

**Aerospace series —
Screws, 100°
countersunk head,
six lobe recess, short
thread, in titanium
alloy TI-P64001, with
aluminium
pigmented coating
— Classification:
1 100 MPa (at
ambient
temperature) / 315 °C**

ICS 49.030.20

National foreword

This British Standard is the UK implementation of EN 4636:2009.

The UK participation in its preparation was entrusted to Technical Committee ACE/12, Aerospace fasteners and fastening systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Aerospace series - Screws, 100° countersunk head, six lobe recess, short thread, in titanium alloy TI-P64001, with aluminium pigmented coating - Classification: 1 100 MPa (at ambient temperature) / 315 °C

Série aérospatiale - Vis, 100° à tête fraisée, à filetage court, à empreinte six lobes, en alliage de titane TI-P64001, avec revêtement aluminé-organique - Classification: 1 100 MPa (à température ambiante) / 315 °C

Luft- und Raumfahrt - 100° Senkschrauben, kurzes Gewinde, Sechsbogenzahn, aus Titanlegierung TI-P64001, mit aluminium pigmentierter Beschichtung - Klasse: 1 100 MPa (bei Raumtemperatur) / 315 °C

This European Standard was approved by CEN on 20 March 2009.

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Foreword

This document (EN 4636:2009) 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of an identical text or by endorsement, at the latest by December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

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1 Scope

This standard specifies the characteristics of screws with 100° countersunk head, with six lobe recess, short thread, in titanium alloy TI-P64001, aluminium pigmented coating, for aerospace applications.

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.*

ISO 7913, *Aerospace — Bolts and screws, metric — Tolerances of form and position.*

ISO 9152, *Aerospace — Bolts, with MJ threads, in titanium alloys, strength class 1 100 MPa — Procurement specification.*

EN 2424, *Aerospace series — Marking of aerospace products.*

EN 3813, *Aerospace series — Titanium alloy TI-P64001 — Annealed — Bar and wire for forged fasteners — $D_e \leq 25$ mm.*¹⁾

EN 3911, *Aerospace series — Six lobe recess — Geometrical definition.*¹⁾

EN 4473, *Aerospace series — Aluminium pigmented coatings — Technical specification.*¹⁾

EN 9100, *Aerospace series — Quality management systems — Requirements (based on ISO 9001:2000) and Quality systems — Model for quality assurance in design, development, production, installation and servicing (based on ISO 9001:1994).*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts.*

3 Required characteristics

3.1 Configuration – Dimensions – Tolerances – Masses

See Figure 1 and Table 1.

Dimensions and tolerances are in millimetres and apply after surface treatment.

3.2 Materials

EN 3813

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

3.3 Surface treatment

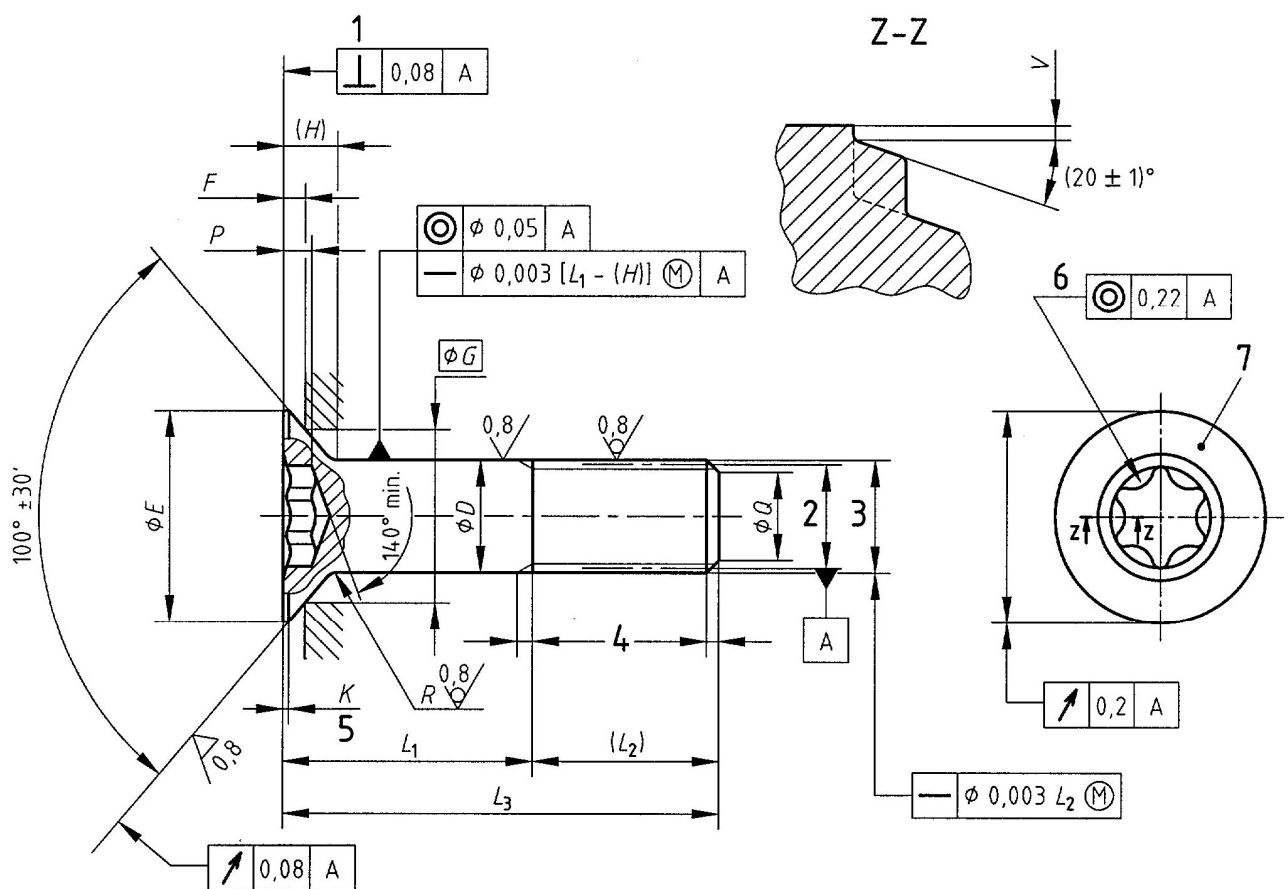
EN 4473

3.4 Tolerances of form and position

ISO 7913

$\sqrt{3.2}$ $\left[\sqrt{0.8} \right]$ Values in micrometers apply prior to surface treatment.

Break sharp edges 0,1 to 0,4.



Key

- 1 Not concave
- 2 Pitch diameter
- 3 Thread
- 4 Conforms to ISO 3353-1
- 5 The rounded angle accepted
- 6 Six lobe recess conforms to EN 3911
- 7 Marking

Figure 1

Table 1

Code	Thread Designation	<i>D</i>	$\varnothing E$	<i>F</i>	<i>G</i>	<i>H</i>	<i>K</i>	$L_1 \pm 0,2$		<i>L</i> ₂
		h12	min.	$\begin{matrix} 0 \\ -0,08 \end{matrix}$	Ref.	Ref.	min.	Length code	min.	
030	MJ3×0,5-4h6h	3	5,6	0,63	4,50	1,3	0,06	003 to 030	3	6
040	MJ4×0,7-4h6h	4	7,5	0,93	5,78	1,7	0,08	003 to 040	3	7,5
050	MJ5×0,8-4h6h	5	9,5	0,96	7,71	2,1	0,1	004 to 050	4	9
060	MJ6×1-4h6h	6	11,5	1,26	9,00	2,6	0,1	005 to 060	5	10
080	MJ8×1-4h6h	8	15,4	1,60	12,21	3,4	0,1	006 to 080	6	11,5
100	MJ10×1,25-4h6h	10	19,3	1,93	15,43	4,2	0,1	008 to 100	8	14,5
120	MJ12×1,25-4h6h	12	23	2,53	18,00	5	0,1	010 to 100	10	16

Code	Thread ^a Designation	<i>P</i>		<i>Q</i>		<i>R</i>		<i>V</i> mm	Recess code ^b
		nom.	Tol.	nom.	Tol.	max.	min.		
030	MJ3×0,5-4h6h	0,8	0 -0,1	2,3	0 -0,5	0,4	0,2	0,13	EN3911-09
040	MJ4×0,7-4h6h	1		2,9					EN3911-15
050	MJ5×0,8-4h6h	1,1	3,8	EN3911-20					
060	MJ6×1-4h6h	1,5	0 -0,2	4,5	±0,5	0,5	0,3	0,25	EN3911-27
080	MJ8×1-4h6h	2	0 -0,3	6,2		0,7	0,5		EN3911-40
100	MJ10×1,25-4h6h	2,3	0 -0,5	7,9		0,7	0,5		EN3911-45
120	MJ12×1,25-4h6h	2,8		9,9		0,8	0,6		EN3911-50

^aConforms to ISO 5855-2.

^bSee EN 3911.

4 Designation

EXAMPLE

Description block

Identity block

SCREW

EN4636-040003

Number of this standard

Diameter code (see Table 1)

Length code (see Table 1)

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

5 Marking

See Table 2 and Figure 1.

Table 2

Diameter code	EN 2424 Style
030 to 050	F
060 to 120	C + MJ

6 Technical specification

6.1 General

ISO 9152, with the following modifications

6.2 Approval of manufacturers

EN 9100

6.3 Qualification of bolts

EN 9133

6.4 Requirement deleted

Double shear strength

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