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Dentistry - Central suction source equipment (ISO 10637:2018)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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**Dentistry - Central suction source equipment (ISO
10637:2018)**Médecine bucco-dentaire - Systèmes d'aspiration
centrale (ISO 10637:2018)Zahnheilkunde - Zentrale Absauganlage (ISO
10637:2018)

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EN ISO 10637:2018 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 10637:2018) 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of an identical text or by endorsement, at the latest by December 2018, and conflicting national standards shall be withdrawn at the latest by December 2018.

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INTERNATIONAL STANDARD

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Dentistry — Central suction source equipment

Médecine bucco-dentaire — Systèmes d'aspiration centrale



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification	3
4.1 Classification according to separation of solids and liquids from air flow.....	3
4.2 Classification according to air flow rate.....	3
5 Requirements	4
5.1 Characterization of central suction source equipment flow rate performance.....	4
5.2 Maximum suction pressure.....	4
5.3 Safety requirements.....	4
5.4 Electromagnetic compatibility (EMC).....	4
5.5 Other requirements as applicable.....	4
5.5.1 Amalgam separator.....	4
5.5.2 Bacterial filter.....	5
6 Sampling	5
7 Measurement and test methods	5
7.1 General.....	5
7.1.1 General provisions for tests.....	5
7.1.2 Reference conditions (air flow rates).....	5
7.1.3 Atmospheric conditions.....	5
7.1.4 Other conditions.....	5
7.2 Performance tests.....	6
7.2.1 Measurement of flow rate performance.....	6
7.2.2 Measurement of maximum suction pressure.....	6
7.2.3 Measures to prevent excessive static suction at the facility suction pipeline connection point.....	6
7.3 Bacterial filters.....	6
7.4 Visual inspection.....	6
7.4.1 Visual inspection equipment.....	6
7.4.2 Visual inspection of documentation.....	6
8 Information supplied by the manufacturer	7
8.1 General.....	7
8.2 Instructions for use.....	7
8.3 Technical description.....	7
9 Marking	8
9.1 Marking on outside of electrically operated central suction source equipment.....	8
9.2 Exhaust pipeline connection point.....	8
10 Packaging	8
Annex A (informative) Types of suction systems	10
Annex B (informative) Dry-suction system source equipment diagram	12
Annex C (informative) Semi-dry-suction system source equipment diagram	13
Annex D (informative) Wet suction system source equipment diagram	15
Bibliography	17

ISO 10637:2018(E)**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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For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 6, *Dental equipment*.

This second edition cancels and replaces the first edition (ISO 10637:1999), which has been technically revised.

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

- clarification of the scope;
- addition of the classification according to the air flow rate (Type 1, Type 2 or Type 3);
- addition of measurement and test methods;
- addition of diagrams for different suction source equipment in the Annexes.

Introduction

Dental suction systems evacuate solids, liquids, aerosols and gases from the oral cavity and immediate surrounding area for the purpose of improving operating effectiveness and efficiency during oral treatment procedures and limiting the contamination of the immediate environment. In central suction systems the equipment that generates suction and performs other supporting functions is located in a central location outside of the dental treatment room to isolate this equipment from the immediate vicinity of patient treatment and often to provide suction to multiple treatment rooms.

A central suction system consists of four basic elements:

- 1) dental treatment room suction components (e.g. dental unit suction system);
- 2) facility suction pipeline;
- 3) central suction source equipment;
- 4) exhaust pipeline.

The central suction source equipment consists of all the components from the facility suction pipeline connection point (i.e. discharge end of the facility suction pipeline) to the exhaust pipeline connection point (i.e. inlet to the exhaust pipeline). In addition to the equipment that generates air flow, centrally located amalgam separators and air water separators (if present) are also component parts of the central suction source equipment.

Dentistry — Central suction source equipment

1 Scope

This document specifies requirements and test methods for stationary, electrically powered central suction source equipment, including centrally located amalgam separators and air water separators.

It also specifies requirements for information to be supplied by the manufacturer on the performance, installation, operation and maintenance of the central suction source equipment as part of the complete dental suction system.

This document specifies requirements for central suction source equipment used to provide vacuum pressure and flow at the facility pipeline connection point.

This document does not apply to portable suction source equipment, air/water venturi suction source equipment, or to suction source equipment located in the treatment room. It also does not apply to suction source equipment used for life support or for scavenging halogenated anaesthetic gases.

This document does not include requirements for facility and exhaust piping systems or treatment room equipment.

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 5167-1, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full — Part 1: General principles and requirements*

ISO 7010:2011, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

ISO 7494-2, *Dentistry — Dental units — Part 2: Air, water, suction and wastewater systems*

ISO 9687, *Dentistry — Graphical symbols for dental equipment*

ISO 11143, *Dentistry — Amalgam separators*

ISO 29463-1:2017, *High efficiency filters and filter media for removing particles from air — Part 1: Classification, performance, testing and marking*

IEC 60335-1, *Household and similar electrical appliances — Safety — Part 1: General requirements*

IEC 61000-6-2, *Electromagnetic compatibility (EMC) — Part 6-2: Generic standards — Immunity standard for industrial environments*

IEC 61000-6-3, *Electromagnetic compatibility (EMC) — Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments*

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