



SLOVENSKI STANDARD
oSIST prEN 806-1:2024
01-november-2024

Specifikacije za napeljave za pitno vodo v stavbah - 1. del: Splošno

Specifications for installations inside buildings conveying water intended for human consumption - Part 1: General

Technische Regeln für Trinkwasser-Installationen - Teil 1: Allgemeines

Spécifications techniques relatives aux installations pour l'eau destinée à la consommation humaine à l'intérieur des bâtiments - Partie 1: Généralités

Ta slovenski standard je istoveten z: prEN 806-1

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ICS:

13.060.20	Pitna voda	Drinking water
91.140.60	Sistemi za oskrbo z vodo	Water supply systems

oSIST prEN 806-1:2024

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 806-1

September 2024

ICS 91.140.60

Will supersede EN 806-1:2000

English Version

Specifications for installations inside buildings conveying water intended for human consumption - Part 1: General

Spécifications techniques relatives aux installations pour l'eau destinée à la consommation humaine à l'intérieur des bâtiments - Partie 1: Généralités

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 164.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 806-1:2024) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 806-1:2000.

prEN 806-1:2024 includes the following significant technical changes with respect to EN 806-1:2000:

- complete editorial revision and update;
- inclusion of new terms.

Annex A of this document is informative.

This is the first part of the European Standard EN 806 consisting of 5 parts as follows:

- EN 806-1, *General*
- EN 806-2, *Design*
- EN 806-3, *Pipe sizing – simplified method¹*
- EN 806-4, *Installation*
- EN 806-5, *Operation and maintenance*

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

¹ EN 806-3 is currently being revised and could appear under a new title with the same EN number.

prEN 806-1:2024 (E)

1 Scope

This document specifies requirements for and gives recommendations on the design, installation, alteration, testing, maintenance and operation of installations inside buildings conveying water intended for human consumption (hereafter referred to as potable water installations) within buildings and, for certain purposes, pipework outside buildings but within the premises (see Figure 1).

It covers the system of pipelines, fittings and connected appliances installed for supplying potable water from the delivery point to the point of use.

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 805, *Water supply — Requirements for systems and components outside buildings*

EN 806 (all parts), *Specification for installations inside buildings conveying water intended for human consumption*

ISO 4063, *Welding, brazing, soldering and cutting — Nomenclature of processes and reference numbers*

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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/>

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3.1 active media filter

filter which uses special substances or media for altering the properties of water

Note 1 to entry: For further information see EN 14898.

3.2 adjustable control valve

valve for regulating flow, pressure or temperature

3.3 air break to drain

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

Note 1 to entry: For further information see EN 1717.

3.4 air gap

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

Note 1 to entry: For further information see EN 1717.

3.5**air inlet**

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

Note 1 to entry: For further information see EN 1717.

3.6**air lock**

zone inside the pipeline where air bubbles can collect and limit water circulation

3.7**anti-pollution check valve**

device which allows water to flow just in one direction and prevent water to return back

Note 1 to entry: Anti-pollution check valve is usually called check valve in a short term.

Note 2 to entry: For further information see EN 13959.

3.8**appliance
equipment**

device in which the potable water is used and/or is modified e.g. water heater, coffee machine, flushing cistern

Note 1 to entry: For further information see EN 1717.

3.9**backflow**

movement of the fluid from downstream to upstream within an installation

Note 1 to entry: For further information see EN 1717.

3.10**backflow protection device**

device which is intended to prevent pollution of potable water by backflow

Note 1 to entry: For further information see EN 1717.

3.11**blending devices**

valve which mixes treated water and not treated water for reaching a set value at the outlet

3.12**bonding rail**

point of connections of all earthing wires

3.13**bypass pipeline
bypass device**

pipeline or device which is connected in parallel with the main pipeline or device

prEN 806-1:2024 (E)**3.14****cavitation**

physical phenomenon which occurs when the water pressure falls below the vapour pressure of the water at a certain temperature

3.15**circulation control valve**

valve actuated to control the flow and temperature in a circulation pipeline

3.16**circulation pump**

device which ensures water flow in the circulation pipeline

3.17**circulation system**

circuit which returns the potable water to maintain the circuit at a set temperature

3.18**cistern**

fixed, vented container for holding water at atmospheric pressure

3.19**conditioning agent**

substance added to the water for altering its properties (e.g. polyphosphate)

Note 1 to entry: For further information see EN 14812

3.20**control valve**

static or automatic valve actuated to control the flow and temperature

3.21**corrosion**

physicochemical (often electrochemical) interaction between a material and its environment that results in changes in the properties of the material, and which may lead to significant impairment of the function of the material, the environment, or the technical system, of which these form a part

Note 1 to entry: For further information on corrosion on metals see EN 12502 parts 1-5.

3.22**designer**

natural or legal person responsible for planning, calculation and performance specification of potable water installations

Note 1 to entry: Attention is drawn to national or local regulations that can contain requirements for qualification.

3.23**direction of flow**

direction of flow during normal operation

3.24**directly heated water heater**

water heater in which the thermal energy is transmitted directly to the water via a connecting wall

3.25**discharge pipeline**

pipeline which accommodates water discharged from a device or point of an installation

3.26**distributing pipeline**

<type B installation> pipeline (other than an overflow pipeline or a flush pipeline) conveying water from a storage cistern, or from a hot water appliance supplied from a feed cistern, and under pressure from that cistern

3.27**double feed vented primary circuit**

<type B installation> water system in which, the primary circuit is fed independently of the secondary system

3.28**drain tap**

tap fitted to drain the contents of the potable water installation or of parts of it

3.29**drainage connection**

pipeline connection to drain

3.30**draw-off point**

point in the potable water installation from which potable water can be drawn

3.31**dynamic flow diverter**

device that creates a specific pressure loss able to force a flow of water in the connected branch circuit

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3.32**dynamic pressure****dynamic flow pressure**

pressure at a measuring point in the potable water installation under flow condition

3.33**electrical isolator**

device which electrically isolates two metallic pipelines

3.34**expansion group**

combination of devices for isolating, protecting against backflow and overpressure for the expansion of water

Note 1 to entry: For further information see EN 1488.

3.35**expansion joint**

fitting which allows expansion of pipeline due to thermal effect

3.36**expansion loop**

loop or pipeline configuration which allows expansion of pipeline due to thermal effect

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Note 1 to entry: E.g. bellow, omega shape, bends.

3.37**expansion valve**

valve for water expansion which protects against overpressure

Note 1 to entry: For further information see EN 1491.

3.38**expansion vessel**

device which accommodates expanded water due to thermal effect

3.39**family of protection**

general identification of a backflow protection device principle

Note 1 to entry: For further information see EN 1717.

3.40**ferrule**

device for connecting a service pipeline to the local main

Note 1 to entry: The device may contain a service stop valve.

3.41**firefighting pipeline**

firefighting supply pipeline with extinguishing devices (e.g. hydrants, sprinklers and water curtains)

3.42**fixed point attachment**

point where the pipelines are fixed and cannot move

3.43**float-operated valve**

valve which opens or closes the flow by a lever or electrical circuit operated by a float

3.44**floor service pipeline**

pipeline which branches off from vertical distribution pipelines within a floor and from a floor and/or from which a single feed pipeline branch

3.45**flow rate**

ratio based on the volume of water and time

3.46**flow reducing valve**

device for reducing the flow by narrowing the cross section

3.47**flow-through expansion vessel**

expansion vessel where water can circulate inside due to a special connection device

3.48**flow velocity**

speed of the water in a pipeline

3.49**flushing**

process in order to avoid stagnation and/or remove impurities

3.50**guide bracket**

fixing element which allow movement in a determined direction

3.51**heat exchanger**

device which transfers heat between physically separated circuits

3.52**heat pump**

equipment which increases the temperature of the water using electricity or other energy sources

3.53**heat trap**

pipeline configuration shaped and dimensioned for avoiding convective heat transfer inside the pipeline

3.54**high-rise building**

building of a certain height in which the hydrostatic head is relevant

3.55**hose**

flexible pipeline normally made of internal elastomeric material inside a protective metal sleeve

3.56**indirectly heated water heater**

water heater in which the thermal energy is transmitted to a heat transfer medium from which the heat is then transferred to the water to be heated

3.57**installation shaft**

structure conduit where pipelines for installation are accommodated

3.58**installer**

natural or legal person responsible for the installation, commissioning and maintenance of potable water installations

Note 1 to entry: Attention is drawn to national or local regulations that can contain requirements for qualification.

3.59**instantaneous water heater**

water heater in which the PWC is heated in the flow through

Note 1 to entry: This can be done directly or indirectly.

prEN 806-1:2024 (E)**3.60****intended operation**

operation of the potable water installation in accordance with the EN 806 series and EN 1717

3.61**leakage detection appliance**

type of equipment for detecting leaks or unexpected misuse of water

3.62**lowest normal service pressure****SPLN**

lowest service pressure at the point of connection occurring probably during a period of high consumption as estimated by the water supplier

3.63**maintenance plan**

structured and documented set of tasks that include the activities, procedures, resources and the time scale required to carry out maintenance

3.64**maximum design pressure****MDP**

maximum hydrostatic pressure at which the potable water installation is designed to work

3.65**measuring device**

device for measuring parameters e.g. pressure, temperature or volume

3.66**mechanical filter**

filter with mesh size 80 µm to 150 µm retaining particles that are bigger than mesh size

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Note 1 to entry: For further information see EN 13443-1.

3.67**membrane separation device**

filter which uses special membranes for its operation, e.g. microfiltration, ultrafiltration, nanofiltration

Note 1 to entry: For further information see EN 14652.

3.68**motorized valve**

valve with an electrical actuator

3.69**neutralization and hardening**

chemical method for reducing the free carbonic acid in the water in order to reduce corrosion-potential of the water

3.70**nitrate removal**

chemical method for removing nitrate from water

Note 1 to entry: For further information see EN 15219.

3.71**nominal pressure****PN**

maximum hydrostatic pressure at which a component is designed for at a specified temperature

3.72**non-potable water****NPW**

water other than potable water

3.73**operating pressure****OP**

internal pressure which may occur at a particular time and at a particular point in the potable water installation

3.74**operator**

natural or legal person responsible for ensuring the safe operation and maintenance of the potable water installation

Note 1 to entry: The operator should be provided for ensuring the safe operation and maintenance with the necessary information from e.g. installer, designer, water supplier and other parties.

3.75**outlet nozzle**

device inserted into the outlet of the draw-off appliances

3.76**overflow pipeline**

pipeline to limit the level of the water contained in the cistern by discharging water to drain

3.77**pipe joint**

connection between two pipelines

Note 1 to entry: Joints can be obtained using special devices or methods.

3.78**pipework**

pipelines, fittings, appliance and/or equipment that transport the potable water to the draw-off points or the points of use

3.79**point for disposal**

point of installation where the discharged water is collected for being evacuated

3.80**point of delivery**

location at which the potable water is transferred from the water supplier to the potable water installation and which is specified by the water supply authorities or regulations

prEN 806-1:2024 (E)**3.81****point of use**

point where water is drawn by the user either directly or by connecting an appliance

Note 1 to entry: For further information see EN 1717.

3.82**potable water****PW**

water intended for human consumption

Note 1 to entry: Attention is drawn to the definition of potable water in [1], or for nations not covered by the directive, in national regulations.

Note 2 to entry: The water may also be used for washing, cooking and sanitary purposes.

3.83**potable water installation**

installation inside buildings conveying water intended for human consumption within buildings and, for certain purposes, pipework outside buildings but within the premises

Note 1 to entry: It covers the system of pipes, fittings and connected appliances installed for supplying potable water. The system begins at the delivery point (specified by the water supplier) and ends at the downstream end of the potable water installation with an air gap, (e.g. at a kitchen tap) or a protection device, (e.g. at a hose union tap).

3.84**potable water, cold****PWC**

cold water intended for human consumption at temperatures ≤ 25 °C

3.85**potable water cold, circulating****PWC-C**

cold water intended for human consumption which returns to the water chiller by a pump in the circulation system

Note 1 to entry: In Type B installations the chiller can also be a cistern or other appliances.

3.86**potable water, hot****PWH**

hot or heated water intended for human consumption at temperatures up to the PWH operating temperature

3.87**potable water, hot, circulating****PWH-C**

hot or heated water intended for human consumption which returns to the water heater by means of a pump in the circulation system

Note 1 to entry: In Type B installations the circulation can also be achieved by gravity.

3.88**pressure boosting station**

equipment which increases the water pressure