



Handläggande organ

Byggstandardiseringen, BST

Fastställd

2000-12-22

Utgåva

1

Sida

1 (1+19)

© Copyright SIS. Reproduction in any form without permission is prohibited.

Gravity drainage systems inside buildings – Part 5: Installation and testing, instructions for operation, maintenance and use

The European Standard EN 12056-5:2000 has the status of a Swedish Standard. This document contains the official English version of EN 12056-5:2000.

Swedish Standards corresponding to documents referred to in this Standard are listed in "Catalogue of Swedish Standards", issued by SIS. The Catalogue lists, with reference number and year of Swedish approval, International and European Standards approved as Swedish Standards as well as other Swedish Standards.

Avlopp – Självfallssystem inomhus – Del 5: Installation, provning, brukarinstruktioner, skötsel och drift

Europastandarden EN 12056-5:2000 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 12056-5:2000.

Motsvarigheten och aktualiteten i svensk standard till de publikationer som omnämns i denna standard framgår av "Katalog över svensk standard", som ges ut av SIS. I katalogen redovisas internationella och europeiska standarder som fastställts som svenska standarder och övriga gällande svenska standarder.

ICS 01.040.91; 91.140.80

Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.
Postadress: SIS, Box 6455, 113 82 STOCKHOLM
Telefon: 08 - 610 30 00. Telefax: 08 - 30 77 57
E-post: sis.sales@sis.se. Internet: www.sisforlag.se

Upplysningar om **sakinnehållet** i standarden lämnas av BST.
Telefon: 08 - 617 74 00. Telefax: 08 - 617 74 30

Tryckt i februari 2001

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12056-5

June 2000

ICS 91.140.80

English version

Gravity drainage systems inside buildings - Part 5: Installation and testing, instructions for operation, maintenance and use

Réseaux d'évacuation gravitaire à l'intérieur des bâtiments -
Partie 5: Mise en oeuvre, essai, instructions de service,
d'exploitation et d'entretien

Schwerkraftentwässerungsanlagen innerhalb von
Gebäuden - Teil 5: Installation und Prüfung, Anleitung für
Betrieb, Wartung und Gebrauch

This European Standard was approved by CEN on 27 October 1999.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword	5
1 Scope	6
2 Normative References	7
3 Definitions	8
3.1 General	8
3.1.1 Waste water	8
3.1.2 Domestic waste water	8
3.1.3 Trade effluent	8
3.1.4 Grey water	8
3.1.5 Black water	8
3.1.6 Rainwater	8
3.1.7 Flood level	8
3.1.8 Drainage system	8
3.1.9 Combined system	8
3.1.10 Separate system	8
3.2 Pipes and fittings	8
3.2.1 Sanitary pipework	8
3.2.2 Nominal Diameter (DN)	8
3.2.3 Internal diameter (d_i)	8
3.2.4 External diameter (d_a)	9
3.2.5 Minimum internal diameter ($d_{i\min}$)	9
3.2.6 Branch discharge pipe	9
3.2.7 Square entry	9
3.2.8 Swept entry	9
3.2.9 Connection bend	9
3.2.10 Discharge stack	9
3.2.11 Stack offset	9
3.2.12 Drain	9
3.2.13 Filling degree	9
3.3 Ventilating pipework and fittings	9
3.3.1 Ventilating pipe	9
3.3.2 Branch ventilating pipe	9
3.3.3 Stack vent	9
3.3.4 Ventilating stack	9
3.3.5 Air admittance valve	9
3.4 Appliances	9
3.4.1 Domestic sanitary appliances	9
3.4.2 Non-domestic sanitary appliances	10
3.4.3 Floor gully	10
3.4.4 Trap	10
3.4.5 Depth of water seal (H)	10
3.5 Calculation	11
3.5.1 Discharge Unit (DU)	11
3.5.2 Frequency factor (K)	11
3.5.3 Waste water flow rate (Q_{ww})	11

3.5.4	Continuous flow rate (Q_c)	11
3.5.5	Pumped water flow rate(Q_p)	11
3.5.6	Total flow rate (Q_{tot})	11
3.5.7	Hydraulic capacity(Q_{max})	11
3.5.8	Air flow rate (Q_a)	11
4	Storage and transport	12
5	General requirements	12
5.1	General	12
5.2	Waste water discharge pipework	12
5.3	Gradient	12
5.4	Sanitary appliance	12
5.5	Safety precautions	12
5.6	Stability of sanitary pipework	12
6	Installation of waste water pipes	13
6.1	Fixing	13
6.2	Jointing	13
6.3	Fixing and supporting	13
6.4	Changes of directions and branch pipe connections	13
6.5	Connection of pipes of different materials and sizes	13
6.6	Thermal movement	13
6.7	Installation in concrete or other fills	13
7	Installation of sanitary appliances	13
7.1	Fixing	13
7.2	Connection	13
8	Fire protection	14
9	Sound insulation	14
10	Instruction for operation, maintenance and use	14

11 Testing	14
-------------------	-----------

Annex A (informative)	15
------------------------------	-----------

A.1 National and local regulations and practice	15
--	-----------

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 165 "Waste water engineering", 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 December 2000, and conflicting national standards shall be withdrawn at the latest by June 2001.

This part is the fifth in a series relating to the fundamental requirements of gravity drainage systems inside buildings. There will be five parts, as follows: Gravity drainage systems inside buildings

Part 1: General and performance requirements

Part 2: Sanitary pipework - Layout and calculation

Part 3: Roof drainage - Layout and calculation

Part 4: Waste water lifting plants - Layout and calculation

Part 5: Installation and testing, instructions for operation, maintenance and use

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.

1 Scope

This European Standard applies to waste water drainage systems which operate under gravity. It is applicable for drainage systems inside dwellings, commercial, institutional and industrial buildings.

Differences in plumbing within Europe have led to a variety of systems being developed. Some of the major systems in use are described but this Standard has not attempted to detail the intricacies of each system. Detailed information additional to that contained in this Standard may be obtained by referring to the technical documents listed in Annex A.

This fifth part of the Standard sets out the principles, which should be followed when installing and maintaining waste water and rainwater gravity drainage systems. It deals with fixing, support, containment of thermal movement, protection and accessibility of the system.

All drawings in this standard are given as examples and are not intended to exclude any other system configuration.