



SLOVENSKI STANDARD

SIST EN 754-4:2008

01-maj-2008

Nadomešča:

SIST EN 754-4:1998

Aluminij in aluminijeve zlitine - Hladno vlečene palice/drogovi in cevi - 4. del: Palice s kvadratnim prerezom, tolerance mer in oblike

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

Ta slovenski standard je istoveten z: **EN 754-4:2008**

ICS:

77.150.10 Aluminijski izdelki Aluminium products

SIST EN 754-4:2008 **en,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 754-4

March 2008

ICS 77.150.10

Supersedes EN 754-4:1995

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

This European Standard was approved by CEN on 10 February 2008.

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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 CEN Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 754-4:2008) has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.

This document supersedes EN 754-4:1995.

Within its programme of work, Technical committee CEN/TC 132 entrusted CEN/TC 132/WG 5 "*Extruded and drawn products*" to revise EN 754-4:1995.

The following technical modifications have been introduced during the revision:

- Only editorial changes to bring this part in line with the other parts of EN 754

EN 754 comprises the following parts under the general title "*Aluminium and aluminium alloys — Cold drawn rod/bar and tube*":

- *Part 1: Technical conditions for inspection and delivery*
- *Part 2: Mechanical properties*
- *Part 3: Round bars, tolerances on dimensions and form*
- *Part 4: Square bars, tolerances on dimensions and form*
- *Part 5: Rectangular bars, tolerances on dimensions and form*
- *Part 6: Hexagonal bars, tolerances on dimensions and form*
- *Part 7: Seamless tubes, tolerances on dimensions and form*
- *Part 8: Porthole tubes, tolerances on dimensions and form*

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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.

EN 754-4:2008 (E)

1 Scope

This document 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 and including 100 mm.

The temper designations used in this part are according to EN 515.

2 Tolerances on dimensions

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
Over	Up to and including	
≥ 3	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

2.2 Corner radii

Maximum corner radii are specified in Table 2.

Table 2 — Maximum corner radii

Width across flats S		Maximum corner radii
Over	Up to and including	
≥ 3	8	0,4
8	30	0,8
30	60	1,0
60	80	1,5
80	100	2,0

2.3 Length

If fixed lengths are to be supplied, this shall be stated in the order document. The fixed length tolerances are specified in Table 3.

Table 3 — Fixed length tolerances

Width across flats S		Tolerances on length		
From	Up to and including	$L \leq 2\,000$	$2\,000 < L \leq 5\,000$	$L > 5\,000$
3	100	+5 0	+7 0	+10 0

If no fixed or minimum length is specified in the order, square drawn bars may be delivered in random lengths. The actual lengths and tolerances on random lengths shall be agreed between supplier and purchaser.

2.4 Squareness of cut ends

The squareness of cut ends shall be within half of the fixed-length tolerance range (Table 3) for both fixed and random lengths, (e.g. for a fixed length tolerance of ${}^{+10}_0$ mm the squareness of cut ends shall be within 5 mm).

3 Tolerance on form

3.1 Straightness

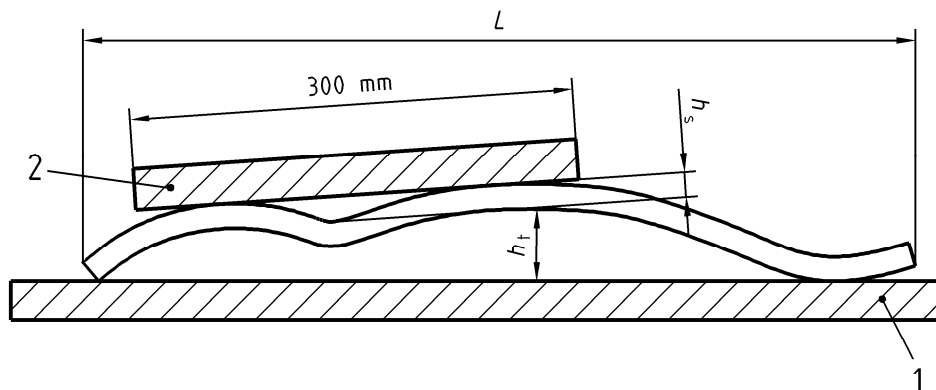
Deviations from straightness, h_s and h_t , shall be measured as shown in Figure 1 with the square bar placed on a horizontal base plate so that its mass decreases the deviation.

For square bars with width across flats equal or greater than 10 mm, the straightness tolerances are specified in Table 4. (The straightness tolerance h_t applies to the whole length, e.g. for a length of 6 m the maximum deviation from straightness h_t is the value given in the table multiplied by 6 m).

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

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The straightness tolerances apply to square 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 supplier and purchaser.



Key

- 1 base plate
2 straight edge

Figure 1 — Measurement of deviation from straightness

Table 4 — Straightness tolerances

Dimensions in millimetres

Width across flats S		Maximum deviation from straightness per metre length h_t/length mm/m	Maximum localized kink in any 300 mm portion h_s
From	Up to and including		
10	100	2	0,6

3.2 Convexity - Concavity

The convexity - concavity for square bars shall be included within the width across flats tolerances as given in Table 1.

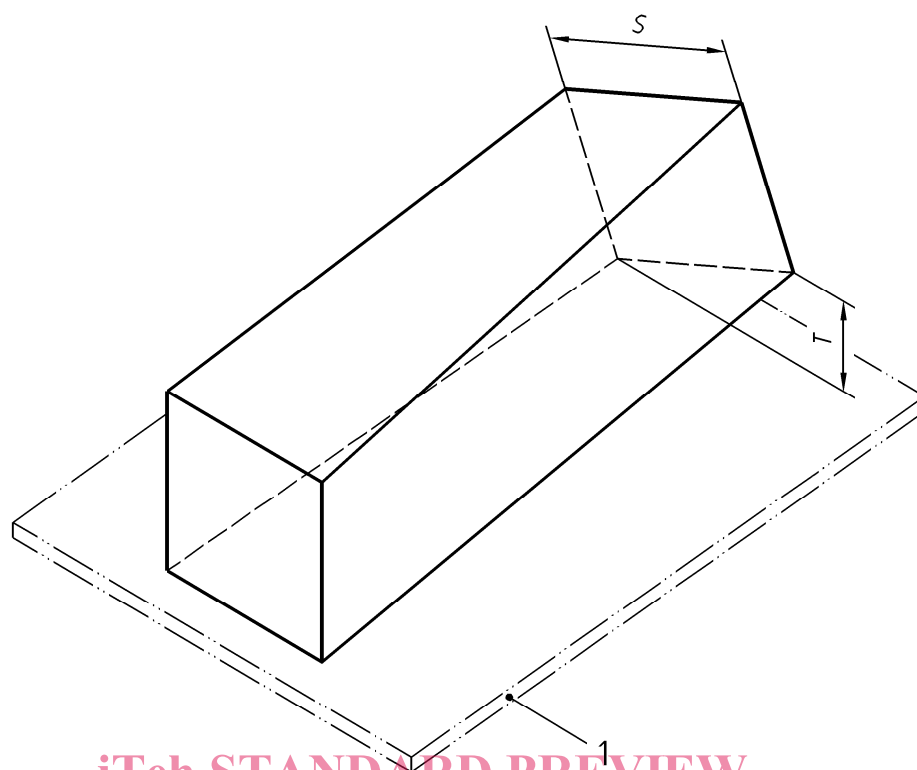
3.3 Twist

The twist measurement shall be carried out as shown in Figure 2.

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 supplier and purchaser.

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 supplier and purchaser.



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Key

1 base plate

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Figure 2 — Measurement of twist

Table 5 — Twist tolerances

Width across flats S		Twist tolerances T	
		Dimensions in millimetres	
Over	Up to and including	per 1 000 mm of length	over the total length
≥ 10	30	1,0	3,0
30	60	1,5	3,5
60	100	2,0	4,0

3.4 Squareness

The deviation from square shall be measured as shown in Figure 3.

Squareness tolerances are specified in Table 6.