
**Dentistry — Stationary dental units
and dental patient chairs —**

**Part 2:
Air, water, suction and wastewater
systems**

*Médecine bucco-dentaire — Units dentaires fixes et fauteuils
dentaires patient —*

*Partie 2: Systèmes d'alimentation en air et en eau, d'aspiration et
d'évacuation des eaux usées*



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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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.

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.

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*