
**Hand-held portable power tools —
Measurement of vibrations at the handle —**

Part 12:

**Saws and files with reciprocating action and
saws with oscillating or rotating action**

*Machines à moteur portatives — Mesurage des vibrations au niveau
des poignées —*

Partie 12: Scies et limes alternatives et scies oscillantes ou circulaires



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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8662-12 was prepared by Technical Committee ISO/TC 118, *Compressors, pneumatic tools and pneumatic machines*, Subcommittee SC 3, *Pneumatic tools and machines*.

ISO 8662 consists of the following parts, under the general title *Hand-held portable power tools — Measurement of vibrations at the handle*:

- *Part 1: General*
- *Part 2: Chipping hammers and riveting hammers*
- *Part 3: Rock drills and rotary hammers*
- *Part 4: Grinders*
- *Part 5: Pavement breakers and hammers for construction work*
- *Part 6: Impact drills*
- *Part 7: Wrenches, screwdrivers and nut runners with impact, impulse or ratchet action*
- *Part 8: Polishers and rotary, orbital and random orbital sanders*
- *Part 9: Rammers*
- *Part 10: Nibblers and shears*
- *Part 11: Fastener driving tools (nailers)*

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- *Part 12: Saws and files with reciprocating action and saws with oscillating or rotating action*
- *Part 13: Die grinders*
- *Part 14: Stone-working tools and needle scalers*

Annex A of this part of ISO 8662 is for information only.

Introduction

This part of ISO 8662, which specifies a type test for the measurement of vibration at the handles of files with reciprocating action and saws with reciprocating, rotating or oscillating action. It supplements ISO 8662-1, which gives the general specifications for the measurement of vibrations at the handles of hand-held power tools. It specifies the operation of the power tool under the type test and other requirements for the performance of the type test.

Reciprocating files and reciprocating, rotating or oscillating saws are used for sawing and filing of all kinds of material, e.g. metal, wood and plastics. During test, the power tool is operated on workpieces of wood or steel. The test method chosen simulates a typical work situation.

The principle of the operation of a saw is that a pneumatic motor rotates a circular saw blade or causes a saw blade, often in the shape of a circular sector, to move in an oscillating motion to cut a piece of material. The oscillation motion is usually very small.

Saws and files may be pneumatically or hydraulically driven

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1 Scope

This part of ISO 8662 specifies a laboratory method for measuring the vibrations at the handles of hand-held pneumatic saws with reciprocating, rotating or oscillating action and files with reciprocating action. It is a type-test procedure for establishing the magnitude of vibrations at the handles of the power tool when operating under a specified load.

NOTE — Rotating files, termed die grinders, are covered by ISO 8662-13.

It is intended that the results be used to compare different power tools or different models of the same type of power tool. With the operation specified for the power tool, the values obtained will give an indication of those found in real work situations.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8662. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8662 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2787:1994, *Rotary and percussive pneumatic tools — Performance tests*.

ISO 8662-1:1988, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 1: General*.

3 Quantities to be measured

The quantities to be measured are:

- the acceleration presented as a weighted acceleration in accordance with ISO 8662-1;
- the air pressure, in accordance with ISO 2787;
- rotational speed or frequency of oscillation of the inserted tool.