



**SLOVENSKI STANDARD**  
**SIST EN 2944:2001**

**01-januar-2001**

---

**Aerospace series - Inserts, screw thread, helical coil, self-locking, in corrosion resisting steel FE-PA3004**

Aerospace series - Inserts, screw thread, helical coil, self-locking, in corrosion resisting steel FE-PA3004

Luft- und Raumfahrt - Draht-Gewindeeinsätze, selbstsichernd, aus korrosionsbeständigem Stahl FE-PA3004

Série aérospatiale - Filets rapportés, à freinage interne, en acier résistant à la corrosion FE-PA3004

[SIST EN 2944:2001](https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-b5facff31813/sist-en-2944-2001)

[https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-](https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-b5facff31813/sist-en-2944-2001)

[b5facff31813/sist-en-2944-2001](https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-b5facff31813/sist-en-2944-2001)

**Ta slovenski standard je istoveten z: EN 2944:1998**

---

**ICS:**

49.030.20 Sorniki, vijaki, stebelni vijaki Bolts, screws, studs

**SIST EN 2944:2001**

**en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 2944:2001

<https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-b5facff31813/sist-en-2944-2001>

EUROPEAN STANDARD

EN 2944

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1998

ICS 49.030.30

Descriptors: aircraft industry, screw thread, self-locking screw thread, steel, corrosion resistant steel, characteristic, dimension, designation, marking

English version

## Aerospace series - Inserts, screw thread, helical coil, self-locking, in corrosion resisting steel FE-PA3004

Série aérospatiale - Filets rapportés, à freinage interne, en acier résistant à la corrosion FE-PA3004

Luft- und Raumfahrt - Draht-Gewindeeinsätze, selbstsichernd, aus korrosionsbeständigem Stahl FE-PA3004

This European Standard was approved by CEN on 23 February 1998.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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 AECMA, prior to its presentation to CEN.

**iTeh STANDARD PREVIEW**  
(standards.itih.eu)

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 1998, and conflicting national standards shall be withdrawn at the latest by November 1998.

SIST EN 2944:2001

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

ALINHOVO IS ANI LOUPEN  
TPOW NI TROVNE OVLEDO NI OUVROVANI  
Ojvolovom ni oqunirivovole ni ON levo  
ANALISOU.I

.....TOTP  
BYTICABOLAN ICOTEM OI TESVING



## 0 Introduction

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

## 1 Scope

This standard specifies the characteristics of self-locking, helical coil, screw thread inserts in FE-PA3004, for aerospace applications.

Maximum test temperature: 350 °C

## 2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO 5855-2	Aerospace - MJ threads - Part 2: Limit dimensions for bolts and nuts
EN 2424	Aerospace series - Marking of aerospace products
EN 2943	Aerospace series - Inserts, screw thread, helical coil, self-locking - Technical specification
EN 2945	Aerospace series - Inserts, screw thread, helical coil, self-locking - Assembly procedure <a href="https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-55c1f13004211000">https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-55c1f13004211000</a>
EN 2947	Aerospace series - Steel FE-PA3004 (X10CrNi18-09) - Air melted - Non heat treated - Cold drawn wire - $a$ or $D \leq 2,3$ mm <sup>1)</sup>
EN 3044	Aerospace series - Installation holes and procedures for inserts, screw thread, helical coil, self-locking - Design standard

## 3 Required characteristics

### 3.1 Configuration - Dimensions - Tolerances - Masses

See figure 1 and tables 1 and 2. Dimensions and tolerances are in millimetres.

### 3.2 Material

EN 2947

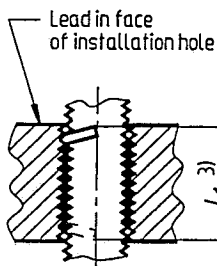
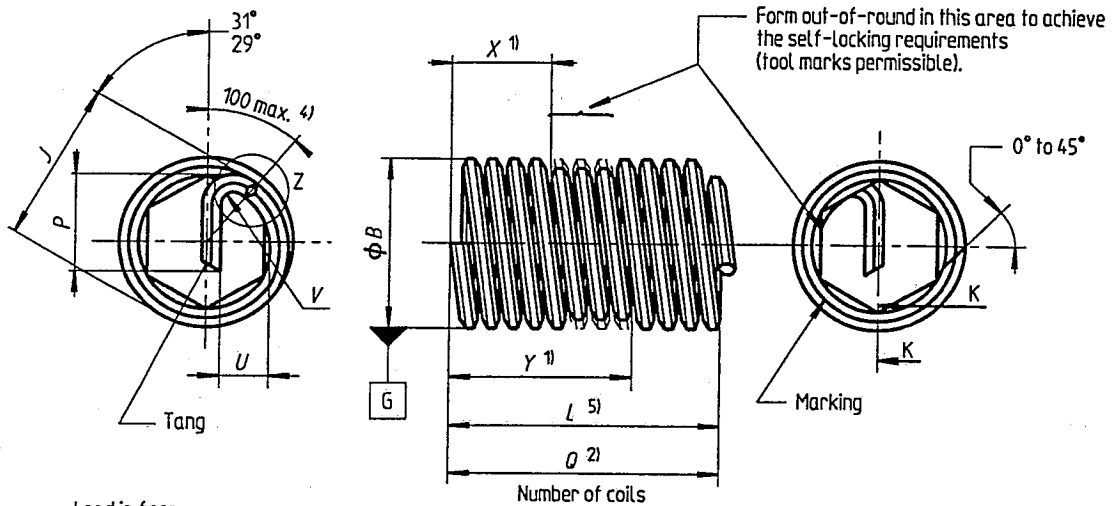
### 3.3 Material identification

Colour: blue

No chlorine-based constituents permitted in the colour identification product

1) Published as AECMA Prestandard at the date of publication of this standard

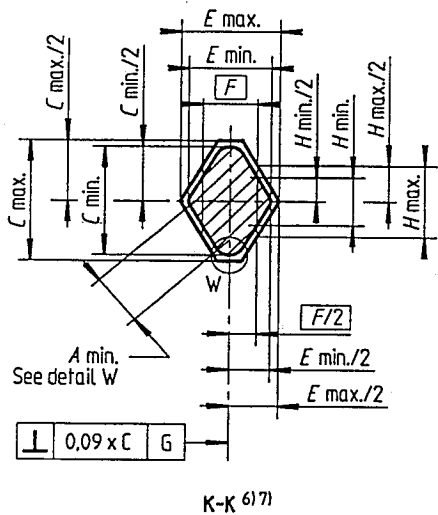
$R_a 1,6$  /  $R_a 0,8$



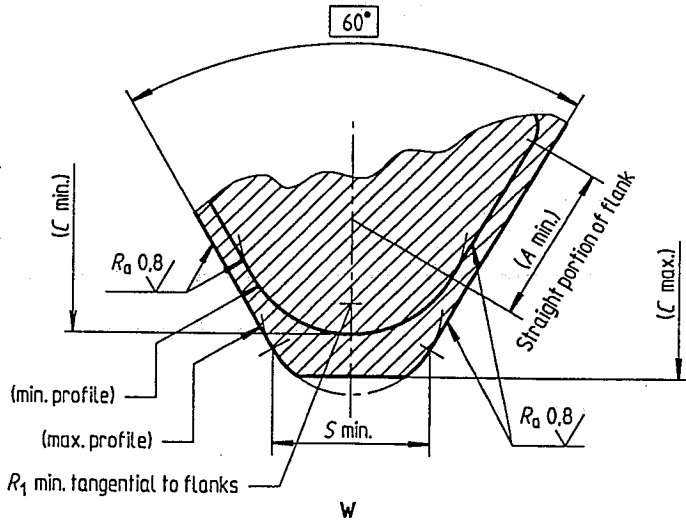
Installation



<https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-444a-a1ca-b5facf37813/sist-en-2944-2001>



K-K 6) 7)



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

- 1) Locking feature shall be in the zone  $Y \text{ max.} - X \text{ min.}$  It shall take place on at least two coils separated by a plain coil, except in the case of inserts of diameters 4, 5 and 6 and a nominal length of  $1,25 D$  where the plain coil may be omitted.
- 2) The number of coils is counted from the notch.
- 3) Length of fitted insert to notch
- 4) The notch shall be on the upper face of the first coil behind the tangent point of the tang radius.
- 5) The nominal length  $L$  is a reference. It is equal to the basic length of the thread insert.
- 6) Dimensions after coiling, corresponding to an insert fitted in an installation hole to EN 3044
- 7) Section K-K is perpendicular to the helical axis.

Figure 1

Table 1

Diameter code	Thread <sup>1)</sup> (Associated bolt)	A	B	C		E		F	H	
		min.	+0,55 0	max.	min.	max.	min.	max.	min.	max.
040	MJ4x0,7	0,163	5,05	0,758	0,683	0,612	0,51	0,35	0,455	0,4445
050	MJ5x0,8	0,209	6,25	0,866	0,775	0,7	0,598	0,4	0,52	0,5085
060	MJ6x1	0,267	7,4	1,083	0,975	0,875	0,748	0,5	0,65	0,637
070	MJ7x1		8,65							
080	MJ8x1		9,7							
100	MJ10x1,25	0,415	12,1	1,353	1,251	1,094	0,967	0,625	0,812	0,799

(concluded)

Diameter code	J		P		R <sub>1</sub>	S	U		V	AA	
	max.	min.	max.	min.	min.	min.	max.	min.	max.	max.	min.
040	5,6	4,9	3,55	2,5	0,126	0,219	1,67	1,02	0,45	0,34	0,31
050	6,8	6,1	4,55	3,15	1,144	0,25	2,09	1,41	0,6	0,37	0,34
060	7,95	7,25	4,85	3,7	0,18	0,312	2,55	1,65		0,75	0,5
070	9,2	8,4	5,5	4,3			3,1	2,09			
080	10	9,2	6,5	4,75			3,88	2,27			
100	12,3	11,5	8,5	5,5	0,226	0,391	4,77	2,86	0,6	0,55	

1) In accordance with ISO 5855-2

SIST EN 2944:2001

<https://standards.itech.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-b5facf31813/sist-2944-2001>

Table 2-2001

Diameter code	Thread <sup>1)</sup> (Associated bolt)	L			L <sub>1</sub>			X <sup>2)</sup>		
		nom.			+0,25 0			min.		
		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	MJ4x0,7	6	8	10	5,47	7,47	9,47	1,5	1,6	3,5
050	MJ5x0,8	7,5	10	12,5	6,9	9,4	11,9	2	2,4	5
060	MJ6x1	9	12	15	8,25	11,25	14,25	2,3	2,5	5,5
070	MJ7x1	10,5	14	17,5	9,75	13,25	16,75	2,5	3	6,5
080	MJ8x1	12	16	20	11,25	15,25	19,25	3	4	8
100	MJ10x1,25	15	20	25	14,06	19,06	24,06	3,5	4,7	9,5

(concluded)

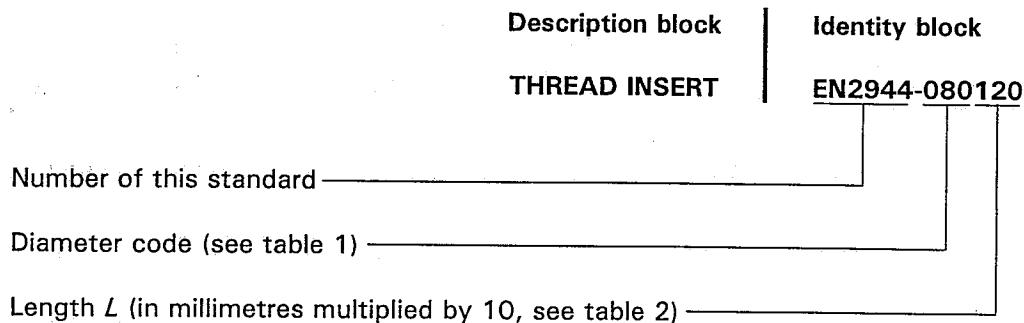
Diameter code	Y <sup>2)</sup>			Q			Mass ≈		
	max.			Number of coils ± 0,25			kg/1 000 pieces		
	1,5 D	2 D	2,5 D	1,5 D	2 D	2,5 D	1,5 D	2 D	2,5 D
040	3,7	5,7	6,7	6,1	8,6	11,1	0,22	0,31	0,39
050	4,2	6,8	8,3	6,9	9,6	12,4	0,4	0,55	0,7
060	5,5	8,5	11	6,8	9,5	12,1	0,72	0,99	1,26
070	6,5	10	11,5	8	11,1	14,1	0,99	1,36	1,73
080	7	11	12,5	9,4	13	16,5	1,32	1,8	2,28
100	9	14	16,5	9,5	13,1	16,8	2,57	3,52	4,46

1) In accordance with ISO 5855-2

2) X and Y dimensions apply after installation of the thread insert.

## 4 Designation

EXAMPLE:



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

## 5 Marking

EN 2424

- style G;
- additionally style F permitted, as indicated on figure 1.

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)

SIST EN 2944:2001

<https://standards.iteh.ai/catalog/standards/sist/b8420732-1dbd-4eea-a1ca-b5facf31813/sist-en-2944-2001>

## 6 Technical specification

EN 2943