Bensiinijaamad. Ohutusnõuded sukelpumbasüsteemide ehitamiseks ja kasutamiseks

Petrol Filling Stations - Safety requirements for the construction and performance of submersible pump assemblies

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15268:2008 sisaldab Euroopa standardi EN 15268:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 15268:2008 consists of the English text of the European standard EN 15268:2008.
Standard on kinnitatud Eesti Standardikeskuse 27.10.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 27.10.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 10.09.2008.	Date of Availability of the European standard text 10.09.2008.
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Petrol filling stations - Safety requirements for the construction of submersible pump assemblies

Stations-service - Prescriptions de sécurité pour la construction des assemblages de pompes immergées

Tankstellen - Sicherheitstechnische Anforderungen an die Bauweise von Tauchpumpen-Baugruppen

This European Standard was approved by CEN on 25 July 2008.

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Foreword

This document (EN 15268:2008) has been prepared by Technical Committee CEN/TC 221 “Shop fabricated metallic tanks and equipment for storage tanks and for 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of an identical text or by endorsement, at the latest by March 2009, and conflicting national standards shall be withdrawn at the latest by March 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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For relationship with EU Directive(s), see informative Annexes ZA, ZB and ZC, which are integral parts of this document.

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

Introduction

This document is a type C standard as stated in EN ISO 12100-1.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this European Standard.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of the type C standard.

1 Scope

This European Standard applies to submersible pump assemblies intended for use with dispensers installed at petrol filling stations and used to dispense liquid fuels in accordance with EN 228 and EN 590 into tanks of motor vehicles, light aircrafts, boats and portable containers. The submersible pump assemblies are intended for use and storage at ambient temperatures between –20 °C and +40 °C.

Additional measures can be required for use and storage at temperatures outside this range and are subject to negotiation between the manufacturer and purchaser.

This European Standard specifies requirements for equipment with a maximum working pressure not exceeding 350 kPa (3,5 bar), power consumption not exceeding 7 KW and a maximum power supply voltage of 500 V.

This European Standard specifies requirements for submersible pump assemblies of classes IIA T3 (explosion group IIA and temperature class T3) and IIB T4 (explosion group IIB and temperature class T4) using liquid fuels.

This European Standard deals with all significant hazards, hazardous situations and events relevant to submersible pump assemblies, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4).

This European Standard specifies safety requirements for design, installation, commissioning, use and maintenance.

Noise is not considered a significant hazard for the equipment in the scope of this European Standard.

This European Standard does not cover requirements for mobile equipment.

NOTE 1 For other fuels than those in accordance with EN 228 and EN 590 a manufacturer should consider the need for extra measures (dealing with possible additional or different hazards).

NOTE 2 This European Standard does not include any requirements for metering performance such as may be specified for the EU under the Measuring Instruments Directive nor those specified under the Electromagnetic Compatibility Directive.

NOTE 3 Liquified Petroleum Gas (LPG) is not a liquid in the sense of this document.

This European Standard is not applicable to submersible pump assemblies that are manufactured before the date of its publication as EN.

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 228, *Automotive fuels — Unleaded petrol — Requirements and test methods*

EN 590, *Automotive fuels — Diesel — Requirements and test methods*

EN 13463-1:2001, *Non-electrical equipment for potentially explosive atmospheres — Part 1: Basic method and requirements*

EN 13463-6, *Non-electrical equipment for use in potentially explosive atmospheres — Part 6: Protection by control of ignition source "b"*

EN 13617-1:2004, *Petrol filling stations — Part 1: Safety requirements for construction and performance of metering pumps, dispensers and remote pumping units*

prEN 50495:2006-08, *Safety devices required for the safe functioning of equipment with respect to explosion risks*

EN 60034-1, *Rotating electrical machines — Part 1: Rating and performance (IEC 60034-1:2004)*

EN 60079-0, *Electrical apparatus for explosive gas atmospheres — Part 0: General requirements (IEC 60079-0:2004, modified)*

EN 60079-7, *Explosive atmospheres - Part 7: Equipment protection by increased safety "e" (IEC 60079-7:2006)*

EN 60079-14, *Electrical apparatus for explosive gas atmospheres — Part 14: Electrical installations in hazardous areas (other than mines) (IEC 60079-14:2002)*

EN 60079-15:2005, *Electrical apparatus for explosive gas atmospheres — Part 15: Construction, test and marking of type of protection "n" electrical apparatus (IEC 60079-15:2005)*

EN 60079-26, *Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga (IEC 60079-26:2006)*

EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

ISO 1817, *Rubber, vulcanized — Determination of the effect of liquids*

HD 21.13 S1, *Polyvinyl chloride insulated cables of rated voltage up to and including 450/750V — Part 13: Oil resistant PVC sheathed cables with two or more conductors*

HD 22.4 S4, *Cables of rated voltages up to and including 450/750 V and having crosslinked insulation — Part 4: Cords and flexible cables*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply.

3.1
submersible pump assembly
comprises the manifold assembly, the fixed or adjustable column pipe assembly and the submersible pumping unit

3.2
column pipe assembly
means by which the manifold assembly is connected to the submersible pumping unit and which consists of product pipe and electrical conduit