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

Part 14:
Stone-working tools and needle scalers

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

Partie 14: Machines portatives pour le travail de la pierre et marteaux à aiguilles



Foreword

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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 8662-14 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*

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- *Part 10: Nibblers and shears*
- *Part 11: Fastener driving tools (nailers)*
- *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.

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Introduction

This part of ISO 8662 specifies how a type test for the measurement of vibrations at the handles of stone-working tools and needle scalers shall be performed. It supplements ISO 8662-1 which gives the general specifications for the measurement of vibrations at the handles of handheld power-driven tools. It specifies the operation of the power tool under type test and other requirements for the performance of the type test.

The type test is made on an artificial load, so designed that measured values correspond to those found in typical work situations. This method is designed to give satisfactory reproducibility.

Stone-working power tools are designed according to one of two basic principles. In the first the driving medium causes a piston to transmit energy periodically to a chisel and in the second the piston and chisel are integrated into one piece.

Needle scalers work according to the first principle, but the inserted tool consists of a bundle of needles.

The motion of the piston also generates a reaction force on the housing of the machine, which makes it necessary to apply a certain minimum static force on the tool to produce a stationary operating condition.

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

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1 Scope

This part of ISO 8662 specifies a laboratory method of measuring the vibrations at the handles of hand-held stone-working power tools and needle scalars. It is a type test procedure for establishing the magnitude of vibrations at the handles of the power tool when operating on the artificial load.

The power tools may be pneumatically or hydraulically driven.

It is intended that the results obtained be used to compare different power tools or different models of the same type power tool. Although the magnitudes measured are obtained in an artificial operation, they will give an indication of the values that would be found in a real work situation.

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 2787:1984, *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

Quantities to be measured are:

- acceleration according to ISO 8662-1:1988, 3.1, presented as weighted acceleration according to ISO 8662-1:1988, 3.3 and frequency analysis according to ISO 8662-1:1988, 3.2;

NOTE 1 Frequency analysis can be omitted if the absence of d.c.-shift can be proved by other means.

- air or hydraulic pressure;
- blow frequency;
- feed force.

4 Instrumentation

4.1 General

For specification of instrumentation, see ISO 8662-1:1988, 4.1 to 4.6.

4.2 Transducer

For specification of the transducer, see ISO 8662-1:1988, 4.1.