

**Specifications for installations inside buildings  
conveying water for human consumption - Part 5:  
Operation and maintenance**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 806-5:2012 sisaldab Euroopa standardi EN 806-5:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 806-5:2012 consists of the English text of the European standard EN 806-5:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 01.02.2012.	Date of Availability of the European standard is 01.02.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 91.140.60

### Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:  
Aru 10, 10317 Tallinn, Eesti; [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

### The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:  
Aru 10, 10317 Tallinn, Estonia; [www.evs.ee](http://www.evs.ee); phone 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

ICS 91.140.60

English Version

## Specifications for installations inside buildings conveying water for human consumption - Part 5: Operation and maintenance

Spécifications techniques relatives aux installations d'eau  
destinée à la consommation humaine à l'intérieur des  
bâtiments - Partie 5: Exploitation et maintenance

Technische Regeln für Trinkwasser-Installationen - Teil 5:  
Betrieb und Wartung

This European Standard was approved by CEN on 19 November 2011.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

## Contents

Page

Foreword.....	4
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions .....	7
4 General.....	7
5 Documentation.....	7
6 Operation .....	8
7 Interruptions to operation and disconnection.....	8
8 Resumption of supply .....	9
9 Damage and faults .....	9
9.1 Change in water quality .....	9
9.2 Insufficient water supply.....	9
9.3 Noise emission.....	10
10 Alterations, extensions and refurbishment .....	10
11 Accessibility of installation components.....	10
12 Maintenance .....	10
Annex A (normative) Frequencies for inspection and maintenance of components for potable water installations.....	12
Annex B (normative) Inspection and maintenance procedures.....	14
B.1 Air gaps (protection device family A) .....	14
B.2 Pipe interrupters (protection unit family D type C) .....	14
B.3 Backflow preventer with controllable reduced pressure zone (protection unit BA) .....	15
B.4 Backflow preventer with different non-controllable pressure zones (protection unit CA) .....	17
B.5 Controllable antipollution check valves (protection units EA and EC).....	18
B.6 Non-controllable antipollution check valves (protection units EB and ED).....	19
B.7 Inline anti vacuum valve (protection units DA) .....	19
B.8 Pipe interrupter with atmospheric vent and moving elements (protection unit DB).....	20
B.9 Hose union backflow preventer (protection unit HA) .....	21
B.10 Hose union anti-vacuum valve (protection unit type HB) .....	22
B.11 Automatic diverter (protection unit type HC).....	22
B.12 Hose union anti vacuum valve combined with check valve (protection unit family H type D) .....	23
B.13 Pressurised air inlet valve (protection unit family L type A) .....	24
B.14 Pressurised air inlet valve combined with a check valve located downstream (protection unit family L type B).....	24
B.15 Hydraulic safety groups and expansion groups .....	25
B.16 Pressure safety valves, expansion valves and combined temperature and pressure relief valves .....	26
B.17 Inline hot water supply tempering valves .....	27
B.18 Pressure reducing valve .....	27
B.19 Pressure booster pump .....	28
B.20 Water heaters .....	28
B.21 Fire fighting installations .....	28
B.22 Pipework .....	28
B.23 Water meters .....	28

<b>Annex C (normative) Inspection and maintenance procedures for water conditioning devices .....</b>	<b>30</b>
<b>Bibliography.....</b>	<b>31</b>

This document is a preview generated by EVS

## Foreword

This document (EN 806-5:2012) has been prepared by Technical Committee CEN/TC "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 August 2012, and conflicting national standards shall be withdrawn at the latest by August 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document is intended for the use of engineers, architects, surveyors, contractors, installers, water suppliers, consumers and regulatory inspectors.

This standard has been written in the form of a practice specification. It is the fifth part of the European Standard "Specifications for installations inside buildings concerning water for human consumption" consisting of five parts as follows:

- *Part 1: General;*
- *Part 2: Design;*
- *Part 3: Pipe sizing — Simplified method;*
- *Part 4: Installation;*
- *Part 5: Operation and maintenance.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies requirements and gives recommendations for the operation and maintenance of potable water installations within buildings and for pipework outside buildings but within the premises in accordance with EN 806-1.

## 2 Normative references

The following referenced documents are indispensable for the application 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 806-1:2000, *Specifications for installations inside buildings conveying water for human consumption — Part 1: General*

EN 806-2, *Specifications for installations inside buildings conveying water for human consumption — Part 2: Design*

EN 806-4:2010, *Specifications for installations inside buildings conveying water for human consumption — Part 4: Installation*

EN 1487, *Building valves — Hydraulic safety groups — Tests and requirements*

EN 1488, *Building valves — Expansion groups — Tests and requirements*

EN 1489, *Building valves — Pressure safety valves — Tests and requirements*

EN 1490, *Building valves — Combined temperature and pressure relief valves — Tests and requirements*

EN 1491, *Building valves — Expansion valves — Tests and requirements*

EN 1567, *Building valves — Water pressure reducing valves and combination water pressure reducing valves — Requirements and tests*

EN 1717:2000, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow*

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

EN 12897, *Water supply — Specification for indirectly heated unvented (closed) storage water heaters*

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 disconnect, direct actuated — Family G, type A*

EN 13434, *Devices to prevent pollution by backflow of potable water — Mechanical disconnecter, hydraulic actuated — Family G, type B*

EN 13443-1, *Water conditioning equipment inside buildings — Mechanical filters — Part 1: Particle rating 80 µm to 150 µm — Requirements for performances, safety and testing*

EN 13443-2, *Water conditioning equipment inside buildings — Mechanical filters — Part 2: Particle rating 1 µm to less than 80 µm — Requirements for performance, safety and testing*

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

EN 14095, *Water conditioning equipment inside buildings — Electrolytic treatment systems with aluminium anodes — Requirements for performance, safety and testing*

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 8 to DN 80 — 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 14454, *Devices to prevent pollution by backflow of potable water — Hose union backflow preventer DN 15 to DN 32 — Family H, type A*

EN 14455, *Devices to prevent pollution by backflow of potable water — Pressurised air inlet valves DN 15 to DN 50 — Family L, type A and type B*

EN 14506, *Devices to prevent pollution by backflow of potable water — Automatic diverter — Family H, 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*

EN 14652, *Water conditioning equipment inside buildings — Membrane separation devices — Requirements for performance, safety and testing*

EN 14743, *Water conditioning equipment inside buildings — Softeners — Requirements for performance, safety and testing*

EN 14812, *Water conditioning equipment inside buildings — Chemical dosing systems — Pre-set dosing systems — Requirements for performance, safety and testing*

EN 14897, *Water conditioning equipment inside buildings — Devices using mercury low-pressure ultraviolet radiators — Requirements for performances, safety and testing*

EN 14898, *Water conditioning equipment inside buildings — Active media filters — Requirements for performances, safety and testing*

EN 15092, *Building valves — Inline hot water supply tempering valves — Tests and requirements*

EN 15096, *Devices to prevent pollution by backflow of potable water — Hose union anti-vacuum valves — DN 15 to DN 25 inclusive Family H, type B and type D — General technical specification*

EN 15161, *Water conditioning equipment inside buildings — Installation, operation, maintenance and repair*

EN 15219, *Water conditioning equipment inside buildings — Nitrate removal devices — Requirements for performance, safety and testing*

EN 15848, *Water conditioning equipment inside buildings — Adjustable chemical dosing systems — Requirements for performance, safety and testing*

EN ISO 3822-1, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 1: Method of measurement (ISO 3822-1:1999)*

EN ISO 3822-2, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 2: Mounting and operating conditions for draw-off taps and mixing valves (ISO 3822-2:1995)*

EN ISO 3822-3, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 3: Mounting and operating conditions for in-line valves and appliances (ISO 3822-3:1997)*

EN ISO 3822-4, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 4: Mounting and operating conditions for special appliances (ISO 3822-4:1997)*

### 3 Terms and definitions

For the purposes of this document, the terms, definitions and graphical symbols given in EN 806-1:2000 and EN 1717:2000 apply.

### 4 General

Installations shall be operated and maintained in such a manner as to avoid adversely affecting the quality of potable water, the supply to consumers and the equipment of the water supplier.

Installations shall be checked at regular intervals for safety and performance. Appropriate procedures shall be adopted to maintain the performance of the system at the level specified in EN 806-2, EN 1717 and the individual product standards referenced in Annex A.

The system shall be operated in accordance with the original design conditions, e.g. temperature, pressure.

Responsibility for operation, inspection and maintenance is subject to local and national requirements (e.g. qualified personnel).

### 5 Documentation

In order to enable the correct operation and maintenance, all information relevant to the installation shall be readily available.

Manufacturer's documentation (e.g. Technical Product Information (TPI)) related to the operation and maintenance of appliances shall be available, retained and followed.

The commissioning report shall be part of the documentation.

The maintenance shall be recorded and stored in such a way that the data is auditable.