



## SLOVENSKI STANDARD SIST EN 4323:2005

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SIST EN 4323:2004

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**Aerospace series - Screws, 100° countersunk head, six lobe recess, threaded to head, in titanium alloy TI-P64001, anodized, MoS2 coated - Classification: 900 MPa (at ambient temperature) / 350 °C**

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Luft- und Raumfahrt - 100° -Senkschrauben, Sechs-Bogenzahn, Gewinde bis Kopf, aus Titanlegierung TI-P64001, anodisiert, MoS2-beschichtet - Klasse: 900 MPa (bei Raumtemperatur)/350 °C

Série aérospatiale - Vis a tête fraisée 100°, à empreinte six lobes, filetées sous tête, en alliage de titane TI-P64001, anodisées, revêtues MoS2 - Classification : 900 MPa (à température ambiante) / 350 °C

**Ta slovenski standard je istoveten z:** EN 4323:2004

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**ICS:**

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

**SIST EN 4323:2005** en

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**EUROPEAN STANDARD**  
**NORME EUROPÉENNE**  
**EUROPÄISCHE NORM**

**EN 4323**

November 2004

ICS 49.030.20

Supersedes EN 4323:2003

English version

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This European Standard was approved by CEN on 11 September 2003.

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.

SIST EN 4323:2005

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



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## Contents

	Page
<b>Foreword</b> .....	3
<b>1 Scope</b> .....	4
<b>2 Normative references</b> .....	4
<b>3 Required characteristics</b> .....	4
<b>3.1 Configuration – Dimensions – Tolerances – Masses</b> .....	4
<b>3.2 Materials</b> .....	4
<b>3.3 Surface treatment</b> .....	4
<b>4 Designation</b> .....	7
<b>5 Marking</b> .....	7
<b>6 Technical specifications</b> .....	7

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## Foreword

This document (EN 4323:2004) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

This document supersedes EN 4323:2003.

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

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## 1 Scope

This standard specifies the characteristics of screws with 100° countersunk head with six lobe recess, threaded to head, in Ti-P64001, anodized, MoS<sub>2</sub> coated, for aerospace applications.

Classification: 900 MPa <sup>1)</sup> / 350 °C <sup>2)</sup>

## 2 Normative references

The following referenced documents are indispensable for the application 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.

- ISO 3353-1, *Aerospace – Lead and runout threads – Part 1: Rolled external threads*
- ISO 5855-2, *Aerospace – MJ threads – Part 2: Limit dimensions for bolts and nuts*
- EN 2424, *Aerospace series – Marking of aerospace products*
- EN 2491, *Aerospace series – Molybdenum disulphide dry lubricants – Coating methods*
- EN 3813, *Aerospace series – Titanium alloy Ti-P64001 – Annealed – Bar and wire for forged fasteners – D<sub>e</sub> ≤ 25 mm* <sup>3)</sup>
- EN 3818, *Aerospace series – Bolts, MJ threads, in titanium alloy Ti-P64001 – Strength class: 1 100 MPa (at ambient temperature) – Technical specification*
- EN 3905, *Aerospace series – Six lobe recess for bolts – Technical specification* <sup>3)</sup>
- EN 3911, *Aerospace series – Six lobe recess – Geometrical definition* <sup>3)</sup>

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## 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 after anodizing but before MoS<sub>2</sub> coating.

### 3.2 Materials

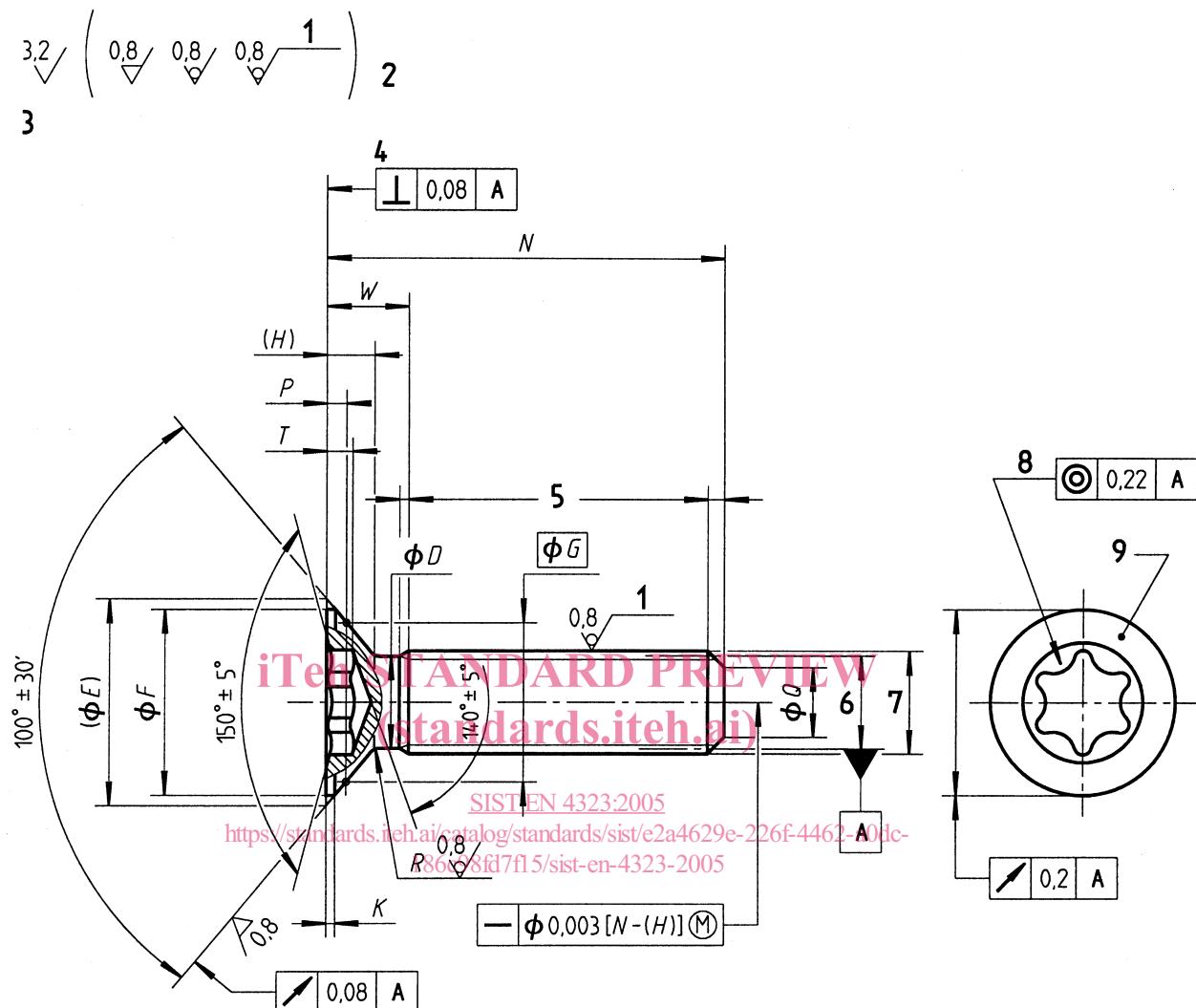
EN 3813

### 3.3 Surface treatment

EN 2491

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1) Minimum tensile strength of the material at ambient temperature is 1 100 MPa but taking account of the recess geometry, the strength class to be used for the seating torque calculation shall not be greater than 900 MPa.  
 2) Maximum test temperature of the parts  
 3) Published as AECMA Prestandard at the date of publication of this standard

**Key**

- |   |   |   |                            |
|---|---|---|----------------------------|
| 1 | rolled  | 5 | conforms to ISO 3353-1.    |
| 2 | values apply after anodizing before MoS <sub>2</sub> coating. | 6 | pitch diameter             |
| 3 | remove sharp edges 0,1 to 0,4.                                | 7 | thread                     |
| 4 | not concave   | 8 | six lobe recess to EN 3911 |
|   |   | 9 | marking                    |

**Figure 1****Table 1**

Code	Thread <sup>a</sup> Designation	D ± 0,13	E <sup>b</sup> min.	F	G	H	K min.	P 0 - 0,08	Q nom.	R Tol. max. min.	T nom. Tol.	W max. min.	Recess	
030	MJ3×0,5-4h6h	2,68	6	5,4	4,5	1,4	0,06	0,63	2,3	0 - 0,5	0,4 0,2	0,8 1	+ 0,1 0 3,27 2,92	EN3911-10 EN3911-25
040	MJ4×0,7-4h6h	3,55	8	7,2	5,78	1,87	0,08	0,93	3					EN3911-27
050	MJ5×0,8-4h6h	4,48	10	9	7,71	2,38	0,1	0,96	3,4	± 0,5	0,5 1,26 1,57	0,3 4,2 5,2	1,1 1,5	3,98 5,1 5,5 3,58 4,6 5 EN3911-30 EN3911-40
060	MJ6×1-4h6h	5,35	12	10,8	9	2,81								
070	MJ7×1-4h6h	6,35	14	12,8	10,28	3,23								

<sup>a</sup> In accordance with ISO 5855-2<sup>b</sup> Corresponds to maximum condition

Table 2

Length code	<i>N</i> ± 0,3	Thread code				
		030 Mass <sup>a</sup>	040 Mass <sup>a</sup>	050 Mass <sup>a</sup>	060 Mass <sup>a</sup>	070 Mass <sup>a</sup>
006	6	0,22	0,33	—	—	—
008	8	0,33	0,53	0,69	—	—
010	10	0,44	0,73	1,02	1,34	1,94
012	12	0,55	0,93	1,35	1,78	2,54
014	14	0,66	1,13	1,68	2,22	3,14
016	16	0,77	1,33	2,01	2,66	3,74
018	18	0,88	1,53	2,34	3,10	4,34
020	20	0,99	1,73	2,67	3,54	4,94
022	22	1,10	1,93	3,00	3,98	5,54
024	24	1,21	2,13	3,33	4,42	6,14
026	26	1,32	2,33	3,66	4,86	6,74
028	28	1,43	2,53	3,99	5,30	7,34
030	30	1,54	2,73	4,32	5,74	7,94
032	32	1,65	2,93	4,65	6,18	8,54
034	34	1,76	3,13	4,98	6,62	9,14
036	36	1,87	3,33	5,31	7,06	9,74
038	38	1,98	3,53	5,64	7,50	10,34
040	40	2,09	3,73	5,97	7,94	10,94
042	42	2,20	3,93	6,30	8,38	11,54
044	44	—	4,13	6,63	8,82	12,14
046	46	—	4,33	6,96	9,26	12,74
048	48	—	4,53	7,29	9,70	13,34
050	50	—	4,73	7,62	10,14	13,94
052	52	—	4,93	7,95	10,58	14,54
054	54	—	5,13	8,28	11,02	15,14
056	56	—	5,33	8,61	11,46	15,74
058	58	—	—	8,94	11,90	16,34
060	60	—	—	9,27	12,34	16,94
062	62	—	—	9,60	12,78	17,54
064	64	—	—	9,93	13,22	18,14
066	66	—	—	10,26	13,66	18,74
068	68	—	—	10,59	14,10	19,34
070	70	—	—	10,92	14,54	19,94
072	72	—	—	—	14,98	20,54
074	74	—	—	—	15,42	21,14
076	76	—	—	—	15,86	21,74
078	78	—	—	—	16,30	22,34
080	80	—	—	—	16,74	22,94
082	82	—	—	—	17,18	23,54
084	84	—	—	—	17,62	24,14
086	86	—	—	—	—	24,74
088	88	—	—	—	—	25,34
090	90	—	—	—	—	25,94
092	92	—	—	—	—	26,54
094	94	—	—	—	—	27,14
096	96	—	—	—	—	27,74
098	98	—	—	—	—	28,34

<sup>a</sup> Mass ≈ quoted in kg/1 000 parts