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Date: 26 April 2018

Origin: European

Latest date for receipt of comments: 13 June 2018

Project No. 2018/00867

Responsible committee: ACE/12 Aerospace fasteners and fastening systems

Interested committees:

Title: Draft BS EN 7100 Aerospace series - Bolt, hexagonal head, metric and inch series - Product standard

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Introduction

This draft standard is based on European discussions in which the UK has taken an active part. Your comments on this draft are welcome and will assist in the preparation of the consequent British Standard. Comment is particularly welcome on national, legislative or similar deviations that may be necessary.

Even if this draft standard is not approved by the UK, if it receives the necessary support in Europe, the UK will be obliged to publish the official English Language text unchanged as a British Standard and to withdraw any conflicting standard.

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Please indicate whether you consider the UK should submit a negative (with reasons) or positive vote on this draft.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	(7)
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/ Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

ASD/TC

Date: xxxx-xx

EN 7100

ASD/TC

Secretariat:

Aerospace series — Bolt, hexagonal head, metric and inch series — Product standard

Luft- und Raumfahrt — Sechskantschraube, Metrische und Zöllige Reihe — Produktnorm

Série aérospatiale — Vis à tête hexagonale, filetage métrique et impérial — Norme de produit

ICS: xx.xxx.xx

Descriptors: Aircraft industry, aircraft equipment, bolt, hexagonal head bolt, bolt thread, specification, characteristic, dimension, dimensional tolerance, designation, marking

Document type: European Standard

Document subtype:

Document stage:

Document language: E

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Foreword

This document (EN 7100) 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 xxxx, and conflicting national standards shall be withdrawn at the latest by xxxx.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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

1 Scope

See Figure 1.

This standard specifies the required characteristics, dimensions, tolerances and mass of hexagonal head bolts, metric and inch series.

This EN standard is created to be compliant with the constraints of the REACH regulation.

The current edition includes the values for the metric system only. The values for the imperial system will be added in a future edition.

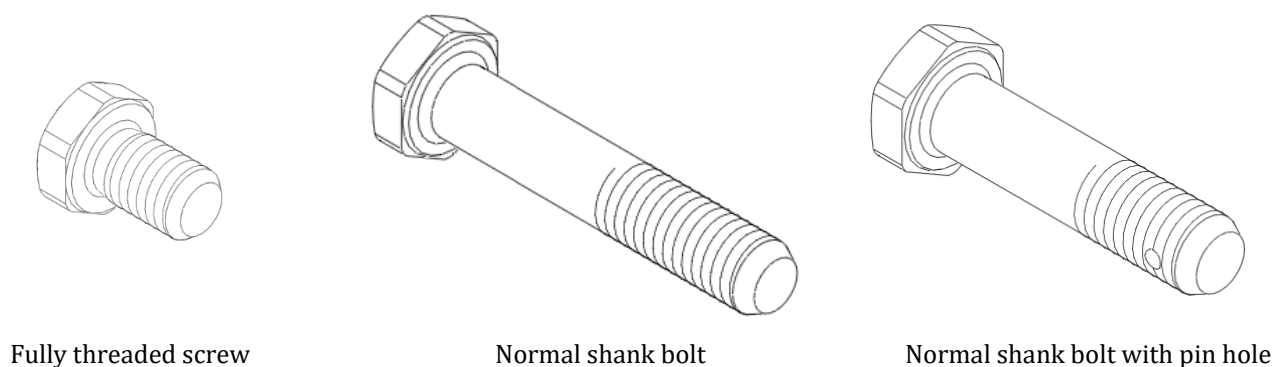


Figure 1: Isometric view

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.

EN 7010 *Aerospace series — User guide for creation and designation of bolts*

3 Required characteristics

3.1 Configuration — Dimensions — Masses

See figures 2 to 7 for illustrations.

See tables 1 to 9 for dimensions and masses.

3.1.1 Screw, fully threaded

Table 1 and Table 2 give the specific data for the fully threaded screw, for the common data see Table 8.

$\sqrt{\text{Ra max } 6,3}$ $\left[\sqrt{\text{Ra max } 3,2} \right]$ Values in micrometres apply prior to surface treatment.

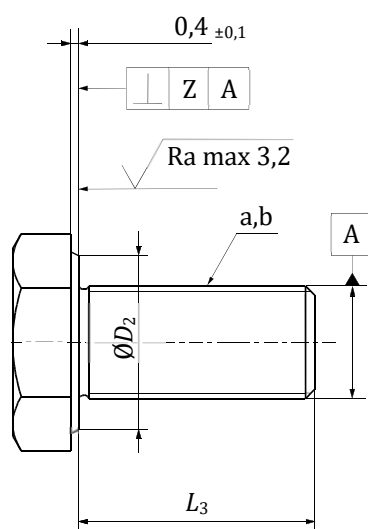


Figure 2: Screw, shank code 1 (fully threaded)

Key

- a. Thread, refer to EN 7010.
- b. For lead and runout thread definition, refer to EN 7010.

Table 1: Dimensions for fully threaded metric screws

Dimensions in mm					
Diameter code ^a	Thread ^b		D_2		Z
	ISO M 4h	ISO MJ 4h6h		tol.	
F	M3 x 0,50	MJ3 x 0,50	5,2	$\begin{matrix} 0 \\ -0,3 \end{matrix}$	0,15
H	M4 x 0,70	MJ4 x 0,70	6,7	$\begin{matrix} 0 \\ -0,36 \end{matrix}$	
J	M5 x 0,80	MJ5 x 0,80	7,7		
K	M6 x 1,00	MJ6 x 1,00	9,7		
L	M7 x 1,00	MJ7 x 1,00	10,7	$\begin{matrix} 0 \\ -0,43 \end{matrix}$	0,20
M	M8 x 1,25	MJ8 x 1,00	12,7		
N	M10 x 1,50	MJ10 x 1,25	16,7		
P	M12 x 1,50	MJ12 x 1,25	18,7	$\begin{matrix} 0 \\ -0,52 \end{matrix}$	0,25
R	M14 x 1,50	MJ14 x 1,50	21,7		
a. Diameter codes according to thread diameter, refer to EN 7010.					
b. Rolled thread with profile, diameters, pitches and tolerances in accordance with EN 7010.					