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Dentistry — Number coding system for rotary instruments —

Part 5: Specific characteristics of root-canal instruments

Art dentaire — Système de codification numérique pour instruments rotatifs —

Partie 5: Caractéristiques spécifiques des instruments pour canaux radiculaires

Reference number
ISO 6360-5:2007(E)

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6360-5 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

ISO 6360 consists of the following parts, under the general title *Dentistry — Number coding system for rotary instruments*:

— *Part 1: General characteristics*

— *Part 2: Shapes*

— *Part 3: Specific characteristics of burs and cutters*

— *Part 4: Specific characteristics of diamond instruments*

— *Part 5: Specific characteristics of root-canal instruments*

— *Part 6: Specific characteristics of abrasive instruments*

— *Part 7: Specific characteristics of mandrels and special instruments*

Introduction

This part of ISO 6360 is one of a series of International Standards relating to dental rotary instruments. A wide variety of dental rotary instruments, including root-canal instruments, is manufactured throughout the world for use by the dental profession.

ISO 6360 provides a general number coding system for all types of dental rotary instruments, including accessories used in connection with these rotary instruments.

The benefits of this system for dentistry in its entirety will only be derived if the system is widely adopted; manufacturers of dental instruments, as well as the dental trade, are therefore requested to refer to ISO 6360 in their catalogues.

This part of ISO 6360 was prepared in response to a need by the dental trade and industry, and the dental profession, for a universal system of classification and designation for these instruments. It establishes a comprehensive number coding system suitable for all dental rotary instruments by use of a 15-digit code number identifying general and specific characteristics of instruments or groups of instruments.

The first group of three digits identifies the materials used for the working part of instruments.

The second group of three digits identifies the shanks and handles used for instruments and the overall lengths of instruments.

The third group of three digits identifies the shapes of instruments.

The fourth group of three digits identifies the specific characteristics for groups of instruments.

The fifth group of three digits identifies the nominal diameter of the working part of the instruments.

The code numbers are generic code numbers. They do not provide exact product information. This information is given in the respective product standard for dental rotary instruments.

For the application of the system and for the correct allocation of numbers or their identification, it is intended that the user consult ISO 6360-1 and ISO 6360-2 for general information, and in addition one of the following subsequent parts (ISO 6360-3 to ISO 6360-7) for further information on specific characteristics of instruments or groups of instruments.

For the allocation of new numbers complying with ISO 6360, an application supported by a description and a drawing should be sent to the secretariat of ISO/TC 106/SC 4, *Dental instruments*, which keeps updated records of all numbers currently allocated. An international group of experts will then decide on an appropriate identification number for the instrument in question, including its specific characteristics. The Secretary will inform the applicant, in due course, of the result and assist him in using the number correctly. The Secretariat of ISO/TC 106/SC 4 can be contacted at:

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Dentistry — Number coding system for rotary instruments —

Part 5:
Specific characteristics of root-canal instruments

1 Scope

This part of ISO 6360 specifies the code numbers for specific characteristics of root-canal instruments. This three digit number appears in the locations 10 to 12 of the 15-digit overall number and forms the fourth group of three digits in the 15-digit overall number, the principles of which are explained in ISO 6360-1 and ISO 6360-2.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1942 (all parts), *Dental vocabulary*

ISO 3630-1, *Dentistry — Root-canal instruments — Part 1: General requirements and test methods*

ISO 6360-1:2004, *Dentistry — Number coding system for rotary instruments — Part 1: General characteristics*

ISO 6360-2:2004, *Dentistry — Number coding system for rotary instruments — Part 2: Shapes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1942 (all parts) and ISO 6360-1 apply.

4 Number coding system for root-canal instruments

4.1 General

The number coding system for root-canal instruments consists of a 15-digit overall number.

The general characteristics of the number coding system for rotary instruments including root-canal instruments are described in ISO 6360-1. The first and second groups of three digits are specified in ISO 6360-1.

The shapes and designs of root-canal instruments are described in ISO 6360-2:2004, Table 5, in the code number ranging from 880 to 999. The shapes and their respective numbers are specified in ISO 6360-2 as the third group.

The specific characteristics of root-canal instruments are described in this part of ISO 6360.

The nominal sizes of the operative part are described in ISO 3630-1.

4.2 Groups

The number coding system for root-canal instruments consists of 15 digits, separated into five groups:

000 000 000 000 000

First group: digits 1 and 2: material of operative part (see ISO 6360-1:2004, Table 1).

digit 3: coating of operative part (see ISO 6360-1:2004, Table 2).

Second group: digits 4 and 5: type of shank or handle (see ISO 6360-1:2004, Table 4).

digit 6: code for overall length (see ISO 6360-1:2004, 5.5 and Table 5).

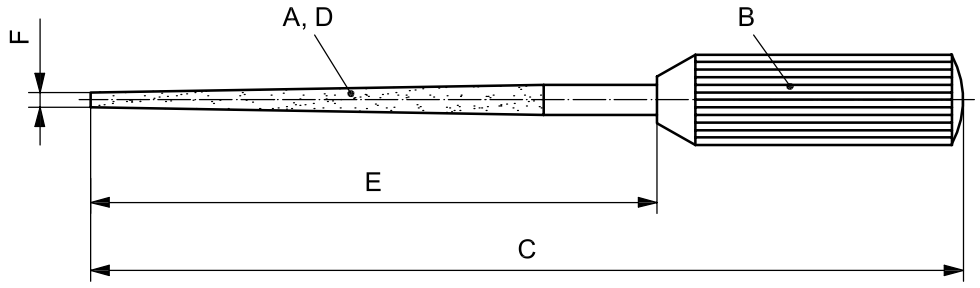
Third group: digit 7, digit 8 and digit 9: shape of operative part (see ISO 6360-2:2004, Table 5).

Fourth group: digit 10 and digit 11: length of operative part (see ISO 3630-1).

digit 12: taper of operative part.

Fifth group: digit 13, digit 14 and digit 15: nominal size of operative part (see ISO 3630-1).

4.3 Identification



000 00 0 000 000 000

A B C D E F

Key

A material of working part (first and second digit; see ISO 6360-1:2004, 5.2 and Table 1); coating of working part (third digit; see ISO 6360-1:2004, 5.3 and Table 2)

B type of shank or handle (fourth and fifth digit; see ISO 6360-1:2004, 5.4 and Table 4)

C overall length (sixth digit; see ISO 6360-1:2004, 5.5 and Table 5)

D shape (seventh to ninth digit; see ISO 6360-2:2004, Table 5, numbers 880 to 999)

E length of operative part (10th and 11th digit, see ISO 3630-1) and taper of working part (12th digit)

F nominal size of working part (13th to 15th digit; see ISO 3630-1)

Figure 1 — Key to root-canal number code system

5 Code numbers for specific characteristics of root-canal instruments

5.1 General

The fourth group of three digits refers to the length of the operative part and taper of the working part of root-canal instruments. The length of the operative part of a root-canal instrument is identified by the tenth and eleventh digits and the taper of the working part is identified by the twelfth digit.

5.2 Length of operative part of root-canal instrument

The operative part of root-canal instruments is considered as the portion from the tip to the handle or shank of the root-canal instrument. The length of the operative part is given in the locations 10 and 11.

The length of the operative part of root-canal instruments is identified in millimetres.

5.3 Taper of working part of root-canal instruments

The taper of the working part of root-canal instruments is given in the location 12.

The taper of the working part of root-canal instruments is identified, in percent, as the enlargement of the diameter of the working part, in millimetres per millimetre length of root-canal instrument. The taper is rounded to the nearest percent.

The numbers for the taper range from zero to nine.

The numbers 0 up to 8 indicate the taper in percent. The number 9 is used for tapers greater than 8 %. In this case, the taper is indicated by the shape number given in ISO 6360-2:2004, Table 5.

EXAMPLE 1 If the taper along the working part is 0,02:1, the taper, in percent, is 2 %. The code number for these root-canal instruments is 2.

EXAMPLE 2 Taper sizes of 10 % and 12 % are identified in the digits for the shape and design (i.e. digits 7 to 9) by different shape numbers (see ISO 6360-2:2004, Table 5). The code number for these root-canal instruments is 9.

EXAMPLE 3 If a root-canal instrument has no taper (i.e. the taper is 0 %), the twelfth digit is 0. The code number for these root-canal instruments is 0.

EXAMPLE 4 If a root-canal instrument has an irregular shape (e.g. arc shape), or has more than one taper, the twelfth digit is 0. The code number for these root-canal instruments is 0.

Bibliography

[1] ISO 1797-1, *Dental rotary instruments — Shanks — Part 1: Shanks made of metals*

[2] ISO 1797-2, *Dental rotary instruments — Shanks — Part 2: Shanks made of plastics*

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