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**INTERNATIONAL STANDARD**



**239**

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

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## **Drill chuck tapers**

*Cônes d'emmanchement pour mandrins de perceuses*

**First edition — 1974-12-01**

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**Descriptors :** tools, drills, chucks, cones, dimensions.

## 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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 29 has reviewed ISO Recommendation R 239 and found it technically suitable for transformation. International Standard ISO 239 therefore replaces ISO Recommendation R 239-1961 to which it is technically identical.

ISO Recommendation R 239 was approved by the Member Bodies of the following countries :

Austria	India	Romania
Belgium	Italy	Sweden
Czechoslovakia	Mexico	Switzerland
France	Netherlands	United Kingdom
Germany	Pakistan	U.S.A.
Greece	Poland	U.S.S.R.
Hungary	Portugal	

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 239 into an International Standard.

# Drill chuck tapers

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard lays down the dimensions of drill chuck tapers and includes two distinct types :

- 1) Morse taper type;
- 2) Jacobs taper type.

It comprises, for each type of taper, two tables giving respectively the dimensions in millimetres and the corresponding dimensions in inches.

## 2 INTERCHANGEABILITY

For each type of taper, Morse or Jacobs, complete interchangeability is assured between the two systems of units of measurement, millimetres and inches, as the dimensions expressed in any one system have been converted from those expressed in the other with sufficiently close approximation, having regard to the magnitude of the tolerances.

### 2.1 Morse taper type

The tapered portions are identical with the following Morse tapers :

- No. 1, for tapers B10 and B12;
- No. 2, for tapers B16 and B18;
- No. 3, for tapers B22 and B24.

The length of each of these tapers is, of course, distinctly less than the overall length of the corresponding Morse taper; each taper may be regarded as corresponding approximately either to that part of the Morse taper nearest the small end (for example : B10), or to the part nearest the large end (for example : B12).

### 2.2 Jacobs taper type

The tables in 4.1 and 4.2 merely reproduce and classify the normal dimensions of Jacobs tapers; they also observe the generally accepted designations, in spite of their somewhat illogical appearance.

In effect, the range of increasing values for diameter  $D$  contains two 2 tapers, the first of which is a short taper 2, and between the tapers 2 and 3, there are two interpolated tapers which bear the out-of-series numbers 33 and 6 respectively.