
**Airborne noise emitted by machine
tools — Operating conditions for
metal-cutting machines**

*Bruit aérien émis par les machines-outils — Conditions de
fonctionnement des machines travaillant par enlèvement de métal*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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Airborne noise emitted by machine tools — Operating conditions for metal-cutting machines

1 Scope

This International Standard describes, with reference to ISO 230-5, the mechanical and acoustical specifications necessary for a reproducible test method for the determination of airborne noise emitted by metal-cutting machines and related auxiliary equipment.

The purpose of this International Standard is to facilitate the obtention of comparable test results on the noise emission of similar machines. The results of the tests can be used for comparison, acceptance, maintenance or any other purpose.

This International Standard specifies, in particular, operating conditions for the measurement of noise emitted by metal cutting machines excluding any cutting process. These operating conditions are strictly the same for the determination of both sound power levels and emission sound pressure levels at specified positions.

It applies to:

- all kinds of turning machines, including numerical control (NC) turning machines and turning centres;
- all kinds of milling machines, including NC milling machines and machining centres.

For machine tools which enable milling and turning operations simultaneously, choose the suitable measurements of this International Standard.

Additional types will be covered in future editions of this International Standard.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 230-5:2000, *Test code for machine tools — Part 5: Determination of the noise emission*

ISO 3744, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane*

ISO 4871, *Acoustics — Declaration and verification of noise emission values of machinery and equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 230-5:2000 and the following apply.