

**Vedelikupumbad. Ohutusnõuded.  
Põllumajanduslikud toiduained. Hügieenilise  
kasutamise tagamiseks vajalikud  
konstruktsiooninõuded KONSOLIDEERITUD  
TEKST**

Liquid pumps - Safety requirements - Agrifoodstuffs  
equipment ; Design rules to ensure hygiene in use  
CONSOLIDATED TEXT

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13951:2003+A1:2008 sisaldab Euroopa standardi EN 13951:2003+A1:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 10.11.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.10.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13951:2003+A1:2008 consists of the English text of the European standard EN 13951:2003+A1:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 10.11.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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**Võtmesõnad:** definition, definitions, design, facility of hygienics, food factories, foodstuff, hygiene, liquid pumps, mechanical engineering, pump installations, pumping installation, pumps, safety, safety requirements, units

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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:  
Aru 10 Tallinn 10317 Eesti; [www.evs.ee](http://www.evs.ee); Telefon: 605 5050; E-post: [info@evs.ee](mailto:info@evs.ee)

English Version

**Liquid pumps - Safety requirements - Agrifoodstuffs equipment -  
Design rules to ensure hygiene in use**

Pompes pour liquides - Prescriptions de sécurité - Matériel  
agroalimentaire - Règles de conception pour assurer  
l'hygiène à l'utilisation

Flüssigkeitspumpen - Sicherheitsanforderungen -  
Nahrungsmittelausrüstungen - Konstruktionsregeln zur  
Sicherstellung der Hygiene bei der Verwendung

This European Standard was approved by CEN on 28 November 2002 and includes Amendment 1 approved by CEN on 14 August 2008.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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## Foreword

This document (EN 13951:2003+A1:2008) has been prepared by Technical Committee CEN/TC 197 "Pumps", 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 April 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document supersedes EN 13951:2003.

This document includes Amendment 1, approved by CEN on 2008-08-14.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

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 EU Directive(s).

**A1** For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

This document deals with essential requirements 2.1 "Agrifoodstuffs machinery" of Machinery Directive.

The annexes A, B, C, D, E and F are informative.

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 1070.

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

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 this type C standard.

## 1 Scope

This European Standard is concerned with the special technical safety requirements for liquid pumps and pump units operating with agrifoodstuffs. It augments EN 809 and contains a list of the additional significant hazards which can arise from the pump and pump units used with substances intended for human and domestic animal consumption.

In drafting this standard it was assumed that the pumps falling within its scope will conform to all relevant requirement of EN 809.

It also establishes requirements and/or measures which lead to a reduction of the risks.

This standard is not intended to be used for pumps and pump units at any stage in the public water supply, nor for pumps handling pharmaceutical products, nor for any other application for which more appropriate standards can exist.

Conformity to this standard aims to ensure that the pump, if used in accordance with the instruction handbook, will remain safe and, provided it is adequately cleaned, will not cause contamination of the pumped product. Although it is the responsibility of the manufacturer to ensure that the pump can be cleaned, due to the influence of the product, the process and the cleaning regime adopted, the hygiene of the pump should ultimately be the responsibility of the end-user.

The pumps and pump units which fall within the scope of this standard are described as:

- rotodynamic pumps;
- rotary positive displacement pumps;
- reciprocating positive displacement pumps.

Pumps handling agrifoodstuffs which do not fall within this scope should comply with EN 1672-2.

## 2 Normative references

This European Standard incorporates by dated or 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 dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 809, *Pumps and pump units for liquids – Common safety requirements*.

EN 1050, *Safety of machinery – Principles for risk assessment*.

EN 1070, *Safety of machinery – Terminology*.

EN 1672-2:1997, *Food processing machinery – Basic concepts – Part 2: Hygiene requirements*.

EN ISO 4287, *Geometrical Product Specifications (GPS) – Surface texture: Profile method – Terms, definitions and surface texture parameters (ISO 4287:1997)*.

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 1070 together with the following apply.

### 3.1

#### **food/agrifoodstuffs products**

any product, ingredient or material intended to be orally consumed at any stage of its production process

### 3.2

#### **food hygiene**

taking of all measures during the preparation and processing of food to ensure that it is fit for human or animal consumption

(Definition in accordance with EN 1672-2:1997)

### 3.3

#### **adverse influence**

reduction of the fitness for consumption of a food. A food can be adversely influenced in particular by microbial pathogens or other unwanted micro-organisms, toxins, vermin, domestic animals and other contaminants

### 3.4

#### **areas of equipment**

NOTE These areas are not to be confused with any others amongst those defined in other standards (e.g. electro-technical standards).

(Note in accordance with EN 1672-2:1997)

#### 3.4.1

##### **food area**

area composed of surfaces in contact with food. The food area also includes the surfaces with which the product may come into contact under intended conditions of use, after which it returns into the product

(Definition in accordance with EN 1672-2:1997)

#### 3.4.2

##### **non-food area**

any area other than those specified above

(Definition in accordance with EN 1672-2:1997)