SLOVENSKI STANDARD
SIST EN 12285-2:2005

01-maj-2005

V delavnici izdelani rezervoarji iz jekla - 2. del: Ležeči valjasti enoplaščni in dvoplaščni rezervoarji za nadzemno shranjevanje vnetljivih in nevnetljivih tekočin, ki onesnažujejo vodo

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

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

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

Ta slovenski standard je istoveten z: **EN 12285-2:2005**

ICS:

13.300	Varstvo pred nevarnimi izdelki	Protection against dangerous goods
23.020.10	Nepremične posode in rezervoarji	Stationary containers and tanks

SIST EN 12285-2:2005 **en**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 12285-2

February 2005

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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

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

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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of an identical text or by endorsement, at the latest by August 2005, and conflicting national standards shall be withdrawn at the latest by November 2006.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.

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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).

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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).

CEN/TC 221

Shop fabricated metallic tanks
and
equipment for storage tanks and for service stations

SC 1
Tanks

Underground tanks
(EN 12285-1)

Aboveground tanks
(EN 12285-2)

SC 2
Equipment

Leak detection systems
(EN 13160-1 to -7)

Overfill prevention devices
(EN 13616)

Tank contents gauges
(EN 13352)

Petrol filling stations
(EN 13617-1 to -4,
EN 13012, EN 14125)

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SIST EN 12285-2:2005

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_o) 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 5×10^{-3} m^2/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

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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.

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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)*

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

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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

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