

---

# International Standard



# 6481

---

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

---

## Acceptance conditions for vertical surface type broaching machines — Testing of accuracy

*Conditions de réception des machines verticales à brocher les extérieurs — Contrôle de la précision*

First edition — 1981-10-01

---

UDC 621.919.3-187

Ref. No. ISO 6481-1981 (E)

Descriptors : machine tools, profiling machines, tests, accuracy, testing conditions, dimensional measurement.

Price based on 9 pages

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

International Standard ISO 6481 was developed by Technical Committee ISO/TC 39, *Machine tools*, and was circulated to the member bodies in June 1980.

It has been approved by the member bodies of the following countries :

Australia	Hungary	Romania
Belgium	India	South Africa, Rep. of
Brazil	Ireland	Spain
Chile	Italy	Sweden
Czechoslovakia	Japan	Switzerland
Egypt, Arab. Rep. of	Korea, Dem. P. Rep. of	USA
France	Korea, Rep. of	USSR
Germany, F.R.	Poland	

The member body of the following country expressed disapproval of the document on technical grounds :

United Kingdom

# Acceptance conditions for vertical surface type broaching machines — Testing of accuracy

## 1 Scope and field of application

This International Standard specifies, with reference to ISO/R 230, both preliminary levelling and geometrical tests for general purpose and normal accuracy machines, and gives the corresponding permissible deviations which apply.

It also gives the terminology used for the main elements of the machine.<sup>1)</sup>

It deals only with the verification of accuracy of the machine. It does not apply to the testing of the running of the machine (vibrations, abnormal noises, stick-slip motion of components, etc.), or to its characteristics (speeds, feeds, etc.) which should generally be checked before testing accuracy.

## 2 Reference

ISO/R 230, *Machine tool test code*.

## 3 Preliminary remarks

**3.1** In this International Standard, all the dimensions and permissible deviations are expressed in millimetres and in inches.

**3.2** To apply this International Standard, reference should be made to ISO/R 230, especially for installation of the machine

before acceptance, warming up of moving parts, description of measuring methods, and recommended accuracy of testing equipment.

**3.3** The sequence in which the geometrical tests are given is related to the sub-assemblies of the machine and this in no way defines the practical order of testing. In order to make the mounting of instruments or gauging easier, tests may be applied in any order.

**3.4** When inspecting a machine, it is not always necessary to carry out all the tests given in this International Standard. It is up to the user to choose, in agreement with the manufacturer, those tests relating to the properties which are of interest to him, but these tests are to be clearly stated when ordering a machine.

**3.5** Because of the diversity of shape of components produced by broaching machines, practical tests have not been included in this International Standard. If the user wishes to carry out a practical test, this one has to be stated in agreement with the manufacturer.

**3.6** When establishing the tolerance for a measuring range different from that given in this International Standard (see clause 2.311 in ISO/R 230), it should be taken into consideration that the minimum value of tolerance, for geometrical tests as well as for possible practical tests, is 0,01 mm (0.0004 in).

1) In addition to terms used in the three official ISO languages (English, French and Russian), this International Standard gives the equivalent terms in German and Italian, these have been included at the request of ISO Technical Committee TC 39 and are published under the responsibility of the Member Bodies for Germany, F.R. and Italy. However, only the terms and definitions given in the official languages can be considered as ISO terms and definitions.