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# INTERNATIONAL STANDARD



# 504

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

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## Turning tools with carbide tips — Designation and marking

*Outils de tour à plaquettes en carbures métalliques — Désignation et marquage*

First edition — 1975-02-01

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UDC 621.9.025.7 : 621.941.02

Ref. No. ISO 504-1975 (E)

**Descriptors :** tools, turning (machining), carbide tools, designation, marking.

## 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 504 and found it technically suitable for transformation. International Standard ISO 504 therefore replaces ISO Recommendation R 504-1966 to which it is technically identical.

ISO Recommendation R 504 was approved by the Member Bodies of the following countries :

Australia	France	Portugal
Austria	Germany	Spain
Belgium	Hungary	Sweden
Brazil	India	Switzerland
Canada	Italy	Turkey
Chile	Korea, Rep. of	United Kingdom
Colombia	Netherlands	U.S.A.
Czechoslovakia	New Zealand	U.S.S.R.
Denmark	Poland	Yugoslavia

No Member Body expressed disapproval of the Recommendation.

The Member Bodies of the following countries disapproved the transformation of ISO/R 504 into an International Standard :

Switzerland  
U.S.A.

# Turning tools with carbide tips – Designation and marking

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the designation and marking of turning tools with carbide tips, metric series, covered by ISO 243 and ISO 514, which relate to external tools and internal tools respectively.

The designating numbers for "type of tool" are those which appear in these International Standards.

The designating symbols for "groups of application" are those of ISO 513.

## 2 REFERENCES

ISO 243, *Turning tools with carbide tips – External tools.*

ISO 513, *Application of carbides for machining by chip removal – Designation of the main groups of chip removal and groups of application.*

ISO 514, *Turning tools with carbide tips – Internal tools.*

## 3 DESIGNATION

Enumerate in this sequence,

- a) the mark "ISO" followed by the designating number of the type of tool;
- b) the designating symbol for the direction of the tool :
  - *R* for right-hand tools,
  - *L* for left-hand tools;

c) the symbol for the dimensions of the shank section, in millimetres, in accordance with the following examples :

- 2525 for a square section of 25 mm per side,
- 2516 for a rectangular section 25 mm high and 16 mm wide,
- 25 for a round section of 25 mm diameter;

d) the designating symbol for the "group of application" of the carbide grade.

Example of the abridged international designation for a No. 6 ISO tool (right-hand), with a square section 25 mm × 25 mm and carbide tip of the P20 group of application : **Tool : ISO 6 R 2525 – P20.**

## 4 MARKING

Tools shall be marked as shown below, referring for items 1 and 2 to ISO 513.

- 1) *Distinctive colour of the "main group of chip removal"*, applied on the back part of the shank (or on the whole of it).
- 2) *Symbol of the "group of application"*, inscribed on the back part of the left-hand lateral face of the shank and on its rear face.
- 3) *Designating number of the type of tool*, which may be optionally added on the left-hand lateral face of the shank and preferably adjacent to the preceding inscription.

