

Ventilation for buildings — Floor mounted air terminal devices — Tests for structural classification

The European Standard EN 13264:2001 has the status of a
British Standard

ICS 91.140.30

National foreword

This British Standard is the official English language version of EN 13264:2001

The UK participation in its preparation was entrusted to Technical Committee RHE/2, Air diffusion and air distribution, which has the responsibility to:

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- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 156 "Ventilation for buildings", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by September 2001, and conflicting national standards shall be withdrawn at the latest by September 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

There are many types of floor mounted air terminal devices used in applications such as domestic, industrial, commercial and computer rooms, for both supply of treated air to, and extraction from, a space. It is important to understand the different types of units available and be able to compare each type of unit under standard test conditions for structural integrity. This laboratory test standard identifies commercially available unit types together with a method of classification and appropriate tests for each particular type.

1 Scope

This European Standard specifies structural classifications for floor mounted Air Terminal Devices (ATD's) in respect of their possible applications and the following related structural test methods:

- a) Static test methods.
- b) Impact test methods.
- c) Dynamic test methods.

Electrical continuity requirements for platform raised floor systems and components are not covered in this standard.

Requirements for aerodynamic and acoustic testing of air terminal devices are not covered in this standard.

The standard does not deal with any simulations relating to the wear characteristics of Air Terminal Devices.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

CR 12792, *Ventilation for buildings — Symbols and terminology*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in CR 12792, together with the following, apply.

3.1

deflection of device

distance moved by the grille or its parts from the original position when subject to load

3.2

deformation after load

permanent deflection measured from the original position after applying and removing the load

3.3

floor mounted air terminal device (ATD)

air terminal device intended to be mounted in the floor of the treated space

3.4

pedestal

adjustable supporting structure for raised floor systems which include, where applicable, the head complete, the base column, and adjustment and locking devices (see Figure 3)

3.5

platform raised floor system

complete raised access floor comprising load bearing fixed or removable panels supported by adjustable pedestals to provide underfloor space for the housing and distribution of services etc.. It includes all necessary accessories, fixing and installation, and floor covering where applicable

3.6

stability of deflection of device

difference in deflection when measured 30 min and 60 min after applying a load

3.7

structural class of the ATD

class identified for loading conditions under which the air terminal device is intended to be used

4 Classification

The structural classes shall be as specified in Table 1, which also indicates typical applications.

Table 1 — Structural classes and typical applications

Structural class	Typical applications
Extra light	General residential premises, i.e. houses, private office accommodation.
Light	General office accommodation without heavy equipment, homes for the elderly
Medium	General office accommodation where it is expected that heavy equipment such as drafting tables will be used, typically Data preparation areas Educational accommodation Public areas
Heavy	Computer rooms, telephone exchanges, public areas, control rooms.
Extra heavy	Computer rooms with heavy equipment and other special applications.

5 Instrumentation

5.1 Load measurement

5.1.1 Loads shall be measured with either a pressure transducer or a pressure gauge.

5.1.2 Load measuring instruments shall have accuracies of within ± 1 % over their full range.

5.1.3 Load measuring instrument shall be calibrated before use and re-calibrated at intervals not greater than 12 months.