
Medical suction equipment —
Part 1:
Electrically powered suction
equipment

Appareils d'aspiration médicale —

Partie 1: Appareils électriques d'aspiration





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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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 121, *Anaesthetic and respiratory equipment*, Subcommittee SC 8, *Suction devices for hospital and emergency care use*.

This third edition cancels and replaces the second edition (ISO 10079-1:1999), which has been technically revised.

ISO 10079 consists of the following parts, under the general title *Medical suction equipment*:

- *Part 1: Electrically powered suction equipment*
- *Part 2: Manually powered suction equipment*
- *Part 3: Suction equipment powered from a vacuum or positive pressure gas source*

[Annex A](#) forms a normative part of this part of ISO 10079 while [Annex B](#), [Annex C](#), and [Annex D](#) are for information only.

[Annex B](#) contains rationale statements for some of the requirements of this part of ISO 10079. The clauses and subclauses marked with an asterisk (*) at the beginning of the paragraph have corresponding rationale contained in [Annex B](#) included to provide additional insight into the reasoning that led to the requirements and recommendations that have been incorporated into this part of ISO 10079. It is considered that knowledge of the reasons for the requirements will not only facilitate the proper application of this part of ISO 10079, but will expedite any subsequent revisions.

[Annex D](#) illustrates the three parts of ISO 10079 by providing a schematic for typical systems.

Medical suction equipment —

Part 1: Electrically powered suction equipment

1 Scope

This part of ISO 10079 specifies safety and performance requirements for electrically powered medical and surgical suction equipment. It applies to equipment used in health care facilities such as hospitals, for domiciliary care of patients and for field and transport use.

This part of ISO 10079 does not apply to the following:

- a) central power supply (by vacuum/compressed air generation), piping systems of vehicles and buildings, and wall connectors;
- b) end-pieces such as suction catheters, drains, curettes, Yankauer suckers and suction tips;
- c) syringes;
- d) dental suction equipment;
- e) anaesthetic gas scavenging systems;
- f) laboratory suction;
- g) autotransfusion systems;
- h) mucus extractors including neonatal mucus extractors;
- i) suction equipment where the collection container is downstream of the vacuum pump;
- j) ventouse (obstetric) equipment;
- k) suction equipment marked for endoscopic use only;
- l) plume evacuation systems.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3744, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane*

ISO 5356-1, *Anaesthetic and respiratory equipment — Conical connectors — Part 1: Cones and sockets*

ISO 7000, *Graphical symbols for use on equipment — Registered symbols*¹⁾

ISO 14155, *Clinical investigation of medical devices for human subjects — Good clinical practice*

ISO 14971, *Medical devices — Application of risk management to medical devices*

1) The graphical symbol collections of ISO 7000, ISO 7001, and ISO 7010 are also available on the Online Browsing Platform <http://www.iso.org/obp>.

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ISO 15223-1, *Medical devices — Symbols to be used with medical device labels, labelling and information to be supplied — Part 1: General requirements*

ISO 80369 (all parts), *Small-bore connectors for liquids and gases in healthcare applications*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60601-1:2005+A1:2012, *Medical electrical equipment — Part 1: General requirements for safety*

IEC 60601-1-6, *Medical electrical equipment — Part 1-6: General requirements for basic safety and essential performance — Collateral standard: Usability*

IEC 60601-1-11:2010, *Medical electrical equipment — Part 1-11: General requirements for basic safety and essential performance — Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment*

IEC 60601-1-12:2014, *Medical electrical equipment — Part 1-12: General requirements for basic safety and essential performance — Collateral Standard: Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment*

IEC/TR 60878, *Graphical symbols for electrical equipment in medical practice*

IEC 61672-1, *Electroacoustics - Sound level meters — Part 1: Specifications*

IEC 62366, *Medical devices — Application of usability engineering to medical devices*

EN 1041, *Information supplied by the manufacturer of medical devices*