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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17248.2-2018

Replacing GB/T 17248.2-1999

**Acoustics -- Noise emitted by machinery and equipment -- Determination of emission
sound pressure levels at a workstation and at other specified positions in an essentially
free field over a reflecting plane with negligible environmental corrections**

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Foreword

GB/T 17248 "Noise emitted by acoustic machines and equipment" includes the following six parts.

---Guidelines for the use of basic standards for measuring sound pressure levels at work locations and other designated locations (GB/T 17248.1);

--- Approximate free-field measurement of the operating position and other specified positions of the sound pressure level can be ignored above a reflective surface (GB/T 17248.2);

---Approximate environmental correction to determine the sound pressure level of the working position and other specified locations (GB/T 17248.3);

--- Determine the sound pressure level of the working position and other specified positions by the sound power level (GB/T 17248.4);

---Accurate environmental correction to determine the sound pressure level of the working position and other specified locations (GB/T 17248.5);

--- Sound intensity method on-site measurement of working position and other specified locations to launch sound pressure level engineering method (GB/T 17248.6).

This part is the second part of GB/T 17248.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 17248.2-1999 "Noise working position and other specified position emission emitted by acoustic machines and equipment

The sound pressure level is measured by an engineering method that approximates the free field above a reflecting surface. Major technical changes compared to GB/T

17248.2-1999

as follows.

--- Added terms and definitions (see Chapter 3);

--- Added test methods with different accuracy (see Chapter 11);

--- The content of measurement uncertainty has been greatly supplemented (see Chapter 11 and Appendix C, Chapter 11 of the 1999 edition and

Record C).

This section uses the translation method equivalent to ISO 11201.2010 "Acoustic machines and equipment emit noise above a reflective surface

The approximate free field of the environmental correction can be ignored to determine the operating sound pressure level at the working position and other specified locations.

The documents of our country that have a consistent correspondence with the international documents referenced in this standard are as follows.

---GB/T 3241-2010 Electroacoustic octave and fractional octave filter (IEC 61260.1995/Amd.1.2001,

MOD);

---GB/T 3767-2016 Acoustic sound pressure method for the determination of noise source sound power level and sound energy level reflection surface above the approximate free field

Engineering method (ISO 3744.2010, IDT);

---GB/T 3768-2017 Acoustic sound pressure method for the determination of noise source sound power level and sound energy level using the envelope above the reflection surface

Simple method of measuring surface (ISO 3746.2010, IDT);

---GB/T 6379 (all parts) Accuracy of measurement methods and results (correctness and precision) [ISO 5725 (all parts)

Minute)];

---GB/T 6882-2016 Acoustic sound pressure method for the determination of noise source sound power level and sound energy level anechoic chamber and semi-anechoic chamber precision

Law (ISO 3745.2012, IDT);

---GB/T 19052-2003 Guidelines for the drafting and presentation of noise and noise test specifications for acoustic machines and equipment

(ISO 12001..1996, IDT).

This section has made the following editorial changes.

--- Added note in Table B.1. It is recommended to use caution for individual parameters in the table (see Table B.1 in Appendix B).

This part was proposed by the Chinese Academy of Sciences.

This part is under the jurisdiction of the National Acoustic Standardization Technical Committee (SAC/TC17).

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Introduction

GB/T 17248 (corresponding to ISO 11200 [15] ~ ISO 11205 [19]) is a sub-standard that specifies the measuring machine

And various methods of transmitting sound pressure levels at working locations and other specified locations near the equipment. How to select the test machine equipment to emit sound pressure

The specific method of the level, the first part of GB/T 17248 gives the guiding principle. This part is the second part of GB/T 17248, which stipulates

Measuring the sound pressure level at a working position near the machine or equipment component and at other specified locations in an approximate free field above a reflecting surface

One way.

The method specified in this section differs from the other parts of GB/T 17248 (corresponding to ISO 11200 [15] ~ ISO 11205 [19])

This section does not make environmental corrections. This section specifies indoor/outdoor level 1 accuracy (precision level) and level 2 accuracy (engineering level) measurements.

Environmental requirements.

Precision measurement of level 1 accuracy is usually performed in a semi-anechoic

chamber or outdoors that meets environmental requirements. Follow the technique defined later

The specification, in some cases, provides a condition in a factory environment in a large, flat area with no reflectors.

The previous edition of this section (equivalent to ISO 11201:1995) gives only the results of Level 2 accuracy. The level 2 standard given in this section

The accuracy method is basically the same as that given in ISO 11201:1995. This section also gives a more accurate level 1 accuracy method. This part of the make

The user and reference to the noise test specification drafter in this section should clearly indicate which method is used (level 1 accuracy or level 2

Authenticity).

Usually the sound pressure level generated by a machine or equipment operating in a normal environment is less than or equal to the sound pressure level generated by the sound pressure level.

The effects of background noise and the effects of other reflected noise in addition to the ground reflections placed on the machine under test are excluded. For machines in the workshop

Determination or calculation of sound pressure level at the operator's position during operation, sound power level and sound pressure level (and information related to shop characteristics or reflections and

All noise from other sources or machines needs to be obtained. For the calculation method of the sound pressure level near a machine running separately in the workshop, see

ISO /T R11690-3 [20], generally the difference between the two is 1dB~5dB, and the difference will be even greater in extreme cases.

Noise emitted by acoustic machines and equipment

Environmental correction can be ignored above a reflective surface

Approximate free field to determine the working position and

Launch sound pressure level at other specified locations

1.1 Overview

This part of GB/T 17248 specifies the approximate free field above a reflecting surface, the working position near the machine or equipment and others.

The measurement method of the sound pressure level at the specified position (see Appendix D for the principle of the method). The working position is where the operator is