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

GB/T 34388-2017

**Foundry machinery - Noise measurement method of sound
power levels**

铸造机械 噪声声功率级测量方法

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed by the China Machinery Industry Federation. This standard by the National Foundry Machinery Standardization Technical Committee (SAC/TC186) centralized. The main drafting units of this standard. Jinan Foundry Forging Machinery Co., Ltd., Qingdao Foundry Machinery Co., Ltd., Qingdao Aetna Heavy Industry Machinery Co., Ltd., Fujian Min-spin Technology Co., Ltd., Qingdao Chi-tai Machinery Co., Ltd., Guangdong Science and Technology Extension Limited the company. The main drafters of this standard. Lu Jun, Xing Haiwei, Ding Renxiang, Zhu Bin, Duan Jin Ting, Chen Party. Foundry machinery noise power level measurement method

1 Scope

China's national method for determining the sound power level of foundry machinery. It specifies the terms and definitions, the quantities to be measured and the measurement uncertainty, the measurement requirements, the measurement methods, the calculation of sound power levels, and the recording and reporting. Sound power is the right quantity for a machine and sound pressure is not. Pressure is what a meter reads at a point, and it depends on where the meter stood, how far away it was and what the room did to the sound; power is what the machine emits, and it is a property of the machine alone. Only sound power lets two machines be compared, or a workshop's noise be predicted before the machines are installed. Foundries need this more than most workshops. Shakeouts, sand reclamation, moulding machines, core blowers and cleaning equipment are among the noisiest machines in general industry, they are operated close together, and hearing loss is one of the classic occupational injuries of the trade.

This standard specifies the casting machinery noise power level measurement methods of terms and definitions, the amount to be measured and measurement uncertainty, measurement to Seeking, measuring methods, calculation of noise power levels, recording and reporting. This standard applies to radiation steady-state, non-steady-state noise casting machinery. This standard does not apply to the radiation impulse noise casting machinery.

Note. The characteristics of the noise classification (steady state, unsteady state, pulse, etc.), see GB/T 14259;

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 3102.7 Acoustics volume and units

GB/T 3241 electro-acoustic octave and fractional octave filters

GB/T 3785.1 Electroacoustic sound level meter Part 1. Specification

GB/T 3785.2 Electroacoustics sound level meter Part 2. Type evaluation test

GB/T 3947 Acoustics terminology

GB/T 4129 Acoustics Standard sound source performance and calibration requirements for sound power level determination

3 Terms and definitions

GB/T 3947 and GB/T 3102.7 defined by the following terms and definitions apply to this document.

3.1 Measurement surface measurementsurface Enveloping sound source with an area of S , an imaginary geometric surface on which the measuring point is located.

3.2 Reference body referencebox The smallest rectangular parallelepiped imaginary surface that happens to envelope the sound source and terminates in one or more reflective surfaces.

3.3 Measurement distance measurementdistance The vertical distance between the reference and the box measuring surface.

3.4 Background noise backgroundnoise Noise from all other sources other than the sound source under test.

3.5 Background noise correction backgroundnoisecorrection K_1 A correction term introduced by the effect of background on the surface sound pressure level in decibels (dB). K_1 is related to frequency and is based on A's statutory power K_1A said with the case.