
**Test conditions for manually controlled
milling machines with table of fixed
height — Testing of the accuracy —**

**Part 2:
Machines with vertical spindle**

*Conditions d'essai des machines à fraiser à table de hauteur fixe à
commande manuelle — Contrôle de la précision —*

Partie 2: Machines à broche verticale



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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.

Attention is drawn to the possibility that some of the elements of this part of ISO 1984 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 1984-2 was prepared by Technical Committee ISO/TC 39, *Machine tools*, Subcommittee SC 2, *Test conditions for metal cutting machine tools*.

This first edition of ISO 1984-2, together with ISO 1984-1, cancels and replaces ISO 1984:1982 and ISO 1984-0:1984, of which they constitute a technical revision.

ISO 1984 consists of the following parts, under the general title *Test conditions for manually controlled milling machines with table of fixed height — Testing of the accuracy*:

- *Part 1: Machines with horizontal spindle*
- *Part 2: Machines with vertical spindle*

Test conditions for manually controlled milling machines with table of fixed height — Testing of the accuracy —

Part 2: Machines with vertical spindle

1 Scope

This part of ISO 1984 specifies, with reference to ISO 230-1, both geometric and machining tests on general purpose and normal-accuracy milling machines with table of fixed height and with a vertical spindle. It also specifies the applicable tolerances corresponding to the above-mentioned tests.

This part of ISO 1984 deals only with the verification of the geometric accuracy of the machine. It does not apply to the testing of the machine operation (vibrations, abnormal noises, stick-slip motion of components, etc.), nor to checking of its characteristics (speeds, feeds, etc.), which should generally be checked before testing the accuracy.

This part of ISO 1984 defines the terminology used for the principal elements of the machine and indicates the designation of axes in accordance with ISO 841^[1].

NOTE Numerically controlled milling machines are covered by ISO 10791-2^[2].

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this part of ISO 1984. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 1984 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 230-1:1996, *Test code for machine tools — Part 1: Geometric accuracy of machines operating under no-load or finishing conditions*.

3 Terminology, designation of axes and machining operations carried out

3.1 Terminology and designation of axes

See Figure 1 and Table 1.

3.2 Machining operations carried out

See Figure 2.