

AS ISO 10263.2:2021
ISO 10263-2:2009



STANDARDS
Australia



Earth-moving machinery — Operator enclosure environment

Part 2: Air filter element test method



currently in preview, click buy full version

AS ISO 10263.2:2021

This Australian Standard ® was prepared by ME-063, Earthmoving Equipment. It was approved on behalf of the Council of Standards Australia on 22 October 2021.

This Standard was published on 5 November 2021.

The following are represented on Committee ME-063:

Australasian Institute of Mining & Metallurgy
Australian Industry Group
Better Regulation Division — SafeWork NSW
Construction and Mining Equipment Industry Group
Department of Regional NSW
Engineers Australia
Institute of Instrumentation, Control & Automation Australia
Minerals Council of Australia
Mining Electrical and Mining Mechanical Engineering Society
Resources Safety & Health Queensland
University of Queensland

This Standard was issued in draft form for comment as DR AS ISO 10263.2:2021.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

ISBN 978 1 76113 599 6

Earth-moving machinery — Operator enclosure environment

Part 2: Air filter element test method

First published as AS ISO 10263.2:2021.

COPYRIGHT

© ISO 2021 — All rights reserved
© Standards Australia Limited 2021

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Preface

This Standard was prepared by the Standards Australia Committee ME-063, Earthmoving Equipment.

The objective of this document is to specify a uniform test method to determine performance levels of operator enclosure panel-type air filters used to filter the air entering an earth-moving machine operator enclosure with a powered fresh air system.

This document is identical with, and has been reproduced from, ISO 10263-2:2009, *Earth-moving machinery — Operator enclosure environment — Part 2: Air filter element test method*.

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

- (a) In the source text “this part of ISO 10263” should read “this document”.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

Contents

Preface	ii
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Air filter element performance test	1
4.1 Test equipment and instruments	1
4.1.1 Test equipment	1
4.1.2 Dust metering device	2
4.2 Test conditions and material	2
5 Test report	3
Annex A (informative) Example of test report form for panel-type filter	7
Annex B (informative) Alternate method for air filter element performance evaluation	8
Bibliography	10

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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 10263-2 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety, ergonomics and general requirements*.

This second edition cancels and replaces the first edition (ISO 10263-2:1994), which has been technically revised.

ISO 10263 consists of the following parts, under the general title *Earth-moving machinery — Operator enclosure environment*:

- *Part 1: Terms and definitions*
- *Part 2: Air filter element test method*
- *Part 3: Pressurization test method*
- *Part 4: Heating, ventilating and air conditioning (HVAC) test method and performance*
- *Part 5: Windscreen defrosting system test method*
- *Part 6: Determination of effect of solar heating*

Australian Standard[®]

Earth-moving machinery — Operator enclosure environment

Part 2: Air filter element test method

1 Scope

This part of ISO 10263 specifies a uniform test method to determine performance levels of operator enclosure panel-type air filters used to filter the air entering an earth-moving machine operator enclosure with a powered fresh air system.

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 5011:2000, *Inlet air cleaning equipment for internal combustion engines and compressors — Performance testing*

ISO 10263-1, *Earth-moving machinery — Operator enclosure environment — Part 1: Terms and definitions*

ISO 12103-1, *Road vehicles — Test dust for filter evaluation — Part 1: Arizona test dust*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10263-1 and the following apply.

3.1

filter efficiency

measure of the ability of the air filter element to remove particulate matter

3.2

operator enclosure air filter element

medium in which particulate matter is removed from the incoming air supply

3.3

test dust

particulate matter used to evaluate the filter element

4 Air filter element performance test

The test standard configurations for the operator enclosure filter comparison tests are given in [4.1.1](#) and [Figure 1](#). This test procedure also designates a recommended intake velocity for the dust-mixing chamber.

4.1 Test equipment and instruments

4.1.1 Test equipment

Test equipment in accordance with [Figure 2](#), used to determine the resistance to air flow, particulate holding capacity, particulate removal efficiency, and sealing characteristics. For element configurations other than panel type, see ISO 5011.