BRITISH STANDARD AEROSPACE SERIES

BS EN
4267:2001

Round bars in titanium and titanium alloys — Diameter $6\ mm \leq D \leq 160\ mm$ — Dimensions

The European Standard EN 4267:2001 has the status of a British Standard

ICS 49.025.30

National foreword

This British Standard is the official English language version of EN 4267:2001.

The UK participation in its preparation was entrusted to Technical Committee ACE/61, Inspection and testing requirements for aerospace metallic materials, which has the responsibility to:

— aid enquirers to understand the text;

— present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;

— monitor related international and European developments and promulgate them in the UK.

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

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This British Standard, having been prepared under the direction of the Engineering Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 23 October 2001

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 6, an inside back cover and a back cover.

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EUROPEAN STANDARD

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EN 4267

September 2001

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English version

Aerospace series - Round bars in titanium and titanium alloys - Diameter 6 mm ≤ D ≤ 160 mm - Dimensions

Série aérospatiale - Barres rondes en titane et alliages de titane - Diamètres 6 mm ≤ D ≤ 160 mm - Dimensions

Luft- und Raumfahrt - Rundstangen aus Titan und Titanlegierungen - Durchmesser 6 mm ≤ D ≤ 160 mm - Maße

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

Management Centre: 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.

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 March 2002, and conflicting national standards shall be withdrawn at the latest by March 2002.

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0 Introduction

This standard is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.

1 Scope

This standard specifies the dimensions and tolerances of:

Round bars
in titanium and titanium alloys
Diameter 6 mm ≤ D ≤ 160 mm

for aerospace applications.

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.

EN 3848 Aerospace series - Semi-finished metallic products - Method of measuring form deviations.

EN 4258 Aerospace series - Metallic materials - General organization of standardization - Links between types of EN standards and their use

3 Form

See figure 1.

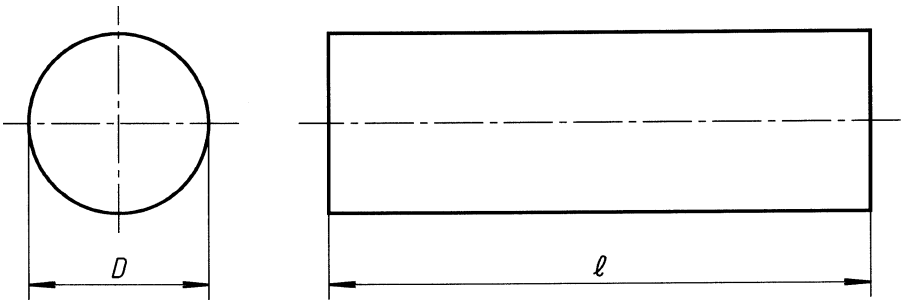

Figure 1

4 Recommended dimensions and mass

4.1 Diameter and mass

See table 1.

Table 1

Nominal *D* mm	**Linear mass** [a] kg/m
6	0,13
8	0,23
10	0,35
12	0,51
14	0,69
16	0,90
18	1,15
20	1,41
22	1,71
24	2,04
26	2,39
28	2,77
30	3,18
32	3,62
34	4,09
36	4,58
38	5,10
40	5,65
45	7,16
50	8,83
60	12,7
63	14,0
70	17,3
80	22,6
90	28,6
100	35,3
110	42,8
120	50,9
125	55,2
140	69,3
150	79,5
160	90,5
[a] For information, calculated with a density of 4,5 kg/dm^3	

4.2 Length

The order shall specify if bars are to be supplied in fixed or in random lengths. In the event of a supply of random lengths the minimum and maximum values for the lengths shall be specified on the order.

5 Tolerances

5.1 Dimensional tolerances

5.1.1 Diameter

See table 2.

Table 2

Dimensions in millimetres

Diameter	Tolerances
$6 \leq D \leq 12$	$\pm$ 0,15
$12 < D \leq 18$	$\pm$ 0,18
$18 < D \leq 30$	$\pm$ 0,21
$30 < D \leq 50$	$\pm$ 0,25
$50 < D \leq 80$	$\pm$ 0,30
$80 < D \leq 120$	$\pm$ 0,50
$120 < D \leq 160$	$\pm$ 1,0

5.1.2 Length

See table 3, only applicable to bars supplied in fixed lengths.

Table 3

Dimensions in millimetres

Length	Tolerances for thickness: All
$\ell \leq 600$	$^{+ 6}_{0}$
$\ell > 600$	$^{+ 0,01 \times \ell}_{0}$

5.2 Geometric tolerances

5.2.1 Straightness

5.2.1.1 Method of measurement and symbols

See EN 3848.

5.2.1.2 Tolerances

5.2.1.2.1 Bars in annealed condition

See table 4.

Table 4

Dimensions in millimetres

Diameter	Straightness deviation:	
	Y_1 per metre	Y_2 on any length X_2 [a]
$D \leq 80$	≤ 5	$\leq 2{,}5$
$D > 80$	≤ 3	$\leq 1{,}5$
[a] $X_2 = 400$		

5.2.1.2.2 Bars in the solution treated and precipitation treated condition

See table 5.

Table 5

Dimensions in millimetres

Diameter	Straightness deviation:	
	Y_1 per metre	Y_2 on any length X_2 [a]
$D \leq 80$	≤ 10	$\leq 7{,}5$
$D > 80$	To be specified by agreement between manufacturer and purchaser	
[a] $X_2 = 400$		

5.2.2 Roundness

5.2.2.1 Method of measurement

See EN 3848.

5.2.2.2 Tolerances

See table 6.

Table 6

Dimensions in millimetres

Diameter	Roundness deviation
$6 \leq D \leq 12$	$\leq 0{,}15$
$12 < D \leq 18$	$\leq 0{,}18$
$18 < D \leq 30$	$\leq 0{,}21$
$30 < D \leq 80$	$\leq 0{,}30$
$80 < D \leq 120$	$\leq 0{,}50$
$120 < D \leq 160$	$\leq 1{,}0$

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