

Test conditions for machining centres —

Part 6: Accuracy of feeds, speeds and interpolations

ICS 25.040.10

National foreword

This British Standard reproduces verbatim ISO 10791-6:1998, including Technical Corrigendum April 2004 and implements it as the UK national standard. It partially replaces BS 4656-30:1992 which will be withdrawn when all other parts of this standard are published.

The UK participation in its preparation was entrusted to Technical Committee MTE/1, Machine tools, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

This British Standard, having been prepared under the direction of the Engineering Sector Board, was published under the authority of the Standards Board and comes into effect on 15 September 1998

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Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii and iii, a blank page, pages 1 to 9 and a back cover.

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Amendments issued since publication

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Test conditions for machining centres — Part 6: Accuracy of feeds, speeds and interpolations

Conditions d'essai pour centres d'usinage —

Partie 6: Précision des avances, vitesses et interpolations



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Descriptors: Machining centre, numerical control, machine tools, tests, geometric tests, acceptance testing, determination, accuracy, testing conditions.

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 10791-6 was prepared by Technical Committee ISO/TC 39, *Machine tools*, Subcommittee SC 2, *Test conditions for metal cutting machine tools*.

ISO 10791 consists of the following parts, under the general title *Test conditions for machining centres*:

- *Part 1: Geometric tests for machines with horizontal spindle and with accessory heads (horizontal Z-axis);*
- *Part 2: Geometric tests for machines with vertical spindle or universal heads with vertical primary rotary axis (vertical Z-axis);*
- *Part 3: Geometric tests for machines with integral indexable or continuous universal heads (vertical Z-axis);*
- *Part 4: Accuracy and repeatability of positioning of linear and rotary axes;*
- *Part 5: Accuracy and repeatability of positioning of work-holding pallets;*
- *Part 6: Accuracy of feeds, speeds and interpolations;*
- *Part 7: Accuracy of a finished test piece;*
- *Part 8: Evaluation of the contouring performance in the three coordinate planes;*
- *Part 9: Evaluation of the operating times of tool change and pallet change;*
- *Part 10: Evaluation of the thermal distortions;*
- *Part 11: Evaluation of the noise emission;*
- *Part 12: Evaluation of the vibration severity.*

Annex A of this part of ISO 10791 is for information only.