

**SLOVENSKI STANDARD**  
**SIST EN ISO 11202:2010/oprA1:2019**  
**01-september-2019**

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**Akustika - Emisija hrupa naprav in opreme - Merjenje emisijske ravni zvočnega tlaka na delovnem mestu in na drugih opredeljenih mestih z uporabo približnih popravkov zaradi okolja - Dopnilo A1 (ISO 11202:2010/DAM 1:2019)**

Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections - Amendment 1 (ISO 11202:2010/DAM 1:2019)

Akustik - Geräuschabstrahlung von Maschinen und Geräten - Bestimmung von Emissions-Schalldruckpegeln am Arbeitsplatz und an anderen festgelegten Orten unter Anwendung angenäherter Umgebungskorrekturen - Änderung 1 (ISO 11202:2010/DAM 1:2019)

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Acoustique - Bruit émis par les machines et équipements - Détermination des niveaux de pression acoustique d'émission au poste de travail et en d'autres positions spécifiées en appliquant des corrections d'environnement approximatives - Amendement 1 (ISO 11202:2010/DAM 1:2019)

**Ta slovenski standard je istoveten z: EN ISO 11202:2010/prA1**

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**ICS:**

17.140.20	Emisija hrupa naprav in opreme	Noise emitted by machines and equipment
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**SIST EN ISO 11202:2010/oprA1:2019 en**

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# DRAFT AMENDMENT ISO 11202:2010/DAM 1

ISO/TC 43/SC 1

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## Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections

### AMENDMENT 1

*Acoustique — Bruit émis par les machines et équipements — Détermination des niveaux de pression acoustique d'émission au poste de travail et en d'autres positions spécifiées en appliquant des corrections d'environnement approximatives*

AMENDEMENT 1

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ICS: 17.140.20

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This document was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*.

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# Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections

## AMENDMENT 1

3.20

Replace text of Note 2

"The work station does not have to be located on the reference measurement surface."

by

"The work station can be located on the reference measurement surface, but this is not necessary. The reference measurement surface can be used to determine  $K_2$ ."

3.21

Replace text of Note 2

"For the purposes of this International Standard, the environmental correction,  $K_2$ , is only used as an indicator to qualify the environment and is determined for the reference measurement surface."

by

"For the purposes of this International Standard, the environmental correction,  $K_2$ , is used as an indicator to qualify the environment in 6.2 and used to calculate the local environmental correction  $K_3$  in A.2."

3.26

Replace definition and Note

"distance from the work station to the closest major sound source of the machine under test, without screening objects protruding into the line of sight between the major sound source and the work station

NOTE In the case of extended sound-radiating areas,  $d$  is the length of the shortest possible line of sight between the source under test and the work station."

by

"mean distance from the work station to the closest major sound source of the machine under test, without screening objects protruding into the line of sight between the major sound source and the work station given by

$$d = \frac{d_2 + d_1}{2}$$

where

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$d_1$  is the shortest distance from the sound radiating surface of the machine under test to the work station;

$d_2$  is the longest distance from the sound radiating surface of the machine under test to the work station"

## 12.5

In the last but one line replace "sound power level" by "sound pressure level".

## A.1.2

In line 3 replace "(minimum 1 m)" by "(minimum 0,5 m)".

## A.2.3

Add the following sentences and Note at the end (after "...in accordance with ISO 3744 or ISO 3746."):

"When measurements of both emission sound pressure and sound power are required it can be expedient to use the same measurement surface in both cases. This is not a requirement; the optimum measurement surface for a sound power measurement (e.g., a hemisphere) may not be the best measurement surface for determination(s) of emission sound pressure level(s) around a machine.

NOTE Different measurement surfaces will give different values for  $K_2$  "

## A.2.5

Below Figure A.3 replace

"The accuracy can be upgraded in some cases from 3 to 2 by"

by

"The accuracy can be upgraded in some cases from grade 3 to grade 2 by"

## A.2.5

Replace last sentence

"If this is not possible, determination in accordance with ISO 11204<sup>[18]</sup> may improve the accuracy."

by

"If this is not possible, determination in accordance with ISO 11204<sup>[18]</sup> can improve the accuracy."

## C.4.2

Replace headline of C.4.2 "Contributions to the uncertainty,  $\sigma_{R0}$  "

by

"Contributions to the uncertainty,  $\sigma_{R0}$ , when the estimate of the local environmental correction,  $K_{3A}$ , is based on a localized and well-defined sound-radiating area of the machine surface"

After C.4.2 add new C.4.3

C.4.3 Contributions to the uncertainty,  $\sigma_{R0}$ , when the estimate of the local environmental correction,  $K_3$ , is based on an approximate determination of the apparent work station directivity index

The general expression for the calculation of the final result of the emission sound pressure level measurement, is identical to the formulation in C.4.2 with the addition of a term related to the apparent work station directivity index,  $D_{lop}^*$ , and replacing the contribution from the local environmental



correction,  $K_3$  with the contribution due to the environmental correction for the room,  $K_2$ . The resulting expression for  $L_p$ , is given by [Formula \(C.3\)](#):

$$L_p = L_p \left( \overline{L'_p}, \delta_{D^*}, \delta_{K_2}, \delta_{(B)}, \delta_{slm}, \delta_{mount}, \delta_{oc}, \delta_{pos}, \delta_{met} \right) \quad (C.3)$$

where

$\delta_{D^*}$  is an input quantity to allow for uncertainty due to the estimation of the apparent work station directivity index,  $D_{1op}^*$ ;

$\delta_{K_2}$  is an input quantity to allow for any uncertainty due to the environmental correction for the room,  $K_2$ .

Table C.3 provides, as an example for accuracy grade 2, some information about present expectations concerning the values for the components,  $c_i$ ,  $u_i$ , that are necessary to calculate  $\sigma_{R0} = \sqrt{\sum_i (c_i u_i)^2}$  dB.

**Table C.3 — Uncertainty budget for determinations of emission sound pressure level (the values shown are examples related to accuracy grade 2 determinations)**

Quantity	Estimate dB	Standard un- certainty, $u_i$ dB	Probability distribution	Sensitivity coefficient, $c_i$	Uncertainty contri- bution, $c_i u_i$ dB
$L_p$					
$\overline{L'_p}$	$\overline{L'_p}$	$s_{L_p}$ (e.g. 0,5)	Normal	1,25	0,63
$\delta_{D^*}$	$D_{1op,approx}^*$	0,7	Normal	0,6	0,4
$\delta_{K_2}$	$K_2$ (e.g. 0,9)	0,3	Normal	2,6	0,8
$\delta_{(B)}$	$K_1$	e.g. 0,7	Normal	0,25	0,18
$\delta_{slm}$	0	0,5	Normal	1	0,5
$\delta_{pos}$	0	0,2	Normal	1	0,2
$\delta_{met}$	0	0,3	Normal	1	0,3
$\sigma_{R0} = \sqrt{\sum_i (c_i u_i)^2}$ dB = 1,3 dB					

Explanations for the additional uncertainty parameters in Table C.3 not found in Table C.2 are given below.