International Standard

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Transportable liquid oxygen systems for medical use —

Part 2: Particular requirements for portable units

Systèmes transportables d'oxygène liquide à usage médical —

Partie 2: Exigences particulières s'appliquant aux unités portables

Reference number
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Foreword

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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 document 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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This document was prepared by Technical Committee ISO/TC 121, *Anaesthetic and respiratory equipment*, Subcommittee SC 6, *Medical gas supply systems*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 215, *Respiratory and anaesthetic equipment,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 18777-2 together with ISO 18777-1 cancels and replaces ISO 18777:2005, which has been technically revised.

The main changes are as follows:

— requirements that are common with *base units* refer to the applicable clauses ISO 18777-1;

— requirements for the filling port connector have been included.

A list of all parts in the ISO 18777 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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Introduction

Transportable liquid oxygen systems comprise a *base unit* and a *portable unit* primarily for use in home-care applications. This document specifies requirements unique to *portable unit*s, which provide a controlled flow of oxygen for inhalation by the patient and are refilled from the *base unit* by the patient. ISO 18777-1 specifies the common requirements and particular requirements for the *base unit*.

The *portable unit* is a lightweight device that can be carried by the patient so that they have access to oxygen around the home and when they leave the home.

NOTE Terms defined in ISO 18777-1 are delineated throughout this document in *italic font.*

In this document, the following verbal forms are used:

— “shall” indicates a requirement;

— “should” indicates a recommendation;

— “may” indicates a permission;

— “can” is used to describe a possibility or capability.

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Transportable liquid oxygen systems for medical use —

Part 2:
Particular requirements for portable units

1 Scope

This document specifies particular requirements for *portable units* which are part of a transportable liquid oxygen system and used to provide a controlled flow of oxygen for inhalation by the patient in the home-care environment.

Portable units are intended to be used without professional supervision, carried by patients while moving around and during their off-site activities and refilled from a *base unit* via a *transfilling device* through the *portable unit's* filling port connector.

NOTE Requirements that are common to both *portable units* and *base units* are specified in ISO 18777-1.

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 18777-1:2026, *Transportable liquid oxygen systems for medical use: Part 1 — Common requirements and particular requirements for base units*

ISO 80601-2-67, *Medical electrical equipment — Part 2-67: Particular requirements for basic safety and essential performance of oxygen-conserving equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 18777-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 General requirements

The applicable requirements of ISO 18777-1:2026, Clause 4, shall apply.

5 Design requirements

5.1 General

The applicable requirements of ISO 18777-1:2026, Clause 5, shall apply.

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