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Dentistry — Handpieces and motors

Médecine bucco-dentaire — Pièces à main et moteurs



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Contents

Page

Foreword	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Classification of handpieces	4
5 Requirements and performance	4
5.1 General	4
5.2 Materials	4
5.3 Drop test	5
5.4 Noise level	5
5.5 Surfaces	5
5.6 Power supply	5
5.6.1 Electrical power supply	5
5.6.2 Air supply	5
5.6.3 Water supply	6
5.7 Air and water pressure	6
5.8 Temperature	6
5.8.1 General	6
5.8.2 Temperature rise of housing	7
5.8.3 Excessive temperature	7
5.9 Vibrations	8
5.10 Resistance to reprocessing	8
5.11 Leakage and/or ingress of water	8
5.12 Electromagnetic compatibility	8
5.13 Operating controls	8
5.14 Usability	8
5.15 Connection and supply	8
5.15.1 General	8
5.15.2 Connections for high-speed air turbine handpiece and air motor connectors	9
5.15.3 Connection for handpieces and motors	9
5.16 Chuck system for shanks	11
5.16.1 Metallic chuck system	11
5.16.2 Non-metallic chuck system	11
5.17 Test mandrel	11
5.18 Speed	13
5.19 Eccentricity	13
5.20 Stall torque	13
5.21 Dimensions of head and nose	13
5.22 Output power of high-speed air turbine handpiece	14
5.23 Handpieces with light	15
6 Sampling	15
7 Testing	15
7.1 General test conditions	15
7.2 Visual inspection	15
7.3 Power supply — Electrical	15
7.4 Power supply — Air	15
7.4.1 Apparatus	15
7.4.2 Procedure	15
7.5 Spray air supply	16
7.5.1 Apparatus	16
7.5.2 Procedure	16
7.6 Water supply	16

7.6.1	Apparatus.....	16
7.6.2	Procedure.....	16
7.7	Air and water pressure.....	16
7.7.1	Apparatus.....	16
7.7.2	Procedure.....	17
7.8	Motor cooling air.....	17
7.8.1	Apparatus.....	17
7.8.2	Procedure.....	17
7.9	Handpiece cooling air.....	17
7.9.1	Apparatus.....	17
7.9.2	Procedure.....	18
7.10	Connection for handpieces and motors.....	19
7.11	Connection and supply.....	19
7.11.1	Apparatus.....	19
7.11.2	Procedure.....	19
7.12	Test mandrels.....	19
7.13	Chuck for shanks.....	19
7.13.1	Extraction test.....	19
7.13.2	Torque test.....	19
7.14	Dimensions of head and nose.....	20
7.14.1	Apparatus.....	20
7.14.2	Procedure.....	20
7.15	Eccentricity.....	20
7.15.1	Apparatus.....	20
7.15.2	Procedure.....	20
7.16	Stall torque.....	20
7.16.1	Apparatus.....	20
7.16.2	Procedure.....	20
7.17	Noise level.....	21
7.17.1	Apparatus.....	21
7.17.2	Test conditions.....	21
7.17.3	Procedure.....	21
7.18	Speed.....	21
7.18.1	Apparatus.....	21
7.18.2	Procedure.....	21
7.19	Temperature rise of housing.....	21
7.19.1	Temperature rise of motors.....	21
7.19.2	Temperature rise for handpieces.....	21
7.20	Excessive temperature.....	22
7.20.1	Excessive temperature for motors.....	22
7.20.2	Excessive temperature for handpieces.....	22
7.21	Resistance to reprocessing.....	23
7.22	Output power of high-speed air turbine handpieces.....	23
7.22.1	Apparatus.....	23
7.22.2	Procedure.....	23
7.23	Handpieces with light.....	24
7.23.1	Apparatus.....	24
7.23.2	Procedure.....	24
8	Instructions for use, maintenance and service.....	25
9	Technical description.....	26
10	Marking.....	26
10.1	General.....	26
10.2	Handpieces.....	26
10.3	Motors.....	26
11	Labelling.....	26
12	Packaging.....	27

Annex A (informative) Handpiece and motor category tree	28
Annex B (informative) Test report form	30
Bibliography	34

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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

This second edition cancels and replaces the first edition (ISO 14457:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

- use of terms for handpieces and motors has been clarified;
- output power for high-speed air turbine handpieces has been added;
- light for handpieces has been added;
- a few technical data have been corrected;
- an example for the test report has been added in [Annex B](#).

Dentistry — Handpieces and motors

1 Scope

This document specifies requirements and test methods for handpieces and motors used in dentistry for treatment of patients and having patient contact, regardless of their construction. It also specifies requirements for manufacturer's information, marking and packaging.

This document is applicable to the following:

- a) straight and angle handpieces;
- b) high-speed air turbine handpieces;
- c) air motors;
- d) electrical motors;
- e) prophylaxis handpieces.

This document is not applicable to the following:

- intraoral camera handpieces;
- powered polymerization handpieces;
- air-powered scalers;
- electrical-powered scalers;
- powder jet handpieces;
- multifunction handpieces (syringes).

NOTE See [Annex A](#) for clarification of handpieces and motor types covered by this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1797, *Dentistry — Shanks for rotary and oscillating instruments*

ISO 1942, *Dentistry — Vocabulary*

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 2768-2, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications*

ISO 3964, *Dentistry — Coupling dimensions for handpiece connectors*

ISO 5349-1, *Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 1: General requirements*