



# SLOVENSKI STANDARD

## SIST EN 754-4:1998

01-april-1998

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DU]W`g`\_j UXfUrb]a `dfYfYnca žlc`YfUbW`a Yf`]b`cV`\_Y

Aluminium and aluminium alloys - Cold drawn rod/bar and tube - Part 4: Square bars, tolerances on dimensions and form

Aluminium und Aluminiumlegierungen - Gezogene Stangen und Rohre - Teil 4: Vierkantstangen, Grenzabmaße und Formtoleranzen

Aluminium et alliages d'aluminium - Barres et tubes étirés - Partie 4: Barres carrées, tolérances sur dimensions et forme

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Ta slovenski standard je istoveten z: **EN 754-4:1995**

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### ICS:

77.150.10      Alumijski izdelki      Aluminium products

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EUROPEAN STANDARD

EN 754-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1995

ICS 77.120.10; 77.140.90

Descriptors: drawn products, rolled products, aluminium, aluminium alloys, metal bars, square bars, dimensions, dimensional tolerances, form tolerances

English version

**Aluminium and aluminium alloys - Cold drawn  
rod/bar and tube - Part 4: Square bars, tolerances  
on dimensions and form**

Aluminium et alliages d'aluminium - Barres et tubes étirés - Partie 4: Barres carrées, tolérances sur dimensions et forme

Aluminium and Aluminiumlegierungen - Gezogene Stangen und Rohre - Teil 4: Vierkantstangen, Grenzabmaße und Formtoleranzen

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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.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## Foreword

This European Standard has been drawn up by CEN/TC 132 "Aluminium and aluminium alloys", whose Secretariat is held by the Association Française de Normalisation (AFNOR).

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 5 "Extruded and drawn products" to prepare the following standard :

EN 754-4                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 4 : Square bars, tolerances on dimensions and form

This standard is part of a set of eight standards. The other standards deal with :

EN 754-1                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 1 : Technical conditions for inspection and delivery

EN 754-2                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 2 : Mechanical properties

EN 754-3                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 3 : Round bars, tolerances on dimensions and form

EN 754-5                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 5 : Rectangular bars, tolerances on dimensions and form

EN 754-6                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 6 : Hexagonal bars, tolerances on dimensions and form

EN 754-7                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 7 : Seamless tubes, tolerances on dimensions and form

EN 754-8                    Aluminium and aluminium alloys - Cold drawn rod/bar and tube -  
Part 8 : Porthole tubes, tolerances on dimensions and form

CEN/TC 132 met on 11 and 12 May 1993 in Paris and agreed on the text to be submitted to CEN members for formal vote.

**STANDARD PREVIEW**

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 1996, and conflicting national standards shall be withdrawn at the latest by May 1996.

The following countries were represented at that meeting : Belgium - Denmark - France - Germany - Italy - Netherlands - Norway - Sweden - Switzerland - United Kingdom.

According to the common CEN/CENELEC Rules, the following countries are bound to implement this European Standard : Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This part of EN 754 specifies the tolerances on dimensions and form for aluminium and aluminium alloy cold drawn square bars having widths across flats from 3 mm up to 100 mm.

## 2 Tolerances on dimensions and form

### 2.1 Width across flats

The tolerances on width across flats are specified in table 1.

**Table 1 : Width across flats tolerances**

Dimensions in millimetres

Width across flats S		Tolerances
from	up to	
3 <sup>1)</sup>	6	0 - 0,08
6	10	0 - 0,09
10	18	0 - 0,11
18	30	0 - 0,13
30	50	0 - 0,16
50	65	0 - 0,19
65	80	0 - 0,30
80	100	0 - 0,35

1). Except width across flats 3 mm which may be used.

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### 2.2 Corner radii

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Maximum corner radii are specified in table 2.

**Table 2 : Maximum corner radii**

Dimensions in millimetres

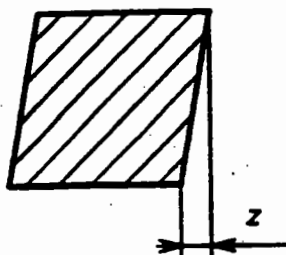
Width across flats S		Maximum corner radii
from	up to	
3 <sup>1)</sup>	8	0,4
8	30	0,8
30	60	1,0
60	80	1,5
80	100	2,0

1) Except width across flats 3 mm which may be used.

### 2.3 Squareness

The deviation from square shall be measured as shown in figure 1.

Squareness tolerances are specified in table 3.



**Figure 1 : Measurement of deviation from square**  
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**Table 3 : Squareness tolerances**

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Dimensions in millimetres

Width across flats S		Maximum deviation from square z
from	up to and including	
3	100	0,005 x width

## 2.4 Convexity - Concavity

The convexity - concavity for square bars shall be included within the width across flats tolerances.

## 2.5 Straightness

Deviations from straightness,  $h_s$  and  $h_t$ , shall be measured as shown in figure 2 with the bar placed on a horizontal baseplate so that its mass decreases the deviation.

For square bars with width across flats equal or greater than 10 mm, the straightness tolerances are specified in table 4.

For square bars with width across flats less than 10 mm, the straightness tolerances shall be agreed upon between purchaser and supplier.

The straightness tolerances apply to bars in all tempers except O and Tx51. If a straightness tolerance is required for either O or Tx51 temper, it shall be agreed between purchaser and supplier.

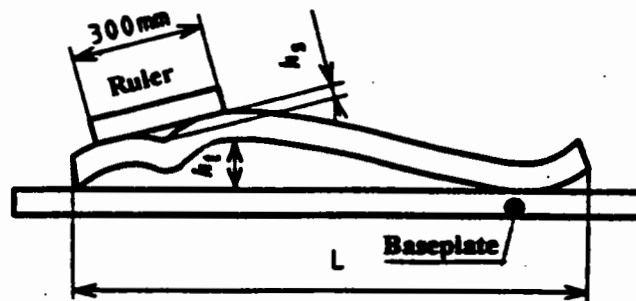


Figure 2 : Measurement of deviation from straightness

Table 4 : Straightness tolerances

Width across flats S		Dimensions in millimetres	
from	up to and including	Maximum deviation from straightness $h_t$ mm/m	Maximum localized kink in any 300 mm portion $h_s$
10	100	2	0,6

## 2.6 Twist

The twist measurement shall be carried out as shown in figure 3.

The twist tolerances are specified in table 5.



For square bars with width across flats less than 10 mm, the twist tolerances shall be agreed between purchaser and supplier.

The twist tolerances apply to bars in all tempers except O and Tx51. If a twist tolerance is required for either O or Tx51 temper, it shall be agreed between purchaser and supplier.

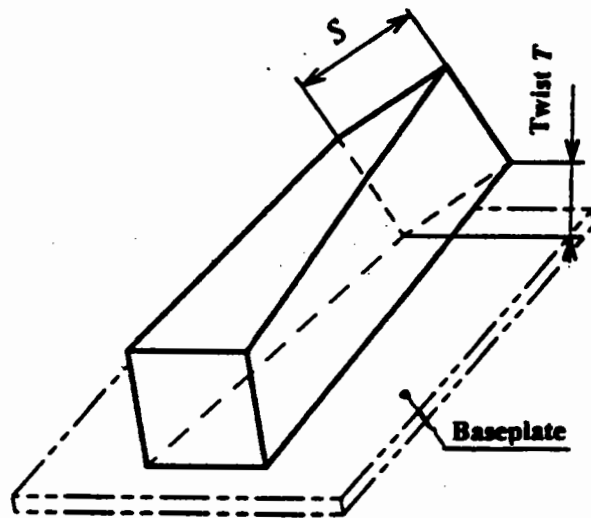


Figure 3 : Measurement of twist

Table 5 :Twist tolerances

Dimensions in millimetres

Width across flats $S$		Twist tolerances $T$	
from	up to and including	per 1 000 mm of length	over the total length
10 <sup>1)</sup>	30	1,0	3,0
30	60	1,5	3,5
60	100	2,0	4,0
1) Except width across flats 10 mm which may be used.			

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## 2.7 Length

If fixed lengths are to be supplied, this shall be stated on the order. The fixed length tolerances are specified in table 6.