

Anti-flooding devices for buildings —

Part 3: Quality assurance

The European Standard EN 13564-3:2003 has the status of a
British Standard

ICS 91.140.80

National foreword

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 9 and a back cover.

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Amendments issued since publication

Amd. No.	Date	Comments

This British Standard, was published under the authority of the Standards Policy and Strategy Committee on 25 November 2003

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ISBN 0 580 42975 X

EUROPEAN STANDARD

EN 13564-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2003

ICS 91.140.80

English version

Anti-flooding devices for buildings - Part 3: Quality assurance

Clapets anti-retour pour les bâtiments - Partie 3: Maîtrise
de la qualité

Rückstauverschlüsse für Gebäude - Teil 3:
Güteüberwachung

This European Standard was approved by CEN on 1 September 2003.

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Foreword

This document (EN 13564-3:2003) 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of an identical text or by endorsement, at the latest by May 2004, and conflicting national standards shall be withdrawn at the latest by May 2004.

Annex A of this European Standard is informative.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the requirements for anti-flooding devices for buildings to ensure conformity of these products with EN 13564-1.

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).

EN 13564-1:2002, *Anti-flooding devices for buildings – Part 1: Requirements*.

EN 13564-2:2002, *Anti-flooding devices for buildings – Part 2: Test methods*.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 13564-1:2002 apply.

4 Quality Assurance

4.1 General

Products manufactured to EN 13564-1 and EN 13564-2 shall be subjected to quality assurance procedure as follows:

- a) type testing;
- b) factory production control.

The control by a third party is recommended. If third party control is carried out, this should be done in accordance with annex A.

The actual practice of third party control in different countries may be maintained as long as third party control in this standard is a recommendation.

4.2 Type testing

The manufacturer shall hold a complete set of drawings of the product. Three production specimens shall be tested in accordance with EN 13564-2 and shall comply with all the relevant requirements of EN 13564-1.

If the design is subsequently amended or if the material is changed, three further specimens shall be tested in accordance with the previous procedure.

Full reports of these tests shall be retained by the manufacturer and shall be available to a third party, if applicable, for examination.

4.3 Factory production control

The purpose of factory production control is to ensure constantly, that production of anti-flooding devices is in conformity with the technical requirements of EN 13564-1.

Suitable staff and independence of quality control of production are indispensable prerequisites.

The facilities necessary for factory production control include the measuring and test equipment for the tests in accordance with EN 13564-2.

The factory production control shall at least cover the specific items listed in Table 1.

The documentation shall include all steps of production from the incoming raw materials to the final product leaving the factory.

The factory production control may be organized in accordance with EN ISO 9001.

The manufacturer shall have at his disposal:

- an organization scheme with defined responsibilities;
- skilled personnel;
- all the necessary production facilities;
- all the necessary testing facilities.

Furthermore, the manufacturer shall establish and maintain a quality plan in which process and final inspections are listed. Apart from the inspection aspect, the quality plan shall also contain the method and frequency of inspection and the documentation required. Table 1 gives a model scheme of factory production control and lists a minimum of specific items to be covered. Finally, the manufacturer shall establish and maintain written procedures for:

- $\frac{3}{4}$ document control;
- $\frac{3}{4}$ control of non-conforming products, their storage, handling and marking;
- $\frac{3}{4}$ dealing with complaints from customers;
- $\frac{3}{4}$ calibration and control of measuring and testing equipment.

Table 1 — Factory production control for anti-flooding devices

Ser. No	Item to be inspected ^a	Requirements (see EN 13564-1:2002)	Test methods (see EN 13564-2:2002)	Frequency of control
1	Materials	5	Certificate of the supplier	Each delivery
2	Appearance	6.1	Visual inspection of components and/or assemblies	Random sampling in series production or each delivery
3	Dimensions	6.1 6.2 6.3 6.4	Measurement	- At start of manufacture - Each production lot ^b
4	Tightness	6.1	3.4.4	Each production lot ^{b)}
5	Marking	8	Visual inspection	Random sampling in series production

^a For anti-flooding devices of types 4 and 5 the inspection also includes the items given in EN 1253-3.

^b The size of a production lot and the number of specimens to be taken from the lot depend on the type of products, the material and the manufacturing process.

Annex A (informative)

Control by third party (third party control)

A.1 General

The purpose of the third party control is to demonstrate the ability of the manufacturer to manufacture products which continuously meet the requirements of EN 13564-1 and to give independent certification to these products.

A.2 Procedure of the third party control

Third party control consists of:

- ¾ approval of type testing;
- ¾ general evaluation of the production and testing facilities as well as suitability of staff for continuous and orderly manufacture;
- ¾ controlling and approval of the system and of the results of the factory production control; independent testing of finished products, covering at least the aspects listed in Table A.1.

The inspection of the third party control will be undertaken without previous announcement at regular intervals two times a year.

Table A.1 — Third party control on anti-flooding devices

Ser. No	Item to be inspected ^a	Requirements (see EN 13564-1:2002)	Test methods (see EN 13564-2:2002)	Samples to be examined at each visit of inspector
1	Materials	5	Certificate of the supplier	At least two specimens with different sizes (DN) of three different types of anti-flooding devices ^b
2	Appearance	6.1	Visual inspection of components and/or assemblies	
3	Dimensions	6.1 6.2 6.3 6.4	Measurement	
4	Tightness	6.1	3.4.4	
5	Marking	7	Visual inspection	
^a For anti-flooding devices of types 4 and 5 the inspection also includes the items given in EN 1253-3. ^b Anti-flooding devices are of the same type, when they have the same design and construction characteristics and when they are of the same material, however they may have different features.				

The inspection can be reduced after two years without failures to once a year, provided that the independent certification body makes sure that the manufacturer's quality control system is adequate, that the controls have been continuously carried out in a proper and effective way and that its results are in compliance with the requirements of EN 13564-1. This reduced inspection frequency remains valid as long as no non-conforming products are detected.

A.3 Report by third party

The results of the inspection visits are given in a written report. The manufacturer signs this report. If no agreement can be reached between the inspector and the manufacturer on the content of the report, the manufacturer will sign the report and state his reservations thereon.

The report contains at least the following items:

- ¾ name and/or mark of the manufacturer;
- ¾ name and location of the production plant;
- ¾ title and number of his standard;
- ¾ description and manufacturer's reference numbers of products tested;
- ¾ results of the inspection in terms of:
 - ¾ staff;
 - ¾ production and testing facilities;
 - ¾ conformity of the products;
 - ¾ factory production control;
 - ¾ document control;
 - ¾ control, handling and disposal of non-conforming products;
 - ¾ calibration and control of measuring equipment;
 - ¾ handling complaints concerning non-conformity of products;
- ¾ signature of the manufacturer's representative, place and date;
- ¾ inspector's signature.

Within four weeks after the inspection, an official report is sent to the manufacturer by the third party.

A.4 Retesting

If during the third party inspection a unit fails, three more units of the same type will be tested. If one of these three fails, the production related to the failure(s) are excluded from delivery pending the outcome of further investigation.

Within a period of four weeks or within a period to be agreed upon, the manufacturer will be reassessed with respect to the rejected non-conforming product; six of these products should be tested.

After satisfactory retesting of all these units, delivery is recommenced.

Bibliography

EN 1253-3; *Gullies for buildings — Part 3: Quality Control*.

EN ISO 9001, *Quality management systems – Requirements (ISO 9001:2000)*.

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