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## Dentistry — Bore diameters for rotary instruments such as discs and wheels

*Médecine bucco-dentaire — Diamètres d'alésage des instruments  
rotatifs tels que disques et roues*

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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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 10323 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

This second edition cancels and replaces the first edition (ISO 10323:1991), which has been technically revised. The following changes were made:

- a) harmonization of nominal diameters with other ISO standards for rotary instruments;
- b) inclusion of definitions for discs and wheels.

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# Dentistry — Bore diameters for rotary instruments such as discs and wheels

## 1 Scope

This International Standard specifies bore diameters for rotary instruments such as metallic discs and metallic wheels used in dentistry in order to achieve interchangeability between discs and wheels and the mandrels with which the discs and wheels are operated in a dental handpiece.

## 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, *Dentistry — Vocabulary*

ISO 8325, *Dentistry — Test methods for rotary instruments*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1942 and the following apply.

### 3.1

#### **bore diameter**

inner diameter of the central opening in a disc or a wheel which is relevant for connection with a hub-mounted mandrel

### 3.2

#### **disc**

cylindrical rotary instrument used in dentistry where the thickness of the working part is less than 5 % of the diameter

### 3.3

#### **wheel**

cylindrical rotary instrument used in dentistry where the thickness of the working part is 5 % to 100 % of the diameter

## 4 Dimensions

Dimensions and tolerances of bore diameters for rotary instruments such as discs and wheels shall be as given in Table 1.

Those dimensions of bore diameters for discs and wheels which are not specified in standards relating to the respective rotary instruments shall be as given in Table 1.

Only positive tolerances as given in Table 1 are permissible.

**Table 1 — Bore diameters for rotary instruments such as discs and wheels**

Dimensions in millimetres

Nominal diameter	Tolerance
1,7	+0,05
1,8	+0,05
2,2	+0,05
3,0	+0,1

## 5 Testing

Measure the bore diameter of a rotary instrument such as a disc or wheel with measuring instruments as specified in ISO 8325, graduated in divisions of 0,01 mm.

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## Bibliography

- [1] ISO 7711-2, *Dentistry — Rotary diamond instruments — Part 2: Discs*
- [2] ISO 13295, *Dentistry — Mandrels for rotary instruments*
- [3] ISO 14457, *Dentistry — Handpieces and motors*
- [4] ISO 21671, *Dentistry — Rotary polishers*

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