



SLOVENSKI STANDARD

SIST EN 755-3:2008

01-maj-2008

Nadomešča:

SIST EN 755-3:1998

Aluminij in aluminijeve zlitine - Iztiskane palice/drogovi, cevi in profili - 3. del: Palice z okroglim prerezom, tolerance mer in oblike

Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 3: Round bars, tolerances on dimensions and form

Aluminium und Aluminiumlegierungen - Stranggepresste Stangen, Rohre und Profile - Teil 3: Rundstangen, Grenzabmaße und Formtoleranzen

Aluminium et alliages d'aluminium - Barres, tubes et profilés filés - Partie 3 : Barres rondes, tolérances sur dimensions et forme

Ta slovenski standard je istoveten z: **EN 755-3:2008**

ICS:

77.150.10 Aluminijski izdelki Aluminium products

SIST EN 755-3:2008 en,fr,de

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EUROPEAN STANDARD

EN 755-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2008

ICS 77.150.10

Supersedes EN 755-3:1995

English Version

Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 3: Round bars, tolerances on dimensions and form

Aluminium et alliages d'aluminium - Barres, tubes et profilés filés - Partie 3: Barres rondes, tolérances sur dimensions et forme

Aluminium und Aluminiumlegierungen - Stranggepresste Stangen, Rohre und Profile - Teil 3: Rundstangen, Grenzabmaße und Formtoleranzen

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

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

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

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Foreword

This document (EN 755-3:2008) 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 755-3:1995.

Within its programme of work, Technical committee CEN/TC 132 entrusted CEN/TC 132/WG 5 "*Extruded and drawn products*" to revise EN 755-3:1995.

The following technical modifications have been introduced during the revision:

- Clause 2: Alloy EN AW-3102, EN AW-6008, EN AW-6010A, EN AW-6014, EN AW-6023, EN AW-6360, EN AW-6262A, EN AW-6065 and EN AW-6182 are added in Group I
- Clause 2: Alloy EN AW-5049, EN AW-7108, EN AW-7108A and EN AW-7021 are added in Group II

EN 755 comprises the following parts under the general title "*Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles*":

- *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*
- *Part 9: Profiles, tolerances on dimensions and form*

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.

CEN/TC 132 affirms it is its policy that in the case when a patentee refuses to grant licenses on standardized standards products under reasonable and not discriminatory conditions then this product shall be removed from the corresponding standard.

EN 755-3:2008 (E)

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.

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1 Scope

This document specifies the tolerances on dimensions and form for aluminium and aluminium alloy extruded round bars having diameters in the range from 8 mm up to 320 mm.

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

2 Alloy groups

The division into group I and group II of the most commonly used general engineering alloys is specified in Table 1. Grouping of other alloys is subject to agreement between supplier and purchaser.

Table 1 — Alloy group

Group I	EN AW-1050A, EN AW-1070A, EN AW-1200, EN AW-1350 EN AW-3102, EN AW-3003, EN AW-3103 EN AW-5005, EN AW-5005A, EN AW-5051A, EN AW-5251 EN AW-6101A, EN AW-6101B, EN AW-6005, EN AW-6005A, EN AW-6106, EN AW-6008, EN AW-6010A, EN AW-6012, EN AW-6014, EN AW-6018, EN AW-6023, EN AW-6351, EN AW-6060, EN AW-6360, EN AW-6061, EN AW-6261, EN AW-6262, EN AW-6262A, EN AW-6063, EN AW-6063A, EN AW-6463, EN AW-6065, EN AW-6081, EN AW-6082, EN AW-6182
Group II	EN AW-2007, EN AW-2011, EN AW-2011A, EN AW-2014, EN AW-2014A, EN AW-2017A, EN AW-2024, EN AW-2030 EN AW-5019, EN AW-5049, EN AW-5052, EN AW-5154A, EN AW-5454, EN AW-5754, EN AW-5083, EN AW-5086 EN AW-7003, EN AW-7005, EN AW-7108, EN AW-7108A, EN AW-7020, EN AW-7021, EN AW-7022, EN AW-7049A, EN AW-7075

3 Tolerances on dimensions

3.1 Diameter

The tolerances on diameter are specified in Table 2:

For the purpose of this document the alloys are distributed into two groups which correspond to varying difficulty when manufacturing the products.

The division into group I and group II of the most commonly used general engineering alloys is specified in Table 1.

Table 2 — Diameter tolerances

Dimensions in millimetres

Diameter D		Tolerances	
Over	Up to and including	Alloy group I	Alloy group II
≥ 8	18	$\pm 0,22$	$\pm 0,30$
18	25	$\pm 0,25$	$\pm 0,35$
25	40	$\pm 0,30$	$\pm 0,40$
40	50	$\pm 0,35$	$\pm 0,45$
50	65	$\pm 0,40$	$\pm 0,50$
65	80	$\pm 0,45$	$\pm 0,70$
80	100	$\pm 0,55$	$\pm 0,90$
100	120	$\pm 0,65$	$\pm 1,0$
120	150	$\pm 0,80$	$\pm 1,2$
150	180	$\pm 1,0$	$\pm 1,4$
180	220	$\pm 1,15$	$\pm 1,7$
220	270	$\pm 1,3$	$\pm 2,0$
270	320	$\pm 1,6$	$\pm 2,5$

3.2 Length

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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

Dimensions in millimetres

Diameter D		Tolerances on length		
Over	Up to and including	$L \leq 2000$	$2000 < L \leq 5000$	$L > 5000$
-	100	+5 0	+7 0	+10 0
100	200	+7 0	+9 0	+12 0
200	320	+8 0	+11 0	-

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

3.3 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).

4 Tolerances on form

4.1 Ovality

Ovality is the difference between the maximum and minimum diameters measured in one cross-section.

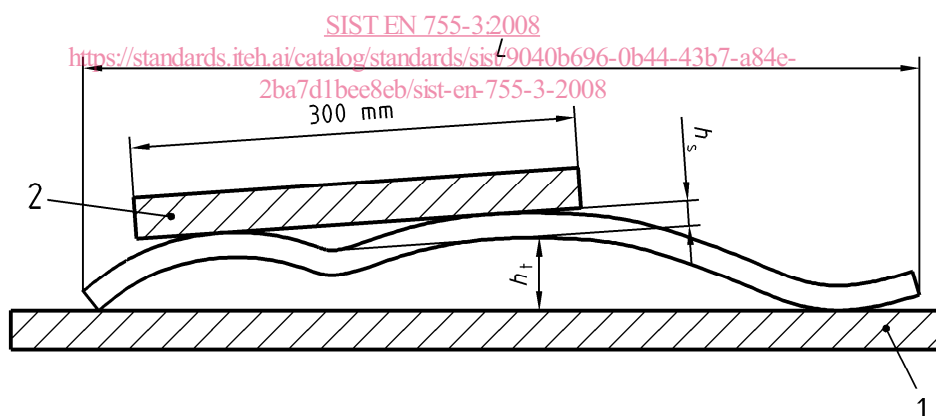
The maximum permissible ovality is 50 % of the tolerance range specified in Table 2 (e.g. for a diameter tolerance of $\pm 0,22$ mm, the maximum permissible ovality is 0,22 mm).

4.2 Straightness

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

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).

The straightness tolerances apply to round bars in all tempers except O and Tx510. If a straightness tolerance is required for either O or Tx510 temper, it shall be agreed between supplier and purchaser.



Key

- 1 base plate
- 2 straight edge

Figure 1 — Measurement of deviation from straightness