

BRITISH STANDARD

**BS EN
10258 : 1997**

*Incorporating
Amendment No. 1*

Cold-rolled stainless steel narrow strip and cut lengths — Tolerances on dimensions and shape

The European Standard EN 10258 : 1997 has the status of a British Standard

ICS 77.140.50

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



S

National foreword

This British Standard is the English language version of EN 10258 : 1996. It supersedes the requirements for dimensions and shape of cold-rolled narrow strip and cut lengths in BS 1449 : Part 2 : 1983 and in BS 1501 : Part 3 : 1990. Both of these British Standards have been amended.

The UK participation in its preparation was entrusted to Technical Committee ISE/30, Stainless steels, 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.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled 'International Standards Correspondence Index', or using the 'Find' facility of the BSI Standards Electronic Catalogue.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

This British Standard, having been prepared under the direction of the Sector Board for Engineering, was published under the authority of the Standards Board and comes into effect on 15 September 1997

© BSI 1998

Amendments issued since publication

Amd. No.	Date	Text affected
9862	January 1998	Indicated by a sideline in the margin

ISBN 0 580 28314 3

Summary of pages

The following table identifies the current issue of each page. Issue 1 indicates that a page has been introduced for the first time by amendment. Subsequent issue numbers indicate an updated page. Vertical sidelining on replacement pages indicates the most recent changes (amendment, addition, deletion).

Page	Issue	Page	Issue
Front cover	2	4	2
Inside front cover	2	5	original
a	1	6	original
b	blank	7	original
1	2	8	original
2	2	Inside back cover	original
3	original	Back cover	original



* 5 *

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 10258

May 1997

ICS 77.140.50

Descriptors: Iron- and steel products, cold rolled products, strip, stainless steel, designation, delivery condition, dimensional tolerances, form tolerances, measurements

English version

Cold-rolled stainless steel narrow strip and cut lengths — Tolerances on dimensions and shape

Feuillards ou feuillards coupés à longueur en acier
inoxydable laminés à froid — Tolérances sur les
dimensions et la forme

Kaltband und kaltband in Stäben aus
nichtrostendem Stahl — Grenzabmaße und
Formtoleranzen

This European Standard was approved by CEN on 1997-01-26. 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 Central Secretariat 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 Central Secretariat 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.

CEN

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

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

© 1997 CEN — All rights of exploitation in any form and by any means reserved worldwide for CEN national members.

Ref. No. EN 10258 : 1997 E

Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 23, Steels for heat treatment, alloy steels and free-cutting steels — Qualities, the secretariat of which is held by DIN.

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 November 1997, and conflicting national standards shall be withdrawn at the latest by November 1997.

It is the first edition of a European Standard for tolerances on dimensions and shape for cold-rolled stainless steel narrow strip and cut lengths.

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.

Contents

	Page
Foreword	2
1 Scope	3
2 Normative references	3
3 Definitions	3
4 Designation	3
5 Condition of delivery	3
6 Tolerances on thickness	3
7 Tolerances on width	3
8 Preferred coil inner diameters	5
9 Tolerances on length	5
10 Flatness and edge waviness tolerances	5
11 Tolerances on out-of-squareness	6
12 Tolerances on edge camber	6
13 Ordered format (for cut lengths)	6
14 Measurement	6
Annex	
A (informative) Bibliography	8

1 Scope

This European Standard applies to cold-rolled stainless, heat resisting and creep resisting steel flat products in thicknesses up to and including 3,0 mm and rolled widths of less than 600 mm delivered as:

- a) narrow strip (coils with a rolled width < 600 mm),
- b) slit cold-rolled narrow strip,
- c) cut lengths obtained from slit cold-rolled narrow strip or cold-rolled narrow strip.

It does not apply to cold-rolled stainless, heat resisting and creep resisting steel wide strip and plate/sheet (rolled width $\geq$ 600 mm, see EN 10259), or to cold-rolled products for which there is a specific standard.

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 publications referred to applies.

EN 10079 *Definition of steel products*

3 Definitions

For the purposes of this European Standard, the definitions given in EN 10079 shall apply.

4 Designation

4.1 Products conforming to this European Standard shall be designated in the following order (see also clause 5):

- a) type of product (narrow strip or cut length);
- b) the number of this European Standard (EN 10258);
- c) nominal thickness in millimetres;
- d) the letter F or P for products ordered with fine or precision tolerances on thickness;
- e) nominal width in millimetres;
- f) the letter F or P for products ordered with fine or precision tolerances on width;
- g) nominal length in millimetres (cut lengths only);
- h) the letter S for products ordered with special tolerances on length;
- i) the letters FS for cut lengths ordered with special tolerances on flatness;
- j) the letter R for strip or cut lengths ordered with restricted tolerances on edge camber.

4.2 The product designation in accordance with 4.1 shall be followed by the complete designation of the steel ordered (according to EN 10088-2 for example).

An example of designation is as follows:

Narrow strip according to this European Standard of nominal thickness 0,20 mm ordered with precision thickness tolerance (P), nominal width of 25 mm with precision tolerance on width (P) and with restricted tolerance on edge camber (R) in steel X5CrNi18-10 (1.4301) in the work hardened condition +C850, process route 2H, as specified in EN 10088-2:

- Narrow strip EN 10258-0,20P×25P-R;
Steel EN 10088-2-X5CrNi18-10+C850+2H;
or
- Narrow strip EN 10258-0,20P×25P-R;
Steel EN 10088-2-1.4301+C850+2H.

5 Condition of delivery

5.1 Flat products according to this European Standard may be delivered as follows:

- a) with normal, fine or precision thickness tolerances (see table 1);
- b) with normal, fine or precision width tolerances (see table 2);
- c) with normal or special length tolerances for cut lengths (see table 3);
- d) with normal or special flatness tolerances for cut lengths (see clause 10);
- e) with normal or restricted edge camber for strip or cut lengths (see clause 12).

5.2 In the absence of information on the order in respect of the condition of delivery given in 5.1, the flat products shall be delivered with normal tolerances on thickness, width, length, flatness and edge camber.

5.3 Flat products with slit edges will have burrs caused by slitting. If special requirements are made for these edges, corresponding agreements will have to be made on ordering. In this case, the strip is deemed to be slit almost free of burr if the height of the burr is less than 10 % of the product thickness.

By special agreement and depending on the technical equipment of the supplier, flat products according to this standard can be delivered with special edges, e.g. deburred or rounded edges.

6 Tolerances on thickness

The tolerances on thickness are given in table 1.

7 Tolerances on width

The tolerances on width are given in table 2.

Table 1. Tolerances on nominal thickness¹⁾

Dimensions in millimetres										
Nominal width (<i>w</i>)		<i>w</i> < 125			125 ≤ <i>w</i> < 250			250 ≤ <i>w</i> < 600		
Nominal thickness (<i>t</i>)		Normal	Fine	Precision	Normal	Fine	Precision	Normal	Fine	Precision
Equal to and over	Less than		(F)	(P)		(F)	(P)		(F)	(P)
0,05 ²⁾	0,10	± 0,10· <i>t</i>	± 0,06· <i>t</i>	± 0,04· <i>t</i>	± 0,12· <i>t</i>	± 0,10· <i>t</i>	± 0,08· <i>t</i>	± 0,15· <i>t</i>	± 0,10· <i>t</i>	± 0,08· <i>t</i>
0,10	0,15	± 0,010	± 0,008	± 0,006	± 0,015	± 0,012	± 0,008	± 0,020	± 0,015	± 0,010
0,15	0,20	± 0,015	± 0,010	± 0,008	± 0,020	± 0,012	± 0,010	± 0,025	± 0,015	± 0,012
0,20	0,25	± 0,015	± 0,012	± 0,008	± 0,020	± 0,015	± 0,010	± 0,025	± 0,020	± 0,012
0,25	0,30	± 0,017	± 0,012	± 0,009	± 0,025	± 0,015	± 0,012	± 0,030	± 0,020	± 0,015
0,30	0,40	± 0,020	± 0,015	± 0,010	± 0,025	± 0,020	± 0,012	± 0,030	± 0,025	± 0,015
0,40	0,50	± 0,025	± 0,020	± 0,012	± 0,030	± 0,020	± 0,015	± 0,035	± 0,025	± 0,018
0,50	0,60	± 0,030	± 0,020	± 0,014	± 0,030	± 0,025	± 0,015	± 0,040	± 0,030	± 0,020
0,60	0,80	± 0,030	± 0,025	± 0,015	± 0,035	± 0,030	± 0,018	± 0,040	± 0,035	± 0,025
0,80	1,00	± 0,030	± 0,025	± 0,018	± 0,040	± 0,030	± 0,020	± 0,050	± 0,035	± 0,025
1,00	1,20	± 0,035	± 0,030	± 0,020	± 0,045	± 0,035	± 0,025	± 0,050	± 0,040	± 0,030
1,20	1,50	± 0,040	± 0,030	± 0,020	± 0,050	± 0,035	± 0,025	± 0,060	± 0,045	± 0,030
1,50	2,00	± 0,050	± 0,035	± 0,025	± 0,060	± 0,040	± 0,030	± 0,070	± 0,050	± 0,035
2,00	2,50	± 0,050	± 0,035	± 0,025	± 0,070	± 0,045	± 0,030	± 0,080	± 0,060	± 0,040
2,50	3,00 ³⁾	± 0,060	± 0,045	± 0,030	± 0,070	± 0,050	± 0,035	± 0,090	± 0,070	± 0,045

¹⁾ By agreement, the tolerances may alternatively be totally '+' or totally '-' or unevenly distributed. In any case, the total range of the tolerance shall remain as in this table

²⁾ For thicknesses below 0,05 mm, the values for the tolerances are to be agreed at the time of enquiry and order.

³⁾ Including 3,00 mm.

Table 2. Tolerances on nominal width¹⁾

Dimensions in millimetres													
Nominal thickness (<i>t</i>)		Nominal width (<i>w</i>)											
Equal to and over	Less than	<i>w</i> ≤ 40			40 < <i>w</i> ≤ 125			125 < <i>w</i> ≤ 250			250 < <i>w</i> < 600		
		Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)
—	0,25	+ 0,17 0	+ 0,13 0	+ 0,10 0	+ 0,20 0	+ 0,15 0	+ 0,12 0	+ 0,25 0	+ 0,20 0	+ 0,15 0	+ 0,50 0	+ 0,50 0	+ 0,40 0
0,25	0,50	+ 0,20 0	+ 0,15 0	+ 0,12 0	+ 0,25 0	+ 0,20 0	+ 0,15 0	+ 0,30 0	+ 0,22 0	+ 0,17 0	+ 0,60 0	+ 0,50 0	+ 0,40 0
0,50	1,00	+ 0,25 0	+ 0,20 0	+ 0,15 0	+ 0,25 0	+ 0,22 0	+ 0,17 0	+ 0,40 0	+ 0,25 0	+ 0,20 0	+ 0,70 0	+ 0,60 0	+ 0,50 0
1,00	1,50	+ 0,25 0	+ 0,22 0	+ 0,15 0	+ 0,30 0	+ 0,25 0	+ 0,17 0	+ 0,50 0	+ 0,30 0	+ 0,22 0	+ 1,0 0	+ 0,70 0	+ 0,60 0
1,50	2,50	—	—	—	+ 0,40 0	+ 0,25 0	+ 0,20 0	+ 0,60 0	+ 0,40 0	+ 0,25 0	+ 1,0 0	+ 0,80 0	+ 0,60 0
2,50	3,00 ²⁾	—	—	—	+ 0,50 0	+ 0,30 0	+ 0,25 0	+ 0,60 0	+ 0,40 0	+ 0,25 0	+ 1,2 0	+ 1,0 0	+ 0,80 0

¹⁾ By agreement, the tolerances may alternatively be either equally '±' or all '-'. In all cases, the total range of the tolerance shall remain as in the table above.

²⁾ Including 3,00 mm.

8 Preferred coil inner diameters

The inside diameter of the coil should be decided by mutual agreement. Preferred inside diameters of coils are approximately 300 mm, 400 mm, 500 mm and 600 mm with a limitation for the diameter 300 mm which is not available for strip thicknesses above 2,0 mm.

9 Tolerances on length

The tolerances on length are given in table 3.

Table 3. Tolerances on nominal length		
Dimensions in millimetres		
Nominal length (l)	Tolerances	
	Normal	Special (S)
$l \leq 2000$	+ 3,00 0	+ 1,50 0
$2000 < l \leq 4000$	+ 5,00 0	+ 2,00 0

10 Flatness and edge waviness tolerances

10.1 The flatness tolerance of cut lengths shall not exceed 10 mm for normal cases and 7 mm where a special tolerance (FS) is required.

This requirement does not apply to material supplied in the work hardened condition.

10.2 For skin passed or stretch levelled strip, the waviness of the edges, i. e. the ratio of wave height (h) to wavelength (l) shall be max. 0,03 for nominal thicknesses up to 1,00 mm and max. 0,02 for nominal thicknesses over 1,00 mm (see figure 1).

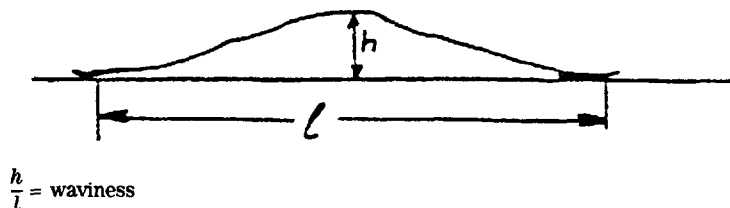


Figure 1. Edge waviness tolerance for strip



S

11 Tolerances on out-of-squareness

The out-of-squareness of cut lengths in widths 250 mm and above shall not exceed 0,5 % of the actual width of the product.

For cut lengths in widths less than 250 mm, the value is to be agreed at the time of enquiry and order.

12 Tolerances on edge camber

The edge camber tolerances are given in table 4. These tolerances do not apply to material supplied in the work-hardened condition, for which any requirement shall be agreed between manufacturer and customer.

13 Ordered format (for cut lengths)

When ordering cut lengths, an agreement may be made that the ordered format shall be contained in every piece supplied. In this case, the tolerances on width, length, edge camber and out-of-square shall be agreed at the time of enquiry and order.

14 Measurement

14.1 Thickness

The thickness may be measured at any arbitrarily chosen point on the product at least 10 mm from the edges. For widths up to and including 20 mm, it shall be measured at the centre of the product width.

When ordering fine (F) or precision (P) thickness tolerances, it can be agreed that the permissible deviations from thickness shall be maintained over the whole width of the product.

14.2 Width

Width is measured perpendicularly to the rolling direction of the product.

14.3 Length

The length is measured along the rolling direction of the cut length.

14.4 Flatness

14.4.1 Flatness tolerances can be measured in the following ways:

- Maximum deviation from a flat horizontal surface. With the cut length lying under its own mass on a flat surface, the maximum deviation from flatness is the maximum distance between the lower surface of the cut length and the flat horizontal surface.
- To measure the flatness, the cut length shall be laid on an approximately flat surface. Deviation with respect to flatness shall be taken as the greatest distance between the cut length and a straight-edge placed upon it. The straight-edge should be either 1000 mm or 2000 mm. It may be placed on the cut length at any position and in any direction. Only the position between the points of contact of cut length and straight-edge shall be taken into account.

Unless otherwise agreed, the choice of measurement is left to the manufacturer.

14.4.2 The measurement of waviness is only made on edges.

14.4.3 Flatness and waviness are not normally measured by the manufacturer, unless compliance is in doubt.

14.5 Out-of-squareness

14.5.1 Out-of-square is the greatest deviation of an end edge from a straight edge of a square placed at right angles to a side and touching one corner (see figure 2).

14.5.2 The out-of-square is not normally measured by the manufacturer, unless compliance is in doubt.

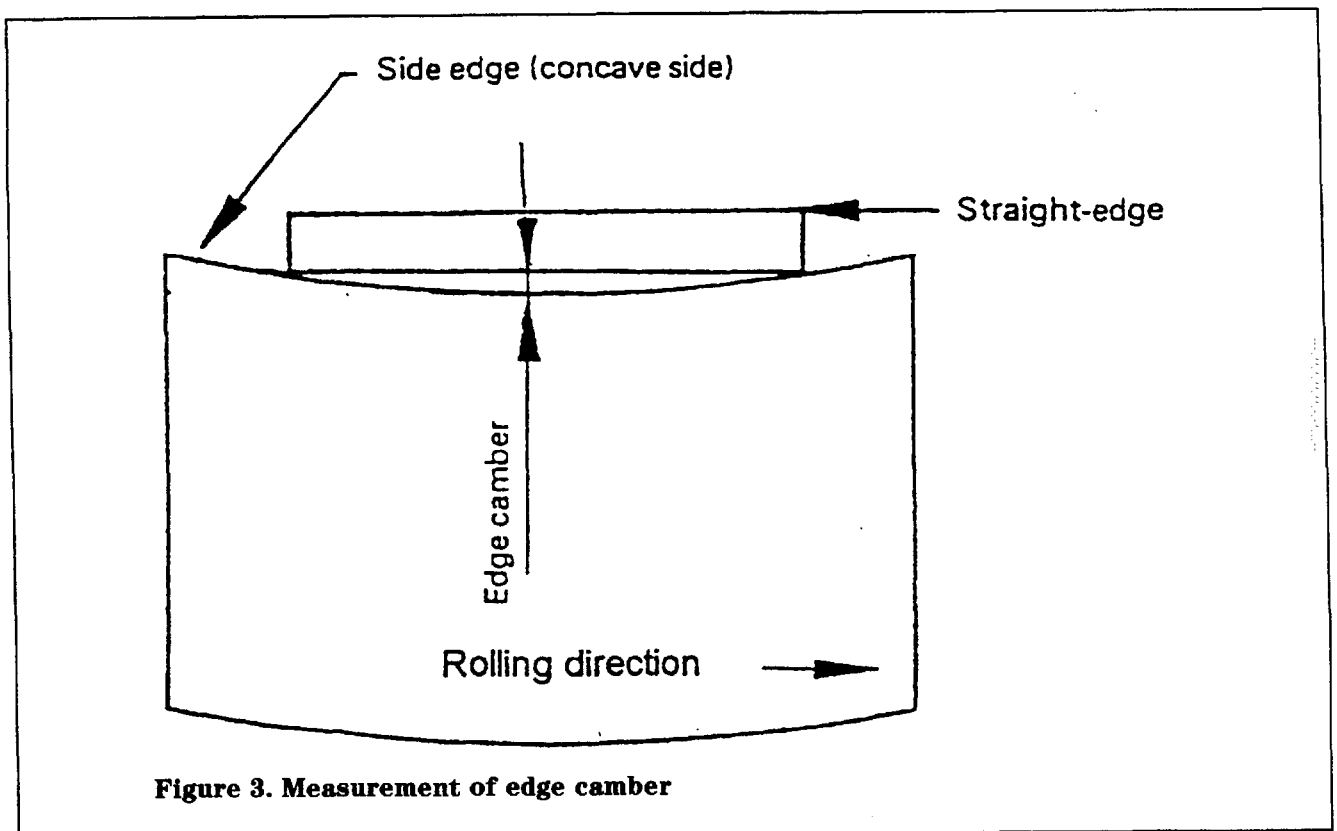
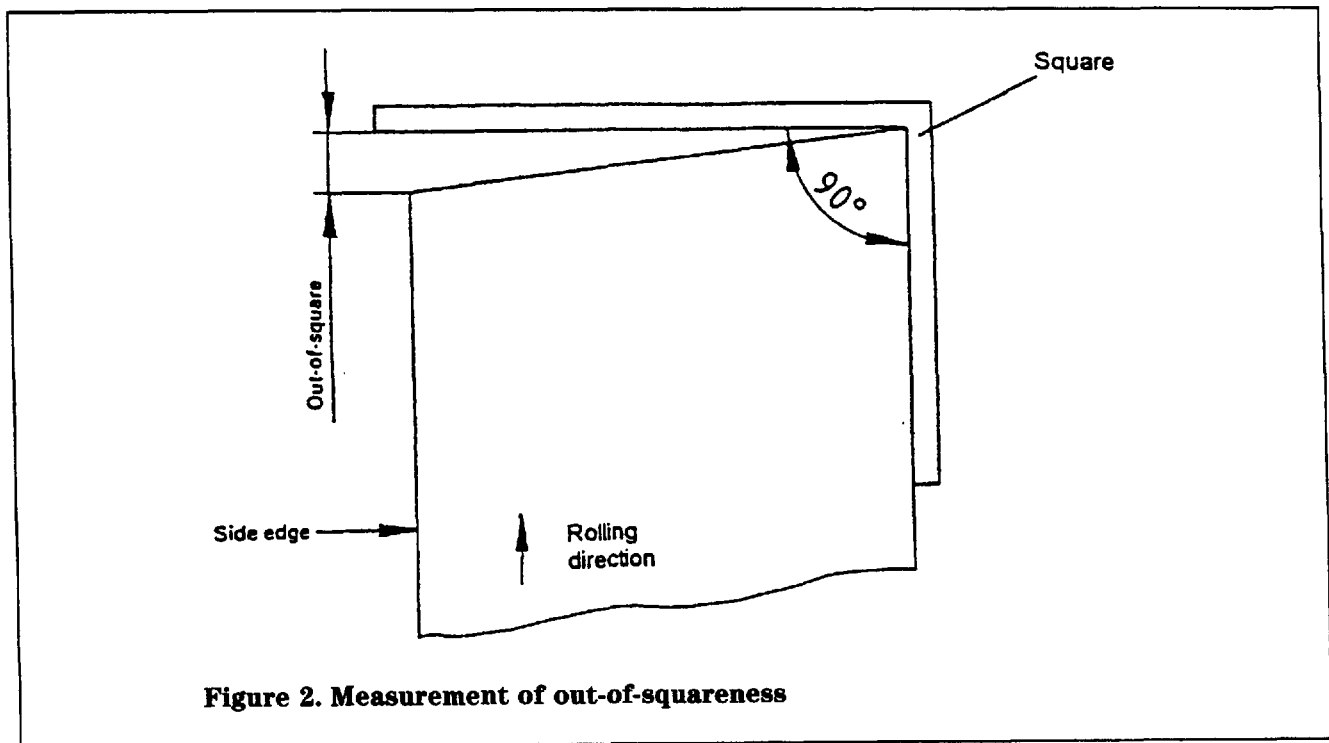
14.6 Edge camber

14.6.1 Edge camber is the greatest deviation of a side edge from a straight line, the measurement being taken on the concave side with a straight edge (see figure 3).

14.6.2 Edge camber is not normally measured by the manufacturer, unless compliance is in doubt. If measured, this shall be done at a minimum distance of 3 laps from the end of the coil.

Table 4. Tolerances on edge camber

Dimensions in millimetres					
Specified width		Edge camber tolerances			
Equal to and over	Less than	Normal		Restricted (R)	
		Measuring length		Measuring length	
		1000	2000	1000	2000
10	25	4	16	1,5	6
25	40	3	12	1,25	5
40	125	2	8	1,0	4
125	600	1,5	6	0,75	3



***S**

Annex A (informative)**Bibliography**

- EN 10088-2 *Stainless steels — Part 2: Technical delivery conditions for sheet/plate and strip for general purposes*
- EN 10259 *Cold-rolled stainless steel wide strip and plate/sheet — Tolerances on dimensions and shape*

BS EN 10258 : 1997

BSI — British Standards Institution

BSI is the independent national body responsible for preparing British Standards. It presents the UK view on standards in Europe and at the international level. It is incorporated by Royal Charter.

Contract requirements

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Revisions

British Standards are updated by amendment or revision. Users of British Standards should make sure that they possess the latest amendments or editions.

It is the constant aim of BSI to improve the quality of our products and services. We would be grateful if anyone finding an inaccuracy or ambiguity while using this British Standard would inform the Secretary of the responsible technical committee, the identity of which can be found on the inside front cover. Tel: 0181 996 9000; Fax: 0181 996 7400.

BSI offers members an individual updating service called PLUS which ensures that subscribers automatically receive the latest editions of standards.

Buying standards

Orders for all BSI, international and foreign standards publications should be addressed to Customer Services, Sales Department at Chiswick: Tel: 0181 996 7000; Fax: 0181 996 7001.

In response to orders for international standards, it is BSI policy to supply the BSI implementation of those that have been published as British Standards, unless otherwise requested.

Information on standards

BSI provides a wide range of information on national, European and international standards through its Library, the Standardline Database, the BSI Information Technology Service (BITS) and its Technical Help to Exporters Service. Contact the Information Department at Chiswick: Tel: 0181 996 7111; Fax: 0181 996 7048.

Subscribing members of BSI are kept up to date with standards developments and receive substantial discounts on the purchase price of standards. For details of these and other benefits contact Customer Services, Membership at Chiswick: Tel: 0181 996 7002; Fax: 0181 996 7001.

Copyright

Copyright subsists in all BSI publications. BSI also holds the copyright, in the UK, of the publications of the international standardization bodies. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI.

This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols, and size, type or grade designations. If these details are to be used for any other purpose than implementation then the prior written permission of BSI must be obtained.

If permission is granted, the terms may include royalty payments or a licensing agreement. Details and advice can be obtained from the Copyright Manager, BSI, 389 Chiswick High Road, London W4 4AL.

BSI
389 Chiswick High Road
London
W4 4AL

**Amendment No. 1**

**published and effective from 15 January 1998
to BS EN 10258 : 1997**

**Cold-rolled stainless steel narrow strip and cut lengths —
Tolerances on dimensions and shape**

Instructions for replacement of pages

Where only one of the two pages on each sheet has been updated, the other page has been reprinted.

Front cover and inside front cover	Replace the pages
a and b	Insert the pages immediately after the inside front cover
1 and 2	Replace the pages
3 and 4	Replace the pages

You may wish to retain the superseded pages, e.g. for reference purposes, if so please mark them 'Superseded by issue X', where 'X' is the appropriate issue number. If you do not wish to retain the superseded pages, please destroy them.



S*

BRITISH STANDARD

**BS EN
10258 : 1997**

*Incorporating
Amendment No. 1*

Cold-rolled stainless steel narrow strip and cut lengths — Tolerances on dimensions and shape

The European Standard EN 10258 : 1997 has the status of a British Standard

ICS 77.140.50

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



*
S
*

National foreword

This British Standard is the English language version of EN 10258 : 1996. It supersedes the requirements for dimensions and shape of cold-rolled narrow strip and cut lengths in BS 1449 : Part 2 : 1983 and in BS 1501 : Part 3 : 1990. Both of these British Standards have been amended.

The UK participation in its preparation was entrusted to Technical Committee ISE/30, Stainless steels, 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.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled 'International Standards Correspondence Index', or using the 'Find' facility of the BSI Standards Electronic Catalogue.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

This British Standard, having been prepared under the direction of the Sector Board for Engineering, was published under the authority of the Standards Board and comes into effect on 15 September 1997

© BSI 1998

Amendments issued since publication

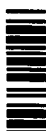
Amd. No.	Date	Text affected
9862	January 1998	Indicated by a sideline in the margin

ISBN 0 580 28314 3

Summary of pages

The following table identifies the current issue of each page. Issue 1 indicates that a page has been introduced for the first time by amendment. Subsequent issue numbers indicate an updated page. Vertical sidelining on replacement pages indicates the most recent changes (amendment, addition, deletion).

Page	Issue	Page	Issue
Front cover	2	4	2
Inside front cover	2	5	original
a	1	6	original
b	blank	7	original
1	2	8	original
2	2	Inside back cover	original
3	original	Back cover	original



**S*

EUROPEAN STANDARD

EN 10258

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1997

ICS 77.140.50

Descriptors: Iron- and steel products, cold rolled products, strip, stainless steel, designation, delivery condition, dimensional tolerances, form tolerances, measurements

English version

Cold-rolled stainless steel narrow strip and cut lengths — Tolerances on dimensions and shape

Feuillards ou feuillards coupés à longueur en acier
inoxydable laminés à froid — Tolérances sur les
dimensions et la forme

Kaltband und kaltband in Stäben aus
nichtrostendem Stahl — Grenzabmaße und
Formtoleranzen

This European Standard was approved by CEN on 1997-01-26. 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 Central Secretariat 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 Central Secretariat 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.

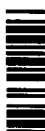
CEN

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

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

© 1997 CEN — All rights of exploitation in any form and by any means reserved worldwide for CEN national members.

Ref. No. EN 10258 : 1997 E



*
S
*

Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 23, Steels for heat treatment, alloy steels and free-cutting steels — Qualities, the secretariat of which is held by DIN.

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 November 1997, and conflicting national standards shall be withdrawn at the latest by November 1997.

It is the first edition of a European Standard for tolerances on dimensions and shape for cold-rolled stainless steel narrow strip and cut lengths.

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.

Contents

	Page
Foreword	2
1 Scope	3
2 Normative references	3
3 Definitions	3
4 Designation	3
5 Condition of delivery	3
6 Tolerances on thickness	3
7 Tolerances on width	3
8 Preferred coil inner diameters	5
9 Tolerances on length	5
10 Flatness and edge waviness tolerances	5
11 Tolerances on out-of-squareness	6
12 Tolerances on edge camber	6
13 Ordered format (for cut lengths)	6
14 Measurement	6
Annex	
A (informative) Bibliography	8

1 Scope

This European Standard applies to cold-rolled stainless, heat resisting and creep resisting steel flat products in thicknesses up to and including 3,0 mm and rolled widths of less than 600 mm delivered as:

- a) narrow strip (coils with a rolled width < 600 mm),
- b) slit cold-rolled narrow strip,
- c) cut lengths obtained from slit cold-rolled narrow strip or cold-rolled narrow strip.

It does not apply to cold-rolled stainless, heat resisting and creep resisting steel wide strip and plate/sheet (rolled width $\geq$ 600 mm, see EN 10259), or to cold-rolled products for which there is a specific standard.

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 publications referred to applies.

EN 10079 *Definition of steel products*

3 Definitions

For the purposes of this European Standard, the definitions given in EN 10079 shall apply.

4 Designation

4.1 Products conforming to this European Standard shall be designated in the following order (see also clause 5):

- a) type of product (narrow strip or cut length);
- b) the number of this European Standard (EN 10258);
- c) nominal thickness in millimetres;
- d) the letter F or P for products ordered with fine or precision tolerances on thickness;
- e) nominal width in millimetres;
- f) the letter F or P for products ordered with fine or precision tolerances on width;
- g) nominal length in millimetres (cut lengths only);
- h) the letter S for products ordered with special tolerances on length;
- i) the letters FS for cut lengths ordered with special tolerances on flatness;
- j) the letter R for strip or cut lengths ordered with restricted tolerances on edge camber.

4.2 The product designation in accordance with 4.1 shall be followed by the complete designation of the steel ordered (according to EN 10088-2 for example).

An example of designation is as follows:

Narrow strip according to this European Standard of nominal thickness 0,20 mm ordered with precision thickness tolerance (P), nominal width of 25 mm with precision tolerance on width (P) and with restricted tolerance on edge camber (R) in steel X5CrNi18-10 (1.4301) in the work hardened condition +C850, process route 2H, as specified in EN 10088-2:

- Narrow strip EN 10258-0,20P×25P-R;
Steel EN 10088-2-X5CrNi18-10+C850+2H;
or
- Narrow strip EN 10258-0,20P×25P-R;
Steel EN 10088-2-1.4301+C850+2H.

5 Condition of delivery

5.1 Flat products according to this European Standard may be delivered as follows:

- a) with normal, fine or precision thickness tolerances (see table 1);
- b) with normal, fine or precision width tolerances (see table 2);
- c) with normal or special length tolerances for cut lengths (see table 3);
- d) with normal or special flatness tolerances for cut lengths (see clause 10);
- e) with normal or restricted edge camber for strip or cut lengths (see clause 12).

5.2 In the absence of information on the order in respect of the condition of delivery given in 5.1, the flat products shall be delivered with normal tolerances on thickness, width, length, flatness and edge camber.

5.3 Flat products with slit edges will have burrs caused by slitting. If special requirements are made for these edges, corresponding agreements will have to be made on ordering. In this case, the strip is deemed to be slit almost free of burr if the height of the burr is less than 10 % of the product thickness.

By special agreement and depending on the technical equipment of the supplier, flat products according to this standard can be delivered with special edges, e.g. deburred or rounded edges.

6 Tolerances on thickness

The tolerances on thickness are given in table 1.

7 Tolerances on width

The tolerances on width are given in table 2.

Table 1. Tolerances on nominal thickness ¹⁾										
Dimensions in millimetres										
Nominal width (<i>w</i>)		<i>w</i> < 125			125 ≤ <i>w</i> < 250			250 ≤ <i>w</i> < 600		
Nominal thickness (<i>t</i>)		Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)
Equal to and over	Less than									
0,05 ²⁾	0,10	± 0,10- <i>t</i>	± 0,06- <i>t</i>	± 0,04- <i>t</i>	± 0,12- <i>t</i>	± 0,10- <i>t</i>	± 0,08- <i>t</i>	± 0,15- <i>t</i>	± 0,10- <i>t</i>	± 0,08- <i>t</i>
0,10	0,15	± 0,010	± 0,008	± 0,006	± 0,015	± 0,012	± 0,008	± 0,020	± 0,015	± 0,010
0,15	0,20	± 0,015	± 0,010	± 0,008	± 0,020	± 0,012	± 0,010	± 0,025	± 0,015	± 0,012
0,20	0,25	± 0,015	± 0,012	± 0,008	± 0,020	± 0,015	± 0,010	± 0,025	± 0,020	± 0,012
0,25	0,30	± 0,017	± 0,012	± 0,009	± 0,025	± 0,015	± 0,012	± 0,030	± 0,020	± 0,015
0,30	0,40	± 0,020	± 0,015	± 0,010	± 0,025	± 0,020	± 0,012	± 0,030	± 0,025	± 0,015
0,40	0,50	± 0,025	± 0,020	± 0,012	± 0,030	± 0,020	± 0,015	± 0,035	± 0,025	± 0,018
0,50	0,60	± 0,030	± 0,020	± 0,014	± 0,030	± 0,025	± 0,015	± 0,040	± 0,030	± 0,020
0,60	0,80	± 0,030	± 0,025	± 0,015	± 0,035	± 0,030	± 0,018	± 0,040	± 0,035	± 0,025
0,80	1,00	± 0,030	± 0,025	± 0,018	± 0,040	± 0,030	± 0,020	± 0,050	± 0,035	± 0,025
1,00	1,20	± 0,035	± 0,030	± 0,020	± 0,045	± 0,035	± 0,025	± 0,050	± 0,040	± 0,030
1,20	1,50	± 0,040	± 0,030	± 0,020	± 0,050	± 0,035	± 0,025	± 0,060	± 0,045	± 0,030
1,50	2,00	± 0,050	± 0,035	± 0,025	± 0,060	± 0,040	± 0,030	± 0,070	± 0,050	± 0,035
2,00	2,50	± 0,050	± 0,035	± 0,025	± 0,070	± 0,045	± 0,030	± 0,080	± 0,060	± 0,040
2,50	3,00 ³⁾	± 0,060	± 0,045	± 0,030	± 0,070	± 0,050	± 0,035	± 0,090	± 0,070	± 0,045

¹⁾ By agreement, the tolerances may alternatively be totally '+' or totally '-' or unevenly distributed. In any case, the total range of the tolerance shall remain as in this table

²⁾ For thicknesses below 0,05 mm, the values for the tolerances are to be agreed at the time of enquiry and order.

³⁾ Including 3,00 mm.

Table 2. Tolerances on nominal width ¹⁾													
Dimensions in millimetres													
Nominal thickness (<i>t</i>)		Nominal width (<i>w</i>)											
Equal to and over	Less than	<i>w</i> ≤ 40			40 < <i>w</i> ≤ 125			125 < <i>w</i> ≤ 250			250 < <i>w</i> < 600		
		Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)	Normal	Fine (F)	Precision (P)
—	0,25	+ 0,17 0	+ 0,13 0	+ 0,10 0	+ 0,20 0	+ 0,15 0	+ 0,12 0	+ 0,25 0	+ 0,20 0	+ 0,15 0	+ 0,50 0	+ 0,50 0	+ 0,40 0
0,25	0,50	+ 0,20 0	+ 0,15 0	+ 0,12 0	+ 0,25 0	+ 0,20 0	+ 0,15 0	+ 0,30 0	+ 0,22 0	+ 0,17 0	+ 0,60 0	+ 0,50 0	+ 0,40 0
0,50	1,00	+ 0,25 0	+ 0,20 0	+ 0,15 0	+ 0,25 0	+ 0,22 0	+ 0,17 0	+ 0,40 0	+ 0,25 0	+ 0,20 0	+ 0,70 0	+ 0,60 0	+ 0,50 0
1,00	1,50	+ 0,25 0	+ 0,22 0	+ 0,15 0	+ 0,30 0	+ 0,25 0	+ 0,17 0	+ 0,50 0	+ 0,30 0	+ 0,22 0	+ 1,0 0	+ 0,70 0	+ 0,60 0
1,50	2,50	—	—	—	+ 0,40 0	+ 0,25 0	+ 0,20 0	+ 0,60 0	+ 0,40 0	+ 0,25 0	+ 1,0 0	+ 0,80 0	+ 0,60 0
2,50	3,00 ²⁾	—	—	—	+ 0,50 0	+ 0,30 0	+ 0,25 0	+ 0,60 0	+ 0,40 0	+ 0,25 0	+ 1,2 0	+ 1,0 0	+ 0,80 0

¹⁾ By agreement, the tolerances may alternatively be either equally '±' or all '-'. In all cases, the total range of the tolerance shall remain as in the table above.

²⁾ Including 3,00 mm.