INTERNATIONAL STANDARD

ISO 16900-1

Second edition
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Respiratory protective devices — Methods of test and test equipment —

Part 1: Determination of inward leakage

Appareils de protection respiratoire — Méthodes d'essai et équipement d'essai —
Partie 1: Détermination des fuites vers l'intérieur

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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).

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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 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 15, *Respiratory protective devices*.

This second edition cancels and replaces the first edition (ISO 16900-1:2014), which has been technically revised.

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

— the criteria for selection of test panels has been changed from the principal components analysis (PCA) method to the bivariate grid method. References to the PCA method in other clauses have been modified as necessary;

— a new clause has been added to address measurement of inward leakage in the ocular zone;

— a figure has been added to illustrate the pulsed sampling system;

— the conditions for use of a condensation particle counter have been modified;

— Annex D has been re-written to reflect changes to the criteria for selection of test panels.

NOTE The list above is not intended as a complete list of all changes.

A list of all parts in the ISO 16900 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.

Introduction

This document is intended as a supplement to the respiratory protective devices (RPD) performance standards. Test methods are specified for complete devices or parts of devices. If deviations from the test method given in this document are necessary, these deviations will be specified in the performance standards.