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BSI Standards Publication

Dentistry — Stationary dental units and dental patient chairs

Part 2: Air, water, suction and wastewater systems

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National foreword

This British Standard is the UK implementation of EN ISO 7494-2:2022. It is identical to ISO 7494-2:2022. It supersedes BS EN ISO 7494-2:2015, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CH/106/4, Dental Instruments and Equipment.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Zahnheilkunde - Fest installierte dentale Behandlungseinheiten - Teil 2: Luft-, Wasser-, Absaug- und Abwassersysteme (ISO 7494-2:2022)

This European Standard was approved by CEN on 4 June 2022.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN ISO 7494-2:2022) has been prepared by Technical Committee ISO/TC 106 "Dentistry" in collaboration with Technical Committee CEN/TC 55 "Dentistry" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2023, and conflicting national standards shall be withdrawn at the latest by April 2023.

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

This document supersedes EN ISO 7494-2:2015.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 7494-2:2022 has been approved by CEN as EN ISO 7494-2:2022 without any modification.

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Contents

	Page
Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Classification	4
4.1 Classification of suction systems.....	4
4.2 Classification of suction air flow rate.....	4
5 Requirements	4
5.1 Connections from the stationary dental unit to dental handpieces.....	4
5.1.1 General.....	4
5.1.2 Powered scaler.....	4
5.1.3 Multifunction handpiece.....	5
5.1.4 Handpiece and motor.....	5
5.1.5 Powder jet handpiece.....	5
5.1.6 Simultaneous use of more than one dental handpiece.....	6
5.2 Supply connections to the stationary dental unit.....	6
5.3 Water and wastewater systems.....	8
5.3.1 General.....	8
5.3.2 Incoming water.....	8
5.3.3 Materials used for construction of procedural water systems within the stationary dental unit.....	8
5.3.4 Backflow prevention device for stationary dental units connected to the external drinking water supply.....	9
5.3.5 Cuspidors.....	9
5.3.6 Water venturi.....	9
5.3.7 Particle filter.....	9
5.3.8 Bacterial filter.....	9
5.3.9 Bottled water system supplying procedural water or solution.....	9
5.3.10 Retraction.....	9
5.3.11 Treatment method for biofilm.....	10
5.3.12 Water sampling connection point.....	10
5.3.13 Wastewater drain connection.....	11
5.4 Air system.....	11
5.4.1 General.....	11
5.4.2 Incoming dental air.....	11
5.4.3 Particle filters.....	11
5.4.4 Bacterial filters.....	11
5.5 Stationary dental unit suction systems.....	12
5.5.1 General.....	12
5.5.2 Maximum suction pressure.....	12
5.5.3 Suction pressure head loss.....	12
5.5.4 Configuration of cannula connectors and cannula.....	12
5.5.5 Operating hoses with cannula connectors.....	14
5.5.6 Solids filter.....	14
5.5.7 Air separator.....	14
5.5.8 Stationary dental unit suction source connection point.....	14
5.6 Test report.....	14
6 Sampling	14
7 Measurement and test methods	14
7.1 Visual inspection.....	14
7.1.1 Visual inspection of device.....	14
7.1.2 Visual inspection of documentation or test reports.....	14

This is a preview of "BS EN ISO 7494-2:202...". [Click here to purchase the full version from the ANSI store.](#)

7.2	Dental handpiece connection test.....	15
7.2.1	Apparatus.....	15
7.2.2	Procedure.....	15
7.3	Systems directly connected to external drinking water supply test.....	17
7.4	Cuspidor test.....	17
7.5	Particle filter test.....	17
7.6	Retraction test.....	17
7.7	Stationary dental unit suction systems test.....	18
7.7.1	General.....	18
7.7.2	Static suction pressure test.....	18
7.7.3	Suction pressure head loss test.....	19
7.8	Treatment method for the prevention or inhibition of biofilm formation.....	20
7.9	Treatment method for biofilm removal.....	20
8	Instructions for use	20
9	Technical description	21
Annex A (informative)	Example of schematic diagram of components and connections in a stationary dental unit	23
Annex B (informative)	Dental handpiece connection test jig	25
Annex C (informative)	Test sequence	26
Bibliography	31

This is a preview of "BS EN ISO 7494-2:202...". Click here to purchase the full version from the ANSI store.

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 6, *Dental equipment*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 55, *Dentistry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 7494-2:2015), which has been technically revised.

The main changes are as follows:

- the requirements in this document have been limited to stationary dental units;
- the requirements for connections from the stationary dental unit to dental handpieces have been added in [5.1](#);
- measurement procedures for air flow and water flow have been added in [7.2.2](#);
- requirements for treatment methods for dental unit waterline biofilm have been added in [5.3.11](#);
- the requirement for noise level for dental suction systems has been removed since that main contribution to noise comes from the cannula, which is outside of the scope of this document.

A list of all parts in the ISO 7494 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Dentistry — Stationary dental units and dental patient chairs —

Part 2: Air, water, suction and wastewater systems

1 Scope

This document specifies requirements and test methods for stationary dental units concerning

- a) the properties of stationary dental unit connections to the compressed air supply, water supply, suction supply, and wastewater drain plumbing,
- b) the materials, design, and construction of the compressed air and water system within the stationary dental unit,
- c) the quality for incoming water and air,
- d) the performance of stationary dental unit suction system, and
- e) the air, water, suction and wastewater properties of stationary dental unit connections to the interfaces to dental handpieces.

This document also specifies requirements for instructions for use and technical description.

This document does not specify requirements or test methods for the effectiveness of stationary dental unit waterline biofilm control.

NOTE Test methods for the effectiveness of stationary dental unit waterline biofilm control are specified in ISO 16954.

This document is only applicable to stationary dental units that are not used for oral surgery treatment requiring sterile air and water supplies. Amalgam separators are not included in 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 1942, *Dentistry — Vocabulary*

ISO 7494-1, *Dentistry — Stationary dental units and dental patient chairs — Part 1: General requirements*

ISO 8573-1, *Compressed air — Part 1: Contaminants and purity classes*

ISO 10637, *Dentistry — Central suction source equipment*

ISO 14457, *Dentistry — Handpieces and motors*

ISO 18397, *Dentistry — Powered scaler*

ISO 20608, *Dentistry — Powder jet handpieces and powders*

ISO 22569, *Dentistry — Multifunction handpieces*