



SLOVENSKI STANDARD
SIST EN 3146:2002

01-januar-2002

Aerospace series - Round bars, hot rolled in steel - Close tolerances - Diameter 6 mm <= D <= 250 mm - Dimensions

Aerospace series - Round bars, hot rolled in steel - Close tolerances - Diameter 6 mm <= D <= 250 mm - Dimensions

Luft- und Raumfahrt - Rundstangen, warmgewalzt, aus Stahl - Enge Toleranzen - Durchmesser 6 mm # D # 250 mm - Maße

Série aérospatiale - Barres rondes, laminées a chaud en acier - Tolérances serrées - Diamètres 6 mm <= D <= 250 mm - Dimensions

<https://standards.iteh.ai/catalog/standards/sist/9b8e03cf-43b0-455d-9c79-f33afab3dd99/sist-en-3146-2002>

Ta slovenski standard je istoveten z: EN 3146:2001

ICS:

49.025.10 Jekla Steels

SIST EN 3146:2002 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3146

September 2001

ICS 49.025.10

English version

Aerospace series - Round bars, hot rolled in steel - Close tolerances - Diameter $6 \text{ mm} \leq D \leq 250 \text{ mm}$ - Dimensions

Série aérospatiale - Barres rondes, laminées à chaud en acier - Tolérances serrées - Diamètres $6 \text{ mm} \leq D \leq 250 \text{ mm}$ - Dimensions

Luft- und Raumfahrt - Rundstangen, warmgewalzt aus Stahl - Eingeengte Toleranzen - Durchmesser $6 \text{ mm} \leq D \leq 250 \text{ mm}$ - Maße

This European Standard was approved by CEN on 2 May 2001.

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 Management Centre 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 Management Centre 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.

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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.

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.

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, hot rolled
in steel
Close tolerances
Diameter $6 \text{ mm} \leq D \leq 250 \text{ mm}$

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.
<https://standards.iteh.ai/catalog/standards/sist/9b8e03cf-43b0-455d-9c79-b3a195d978e4/EN-3146-2002>
- EN 4258 Aerospace series - Metallic materials - General organization of standardization - Links between types of EN standards and their use

3 Form

See figure 1.

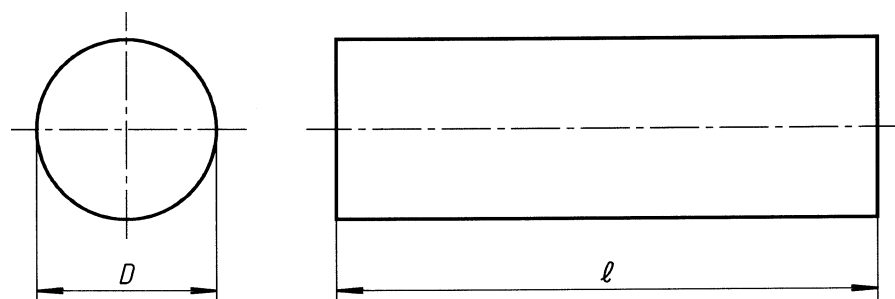


Figure 1

4 Recommended dimensions and mass

4.1 Diameter and mass

See table 1.

Table 1

Nominal <i>D</i> mm	Linear mass ^a kg/m
6	0,222
8	0,395
10	0,617
12	0,888
14	1,21
16	1,58
18	2,00
20	2,47
22	2,98
24	3,55
25	3,85
26	4,17
28	4,83
30	5,55
32	6,31
34	7,13
36	7,99
38	8,90
40	8,96
42	10,9
45	12,5
50	15,4
60	22,2
65	26,0
70	30,2
75	34,7
80	39,5
90	49,9
100	61,7
120	88,8
125	96,3
140	121
160	158
150	139
180	200
200	247
250	385

^a For information, calculated with a density of 7,85 kg/dm³

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
$6 \leq D \leq 10$	$\pm 0,15$
$10 < D \leq 21$	$\pm 0,2$
$21 < D \leq 28$	$\pm 0,25$
$28 < D \leq 38$	$\pm 0,3$
$38 < D \leq 50$	$\pm 0,4$
$50 < D \leq 80$	$\pm 0,5$
$80 < D \leq 100$	$\pm 0,65$
$100 < D \leq 120$	$\pm 0,75$
$120 < D \leq 160$	± 1
$160 < D \leq 200$	$\pm 1,25$
$200 < D \leq 250$	$\pm 1,5$

5.1.2 Length

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

Table 3

Dimensions in millimetres

Length	Tolerance
$l \leq 6\ 000$	$\begin{matrix} + 10 \\ 0 \end{matrix}$

5.2 Geometric tolerances

5.2.1 Straightness

5.2.1.1 Method of measurement and symbols

See EN 3848.

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5.2.1.2 Tolerances

See table 4.

Table 4

Dimensions in millimetres

Diameter	Straightness deviation:	
	Y_1 per metre	Y_2 on any length X_2^a
$6 \leq D \leq 80$	≤ 2	$\leq 0,6$
$80 < D \leq 250$	≤ 1	$\leq 0,3$
^a $X_2 = 300$		

5.2.2 Roundness**5.2.2.1 Method of measurement**

See EN 3848.

5.2.2.2 Tolerances

See table 5.

Table 5
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Dimensions in millimetres

Diameter	Roundness deviation
$6 \leq D \leq 10$	$\leq 0,12$
$10 < D \leq 21$	$\leq 0,16$
$21 < D \leq 28$	$\leq 0,2$
$28 < D \leq 38$	$\leq 0,24$
$38 < D \leq 50$	$\leq 0,32$
$50 < D \leq 80$	$\leq 0,4$
$80 < D \leq 100$	$\leq 0,52$
$100 < D \leq 120$	$\leq 0,6$
$120 < D \leq 160$	$\leq 0,8$
$160 < D \leq 200$	$\leq 1,0$
$200 < D \leq 250$	$\leq 1,2$