



SLOVENSKI STANDARD

oSIST prEN 15273-4:2019

01-februar-2019

Železniške naprave - Profili - 4. del: Katalog profilov in s tem povezanih pravil

Railway Applications - Gauges - Part 4: Catalogue of gauges and associated rules

Bahnanwendungen - Begrenzungslinien - Teil 4: Katalog der Begrenzungslinien und zugehörige Regeln

Applications ferroviaires - Gabarits - Partie 4 : Catalogue des gabarits et règles associées

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Ta slovenski standard je istoveten z: **prEN 15273-4**

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ICS:

45.060.01 Železniška vozila na splošno Railway rolling stock in general

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 15273-4

November 2018

ICS 45.020; 45.060.01

English Version

Railway Applications - Gauges - Part 4: Catalogue of gauges and associated rules

Applications ferroviaires - Gabarits - Partie 4 :
Catalogue des gabarits et règles associées

Bahnanwendungen - Lichtraum - Teil 4: Katalog der
Begrenzungslinien

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 256.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	5
Introduction	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
4 Symbols and abbreviations	7
5 Static gauges.....	7
5.1 Lower parts	7
5.1.1 Static gauge GI1.....	7
5.1.2 Static gauge GI2.....	9
5.1.3 Static gauge GEI1	10
5.1.4 Static gauge GEE10.....	11
5.1.5 Static gauge FIN1	13
5.2 Upper parts.....	15
5.2.1 Static gauge G1	15
5.2.2 Static gauge G2	16
5.2.3 Static gauge GA.....	17
5.2.4 Static gauge GB.....	19
5.2.5 Static gauge GC	21
5.2.6 Static gauge GB1	22
5.2.7 Static gauge GB2	23
5.2.8 Static gauge GHE16	24
5.2.9 Static gauge GEA16	26
5.2.10 Static gauge GEB16	27
5.2.11 Static gauge GEC16.....	29
5.2.12 Static gauge GEE10.....	30
5.2.13 Static gauge GED10	31
5.2.14 Static gauge FIN1	32
5.3 Gauges based on GOST standards	34
6 Kinematic gauges	34
6.1 Lower parts	34
6.1.1 Kinematic gauge GI1	34
6.1.2 Kinematic gauge GI2	35
6.1.3 Kinematic gauge GI3	36
6.1.4 Kinematic gauge GEI1	37
6.1.5 Kinematic gauge GEI2	38
6.1.6 Kinematic gauge GEI3.....	39
6.1.7 Kinematic gauge GEC14	40
6.1.8 Kinematic gauge GEE10	42
6.1.9 Kinematic gauge PT1	43
6.1.10 Kinematic gauge PT2	44
6.2 Upper Parts.....	45
6.2.1 Kinematic gauge G1	45
6.2.2 Kinematic gauge G2	47

6.2.3	Kinematic gauge GA	48
6.2.4	Kinematic gauge GB	49
6.2.5	Kinematic gauge GC	51
6.2.6	Kinematic gauge GB1	52
6.2.7	Kinematic gauge GB2	53
6.2.8	Kinematic gauge DE1	55
6.2.9	Kinematic gauge DE2	57
6.2.10	Kinematic gauge DE3	60
6.2.11	Kinematic gauge FR3.3	61
6.2.12	Kinematic gauge BE1	62
6.2.13	Kinematic gauge BE2	64
6.2.14	Kinematic gauge BE3	66
6.2.15	Kinematic gauge BE4	67
6.2.16	Kinematic gauge NL1	68
6.2.17	Kinematic gauge NL2	69
6.2.18	Kinematic Gauge EBVO1	70
6.2.19	Kinematic gauge EBVO2	71
6.2.20	Kinematic gauge EBVO3	72
6.2.21	Kinematic gauges GHE16	73
6.2.22	Kinematic gauge GEA16	74
6.2.23	Kinematic gauge GEB16	76
6.2.24	Kinematic gauge GEC16	78
6.2.25	Kinematic gauges GEE10	79
6.2.26	Kinematic gauges GED10	80
6.2.27	Kinematic gauge PTb	82
6.2.28	Kinematic gauge PTc	85
6.2.29	Kinematic Gauge DK1	87
6.2.30	Kinematic gauge GCZ3	88
7	Dynamic gauges	90
7.1	Dynamic gauge SEa	90
7.1.1	Lower part of the reference profile SEa	90
7.1.2	Upper part of the reference profile SEa	90
7.1.3	Pantograph reference profile for gauge SEa	91
7.1.4	Basic data	92
7.1.5	Calculation cases	93
7.1.6	Horizontal projections	93
7.1.7	Vertical projections	94
7.2	Dynamic gauge SEc	94
7.2.1	General	94
7.2.2	Lower part of the reference profile SEc	94
7.2.3	Upper part of the reference profile SEc	94
7.2.4	Pantograph reference profile	95
7.2.5	Basic data	95
7.2.6	Calculation cases	95
7.2.7	Horizontal projections	95
7.2.8	Vertical projections	95
7.3	Dynamic gauge NO1	95
7.3.1	General	95
7.3.2	Lower part	95
7.3.3	Upper part	96
7.3.4	Pantograph reference profile for gauge NO1	96
7.3.5	Basic data	97

prEN 15273-4:2018 (E)

7.3.6	Calculation cases	98
7.3.7	Horizontal projections	98
7.3.8	Vertical projections	99
8	Pantograph gauges	99
8.1	Pantograph reference profile	99
8.2	Basic data	100
8.3	Horizontal projections	100
9	Wheel zone	101
9.1	Reference profile.....	101
9.2	Basic data	103
10	Marshalling humps and track brakes	104
11	Contact ramp zone	106
12	Passing over link spans onto ferries	106
Annex A (informative) Combination of upper and lower parts.....		107
A.1	Static gauges.....	107
A.2	Kinematic gauges	108
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2008/57/EC aimed to be covered		110

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European foreword

This document (prEN 15273-4:2018) has been prepared by Technical Committee CEN/TC 256 “Railway Applications”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

This European Standard is one of the series prEN 15273, *Railway applications — Gauges* as listed below:

- prEN 15273-1, *Generic explanations and methods of gauging* gives the general explanations of gauging and defines the sharing of the space between rolling stock and infrastructure;
- prEN 15273-2, *Rolling stock* gives the rules for dimensioning vehicles;
- prEN 15273-3, *Infrastructure* gives the rules for positioning the infrastructure;
- prEN 15273-4, *Catalogue of gauges and associated rules* includes a non-exhaustive list of reference profiles and parameters to be used by infrastructure and rolling stock;
- prCEN/TR 15273-5, *Background, explanation and worked examples*.

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prEN 15273-4:2018 (E)**Introduction**

The aim of this standard is to define the rules for the calculation and verification of the dimensions of rolling stock and infrastructure from a gauging perspective.

This standard describes gauging processes taking into account the relative movements between rolling stock and infrastructure as well as the necessary margins or clearances

This part of the series EN 15273 and prCEN/TR 15273-5 covers a catalogue of gauges and associated rules and is used in conjunction with the following parts:

- *Part 1: Generic explanations and methods of gauging;*
- *Part 2: Rolling stock;*
- *Part 3: Infrastructure gauges;*
- *Part 5: Background, explanation and worked examples.*

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1 Scope

This document is a catalogue of existing gauges and provides data for static, kinematic and dynamic gauges. This document is intended to be used with prEN 15273-1, prEN 15273-2 and prEN 15273-3. Other networks, such as urban and suburban, can apply the gauging rules defined in this standard but are outside of its scope.

This document provides for each gauge the associated basic data (such as track gauge, limits for cant and cant deficiency, range of lateral and vertical curvatures), formulae for the lateral and vertical projections and other reference parameters.

NOTE The rules given in this standard are not applicable to the gauges “S” and “T” referred to in 4.2.3.1. (7) & (8) for track gauge 1 520 mm of the merged TSI Loc and Pass (Commission Regulation N° 1302/2014 of 18 November 2014).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

prEN 15273-1, *Railway applications — Gauges — Part 1: Generic explanations and methods of gauging*

prEN 15273-2, *Railway applications — Gauges — Part 2: Rolling stock*

prEN 15273-3, *Railway applications — Gauges — Part 3: Infrastructure*

3 Terms and definitions

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For the purposes of this document, the terms and definitions given in prEN 15273-1 apply.

4 Symbols and abbreviations

For the purposes of this document, the symbols and abbreviations given in prEN 15273-1 apply.

5 Static gauges

5.1 Lower parts

5.1.1 Static gauge GI1

5.1.1.1 Reference profile

Figure 1 shows the reference profile for static gauge GI1.

5.1.1.3 Horizontal projections

Table 2 gives the horizontal projections for the static gauge GI1.

Table 2 — Formulae for the horizontal projections of static gauge GI1

Height	Radius	Formula	
		Inside curve	Outside curve
$h_{CR} \leq 0,43$	$\infty \geq R \geq 250$	$S_{Ra} = S_{Ri} = \frac{2,5}{R}$	
	$250 > R \geq 150$	$S_{Ri} = \frac{50}{R} - 0,190$	$S_{Ra} = \frac{60}{R} - 0,230$
applicable for all heights	applicable for all radii	$S_l = \frac{[l - l_{nom}]_{>0}}{2}$	

5.1.1.4 Vertical projections

Table 3 gives the vertical projections for the static gauge GI1.

Table 3 — Vertical projections for lower parts

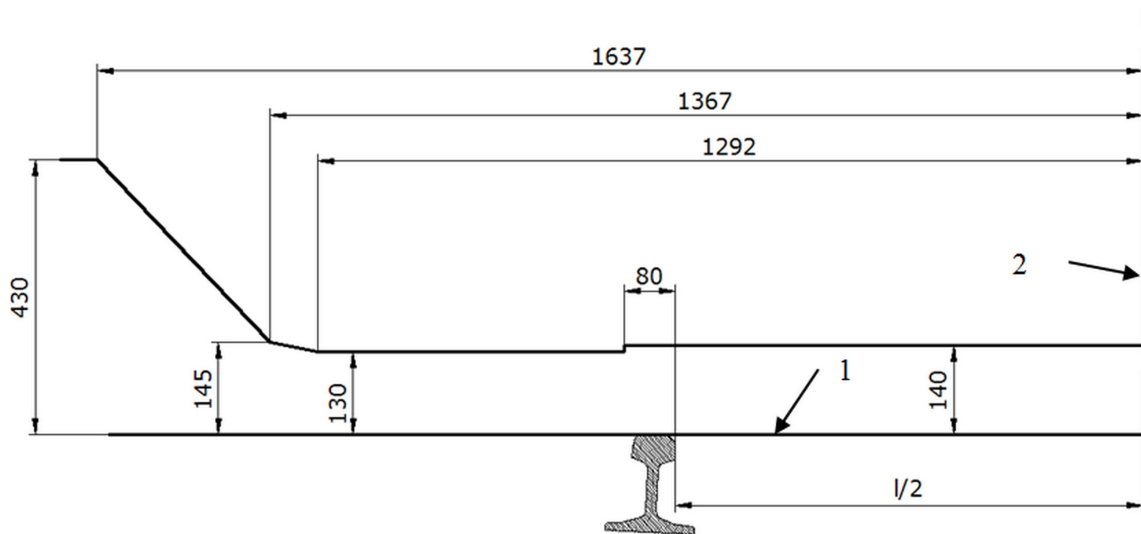
Height	S_{vu}
$h_{CR} < 0,08$	$\frac{40}{R_v}$
$0,08 \leq h_{CR} < 0,1$	$\frac{40}{R_v} + \frac{10}{R_v} \cdot \frac{h_{CR} - 0,08}{0,02}$
$h_{CR} \geq 0,1$	$\frac{50}{R_v}$

5.1.2 Static gauge GI2

5.1.2.1 Reference profile

Figure 2 shows the static reference profile GI2.

Dimensions in millimetres

**Key**

- 1 running plane
- 2 centerline of the reference profile

Figure 3 — Reference profile for static gauge GEI1

5.1.3.2 Basic data

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Table 4 gives the basic data to be considered for GEI1 static gauge calculations.

Table 4 — Values to be considered for GEI1 static gauge calculations

L m	s_{lim}	l_{nom} m	l_{max} m	R_{min} m	R_{vmin} m
1,733	0,3	1,668	1,698	150	500

5.1.3.3 Horizontal projections

The horizontal projections for the static gauge GEI1 are the same as for the static gauge GI1, given in Table 2.

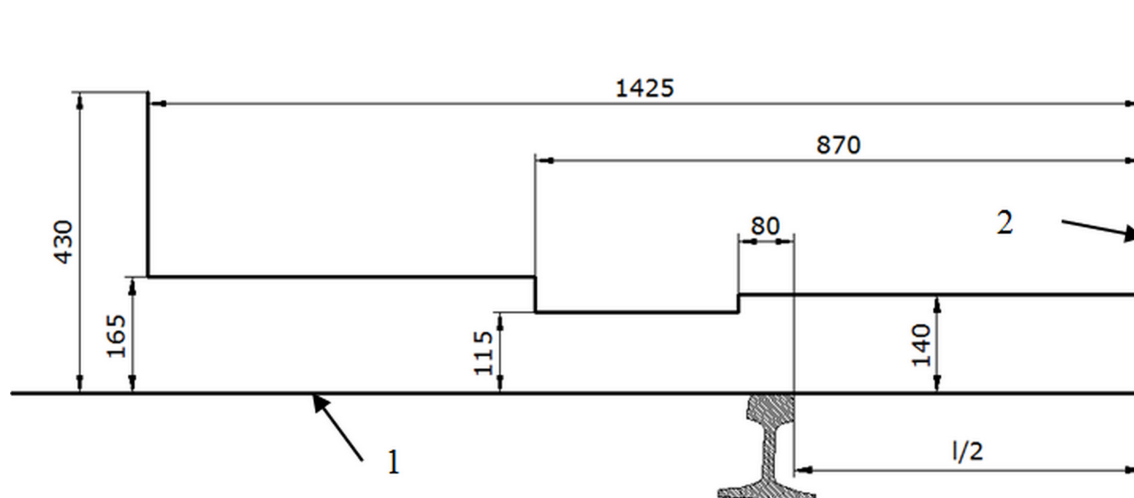
5.1.3.4 Vertical projections

The vertical projections for the static gauge GEI1 are the same as for the static gauge GI1, given in Table 3.

5.1.4 Static gauge GEE10**5.1.4.1 Reference profile**

Figure 4 shows the static reference profile GEE10.

Dimensions in millimetres

**Key**

- 1 running plane
- 2 centerline of the reference profile

Figure 4 — Reference profile of static gauge GEE10**5.1.4.2 Basic data**

Table 5 gives the basic data to be considered for GEE10 static gauge calculations.

Table 5 — Values to be considered for GEE10 static gauge calculations

L m	s_{lim}	l_{nom} m	l_{max} m	R_{min} m	R_{vmin} m
1,055	0,3	1,000	1,030	80	500

5.1.4.3 Horizontal projections

Table 6 gives the horizontal projections for the lower part of the static gauge GEE10.

Table 6 — Formulae for the horizontal projections of static gauge GEE10

Height	Radius	Formula	
		Inside curve	Outside curve
$h_{CR} \leq 0,43$	$\infty \geq R \geq 100$	$S_{Ri} = S_{Ra} = \frac{1}{R}$	
	$100 > R \geq 80$	$S_{Ri} = \frac{20}{R} - 0,190$	$S_{Ra} = \frac{24}{R} - 0,230$
applicable for all heights	applicable for all radii	$S_l = \frac{[l - l_{nom}]_{>0}}{2}$	

