

Protection against pollution of water intended for human consumption in potable water installations and general requirements for devices to prevent pollution by backflow

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 1717:2025 sisaldab Euroopa standardi EN 1717:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.08.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 1717:2025 consists of the English text of the European standard EN 1717:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 06.08.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 13.060.20, 23.060.01, 91.140.60

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EUROPEAN STANDARD

EN 1717

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 13.060.20; 23.060.01; 91.140.60

Supersedes EN 1717:2000

English Version

Protection against pollution of water intended for human consumption in potable water installations and general requirements for devices to prevent pollution by backflow

Protection contre la pollution de l'eau destinée à la consommation humaine dans les installations d'eau potable et exigences générales applicables aux dispositifs de protection contre la pollution par retour

Schutz des Trinkwassers vor Verunreinigungen in Trinkwasser-Installationen und allgemeine Anforderungen an Sicherungseinrichtungen zur Verhütung von Trinkwasserverunreinigungen durch Rückfließen

This European Standard was approved by CEN on 5 June 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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 1717:2025) 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 February 2026, and conflicting national standards shall be withdrawn at the latest by February 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.

This document supersedes EN 1717:2000.

This document includes the following significant technical changes with respect to EN 1717:2000:

- the Scope has been made more precise, extended and revised;
- terms and definitions have been amended;
- all Figures have been updated and re-drawn;
- Table 2 has been updated;
- Clause “Air break to drain” has been revised;
- Annex A and Annex B have been completely revised;
- Annex C has been revised and provides application examples.

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.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the products covered by this document, it provides no information as to whether the products may be used without restriction in any of the Member state of the EU or EFTA;

NOTE While awaiting the adoption of verifiable European criteria, attention is also drawn to national regulations that can apply.

The UK Matrix of the protection units appropriate to fluid categories (Table 2) and the determination of fluid categories (5.2) differs to that detailed within the body of this document. The British Standard version of EN 1717 therefore contains an A deviation to cover the limited technical deviations to ensure compliance with the Water Supply (fittings) Regulations 1999.

Annex A of this document is normative.

Annex B and Annex C of this document are informative.

1 Scope

This document specifies an analysing methodology for protecting potable water in potable water installations within and outside buildings but within premises from the risk of pollution by backflow of non-potable water and gives recommendations on the design, risk analysis, backflow prevention devices and their installation methods (see Figure 1 and Figure 2).

This methodology is also intended to be used outside premises for all water systems connected to a potable water distribution system up to and including the point of use (see Figure 3).

The product standards for the specific backflow prevention devices or arrangements are intended to be used in conjunction with this document. For the development of new devices or systems, this document is intended to be used as a reference to establish the necessary level of backflow protection.

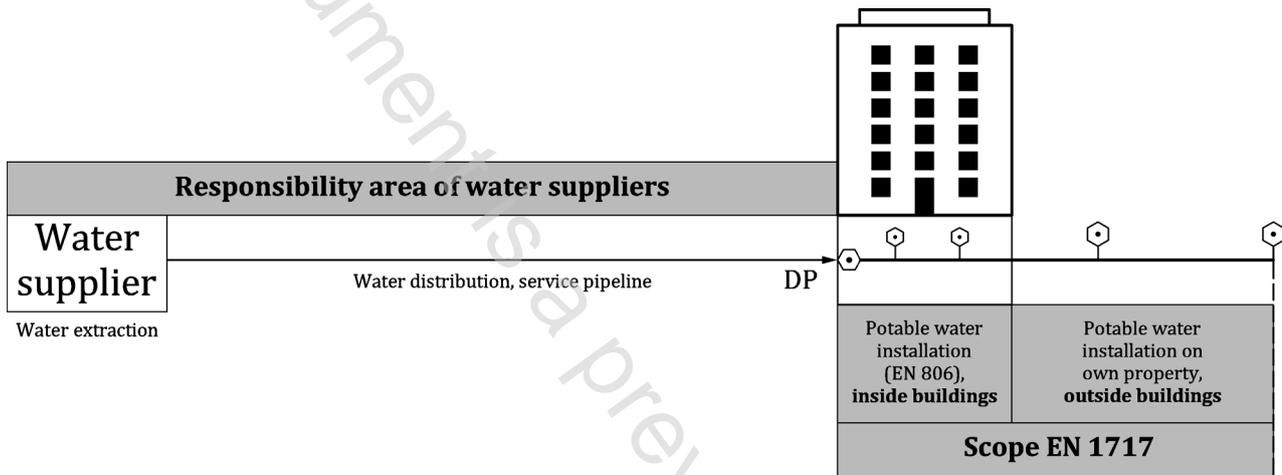


Figure 1 — Operator of a building on own property (land), delivery point (DP) in the building, EN 1717 Scope of application inside and outside buildings

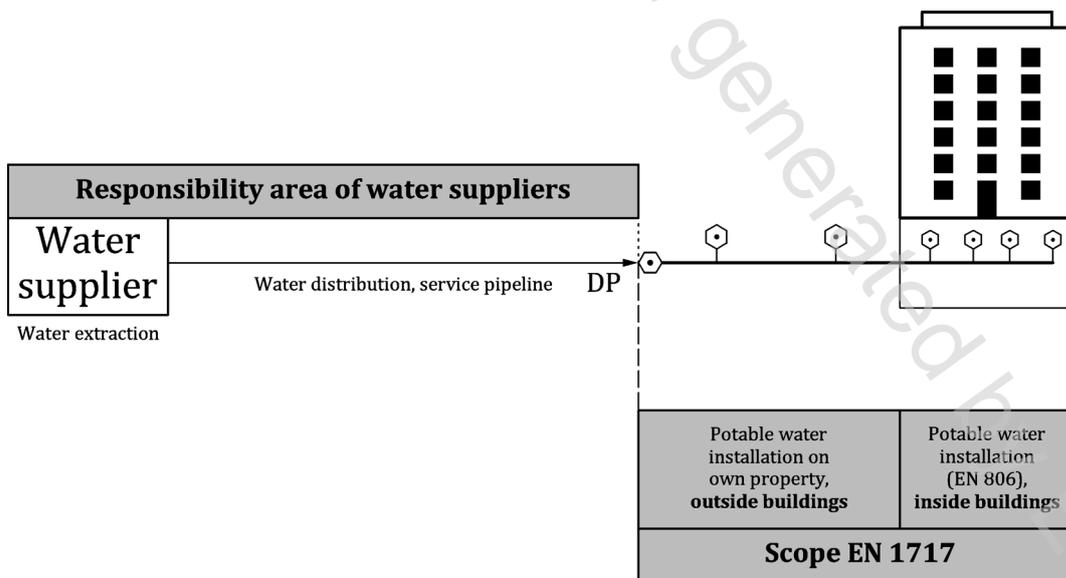


Figure 2 — Operator of a building with its own property (land), delivery point (DP) at the property boundary, EN 1717 Scope of application inside and outside buildings.

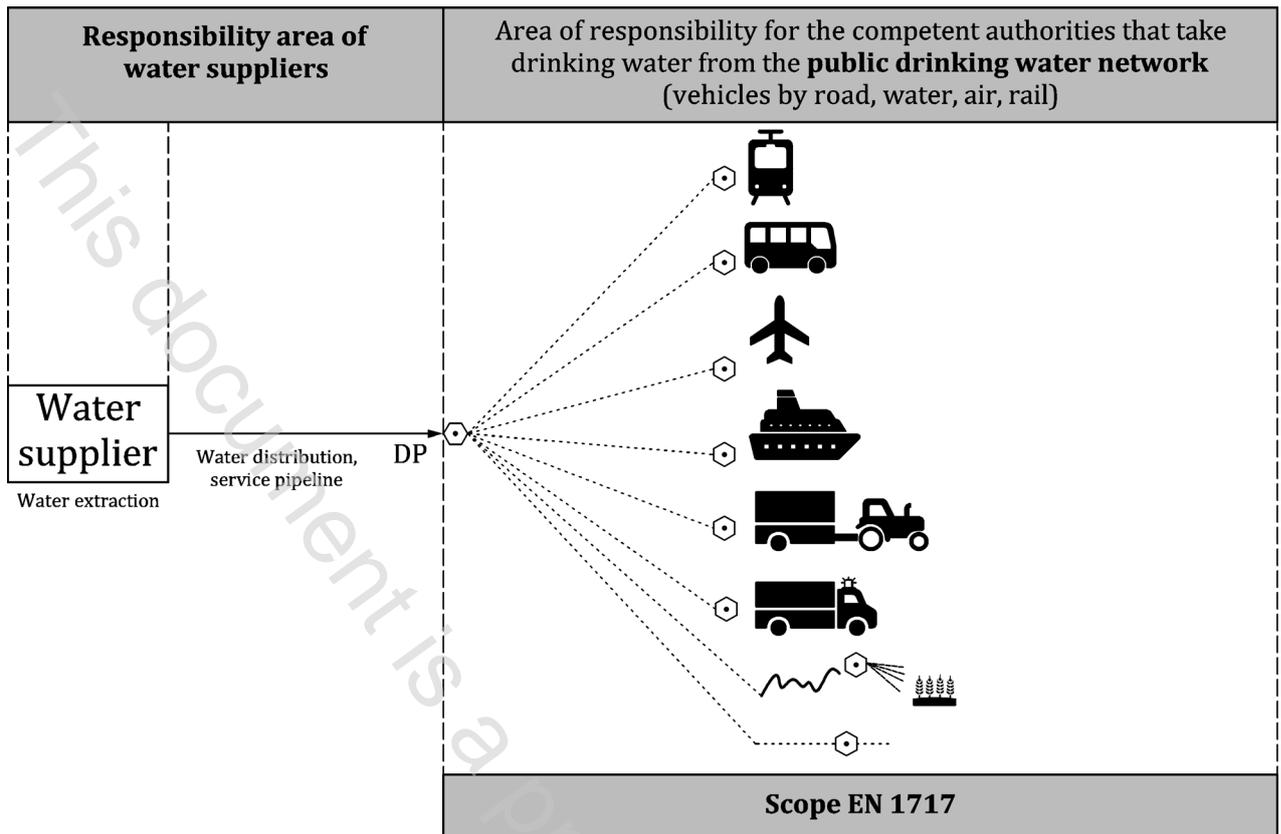


Figure 3 — Withdrawal of drinking water from a public drinking water service pipeline at the delivery point (DP) for the operation and/or filling of mobile units with containers (vehicles on road, water, air, rail), EN 1717 with scope at the transfer point in the outdoor area, supply network

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 806 (all parts), *Specifications for installations inside buildings conveying water for human consumption*

EN 12729, *Devices to prevent pollution by backflow of potable water - Controllable backflow preventer with reduced pressure zone - Family B - Type A*

EN 13076, *Devices to prevent pollution by backflow of potable water - Unrestricted air gap-Family A - Type A*

EN 13077, *Devices to prevent pollution by backflow of potable water - Air gap with non-circular overflow (unrestricted) - Family A - Type B*

EN 13078, *Devices to prevent pollution by backflow of potable water - Air gap with submerged feed incorporating air inlet plus overflow - Family A, type C*

EN 13079, *Devices to prevent pollution by backflow of potable water - Air gap with injector - Family A - Type D*

EN 13433, *Devices to prevent pollution by backflow of potable water - Mechanical disconnecter, direct actuated - Family G, type A*

EN 13959, *Anti-pollution check valves - DN 6 to DN 250 inclusive family E, type A, B, C and D*

EN 14367, *Non controllable backflow preventer with different pressure zones - Family C, type A*

EN 14451, *Devices to prevent pollution by backflow of potable water - In-line anti-vacuum valves DN 10 to DN 50 inclusive - Family D, type A*

EN 14452, *Devices to prevent pollution by backflow of potable water - Pipe interrupter with atmospheric vent and moving element DN 10 to DN 20 - Family D, type B*

EN 14453, *Devices to prevent pollution by backflow of potable water - Pipe interrupter with permanent atmospheric vent DN 10 to DN 20 - Family D, type C*

EN 14622, *Devices to prevent pollution by backflow of potable water - Air gap with circular overflow (restricted) - Family A, type F*

EN 14623, *Devices to prevent pollution by backflow of potable water - Air gaps with minimum circular overflow (verified by test or measurement) - Family A, type G*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in the EN 806 series and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

air break to drain

vertical distance realised by air inlets or full disconnection between the lowest point of the outlet and the spillover level of the atmospheric drain overflow

3.2

air gap

permanent atmospheric separation between the upstream fluid supply and the downstream fluid

3.3

air inlet

orifice designed to admit air from the atmosphere into a hydraulic system

3.4

appliance equipment

device in which the potable water is used and/or is modified

Note 1 to entry: e.g. water heater, coffee-machine, WC-pan, etc.