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## Inhalational anaesthesia systems —

Part 7:

### **Anaesthetic systems for use in areas with limited logistical supplies of electricity and anaesthetic gases**

*Systèmes d'anesthésie par inhalation —*

*Partie 7: Systèmes d'anesthésie pour utilisation dans des zones avec équipement logistique limité en électricité et en gaz anesthésiques*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 8835-7 was prepared by Technical Committee ISO/TC 121, *Anaesthetic and respiratory equipment*, Subcommittee SC 1, *Breathing attachments and anaesthetic machines*.

ISO 8835 consists of the following parts, under the general title *Inhalational anaesthesia systems*:

- *Part 7: Anaesthetic systems for use in areas with limited logistical supplies of electricity and anaesthetic gases*

The following parts are withdrawn and replaced by ISO 80601-2-13:

- *Part 2: Anaesthetic breathing systems*
- *Part 3: Transfer and receiving systems of active anaesthetic gas scavenging systems*
- *Part 4: Anaesthetic vapour delivery devices*
- *Part 5: Anaesthetic ventilators*

Draw-over vaporizers are described in ISO/TS 18835.

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## \* Introduction

The World Health Organisation (WHO) and the World Federation of Societies of Anaesthesiologists (WFSA) are concerned about the provision of safe anaesthesia, using appropriately designed anaesthetic equipment, in the large numbers of countries in the world where economics or infrastructure lead to a situation where complex technology is unlikely to function well, if at all, and might introduce hazards of its own.

A total of 152 countries have been identified where the infrastructure or economic restrictions prevent the use of complex equipment, creating a need for an appropriate standard.

Equipment designed for use in these countries should meet the following minimum criteria:

- a) ability to function in the absence of a regular supply of compressed medical gases;
- b) ability to continue to function safely when the supply of medical gases fails;
- c) ability to function if mains electrical supplies are interrupted, or are subject to unpredictable increases or decreases in voltage;
- d) ability to function in a challenging environment, including high temperatures, humidity, shocks, vibration, and dust.

This part of ISO 8835 allows for the construction of an anaesthetic system, using the components identified in this part of ISO 8835, to suit the specific economic and environmental issues of each country.

Throughout this part of ISO 8835, text for which a rationale is provided in Annex A is indicated by an asterisk (\*).