

DRAFT AMENDMENT ISO 8297:1994/DAM 1

ISO/TC 43/SC 1

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Acoustics — Determination of sound power levels of multisource industrial plants for evaluation of sound pressure levels in the environment — Engineering method AMENDMENT 1

*Acoustique — Détermination des niveaux de puissance acoustique d'installations industrielles multisources
pour l'évaluation des niveaux de pression acoustique dans l'environnement — Méthode d'expertise
AMENDEMENT 1*

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 — Determination of sound power levels of multisource industrial plants for evaluation of sound pressure levels in the environment — Engineering method

AMENDMENT 1

0.1

In the third paragraph replace "ISO 2204" by "ISO 12001".

Clause 2

Replace "ISO 266:1975, *Preferred frequencies for measurements.*"

by

"ISO 266, *Acoustics – Preferred frequencies*"

Replace "ISO 1996-1:1982, *Acoustics – Description and measurement of environmental noise – Part 1: Basic quantities and procedures.*"

by

"ISO 1996-1, *Acoustics – Description, measurement and assessment of environmental noise – Part 1: Basic quantities and assessment procedures*"

Replace "ISO 2204:1979, *Acoustics – Guide to International Standards on the measurement of airborne acoustical noise and evaluation of its effects on human beings.*"

by

"ISO 12001, *Acoustics – Noise emitted by machinery and equipment – Rules for the drafting and presentation of a noise test code*"

Delete "ISO 3744:1994, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane.*"

Insert "ISO 9613-1:1993, *Acoustics – Attenuation of sound during propagation outdoors – Part 1: Calculation of the absorption of sound by the atmosphere*"

Replace "IEC 225:1966, *Octave, half-octave and third-octave band filters intended for the analysis of sound and vibrations.*"

by

"IEC 61260-1, *Electroacoustics – Octave-band and fractional-octave-band filters – Part 1: Specifications*"

Replace "IEC 651:1979, *Sound level meters.*" and "IEC 804:1985, *Integrating-averaging sound level meters.*"

by

"IEC 61672-1, *Electroacoustics – Sound level meters – Part 1: Specifications*"

Replace "IEC 942:1988, *Sound calibrators.*"

by

"IEC 60942, *Electroacoustics – Sound calibrators*"

7.1

Replace the second paragraph by

"The instruments for measuring sound pressure levels, including microphone(s) as well as cable(s), windscreen(s), recording devices and other accessories, if used, shall meet the requirements for a class 1 instrument according to IEC 61672-1. Filters shall meet the requirements for a class 1 instrument according to IEC 61260-1.

When computer-based solutions are used for a particular application the instruments for measuring sound pressure levels, including microphone(s) as well as cable(s), windscreen(s), recording devices and other accessories, if used, shall meet the relevant requirements for the measurement parameters utilized in this document for a class 1 instrument according to IEC 61672-1 for free field or random incidence application, as appropriate over the range of meteorological conditions specified in the method. Filters shall meet the requirements for a class 1 instrument according to IEC 61260-1."

7.2

In the first sentence replace "ISO 225" by "IEC 61260-1".

7.3

In the first sentence replace "ISO 942 class 1" by "ISO 60942, class 1,".

9.4

Replace "IEC 651" by "IEC 61672-1".

10.4

Replace the first three lines by

"Calculate an area term, ΔL_s , in decibels, using the following formula [2, 3, 4]]:"

10.7

In the second sentence replace "ISO 3891" by "ISO 9613-1:1993".

Replace [Table 3](#) by the following:

Table 3 — Decrease in sound pressure level during free propagation due to absorption in the air

Octave-band centre frequencies Hz	α dB/m
31	0
63	0
125	0
250	0,001
500	0,002
1000	0,004
2000	0,009
4000	0,026
8000	0,094

In the last sentence replace "the appropriate values of air absorption" by "the values of air absorption given in ISO 9613-1".

Annex A Bibliography

Delete "[1] ISO 3891:1978, *Acoustics – Procedure for describing aircraft noise heard on the ground.*"

Add the following documents:

[3] STÜBER B., FRITZ K.R. *Ermittlung der Schalleistung großflächiger Industrieanlagen (Rundum-Messverfahren)*. Forschungsbericht 10502607, Müller-BBM, Planegg, Germany, for Umweltbundesamt, Berlin, Germany, 1986

[4] FABRIS C. *Approximation of a measurement surface for the determination of the sound power level of a large-scale industrial plant*. In: Proceedings of Inter-Noise 2018, Chicago, Illinois, 2018