

AS/NZS ISO 16900.7:2021
ISO 16900-7:2020



Australian/New Zealand Standard™

Respiratory protective devices — Methods of test and test equipment

Method 7: Practical performance test methods



AS/NZS ISO 16900.7:2021

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The following are represented on Committee SF-010:

- Association of Accredited Certification Bodies
- Australasian Fire and Emergency Service Authorities Council
- Australian Industry Group
- Australian Institute of Health and Safety
- Australian Institute of Occupational Hygienists
- Australian Institute of Petroleum
- Better Regulation Division (Fair Trading, Safework NSW, TestSafe)
- Composites Australia
- CSIRO
- Joint Accreditation System of Australia and New Zealand
- National Measurement Institute
- New Zealand Occupational Hygiene Society
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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-010, Occupational Respiratory Protection.

The objective of this document is to specify practical performance tests for respiratory protective devices. The purpose of these tests is to subjectively assess certain properties, characteristics and functions of the RPD, when worn by test subjects in simulated practical use, which cannot be assessed by tests described in other standards.

This document is identical with, and has been reproduced from, ISO 16900-7:2020, *Respiratory protective devices — Methods of test and test equipment — Part 7: Practical performance test methods*.

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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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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 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 the following URL: 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 16900-7:2015), which has been technically revised.

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

- Eliminated the annex, “Application of uncertainty of measurement — Determination of compliance” because there are no measurements in this standard to which the deleted method would apply.
- Modified activity 8 in [Annex A](#) regarding maximum noise output when the activity is conducted.
- Eliminate walking requirement when adjusting the RPD during activities in [Annex B](#).

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.

NOTES

Australian/New Zealand Standard

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1 Scope

This document specifies practical performance tests for respiratory protective devices. The purpose of these tests is to subjectively assess certain properties, characteristics and functions of the RPD, when worn by test subjects in simulated practical use, which cannot be assessed by tests described in other standards.

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

ISO/TS 16976-2:2015, *Respiratory protective devices — Human factors — Part 2: Anthropometrics*

3 Terms and definitions

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

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Prerequisites

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

- any exclusions to the activities in [Table A.1](#);
- any activities from [Annex B](#) in addition to those specified in [Table A.1](#);
- any pre-conditioning;
- temperature and humidity for the test;
- number of test subjects;
- number of samples to be tested.

5 General test requirements

Unless otherwise specified, the values stated in this document are expressed as nominal values. Except for temperature limits, values which are not stated as maxima or minima shall be subject to a tolerance of $\pm 5\%$. Unless otherwise specified, the ambient conditions for testing shall be between $16\text{ }^{\circ}\text{C}$ and $32\text{ }^{\circ}\text{C}$ and $(50 \pm 30)\%$ relative humidity. Any temperature limits specified shall be subject to an accuracy of $\pm 1\text{ }^{\circ}\text{C}$.