

This is a preview of "ISO 5011:2014". [Click here to purchase the full version from the ANSI store.](#)

Third edition
2014-04-01

Inlet air cleaning equipment for internal combustion engines and compressors — Performance testing

*Séparateurs aérauliques placés à l'entrée des moteurs à combustion
interne et des compresseurs — Détermination des performances*



Reference number
ISO 5011:2014(E)

© ISO 2014

This is a preview of "ISO 5011:2014". [Click here to purchase the full version from the ANSI store.](#)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 5011:2014". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 Terms, definitions, symbols and units.....	1
3.2 Symbols and units.....	3
4 Measurement accuracy and standard conditions	4
4.1 Measurement accuracy.....	4
4.2 Standard conditions.....	4
5 Test materials and test conditions	4
5.1 Test dust.....	4
5.2 Test oil for oil bath air cleaners.....	4
5.3 Absolute filter materials.....	5
5.4 Absolute filter mass.....	5
5.5 Temperature and humidity.....	5
6 Test procedure for dry-type air cleaners for automotive applications	6
6.1 General.....	6
6.2 Test equipment.....	6
6.3 Restriction and differential pressure test.....	7
6.4 Efficiency test.....	8
6.5 Capacity test.....	9
6.6 Filter element pressure collapse test.....	10
6.7 Variable air flow test.....	10
6.8 Presentation of data.....	11
7 Test procedure for dry-type air cleaners for industrial applications	11
7.1 General.....	11
7.2 Test equipment.....	11
7.3 Restriction and differential pressure test.....	12
7.4 Initial efficiency test procedure — Absolute filter method.....	12
7.5 Full-life efficiency and capacity test.....	13
7.6 Presentation of data.....	15
7.7 Scavenged air cleaner performance test.....	15
7.8 Precleaner performance test.....	17
7.9 Secondary element test procedure.....	17
8 Test procedure for industrial applications of oil bath air cleaners	19
8.1 General.....	19
8.2 Test equipment and conditions.....	19
8.3 Restriction and differential pressure test.....	20
8.4 Oil carry-over test.....	20
8.5 Full life efficiency and capacity test.....	20
8.6 Recovery test.....	20
8.7 Presentation of data.....	21
Annex A (normative) Explanation of restriction, differential pressure and pressure loss of an air cleaner	22
Annex B (normative) Test equipment	24
Annex C (informative) Report sheet on performance testing of air cleaner equipment according to ISO 5011 — Automotive application	33
Annex D (informative) Report sheet on performance testing of air cleaner equipment according to ISO 5011 — Industrial application	34

This is a preview of "ISO 5011:2014". [Click here to purchase the full version from the ANSI store.](#)

Annex E (informative) Presentation of results — Air cleaner restriction/differential pressure versus flow	35
Annex F (informative) Presentation of results — Air cleaner capacity	36
Annex G (normative) Airflow and resistance corrections to standard conditions	37
Bibliography	39

This is a preview of "ISO 5011:2014". [Click here to purchase the full version from the ANSI store.](#)

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 7, *Injection equipment and filters for use on road vehicles*.

This third edition cancels and replaces the second edition (ISO 5011:2000), which has been technically revised.