



SLOVENSKI STANDARD

DSIST dfEN 805:% - *

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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: **dfEN 805:% - ***

ICS:

23.040.01	Deli cevovodov in cevovodi na splošno	Pipeline components and pipelines in general
91.140.60	Sistemi za oskrbo z vodo	Water supply systems

DSIST dfEN 805:% - *

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EUROPEAN STANDARD

FINAL DRAFT
prEN 805

NORME EUROPEENNE

EUROPAISCHE NORM

September 1996

ICS 13.060.01; 23.040.01

Descriptors : water supply, water distribution, water pipelines, potable water, quality, buildings, exterior, specifications, definitions, design, mechanical strength, water-tightness, dimensions, tests, installation, corrosion prevention, maintenance, marking

English version

Water supply - Requirements for systems and components outside buildings

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

Wasserversorgung - Anforderungen an Wasserversorgungssysteme und deren Bauteile außerhalb von Gebäuden

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This draft European Standard is submitted to CEN members for Formal Vote. 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 Central Secretariat has the same status as the official versions.

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CEN

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

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

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Ref. No. prEN 805:1996 E

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Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

This document is currently submitted to the Formal Vote.

This standard includes an annex A (informative) "Guidance to EN 805".

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0 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 purpose 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.

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

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1 Scope

This standard specifies :

- general requirements for water supply systems outside buildings (see figure 1) 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 may include specifications which are more stringent ;
- requirements for installation, site testing and commissioning.

The requirements of this standard 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 ;
- significant modification and/or rehabilitation of existing water supply systems.

NOTE : It is not intended that existing water supply systems are to be altered to comply with this standard, provided that there are no significant detrimental effects on water quality, security, reliability and adequacy of the supply.

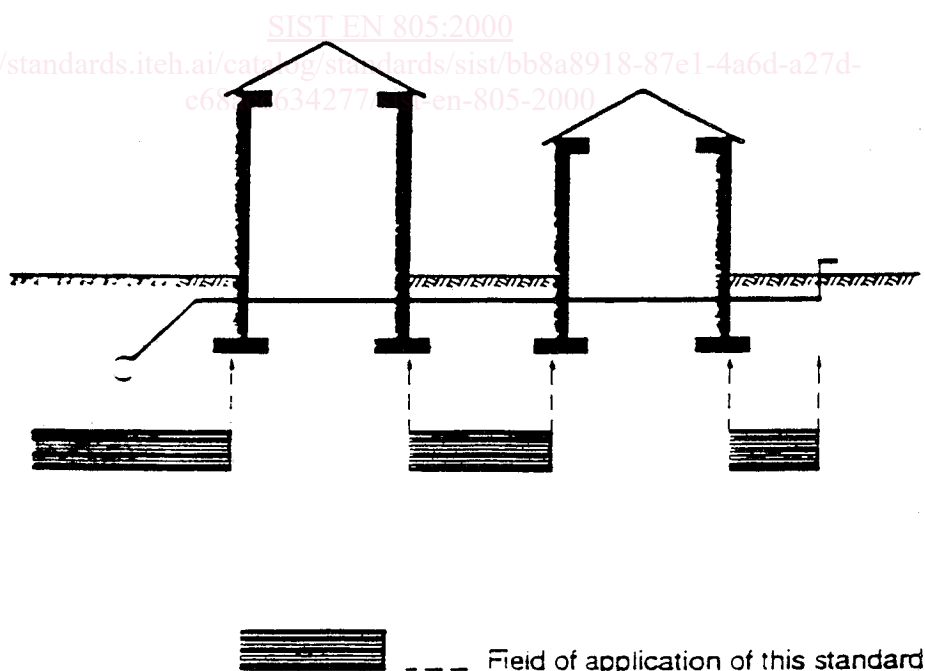


Figure 1 : Field of application of this standard

2 Normative references

This European Standard incorporates 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 undated references the latest edition of the publication referred to applies.

pr EN 1508	Water supply - Requirements for systems and components for the storage of water
EN 45011	General criteria for certification bodies operating product certification
EN 45012	General criteria for certification bodies operating quality system certification
ISO 48	Rubber, vulcanized or themoplastic- Determination of hardness (hardness between 10 IRHD and 100 IRHD)

3 Definitions

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

3.1 pressures

For the designation of pressures in English, French and German see table 1 and annex A.2.

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Table 1 : Designation of pressures in English, French, German

Abbreviation ¹⁾	English	French	German	
DP	design pressure	pression de calcul en régime permanent	Systembetriebsdruck	System related
MDP	maximum design pressure	pression maximale de calcul	höchster Systembetriebsdruck	
STP	system test pressure	pression d'épreuve du réseau	Systemprüfdruck	
PFA	allowable operating pressure	pression de fonctionnement admissible	zulässiger Bauteilbetriebsdruck	Component related
PMA	allowable maximum operating pressure	pression maximale admissible	höchster zulässiger Bauteilbetriebsdruck	
PEA	allowable site test pressure	pression d'épreuve admissible sur chantier	zulässiger Bauteilprüfdruck auf der Baustelle	
OP	operating pressure	pression de fonctionnement	Betriebsdruck	System
SP	service pressure	pression de service	Versorgungsdruck	related
1) Valid for all language versions				

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, where :

- MDP is designed MDPa when there is a fixed allowance for surge ;
- MDP is designed MDPc 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 systems.

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. 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.

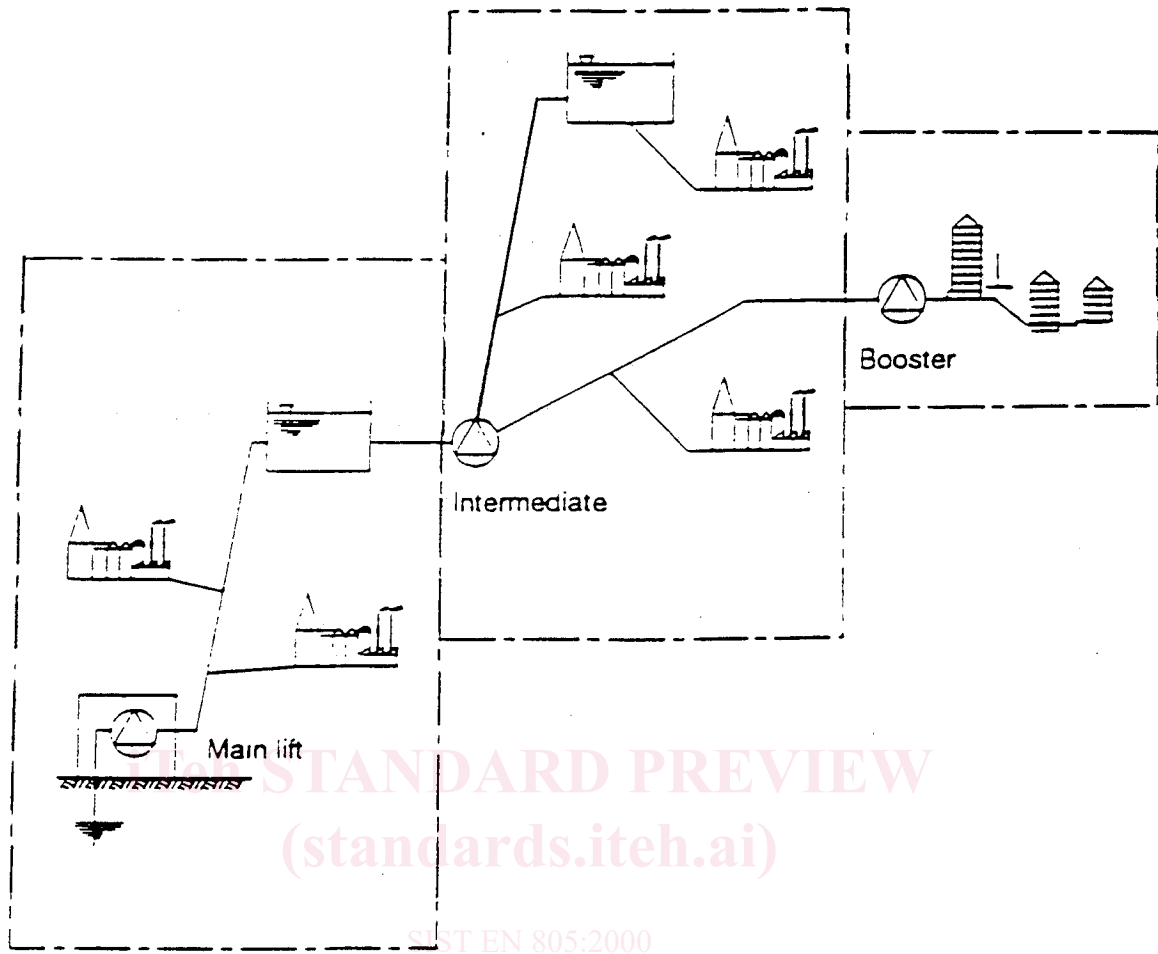
3.2.5 pumped and gravity system

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

3.2.6 pumping station

Pumping installation designed to provide adequate pressure and flow within the distribution system. Three types can be distinguished (see figure 2) :

- 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.



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Figure 2 : Example of different types of pumping stations

3.2.7 pumped system

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

3.2.8 reservoir

Storage facility for water.

3.2.9 service pipe

Water pipe which supplies water from the local main to the consumer.

3.2.10 service reservoir

Covered reservoir for potable water which includes water compartment(s), control building, operation equipment and access arrangement providing reserve supplies, pressure stability and balancing demand fluctuations.

3.2.11 standby plant

Plant or system, such as additional pumps or duplicate mains, installed to provide secondary means for the supply of services in the event of failure or malfunction of the normal operating unit.

3.2.12 trunk main

Water main which interconnects source(s), treatment works, reservoir(s) and/or supply areas, normally without direct consumer connection(s).

3.2.13 water distribution system

Part of the water supply system comprising pipelines, service reservoirs, pumping stations and other assets by which water is distributed to the consumers. It begins at the outlet from the water treatment works (or source, if there is no treatment) and ends at the point of connection to the consumer's installation (see figure 3).

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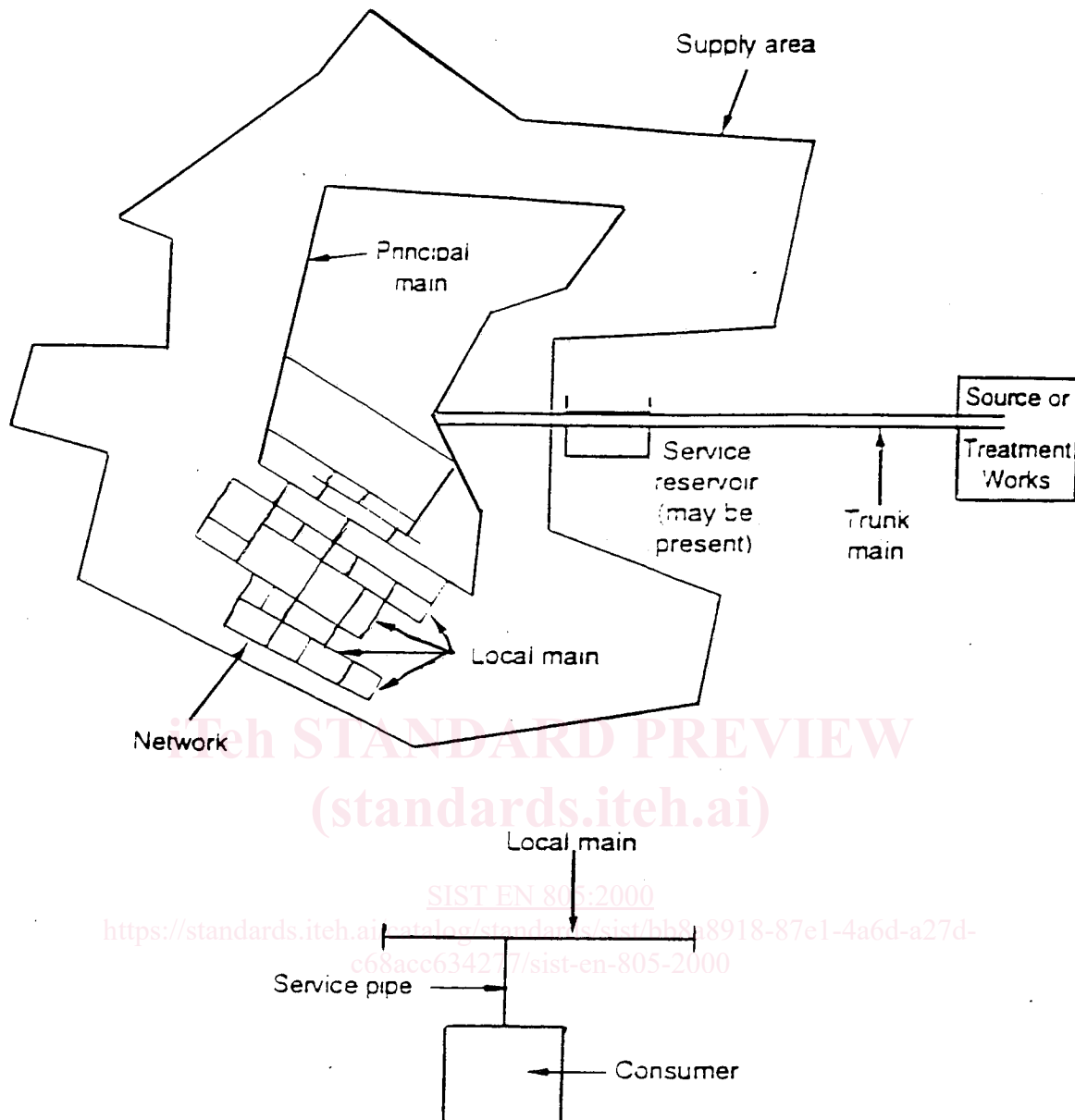


Figure 3 : Example of a water distribution system

3.3 components

3.3.1 accessories

Components, other than pipes, fittings or valves, which are used in a pipeline, e.g. glands, bolts, locking rings for joints, ferrules.

3.2.1 adjustable joint

Joint which permits significant angular deflection at the time of installation but not thereafter.