
International Standard



8956

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Acceptance conditions for copying attachments, integral or otherwise, for lathes — Testing of the accuracy

Conditions de réception des dispositifs de copiage pour tours, intégrés ou non — Contrôle de la précision

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8956 was prepared by Technical Committee ISO/TC 39, *Machine tools*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Acceptance conditions for copying attachments, integral or otherwise, for lathes — Testing of the accuracy

1 Scope and field of application

This International Standard describes both special tests and practical tests for copying attachments of general-purpose normal precision (centre lathes, vertical boring machines, capstan lathes or others) and copying lathes. These tests are intended to supplement the tests for the various types of lathes.

This International Standard applies to hydraulic and electric servo-controlled copying attachments but not to mechanically controlled ones.

It also applies to lathes with single-axis copying systems and to lathes where two axes are used in conjunction to produce a profile of up to 180° included angle. Turning machines equipped with two-axis systems of more than 180° capability are considered as special-purpose machines; this International Standard does not apply to such machines.

2 References

ISO 230/1, *Acceptance code for machine tools — Part 1: Geometric accuracy of the machine operating under no load or finishing conditions.*

ISO 1708, *Acceptance conditions for general purpose parallel lathes — Testing of the accuracy.*

ISO 3655, *Acceptance conditions for vertical turning and boring lathes with one or two columns with a single fixed or movable table — General introduction and testing of the accuracy.*

ISO 6155/1, *Acceptance conditions for horizontal spindle capstan, turret and single spindle automatic lathes — Testing of the accuracy — Part 1: Machinable bar diameters greater than 25 mm.*

3 Preliminary remarks

The preliminary remarks in ISO 1708, ISO 3655 and ISO 6155/1 are also applicable to this International Standard.

Tests carried out on copying lathes shall be performed with the copying unit in position on the machine or integral with it.

4 Definitions

4.1 single-axis copying system: A system in which a component shape is produced by the motion of two slides, one of which is under servo-control from the contact of a stylus against a template while the other has a pre-set generally constant feed motion. In this case the displacement axis of the stylus is always parallel to the displacement axis of the copying slide.

4.2 two-axis copying system: A system in which a component shape is produced by the motion of two slides, both of which are under servo-control from the contact of a stylus against a template.