
**Respiratory protective devices —
Methods of test and test equipment —**

**Part 11:
Determination of field of vision**

*Appareils de protection respiratoire — Méthodes d'essai et
équipement d'essai —*

Partie 11: Détermination du champ de vision



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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. www.iso.org/directives

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The committee responsible for this document is ISO/TC 94, *Personal safety - Protective clothing and equipment*, Subcommittee SC 15, *Respiratory protective devices*.

ISO 16900 consists of the following parts, under the general title *Respiratory protective devices — Methods of test and test equipment*:

- *Part 1: Determination of inward leakage*
- *Part 2: Determination of breathing resistance*
- *Part 3: Determination of particle filter penetration*
- *Part 4: Determination of gas filter capacity and migration, desorption and carbon monoxide dynamic testing*
- *Part 11: Determination of field of vision*

The following parts are under preparation:

- *Part 5: Breathing machine/metabolic simulator/RPD headforms/torso, tools and transfer standards*
- *Part 6: Mechanical resistance – Strength of components*
- *Part 7: Practical performance test method*
- *Part 8: Measurement of RPD air flow rates*
- *Part 9: Determination of the carbon dioxide content of inhaled air*
- *Part 10: Resistance to ignition, flame, radiant heat and heat*
- *Part 12: Determination of volume averaged work of breathing and peak respiratory pressures*
- *Part 13: RPD using regenerated breathable gas and special application mining escape RPD: Consolidated test for gas concentration, temperature, humidity, work of breathing, breathing resistance and duration*

Introduction

This part of ISO 16900 is intended as a supplement to the respiratory protective devices (RPD) performance standard ISO 17420 (all parts). Test methods are specified for complete devices or parts of devices that are intended to comply with ISO 17420. If deviations from the test method given in this part of ISO 16900 are necessary, these deviations will be specified in ISO 17420.

Respiratory protective devices — Methods of test and test equipment —

Part 11: Determination of field of vision

1 Scope

This part of ISO 16900 specifies the laboratory test method for determining the field of vision for a respiratory protective device (RPD).

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 16972, *Respiratory protective devices — Terms, definitions, graphical symbols and units of measurement*

ISO 17420-3, *Respiratory protective devices — Performance requirements — Part 3: Thread connection*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16972 and the following apply.

3.1

apertometer

extended hemispherical dome for measuring the angular area of the field of vision (peripheral isopter) of an RPD when mounted on a headform

3.2

peripheral isopter

field of vision while wearing an RPD, indicated by the lighted area, which is measured by a solid line connecting the points

3.3

visual field score

VFS

summation of grid points contained within the peripheral isopter shadow cast onto the apertometer by the RPD

4 Prerequisites

The performance standard shall indicate the conditions of the test. This includes the following:

- a) number of specimens;
- b) any preconditioning;
- c) use of filter simulator, if applicable;
- d) any accessories;