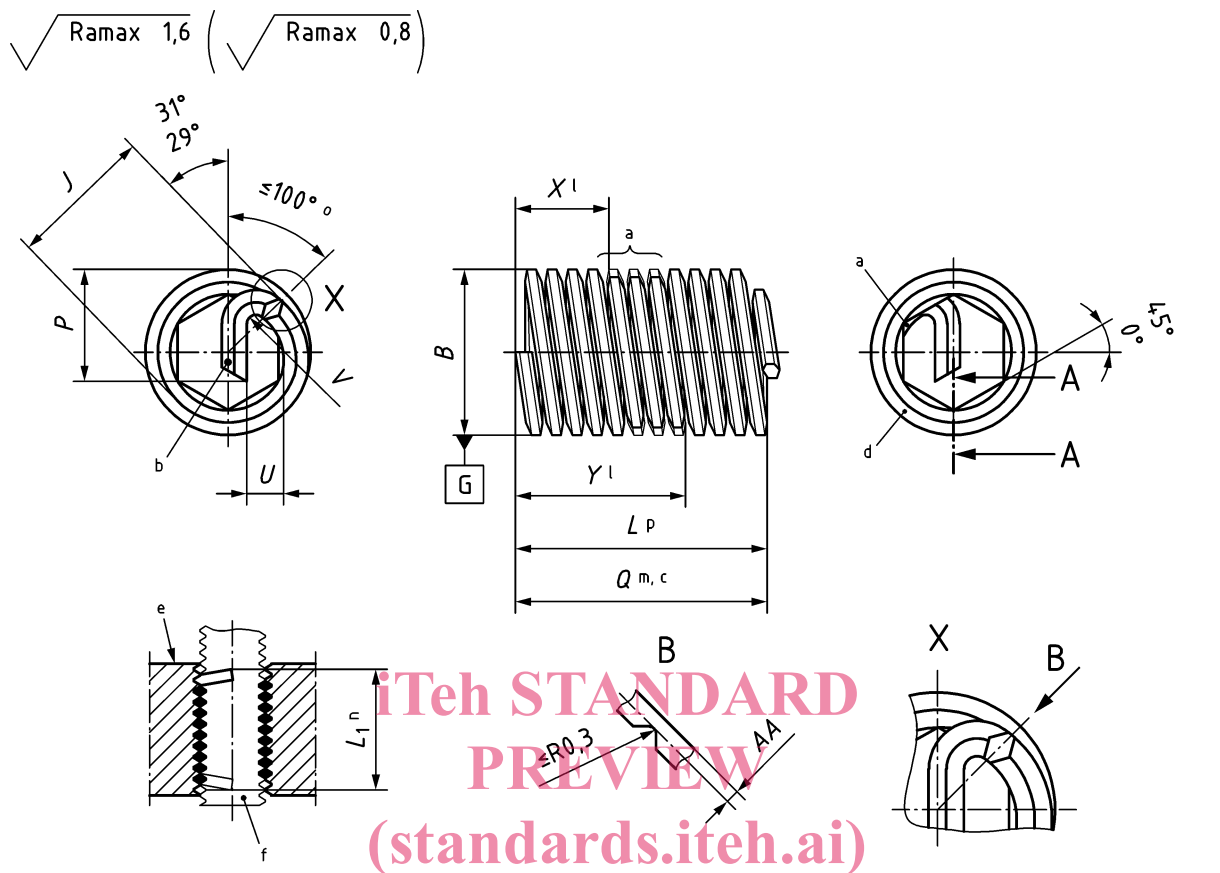
- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

4 Required characteristics

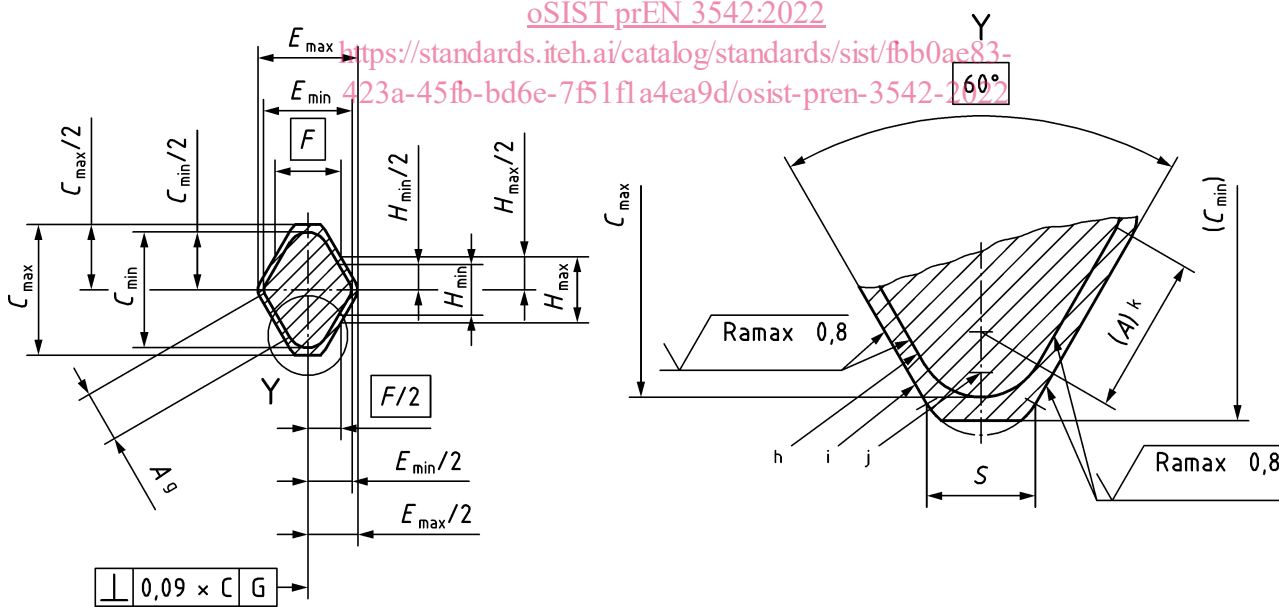
4.1 Configuration — Dimensions — Tolerances — Masses

See Figure 1, Table 1 and Table 2.

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



A-A q, r



Key

- a form out-of-round in this area to achieve the self-locking requirements (tool marks permissible)
- b tang
- c number of coils
- d marking

- e lead-in face of installation hole
- f installation
- g see detail Y
- h min. profile
- i max. profile
- j R , min, tangential to flanks
- k straight portion of flank
- l locking feature shall be in the zone Y max. — X min. number of gripcoils and number of sides per gripcoil are in accordance to the manufacturer's design.
- m the number of coils is counted from the notch
- p length of fitted insert to notch
- q dimensions after coiling, corresponding to an insert fitted in an installation hole to EN 3044
- r section A-A is perpendicular to the helical axis

Figure 1 — Layout drawing, dimensions destined for design depts.

4.2 Material

The material shall be according to EN 3018.

4.3 Material identification

Colour: yellow.

No chlorine-based constituents permitted in the colour identification product.

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Table 1 — Dimensions

Thread code	Thread ^a (Associated screw)	A min.	B _{min.}	B _{max.}	C _{max.}	C _{min.}	E _{max.}	E _{min.}	F max.	H _{max.}	H _{min.}	J		P	P	R1	S	U	U	V	AA	
												max.	min.	max.	min.	min.	min.	max.	min.	max.	max.	min.
040	MJ4 × 0,7	0,163	5,05	5,60	0,758	0,683	0,612	0,51	0,35	0,455	0,4445	5,6	4,9	3,55	2,5	0,126	0,219	1,67	1,02	0,45	0,34	0,31
050	MJ5 × 0,8	0,209	6,25	6,80	0,866	0,775	0,7	0,598	0,4	0,52	0,5085	6,8	6,1	4,55	3,15	0,144	0,25	2,09	1,41	0,6	0,37	0,34
060	MJ6 × 1	0,267	7,40	7,95	1,083	0,975	0,875	0,748	0,5	0,65	0,637	7,95	7,25	4,85	3,7	0,18	0,312	2,55	1,65		0,75	0,5
070	MJ7 × 1		8,65	9,20								9,2	8,4	5,5	4,3			3,1	2,09			
080	MJ8 × 1		9,70	10,25								10	9,2	6,5	4,75			3,88	2,27			
100	MJ10 × 1,25	0,415	12,10	12,65	1,353	1,251	1,094	0,967	0,625	0,812	0,799	12,3	11,5	8	5,5	0,226	0,391	4,77	2,86	0,6	0,55	

^a In accordance with ISO 5855-2.

Table 2 — Dimensions, Number of turns, mass

Thread code	Thread ^a (Associated screw)	L			L ₁ +0,25		Number of turns Q ± 0,25			x ^b min.			y ^b			Mass ≈ kg/1 000 pieces			
		1,5 D	2 D	2,5 D	1,5 D	2 D	2,5 D	1,5 D	2 D	2,5 D	1,5 D	2 D	2,5 D	1,5 D	2 D	2,5 D	1,5 D	2 D	2,5 D
040	MJ4 × 0,7	6	8	10	5,47	7,47	9,47	6,1	8,6	11,1	0,8	2,5		3,1	4,8		0,22	0,31	0,39
050	MJ5 × 0,8	7,5	10	12,5	6,90	9,40	11,90	6,9	9,6	12,4	1,3	3,8	3,7	3,9	6,3	6,3	0,4	0,55	0,7
060	MJ6 × 1	9	12	15	8,25	11,25	14,25	6,8	9,5	12,1	2,2	5,1					0,72	0,99	1,26
070	MJ7 × 1	10,5	14	17,5	9,75	13,25	16,75	8	11,1	14,1	2,2	5,9	5,5				0,99	1,36	1,73
080	MJ8 × 1	12	16	20	11,25	15,25	19,25	9,4	13	16,5	2,5	6,8					1,32	1,8	2,28
100	MJ10 × 1,25	15	20	25	14,25	19,25	24,25	9,5	13,1	16,8	3,7						2,57	3,52	4,46

^a In accordance with ISO 5855-2.

^b X and Y dimensions apply after installation of the thread insert.