

**Töökojas valmistatud terasest mahutid.
Osa 2: Horisontaalsed silindrilised
ühekordsete ja kahekordsete seintega
mahutid põlevate ja mittepõlevate vett
saastavate vedelike maapealseks
ladustamiseks**

Workshop fabricated steel tanks - Part 2: Horizontal
cylindrical single skin and double skin tanks for the
aboveground storage of flammable and non-
flammable water polluting liquids

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12285-2:2005 sisaldab Euroopa standardi EN 12285-2:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.03.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12285-2:2005 consists of the English text of the European standard EN 12285-2:2005.</p> <p>This document is endorsed on 30.03.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This standard specifies the requirements for metallic shop fabricated cylindrical, horizontal steel tanks, single and double skin for the aboveground storage of water polluting liquids (both flammable and non-flammable) within the following limits: - from 800 mm up to 3000 mm nominal diameter and, - up to a maximum overall length of 6 times the nominal diameter and, - for liquids with a maximum density of up to 1,9 kg/l and, - with an operating pressure (po) of maximum 1,5 bar (abs.) and, - where double skin tanks with a vacuum leak detection system are used the kinematic viscosity of the stored media shall not exceed $5 \times 10^{-3} \text{ m}^2/\text{s}$</p>	<p>Scope:</p> <p>This standard specifies the requirements for metallic shop fabricated cylindrical, horizontal steel tanks, single and double skin for the aboveground storage of water polluting liquids (both flammable and non-flammable) within the following limits: - from 800 mm up to 3000 mm nominal diameter and, - up to a maximum overall length of 6 times the nominal diameter and, - for liquids with a maximum density of up to 1,9 kg/l and, - with an operating pressure (po) of maximum 1,5 bar (abs.) and, - where double skin tanks with a vacuum leak detection system are used the kinematic viscosity of the stored media shall not exceed $5 \times 10^{-3} \text{ m}^2/\text{s}$</p>
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Võtmesõnad: containers, fire resistant materials, inflammable solids, single-walled, specification (approval), specifications, steels, storage, storage tank, storages, tank installations, tanks, tanks (containers), testing, types, walls, water- polluting substances, wheel works

English version

**Workshop fabricated steel tanks - Part 2: Horizontal cylindrical
single skin and double skin tanks for the aboveground storage of
flammable and non-flammable water polluting liquids**

Réservoirs en aciers fabriqués en atelier - Partie 2:
Réservoirs horizontaux à simple et double paroi pour le
stockage aérien des liquides inflammables et non
inflammables polluant l'eau

Werksgefertigte Tanks aus Stahl - Teil 2: Liegende
zylindrische ein- und doppelwandige Tanks zur
oberirdischen Lagerung von brennbaren und
nichtbrennbaren wassergefährdenden Flüssigkeiten

This European Standard was approved by CEN on 17 December 2004.

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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 Central Secretariat has the same status as the official versions.

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Foreword

This document (EN 12285-2:2005) has been prepared by Technical Committee CEN/TC 221 “Shop fabricated metallic tanks and equipment for storage tanks and for service stations”, the secretariat of which is held by DIN.

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 2005, and conflicting national standards shall be withdrawn at the latest by November 2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of Construction Products Directive (CPD)¹⁾.

For the relationship with this Directive, see informative Annex ZA, which is an integral Part of this document.

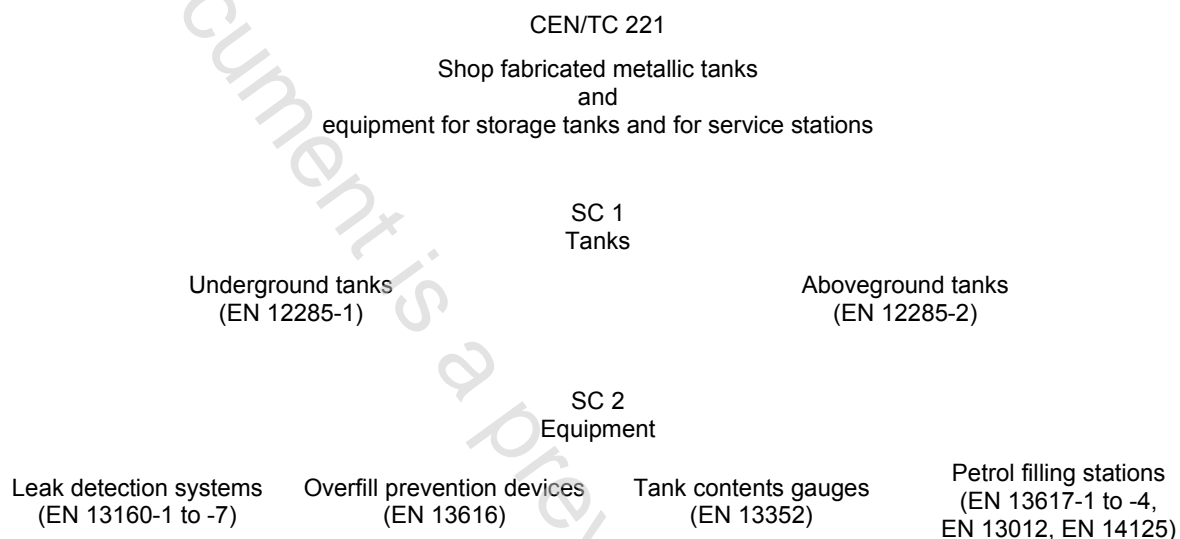
By application of this document presumption is given, that the Essential Safety Requirements of the CPD are met.

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

1) Directive 89/106/EEC of the European Parliament and the Council of 21 December 1988 on the approximation of the laws of the Member States concerning Construction products (OJEC L 40).

Introduction

This document is part of a family of standards involving shop fabricated tanks and equipment for storage tanks and for service stations (compare listing below and bibliography). Normal ambient temperatures considered in this document are -20 °C to +50 °C. Where temperatures are outside this range it could become necessary to consider further requirements. These could include temperature control measures or material control (see 4.2.2).



1 Scope

This document specifies the requirements for metallic shop fabricated cylindrical, horizontal steel tanks, single and double skin for the aboveground storage of water polluting liquids (both flammable and non-flammable) within the following limits:

- from 800 mm up to 3 000 mm nominal diameter and,
- up to a maximum overall length of 6 times the nominal diameter and,
- for liquids with a maximum density of up to 1,9 kg/l and,
- with an operating pressure (P_0) of maximum 1,5 bar (abs.) and,
- where double skin tanks with a vacuum leak detection system are used the cinematic viscosity of the stored media shall not exceed $5 \times 10^{-3} \text{ m}^2/\text{s}$.

This document is applicable for normal ambient temperature conditions (- 20 °C to + 50 °C). Where temperatures are outside this range, additional requirements need to be taken into account.

This document is not applicable for the storage of liquids having dangerous good classes listed in Table 1 because of the special dangers involved.

Table 1 — List of dangerous goods the storage of which are not covered by this document

UN-classification	Storage media
Class 1	Explosives
Class 4.2	Substances liable to spontaneous combustion
Class 4.3	Substances which in contact with water emit flammable gases
Class 5.2	Organic peroxides
Class 6.2	Infectious substances
Class 7	Radioactive material, hydrocyanic or hydrocyanic solvent liquids, metalcarbonyls, hydrofluoracid, bromide liquids

NOTE The classifications referred to are those adopted by the United Nations Committee of Experts on the Transport of Dangerous Goods (not to be interpreted as tank classes described in 3.1.4).

This document does not cover the installation of tanks which might be subject to local regulations involving pollution control.

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 287-1, *Qualification test of welders — Fusion welding — Part 1: Steels*

EN 288-2, *Specification and approval of welding procedures for metallic materials — Part 2: Welding procedures specification for arc welding*

EN 10025-2, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10051:1991 + A1:1997, *Continuously hot-rolled uncoated plate, sheet and strip of non-alloy and alloy steels — Tolerances on dimensions and shape (includes amendment A1:1997)*

EN 10204:2004, *Metallic products — Types of inspection documents*

EN 12285-1:2003, *Workshop fabricated steel tanks — Part 1: Horizontal cylindrical single skin and double skin tanks for the underground storage of flammable and non-flammable water polluting liquids*

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using test data from reaction to fire tests*

EN ISO 898-1, *Mechanical properties of fasteners of carbon steel and alloy steel — Part 1: Bolts, screws and studs (ISO 898-1:1999)*

EN ISO 15607, *Specification and qualification of welding procedures for metallic materials — Part 1: General rules (ISO 15607:2003)*

EN ISO 15614-1, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1:2004)*

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

tank

workshop fabricated cylindrical containment for the storage of liquids. It is made of steel, equipped with dished ends and consists of one or more compartments

3.1.2

aboveground tank

tank which is not buried in the ground; (a tank installed in a basement is an aboveground tank)

3.1.3

compartment

single storage fluid space within a tank

3.1.4

tank classes

as defined in Table 2