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Cleaning of air and other gases — Vocabulary

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Contents

Page

Foreword

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This document was prepared by Technical Committee ISO/TC 142, *Cleaning equipment for air and other gases*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 195, *Cleaning equipment for air and other gases*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 29464:2017), which has been technically revised.

The main changes are as follows:

— addition of 3.7 covering stand-alone electrically-powered air cleaners;

— addition of new terms and definitions in 3.5 and 3.6 due to the publication of new standards.

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.

Cleaning of air and other gases — Vocabulary

1 Scope

This document defines terms related to the air filtration industry.

This document is applicable to particulate matter and gas phase air filters and air cleaners used for the general ventilation of inhabited enclosed spaces. It is also applicable to air inlet filters for static or seaborne rotary machines, cleanable filters, UV-C germicidal devices, and stand-alone electrically-powered air cleaners.

It is not applicable to cabin filters for road vehicles or air inlet filters for mobile internal combustion engines for which separate arrangements exist. Dust separators for the purpose of air pollution control are also excluded.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Terms related to particle and gas-phase air cleaners

3.1.1
air cleaner
device for removing *contaminants* (3.1.12) from air in a ventilation system, building or other enclosed space

3.1.2
robotic air cleaner
air cleaner that operates and changes its physical location autonomously without user intervention

Note 1 to entry: The robotic air cleaner can consist of a part that houses the air cleaning function and can have a docking station and/or other accessories to assist its operation.

3.1.3
fresh-air air cleaner
air cleaner connected to the external environment, which provides pollutant-reduced outdoor air into an indoor space

Note 1 to entry: The fresh-air air cleaner can also include other auxiliary functions, such as heat exchange.

3.1.4
air velocity
rate of air movement

Note 1 to entry: It is expressed in m/s (fpm).

3.1.5
bypass
proportion of the *challenge air stream* (3.5.14) that passes around or through an *air cleaner* (3.1.1) without interacting with the air cleaner

3.1.6
calibrate
to compare readings from the instrument to be calibrated with those from a reference device

3.1.7
capture
removal of contaminants from an air stream

3.1.8
classification
allocation of air cleaners into groups and classes according to relevant aspects of their air cleaning performance

3.1.9
clean side
downstream side of an air cleaner element

3.1.10
combination product
air cleaner that includes a secondary function besides air cleaning within the same housing, such as humidifying, dehumidifying, heating, or air conditioning

3.1.11
concentration
quantity of one substance dispersed in a defined amount of another

3.1.12
contaminant
pollutant
substance (solid, liquid or gas) that negatively affects the intended use of a gas

3.1.13
contamination
pollution
presence of a substance that negatively affects the intended use of a gas

3.1.14
decontamination factor
ratio of the *contaminant* (3.1.12) concentration or particle number upstream of an air cleaner to the contaminant *concentration* (3.1.11) or particle number downstream of the air cleaner

Note 1 to entry: The decontamination factor can also be expressed as 1/(1 – overall efficiency) or as 1/penetration.

3.1.15
dirty side
upstream side of an air cleaner element

3.1.16
downstream
area or region into which air flows on leaving an air cleaner

3.1.17
removal efficiency
fraction or percentage of a challenge *contaminant* (3.1.12) that is removed by an air cleaner