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**Acoustics - Measurement of airborne noise emitted by steam turbines and driven machinery**

Acoustics - Measurement of airborne noise emitted by steam turbines and driven machinery

Akustik - Messung von luftübertragenen Geräuschen emittiert von Dampfturbinen und angetriebenen Maschinen

Acoustique - Mesure du bruit aérien émis par les turbines à vapeur et les machines entraînées

[SIST EN 61063:2000](https://standards.iteh.ai/catalog/standards/sist/8ad866a7-cca9-4a3b-8509-2b5ee23fb89d/sist-en-61063-2000)

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**Ta slovenski standard je istoveten z: EN 61063:1996**

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**ICS:**

17.140.20	Emisija hrupa naprav in opreme	Noise emitted by machines and equipment
27.040	Plinske in parne turbine. Parni stroji	Gas and steam turbines. Steam engines

**SIST EN 61063:2000**

**en**

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ICS 17.140.20

Descriptors: Acoustics, acoustic measurement, acoustic test, machine noise, air noise, turbine, environment, acoustic pressure, level, calculation

English version

**Acoustics**  
**Measurement of airborne noise emitted by**  
**steam turbines and driven machinery**  
(IEC 1063:1991)

Acoustique  
Mesure du bruit aérien émis par  
les turbines à vapeur et les  
machines entraînées  
(CEI 1063:1991)

Akustik  
Messung von luftübertragenen  
Geräuschen emittiert von  
Dampfturbinen und angetriebenen  
Maschinen  
(IEC 1063:1991)

This European Standard was approved by CENELEC on 1995-05-15. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

## Foreword

The text of the International Standard IEC 1063:1991, prepared by IEC TC 5, Steam turbines, was submitted to the formal vote and was approved by CENELEC as EN 61063 on 1995-05-15 without any modification.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-07-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annexes A and ZA are normative.  
Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 1063:1991 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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 publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 50(801)	1984	International Electrotechnical Vocabulary (IEV) Chapter 801: Acoustics and electro-acoustics	-	-
IEC 268-4	1972	Sound system equipment Part 4: Microphones	-	-
IEC 651	1979	Sound level meters	EN 60651	1994
ISO 3740	1980	Acoustics - Determination of sound power levels of noise sources - Guidelines for the use of basic standards and for the preparation of noise test codes	-	-
ISO 3744	1981	Acoustics - Determination of sound power levels of noise sources - Engineering methods for free-field conditions over a reflecting plane	-	-
ISO 3746	1979	Acoustics - Determination of sound power levels of noise sources - Survey method	-	-
ISO 6926-2	-	Acoustics - Determination of sound power levels of noise sources - Requirements for the performances and calibration of reference sound sources (in preparation)	-	-

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ACOUSTICS – MEASUREMENT OF AIRBORNE NOISE  
EMITTED BY STEAM TURBINES AND DRIVEN MACHINERY**

## FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

This International Standard has been prepared by IEC Technical Committee No. 5: Steam turbines.

The text of this standard is based on the following documents:

SIST EN 61063:2000	
Six Months Rule	Report on Voting
5(CO)29	5(CO)32

Full information on the voting for the approval of this standard can be found in the Voting Report indicated in the above table.

Annex A forms an integral part of this International Standard

## INTRODUCTION

This standard is based on ISO 3746 and has been drafted in accordance with ISO 3740.

The main purpose of this standard is to describe a method for the measurement of noise radiated by steam-turbines including driven machinery operating under steady state conditions. The results are expressed in sound power levels and in sound pressure levels.

NOTE - For special environmental conditions, it may be possible to use the engineering methods based on ISO 3744 resulting in a higher grade of accuracy. In this case no reference to this standard will be made.

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## ACOUSTICS – MEASUREMENT OF AIRBORNE NOISE EMITTED BY STEAM TURBINES AND DRIVEN MACHINERY

### 1 Scope

#### 1.1 General

1.1.1 This International Standard applies to the measurement of airborne noise emitted by assemblies comprising steam turbines and driven machinery, hereinafter referred to as turbine sets. These sets are of all sizes without limitation of output when fitted with their normal auxiliaries. This standard applies only to the part of the turbine set (turbine, generator and attached components) located above the floor of the turbine room and inside a continuous enveloping measurement surface bounded by this floor.

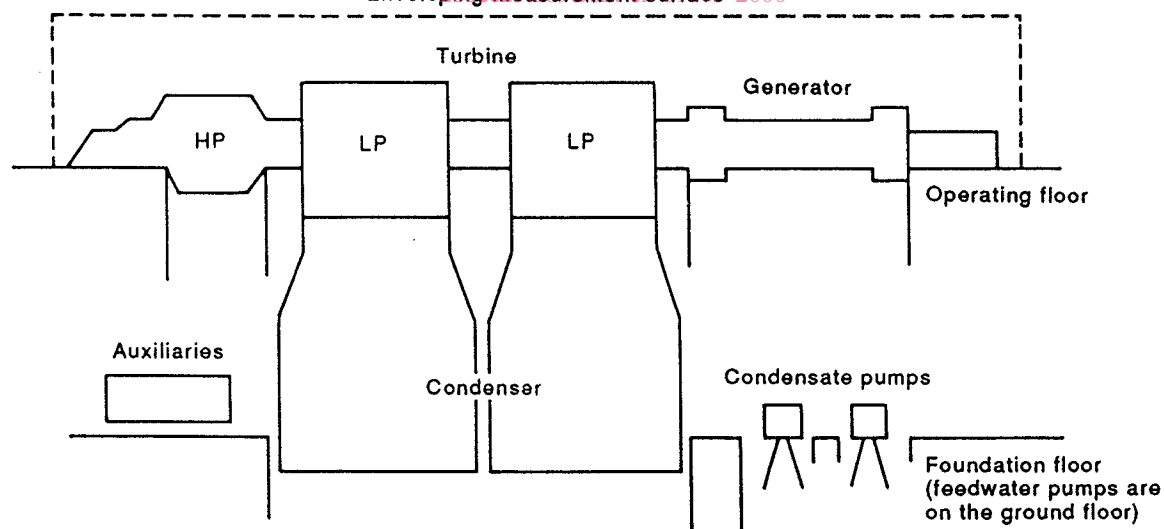
An extensive and continuous turbine operating floor of a reflecting nature above the turbine foundation floor level shall be considered as the reflecting plane.

1.1.2 In the case of large turbine sets, the turbine operating floor is often located below and near the horizontal centreline of the turbine (see figure 1). If this floor is continuous and free from openings which would otherwise allow noise radiated below the turbine operating floor to influence the noise measured at microphone locations, a valid measure of the turbine set noise emission may be obtained by use of this standard.

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[3848074163-2000](https://standards.iteh.ai/catalog/standards/sist/8ad866a7-cca9-4a3b-8509-3848074163-2000)



IEC 197/91

Figure 1 - General situation of the turbine sets, including their ancillaries and auxiliaries