AS/NZS ISO 17420.3:2021
ISO 17420-3:2012

Australian/New Zealand Standard™

Respiratory protective devices – Performance requirements

Part 3: Thread connection

AS/NZS ISO 17420.3:2021

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee SF-010, Occupational Respiratory Protection. It was approved on behalf of the Council of Standards Australia on 23 June 2021 and by the New Zealand Standards Approval Board on 07 July 2021.

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The following are represented on Committee SF-010:

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First published as AS/NZS ISO 17420.3:2021.

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 apply to an unassisted filtering device and specify a standard thread connection between a filter and the respiratory interface as required in AS/NZS 17420.2.

This document also includes the description of test simulators that are necessary for the assessment of some of the requirements.

This document is identical with, and has been reproduced from, ISO 17420-3:2012, *Respiratory protective devices — Performance requirements — Part 3: Thread connection.*

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text "this part of ISO 17420" should read "this Australian/New Zealand document".

(b) A full point substitutes for a comma when referring to a decimal marker.

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Contents

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.

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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 17420-3 was prepared by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 15, *Respiratory protective devices*.

ISO 17420 consists of the following parts, under the general title *Respiratory protective devices — Performance requirements*:

— *Part 3: Thread connection*

The following parts are under preparation:

— *Part 1: Supplied breathable gas devices*

— *Part 2: Filtering devices*

Australian/New Zealand Standard

Respiratory protective devices – Performance requirements

Part 3: Thread connection

1 Scope

This part of ISO 17420 is applicable to an unassisted filtering device and specifies a standard thread connection between a filter and the respiratory interface as required in ISO 17420-2.

This part of ISO 17420 also includes the description of test simulators that are necessary for the assessment of some of the requirements.

2 Normative references

The following referenced documents are indispensable for the application 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 815-1, *Rubber, vulcanized or thermoplastic — Determination of compression set — Part 1: At ambient or elevated temperatures*

ISO 7619-1, *Rubber, vulcanized or thermoplastic — Determination of indentation hardness — Part 1: Durometer method (Shore hardness)*

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

3 Terms, definitions and symbols

3.1 Terms and definitions

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

3.1.1
thread connection
shape and dimensions of the standard connection between filters with a male thread connector and respiratory interfaces with a female thread connector

3.2 Symbols

For the purposes of this document, the following symbols apply (see Figure 1 to Figure 20).

d_1	major diameter of male thread;
d_2	minor diameter of male thread;
d_3	inner dimension for gauge;
d_4	outer dimension for gauge;
D_1	major diameter of female thread;
D_2	minor diameter of female thread;
h	pitch;
t_1	thread height;