



SLOVENSKI STANDARD SIST EN 805:2025

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Oskrba z vodo - Zahteve za zunanje vodovode in dele

Water supply - Requirements for systems and components outside buildings

Wasserversorgung - Anforderungen an Wasserversorgungssysteme und deren Bauteile außerhalb von Gebäuden

Alimentation en eau - Exigences pour les réseaux extérieurs aux bâtiments et leurs composants

Ta slovenski standard je istoveten z: **EN 805:2025**

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Water supply - Requirements for systems and components outside buildings

Alimentation en eau - Exigences pour les réseaux
extérieurs aux bâtiments et leurs composants

Wasserversorgung - Anforderungen an
Wasserversorgungssysteme und deren Bauteile
außerhalb von Gebäuden

This European Standard was approved by CEN on 29 December 2024.

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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 805:2025) 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of an identical text or by endorsement, at the latest by August 2025, and conflicting national standards shall be withdrawn at the latest by August 2025.

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 805:2000.

The main changes compared to the previous edition EN 805:2000 are listed below:

- addressing climate change and circular economy to enable improvements of water supply systems;
- addressing innovation in new products, processes and solutions for water supply systems;
- improvements related to the long-term safety, planning horizons and the resilience of the water supply systems;
- new subclause A.23 “Testing of non-viscoelastic pipelines (metals, concrete, GRP)” added;
- subclause A.24 “Testing of viscoelastic pipelines (PE, PVC-U, PVC-O)”: improved procedures.

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.

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Introduction

In specifying the requirements of this document, due regard has been taken of the importance of a reliable and safe supply of water for human consumption without excluding other uses of the water from the supply system.

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

This document does not make any implication with regard to ownership of or responsibility for pipes or other apparatus in the supply system.

This document takes into account the EU Strategy on Standardization setting global standards in support of a sustainable, resilient, green and digital EU single market.

Technical experts have reviewed and refreshed all the clauses of the EN 805:2000 revision to bring this document up to date in particular the implications of climate change and adapting the water supply systems, security, pressure testing, record keeping, resilience of water supply and updates as a result of many constructive comments from active users of this document across Europe.

It is presupposed that the users of this document take into account any applicable laws, regulations, directives and standards, including those on health and safety.

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1 Scope

This document specifies:

- general requirements for water supply systems outside buildings including potable water mains and service pipes, service reservoirs, other facilities and raw water mains but excluding treatment works and water resources development;
- general requirements for components;
- general requirements for inclusion in product standards which can include specifications which are more stringent;
- general requirements for installation, site testing and commissioning.

The requirements of this document apply to:

- the design and construction of new water supply systems;
- the extension of significant areas forming a coherent part of an existing water supply system;
- interconnections between water supply systems;
- significant modification and/or rehabilitation of existing water supply systems.

NOTE It is not intended that existing water supply systems are altered to comply with this document, provided that there are no significant detrimental effects on water quantity, security, reliability and adequacy of the supply. However, this document is intended to cover all water infrastructure systems mentioned above since they are key to meet the sustainable goals of the cities and to show the urgent need to invest in them in order to consider fundamental aspects, such as resilience or mitigation/adaptation to climate change.

2 Normative references

[SIST EN 805:2025](https://standards.iteh.ai/catalog/standards/sist/b248884c-2899-40ff-80d7-a8125a6c3b02/sist-en-805-2025)

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The following documents are referenced in the text in such a way that some parts of these or their entire contents constitute requirements of this document. With dated references, only the referenced issue is applicable. With undated references, the last issue of the referenced document is applicable (including all changes).

EN 1295-1, *Structural design of buried pipelines under various conditions of loading — Part 1: General requirements*

EN 1508, *Water supply — Requirements for systems and components for the storage of water*

ISO 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

EN 805:2025 (E)**3 Terms and definitions**

For the purposes of this document, the following 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/>

3.1 General**3.1.1****allowable maximum operating pressure****PMA**

maximum pressure occurring from time to time, including surge, that a component is capable of withstanding in service

3.1.2**allowable operating pressure****PFA**

maximum hydrostatic pressure that a component is capable of withstanding continuously in service

3.1.3**allowable site test pressure****PEA**

maximum hydrostatic pressure that a newly installed component is capable of withstanding for a relatively short duration, in order to ensure the integrity and tightness of the pipeline

3.1.4**design pressure****DP**

maximum operating pressure of the system or of the pressure zone fixed by the designer considering future developments but excluding surge

3.1.5**maximum design pressure****MDP**

maximum operating pressure of the system or of the pressure zone fixed by the designer considering future developments and including surge

3.1.5.1**MDPa**

designation of MDP when there is a fixed allowance for surge

3.1.5.2**MDPc**

designation of MDP when the surge is calculated

3.1.6**operating pressure****OP**

internal pressure which occurs at a particular time and at a particular point in the water supply system

3.1.7**pressure zones**

areas of pressure ranges within a water supply system

3.1.8**service pressure****SP**

internal pressure delivered at the point of connection to the consumer's installation at zero flow in the service pipe

3.1.9**surge**

rapid fluctuations of pressure caused by flow alterations over short periods of time

3.1.10**system test pressure****STP**

hydrostatic pressure applied to a newly laid pipeline in order to ensure its integrity and tightness

3.2 System**3.2.1****gravity system**

system where flow and/or pressure are caused by the force of gravity

Note 1 to entry: There are two kinds of such systems:

- pressurized gravity system, where the pipeline operates full;
- non-pressurized gravity system, where the pipeline operates partially full.

3.2.2**local main**

water main which connects principal main(s) with service pipes

3.2.3**potable water**

water intended for human consumption as defined by the relevant national authorities

3.2.4**principal main**

water main serving as a principal distributor within the supply area, normally without direct consumer connections

3.2.5**pumped and gravity system**

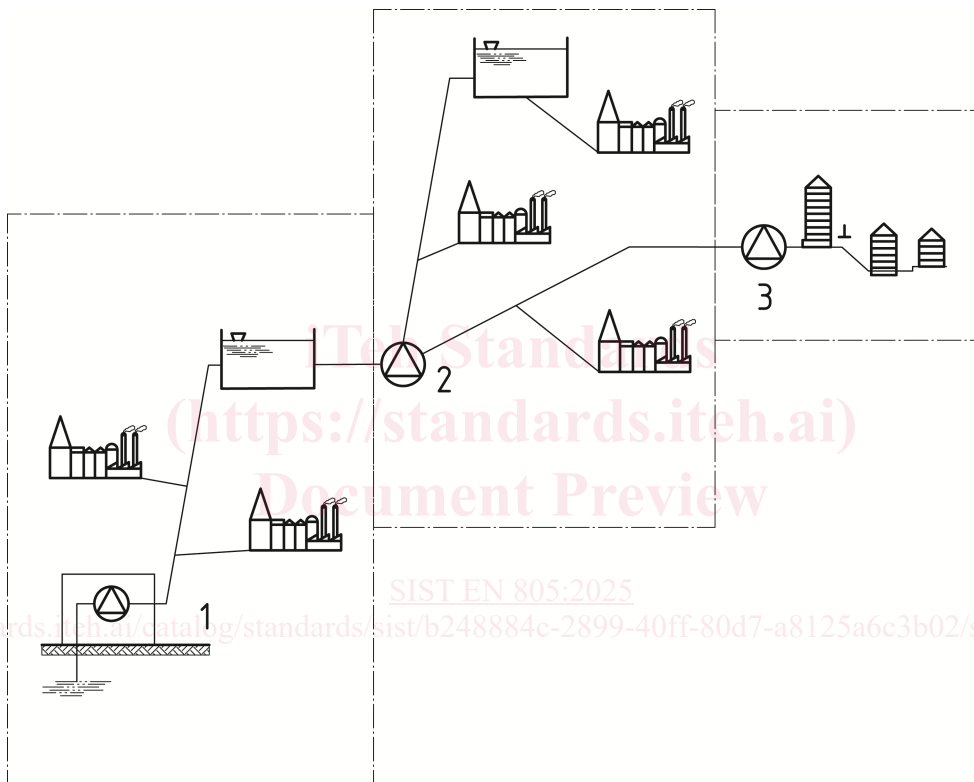
system where the gravity system and the pumped system are used, either separately or in combination, to provide the flow and/or pressure

EN 805:2025 (E)**3.2.6****pumping station**

pumping installation designed to provide pressure and flow within the distribution system

Note 1 to entry: Three types can be distinguished (see Figure 1):

- main lift normally at the outlet of the treatment works, or source if there is no treatment, to provide flow to the service reservoir;
- intermediate to deliver flow on the way to a service reservoir or supply area;
- booster to pump directly from and to the area without storage.

**Key**

- | | |
|---|--------------|
| 1 | main lift |
| 2 | intermediate |
| 3 | booster |

Figure 1 — Example of different types of pumping stations

3.2.7**pumped system**

system where flow and pressure are provided by means of one or more pumps and where the pipeline operates full

3.2.8**reservoir**

storage facility for water