

Water supply — Requirements for systems and components for the storage of water

The European Standard EN 1508:1998 has the status of a
British Standard

ICS 13.060.20

Confirmed November 2008

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents



Document Sharing Hub

National foreword

This British Standard is the English language version of EN 1508:1998.

The UK participation in its preparation was entrusted by Technical Committee B/504, Water supply, to Subcommittee B/504/1, Water supply — External systems and components, which has the responsibility to:

- aid enquirers to understand the text;
- 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.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 17 and a back cover.

Amendments issued since publication

Amd. No.	Date	Text affected

This British Standard, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 March 1999

© BSI 03-1999

ISBN 0 580 30991 6

ICS 13.160.20

Descriptors: water distribution, water supply, storage, storage tanks, exterior, buildings, specifications, design, leaktightness, inspection, tests, safety, operating requirements, repairs

English version

Water supply — Requirements for systems and components for the storage of water

Alimentation en eau — Prescriptions pour les
systèmes et les composants pour le
stockage de l'eau

Wasserversorgung — Anforderungen an Systeme
und Bestandteile der Wasserspeicherung

This European Standard was approved by CEN on 24 July 1998.

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.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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

© 1998 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 164, Water supply, the Secretariat of which is held by AFNOR.
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 March 1999, and conflicting national standards shall be withdrawn at the latest by March 1999.
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.

Contents

Foreword
Introduction
1 Scope
2 Normative references
3 Definitions
3.1 capacity
3.2 compartment
3.3 control building
3.4 designer
3.5 elevated reservoir
3.6 rehabilitation
3.7 repair
3.8 reservoir
3.9 service reservoir
3.10 water demand
3.11 watertightness
4 Application of standards and regulations
5 General requirements
5.1 General
5.2 Functional requirements
6 Design requirements
6.1 Watertightness
6.2 Structural design
6.3 Further provisions
7 General requirements for product standards
8 Checks, testing and commissioning

Page
8.1 General considerations
8.2 Checks for movement
8.3 Watertightness tests
8.4 Cleaning and disinfection
8.5 Commissioning
9 Operational requirements
9.1 Introduction
9.2 Maintenance
9.3 Cleaning and disinfection
10 Rehabilitation and repair requirements
10.1 Introduction
10.2 Survey
10.3 Prevention of contamination
10.4 Return to service
Annex A (informative) Guidance to EN 1508
A.1 ad 5.1.1 Functions
A.2 ad 5.1.2 Decision criteria and system configuration
A.3 ad 5.2.2.1 Access and security
A.4 ad 5.2.2.4 Monitoring
A.5 ad 8.1.2 Hygiene and 8.1.3 Safety of personnel
A.6 ad 8.3.4 Test report and 8.4.4 Records — Example of a test procedure report
A.7 ad 9.1.4 Operating manual

Introduction

In specifying the requirements of this standard, due regard has been taken of the importance of a reliable and safe supply of water for human consumption as well as for the purposes of trade, industry, agriculture and fire fighting.

The widely varying water supply legislative requirements, populations, social and climatic conditions across Europe have also been taken into account.

1 Scope

This standard specifies and gives guidance on:

- general requirements for storage of water outside consumers' buildings, including service reservoirs for potable water and reservoirs containing water not for human consumption at intake works or within treatment works, excluding those that are part of the treatment process;
- design;
- general requirements for product standards;
- requirements for checks, testing and commissioning;
- operational requirements;
- requirements for rehabilitation and repair.

The requirements of this standard are applicable to:

- the design and construction of new reservoirs;
- the extension and modification of existing reservoirs;
- significant rehabilitation of existing reservoirs.

NOTE 1 It is not intended that existing reservoirs are to be altered to comply with this standard, provided that there are no significant detrimental effects on water quality.

NOTE 2 This standard does not apply to reservoirs formed by the building of dams or the use of lakes for water storage purposes.

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.

prEN 805:1996, *Water supply — Requirements for systems and components outside buildings*.

3 Definitions

For the purposes of this standard, the following definitions apply.

3.1

capacity

the total volume of the compartment(s) which can be used for the operation of a reservoir

3.2

compartment

self-contained part of a reservoir which has separate inlet, outlet, overflow and washout arrangements, and can be operated independently from other compartments of the same reservoir (see Figures 1 and 2)

3.3

control building

self-contained part of a reservoir used to accommodate the main valves, pumps, controls and monitoring equipment and which can provide the means of access to the water compartment(s)

3.4

designer

the person responsible for establishing, with the purchaser or water company, the basic criteria to be used for the design, construction, commissioning and operation of the reservoir

3.5

elevated reservoir

a reservoir constructed with the compartment(s) at ground level, but at an elevation sufficient to provide water by gravity to the supply area

3.6

rehabilitation

work necessary to upgrade or improve a reservoir to comply with this standard

3.7

repair

work necessary to remedy a defect and restore a reservoir to satisfactory operation

3.8

reservoir

storage facility for water

3.9

service reservoir

covered storage facility for potable water which includes water compartment(s), control building, operation equipment and access arrangements, providing reserve supplies and pressure stability, and balancing demand fluctuations (see Figure 1)

3.10

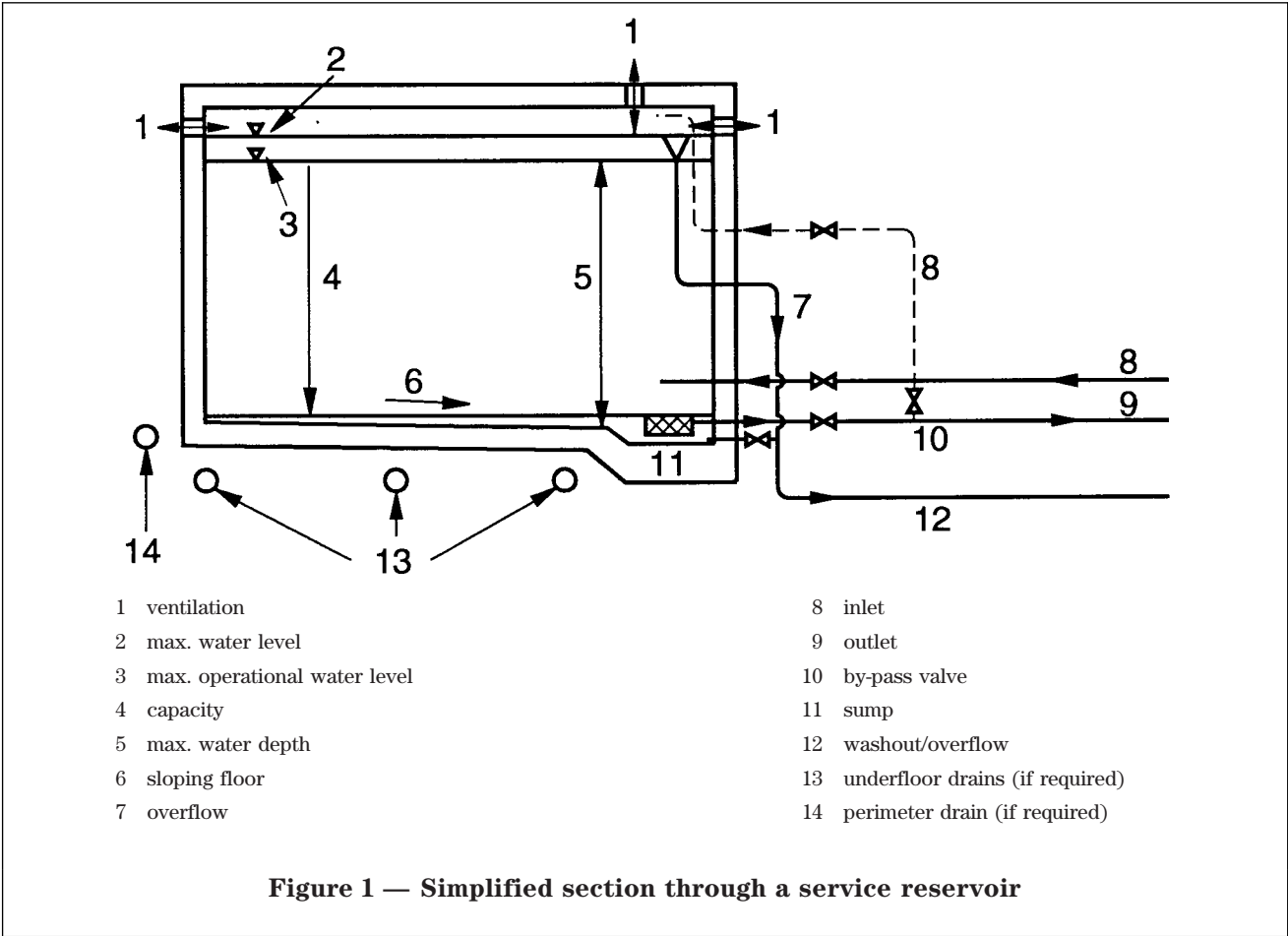
water demand

estimated quantity of water required per unit of time

3.11

watertightness

the characteristic quality of the structure that prevents the passage of water through the structure in excess of any permitted quantity



4 Application of standards and regulations

In all aspects, including health and safety, the national standards, transposing European Standards as available shall apply as well as the regulations valid at the place where the system is being constructed and/or operated.

5 General requirements

5.1 General

This standard is written principally for application to service reservoirs. In the case of other reservoirs the designer or operator will determine which parts of the standard shall apply e.g. disinfection may not be required for reservoirs containing water not for human consumption.

5.1.1 Functions

(See also A.1.)

The purpose of service reservoirs is to store the necessary amount of water required for water supply in the area concerned. To achieve this their functions include:

- to equalize the difference between water intake and output and to cover peaks in demand;
- to maintain the required pressure in the water distribution systems;
- to keep stocks in reserve in case of plant malfunctions and interruptions in the water distribution systems;
- to provide water for fire fighting in accordance with local requirements.