

INTERNATIONAL STANDARD

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Surface cleaning appliances – **STANDARD PREVIEW**
Part 2: Dry vacuum cleaners for household or similar use – Methods for
measuring the performance (standards.iteh.ai)

IEC 62885-2:2016
Appareils de nettoyage des sols –
Partie 2: Aspirateurs à sec à usage domestique ou analogue – Méthodes
de mesure de l'aptitude à la fonction



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**Appareils de nettoyage des sols –
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SURFACE CLEANING APPLIANCES –**Part 2: Dry vacuum cleaners for household or similar use –
Methods for measuring the performance**

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International Standard IEC 62885-2 has been prepared by subcommittee 59F: Surface cleaning appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

This first edition of IEC 62885-2 cancels and replaces IEC 60312-1:2010 and Amendment 1:2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 60312-1:2010+AMD1:2011.

- a) New terms and definitions have been added in Clause 3.
- b) Subclauses 4.2 and 4.6 have been improved for better understanding.
- c) Subclause 4.10 has been reviewed and renamed "Carpets for testing".
- d) Subclause 5.1.6 has been improved.

- e) Figure 1 in 5.4.1 has been improved.
- f) Subclause 5.5.3.3 has been improved.
- g) Subclauses of 5.7 have been renumbered.
- h) Subclause 5.7.3, previously 5.7.2, has been improved.
- i) Subclause 5.8.2 has been improved and renamed.
- j) The test method in 5.9.2.3 has been updated.
- k) A new subclause 5.10 on total emissions while vacuum cleaning has been included.
- l) The method in 5.11.6 has been improved.
- m) Subclause 6.10 has been renamed “Ability to maintain air flow performance”.
- n) Subclauses of 6.16 have been renumbered.
- o) Subclause 6.16.2, previously 6.16.1, has been improved.
- p) New subclauses 6.16.3.5, 6.16.3.6 and 6.16.3.7 have been added.
- q) New subclauses 6.17 on operational motor life-time test and 6.18 on rated input power have been added.
- r) A new paragraph has been added in 7.2.1.5.
- s) In 7.3.2, the insert has been changed to aluminium.
- t) A new subclause 7.3.14 on total emissions test has been added.
- u) New Annexes D and E have been added.

The text of this standard is based on the following documents:

FDIS	Report on voting
59F/304/FDIS	59F/308/RVD

<https://standards.iteh.ai/catalog/standards/sist/a0cbc15e-7f28-49e1-9d44-692d0154ee/iec-62885-2-2016>

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 62885 series, under the general title *Surface cleaning appliances*, can be found on the IEC website.

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SURFACE CLEANING APPLIANCES –

Part 2: Dry vacuum cleaners for household or similar use – Methods for measuring the performance

1 Scope

This International Standard is applicable for measurements of the performance of **dry vacuum cleaners** for household use in or under conditions similar to those in households.

The purpose of this standard is to specify essential performance characteristics of **dry vacuum cleaners** which are of interest to users and to describe methods for measuring these characteristics.

NOTE 1 Due to the influence of environmental conditions, variations in time, origin of test materials and proficiency of the operator, most of the described test methods will give more reliable results when applied for comparative testing of a number of appliances at the same time, in the same laboratory and by the same operator.

NOTE 2 This standard is not intended for cordless vacuum cleaners.

For safety requirements, reference is made to IEC 60335-1 and IEC 60335-2-2.

A recommendation on information for the consumer at the point of sale is given in Annex B.

2 Normative references

[IEC 62885-2:2016](https://standards.iteh.ai/catalog/standards/sist/a0cbc15e-7f28-49e1-9d44-0ff2d0154a9a/iec-62885-2-2016)

[https://standards.iteh.ai/catalog/standards/sist/a0cbc15e-7f28-49e1-9d44-](https://standards.iteh.ai/catalog/standards/sist/a0cbc15e-7f28-49e1-9d44-0ff2d0154a9a/iec-62885-2-2016)

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.

IEC 60335-1, *Household and similar electrical appliances – Safety – Part 1: General requirements*

IEC 60335-2-2, *Household and similar electrical appliances – Safety – Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances*

IEC 60688, *Electrical measuring transducers for converting A.C. and D.C. electrical quantities to analogue or digital signals*

IEC 60704-1, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 1: General requirements*

IEC 60704-2-1, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-1: Particular requirements for vacuum cleaners*

IEC 60704-3, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 3: Procedure for determining and verifying declared noise emission values*

ISO 679, *Cement – Test methods – Determination of strength*

ISO 1763, *Carpets – Determination of number of tufts and/or loops per unit length and per unit area*

ISO 1765, *Machine-made textile floor coverings – Determination of thickness*

ISO 1766, *Textile floor coverings – Determination of thickness of pile above the substrate*

ISO 2424, *Textile floor coverings – Vocabulary*

ISO 2439, *Flexible cellular polymeric materials – Determination of hardness (indentation technique)*

ISO 3386-1, *Polymeric materials, cellular flexible – Determination of stress-strain characteristics in compression – Part 1: Low-density materials*

ISO 5167-1, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full – Part 1: General principles and requirements*

ISO 8543, *Textile floor coverings – Methods for determination of mass*

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

3 Terms and definitions

STANDARD PREVIEW
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For the purposes of this document, the following terms and definitions apply.

3.1

dry vacuum cleaner

electrically operated appliance that removes dry material (e.g. dust, fibre, threads) from the surface to be cleaned by an air flow created by a vacuum developed within the unit, the removed material being separated in the appliance and the cleaned suction air being returned to the ambient air

3.2

upright vacuum cleaner

self-standing and floor-supported **dry vacuum cleaner** with the **cleaning head** forming an integral part of or permanently connected to the cleaner housing, the cleaning head normally being provided with an agitation device to assist dirt removal and the complete cleaner housing being moved over the surface to be cleaned by means of an attached handle

3.3

cleaning head

plain nozzle or brush attached to a connecting **tube**, or a power nozzle, separate or part of the cleaner housing, and that part of a **dry vacuum cleaner** which is applied to a surface to be cleaned

3.4

active nozzle

cleaning head provided with a driven agitation device to assist dirt removal

Note 1 to entry: The agitation device may be driven by an incorporated electric motor (motorized nozzle), an incorporated turbine powered by the air flow (air-turbine nozzle) or an incorporated friction or gear mechanism actuated by moving the **cleaning head** over the surface to be cleaned (mechanical nozzle)

3.5

passive nozzle

cleaning head without any driven agitation device

3.6

self-propelled cleaning head

cleaning head provided with a propulsion mechanism

3.7

cleaning head width

B

external maximum width of the **cleaning head**

Note 1 to entry: Cleaning head width is expressed in metres.

3.8

active depth of the cleaning head

distance from the front edge of the **cleaning head** to its rear edge or a line 10 mm behind the rear edge of the suction opening on the underside of the **cleaning head**, whichever is the shortest

3.9

cleaning cycle

sequence of five **double strokes** to be carried out at a specified **stroke speed** over the test area according to the appropriate stroke pattern

3.10

stroke pattern

arrangement of the **forward strokes** and **return strokes** on the surface to be cleaned

3.11

parallel pattern

stroke pattern where the **forward strokes** and the **return strokes** are congruent and are carried out in the direction of the carpet pile (direction of manufacture) unless otherwise specified

3.12

stroke speed

speed of the **cleaning head**, moved as uniformly as possible, during a **forward stroke** or a **return stroke**

3.13

stroke length

distance between the two parallel lines defining the limits of a stroke pattern

3.14

double stroke

one forward and one backward movement of the **cleaning head** performed in a **parallel pattern**

3.15

forward stroke

forward movement of a stroke pattern

Note 1 to entry: On test carpets, forward strokes are carried out in the direction of the carpet pile (direction of manufacturing which can be determined by respective marking on the back).

3.16**return stroke**

backward movement of a stroke pattern

3.17**in-house reference cleaner**

electrically operated laboratory equipment designated for internal comparison within a laboratory

3.18**reference vacuum cleaner system****RSB**

electrically operated laboratory equipment used to measure the reference dust removal ability on carpets with given air flow and active brush bar related parameters to improve the reproducibility of test results

Note 1 to entry: A reference vacuum cleaner system may be used with active or passive nozzles.

Note 2 to entry: A reference vacuum cleaner system is not suitable for other tests than dust pick-up from carpets.

Note 3 to entry: A reference vacuum cleaner system is described in Annex D. Re-calibration of the RSB is described in Annex E.

3.19**cordless active nozzle**

cleaning head provided on a mains-driven machine with an agitation device to assist dirt removal driven by a battery operated motor

3.20**hand-held cleaner**

dry vacuum cleaner that will not be used on the floor by the user from an erect standing position

Note 1 to entry: However, the hand-held **dry vacuum cleaner** may be used on stairs from a standing position.

3.21**cylinder vacuum cleaner**

portable **dry vacuum cleaner** having a nozzle separated from the cleaner housing by a hose; in use, only the nozzle is guided over the surface area to be cleaned

Note 1 to entry: These **dry vacuum cleaners** are generally floor-supported.

Note 2 to entry: The **dry vacuum cleaner** may have detachable nozzles, attachments, and **tubes** for both floor and above the floor cleaning.

Note 3 to entry: The nozzle may employ a driven rotating brush to assist in cleaning.

3.22**tube**

rigid length or lengths of hollow pipe that connects the end of the hose to various vacuum cleaner accessories

Note 1 to entry: The tube may be fixed length or telescoping, passive or energized.

4 General conditions for testing**4.1 Atmospheric conditions**

Unless otherwise specified, the test procedures and measurements shall be carried out under the following conditions: