



Nederlandse norm

NEN-ISO 29464

(en)

Reinigingsapparatuur voor lucht en andere gassen
- Woordenlijst (ISO 29464:2017,IDT)

Cleaning of air and other gases - Terminology
(ISO 29464:2017,IDT)

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**Cleaning of air and other gases —
Terminology**

Épuration de l'air et autres gaz — Terminologie



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Oorbereid
 Preview

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).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 142, *Cleaning equipment for air and other gases*.

This second edition of ISO 29464 cancels and replaces the first edition (ISO 29464:2011), which has been technically revised.

Cleaning of air and other gases — Terminology

1 Scope

This document establishes a terminology for the air filtration industry and comprises terms and definitions only.

This document is applicable to particulate 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 and UV-C germicidal devices.

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

For the purpose of this document, the following terms and definitions apply.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 General, applicable to both particulate and gas-phase air cleaners

3.1.1

air cleaner

device intended to remove *contaminants* (3.1.8) from air in a ventilation system or enclosed space

3.1.2

air velocity

rate of air movement

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

3.1.3

bypass

air filter bypass

sneakage

proportion of the *challenge air stream* (3.5.13) that passes around an *air cleaner* (3.1.1) without interacting with the air cleaner

3.1.4

calibrate

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

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3.1.5

capture

extraction of particles, liquid particles or gases, close to their sources for purposes of collection or sampling

3.1.6

classification

allocation of filters into groups and classes according to relevant aspects of their filtration performance

3.1.7

concentration

quantity of one substance dispersed in a defined amount of another

3.1.8

contaminant**pollutant**

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

3.1.9

contamination**pollution**

presence of a substance that negatively affects the intended use of a fluid

3.1.10

decontamination factor

ratio of the *contaminant* (3.1.8) concentration or particle number upstream of the test device to the *contaminant concentration* (3.1.7) or particle number downstream of the device

Note 1 to entry: The decontamination factor can also be expressed as $1/(1 - \text{overall efficiency})$ or as $1/\text{penetration}$.

3.1.11

downstream

area or region into which fluid flows or leaving the test device

3.1.12

efficiency**filter efficiency**

fraction or percentage of a challenge *contaminant* (3.1.8) that is removed by a test device

3.1.13

average efficiency

value of efficiency which results from averaging the efficiencies determined over a number of discreet intervals up to the final pressure differential

3.1.14

effluent

fluid discharged from a given source into the external environment

Note 1 to entry: This is a general term describing any fluid discharged from a given source; in this context, the discharged fluid may be liquid or gaseous and may contain associated liquid and/or particulate *contaminants* (3.1.8).

3.1.15

face velocity**filter face velocity**

volumetric air flow rate divided by the *nominal filter face area* (3.1.18)

Note 1 to entry: filter face velocity is expressed in m/s.

3.1.16
filter
air filter

device for separating solid or liquid particles or gaseous *contaminant* (3.1.8) from an air stream passing through the device

Note 1 to entry: The device is generally formed of a layer or layers of porous, fibrous or granular material.

Note 2 to entry: Air being cleaned by a filter must pass through the filter, whereas an *air cleaner* (3.1.1) can reduce air *contamination* (3.1.9) by any method.

3.1.17
filter face area

cross-sectional face area of the filter including the header frame when viewed from the direction of air flow using exact dimensions

3.1.18
nominal filter face area

cross-sectional face area of the filter including the header frame when viewed from the direction of air flow using nominal dimensions

3.1.19
filter insert

replaceable part of a filter which contains the filter medium but which can only operate mounted inside a frame

3.1.20
filter medium

material separating *particulate matter* (3.2.139) from gases and characterized by its separating structure and its structural and/or textile-technological characteristics

3.1.21
filter medium area

area of *filter medium* (3.1.20) contained in the filter

Note 1 to entry: For filters with pleated folds, the filter medium area may be much larger than the *filter face area* (3.1.17).

3.1.22
effective filter medium area
effective filtering area
exposed filter area

area of the *filter medium* (3.1.20) contained in the filter through which air passes during operation

Note 1 to entry: This excludes areas covered by sealant, spacers, struts, etc.

Note 2 to entry: Effective filter medium area is expressed in m².

3.1.23
filter medium velocity
media velocity
medium velocity

volumetric air flow rate divided by the *effective filter medium area* (3.1.22) of the *filter element* (3.2.77)

Note 1 to entry: Filter medium velocity is expressed in m/s.

Note 2 to entry: In devices where the filter medium surface area has been increased by use of pleats, folds or bags, the filter medium velocity may be much less than the *filter face velocity* (3.1.15).

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