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BSI Standards Publication

Recirculatory Filtration Fume Cabinets

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National foreword

This British Standard is the UK implementation of EN 17242:2025. It supersedes BS 7989:2001, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee LBI/1/1, Laboratory furniture and fittings.

A list of organizations represented on this committee can be obtained on request to its committee manager.

Users of this standard are advised to carefully consider the performance requirements within, especially when testing performance for containment using isopropanol (IPA) as a tracer gas. It should be noted that, at the time of publication, there is no clear correlation between test results obtained using IPA and the currently accepted tracer gas, SF₆. The UK committee hopes that improved data obtained through future testing may provide some correlation between former test methods and those described in this standard. Until such data is available, users are encouraged to use the test method with caution.

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EUROPÄISCHE NORM

November 2025

ICS 71.040.10

English Version

Recirculatory Filtration Fume Cabinets

Enceinte ventilée à recirculation d'air filtré

Umluft-Filter-Einhausungen

This European Standard was approved by CEN on 22 September 2025.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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.

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Contents

Page

European foreword	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	6
4 Classification of RFFC	7
5 Requirements of RFFC.....	7
5.1 General requirements.....	7
5.2 Sound pressure level type test.....	8
5.3 Gas and vapour filtration	8
5.4 High efficiency particulate filtration	9
5.5 Filter monitoring arrangements	9
5.5.1 RFFCs without continuous filter monitoring	9
5.5.2 RFFCs with continuous filter monitoring.....	9
6 Face velocity measurements.....	10
7 Performance tests of filtration of a RFFC	10
7.1 Test rooms and test conditions for filtration and containment test.....	10
7.2 Filtration of gases and vapours.....	10
7.2.1 General.....	10
7.2.2 Analysers and detectors	11
7.2.3 Test procedure.....	11
7.2.4 Gas and vapour filtration test report.....	16
7.3 Test of gas and vapour sensors.....	17
7.4 Filtration for particulates	17
8 Containment test with IPA.....	18
8.1 General.....	18
8.2 Tracer vapour	18
8.3 Containers	18
8.4 Connecting tubing.....	18
8.5 Gas analyser	18
8.6 Time constant of the test system.....	18
8.7 Sampling probe.....	19
8.8 Sampling manifold.....	19
8.9 Data recording	19
8.10 Test condition	19
8.10.1 General.....	19
8.10.2 Positioning the containers to evaporate tracer vapour.....	19
8.11 Sampling probe grid	19
8.11.1 General.....	19
8.11.2 Downstream sampling probe grid	19
8.11.3 Outer measurement plane sampling probe grid	21
8.12 Test procedure.....	22
8.13 Data analysis and results	22
9 Test according to EN 14175-3	23

This is a preview of BS EN 17242:2025. [Click here to purchase the full version from the ANSI store.](#)

10 On site testing of RFFC's24
10.1 General24
10.2 Test report for commissioning of type tested RFFCs.....24
10.3 Test report for routine testing of type tested RFFCs.....25
11 Marking25
12 Product manual.....26
Annex A (normative) Filtration test protocol for inorganic acid filters28
Annex B (informative) Information on national and European regulations and guidelines that may impact the usage of RFFCs.....29
Bibliography31

This is a preview of BS EN 17242:2025. [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 17242:2025) has been prepared by Technical Committee CEN/TC 332 “Laboratory equipment”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2026, and conflicting national standards shall be withdrawn at the latest by May 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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1 Scope

This document is applicable to recirculatory filtration fume cabinets (RFFC).

Recirculatory filtration fume cabinets are devices intended to protect their users by means of:

- the ability to contain hazardous concentrations or quantities of airborne contaminants;
- the ability to remove hazardous concentrations or quantities of airborne contaminants from air exhausted from inside the fume cabinet by means of filtration before the air is recirculated to the room in which the fume cabinet is located.

This document specifies design and manufacturing requirements together with type and on-site testing procedures.

This document does not specify requirements for the use of a mixture of chemicals but provides guidance on how to proceed.

NOTE For special applications and usage such as Carcinogenic, Mutagenic, Reprotoxic Substances (CMR) substances, local regulation can apply. These local regulations can result on restriction of usage.

This document is not intended to address fume cupboards, or devices used as animal accommodation. For fume cupboards, the EN 14175 series applies. For microbiological safety cabinets, EN 12469 applies.

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 1822-1, *High efficiency air filters (EPA, HEPA and ULPA) — Part 1: Classification, performance testing, marking*

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 14175-4:2004, *Fume cupboards — Part 4: On-site test methods*

CEN/TS 14175-5:2006, *Fume cupboards — Part 5: Recommendations for installation and maintenance*

EN 61010-1, *Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements*

EN 61672-1, *Electroacoustics — Sound level meters — Part 1: Specifications*

EN ISO 14644-3:2019, *Cleanrooms and associated controlled environments — Part 3: Test methods (ISO 14644-3:2019, Corrected version 2020-06)*

EN ISO 3744, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744)*