
Digestoriji - 9. del: Digestoriji, opremljeni s filtriranim notranjim kroženjem zraka

Fume cupboards - Part 9: Fume cupboards, ducted with filtered internal recirculation

Abzüge - Teil 9: Abzüge, kanalisiert mit interner gefilterter Umwälzung

Sorbonnes - Partie 9 : Sorbonnes à recirculation partielle de l'air

Ta slovenski standard je istoveten z: prEN 14175-9

ICS:

71.040.10	Kemijski laboratoriji. Laboratorijska oprema	Chemical laboratories. Laboratory equipment
-----------	---	--

oSIST prEN 14175-9:2026

en,fr,de

Sample Document

get full document from standards.iteh.ai

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 14175-9

May 2026

ICS

English Version

Fume cupboards - Part 9: Fume cupboards, ducted with filtered internal recirculation

EN 14175-9: Sorbonnes - Partie 9: Sorbonnes à filtres
raccordées

EN 14175-9: Laborabzüge - Teil 9: Angeschlossene
Filterlaborabzüge

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 332.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2026 CEN All rights of exploitation in any form and by any means reserved
worldwide for CEN national Members.

Ref. No. prEN 14175-9:2026 E

Contents	Page
European foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Requirements for ducted filtration fume cupboards	7
4.1 General	7
4.2 Filter monitoring and alarms	10
4.3 Additional air flow monitoring	10
4.4 Test methods	10
4.4.1 General	10
4.4.2 Face velocity test	11
4.4.3 Sash Position alarm test	11
4.4.4 Pressure drop test	11
4.4.5 Extract air volume flow rate test	11
4.4.6 Workspace air volume flow	11
4.4.7 Additional Containment performance test	12
4.4.8 Filter tests	15
4.4.9 Filter pressure drop test	16
4.4.10 Filter differential pressure test	16
4.4.11 Tests of monitoring and alarms	16
4.4.12 Reporting of filter tests	17
5 Product manual and documentation	17
6 Marking and labelling	17
Annex A (informative) Filter systems in use with fume cupboards	19
Bibliography	20

European foreword

This document (prEN 14175-9:2026) has been prepared by Technical Committee CEN/TC 332 “Laboratory equipment”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

Sample Document

get full document from standards.iteh.ai

Introduction

Ducted Filtration Fume Cupboards (DFFC) are especially adapted devices intended to protect their users and/or the external environment by means of:

- The ability to contain potentially hazardous materials.
- The ability to remove potentially hazardous materials from air exhausted from within the fume cupboard housing by means of filtration before the air is discharged to the external environment.

The protection of operators is the main purpose of fume cupboards. As health risks are rising from more and more potent hazardous products, additional barriers may be necessary. Regarding the installation sites of cupboards there are growing efforts to improve environmental protection by additional filtration of contaminated air directly at the source. As dilution is not a solution to pollution, the intention is to minimise the discharge of contaminants into the atmosphere as well as to protect the exhaust air system, to make the maintenance safer of this, and to prevent burden to the public environment. Use of filtration also reduces the potential for re-entrainment of contaminated exhaust air through the air intakes. With the possibility of partial filtered air reuse such ducted fume cupboards may reduce the volume of exhaust air discharged. So, they may serve as an alternative solution, where building make up air ventilation is at capacity limit, contributing to climate protection and energy saving.

The types of potentially hazardous materials to be removed include particulates, gases, vapours, aerosols, and combinations of these. This objective is driven by aspects of performance based on health risks, nuisance effects, environmental impacts, or a combination of these. The guidance for filter use is based upon an operator risk assessment considering particulate or chemical hazards and work processes.

Sample Document

get full document from standards.iteh.ai

1 Scope

This document specifies characteristics concerning the design and performance requirements together with type testing and on-site testing procedures especially for ducted filtration fume cupboards not described in the other parts of EN 14175. Filter in DFFCs can be specific filters or a combination of filters dependent on the characteristics of the contaminants to be removed.

This document is related to and will refer to other parts of EN 14175 regarding definitions, technologies, testing methodologies, design factors and functional aspects.

This document covers the specific layout version of ducted fume cupboards with integral filtration. These devices called Ducted Filtration Fume Cupboards (DFFC) may be designed to partially reuse filtered air for internal dilution.

Fume cupboards fitted with filters which only act on the extracted air stream are not covered by this part.

Their filter requirements, description and testing could be taken from this standard, in particular in Annex A.

Recirculatory Filtration Fume Cabinets which return the filtered exhaust air back into the surrounding room are not part of this standard but described in the EN 17242.

The requirements for fume cupboards and filters for radioactive work are described in detail in EN 14175-8.

DFFCs are not foreseen for work with pathogens. Appropriate microbiological cabinets are described in EN 12469.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 14175-1, *Fume cupboards – Part 1: Vocabulary*

EN 14175-2:2003, *Fume cupboards - Part 2: Safety and performance requirements*

EN 14175-3:2019, *Fume cupboards - Part 3: Type test methods*

EN 14175-4, *Fume cupboards – Part 4 : On-site test methods*

EN 14175-6, *Fume cupboards – Part 6 : Variable air volume fume cupboards*

EN 14175-7, *Fume cupboards – Part 7: Fume cupboards for high heat and acidic load*

EN 14175-8, *Fume cupboard – Part 8: Fume cupboards for work with radioactive materials*