

**Rasvapüüdurid. Osa 1:  
Konstruktsioonipõhimõtted,  
toimimisinäitajad ja katsetamine,  
märgistus ja kvaliteedikontroll**

Grease separators - Part 1: Principles of design,  
performance and testing, marking and quality control

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1825-1:2004 sisaldab Euroopa standardi EN 1825-1:2004 + AC:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1825-1:2004 consists of the English text of the European standard EN 1825-1:2004 + AC:2006.</p> <p>This document is endorsed on 23.11.2004 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>
--	---

<p><b>Käsitlusala:</b></p> <p>This standard specifies definitions, nominal sizes, principles of design, performance requirements, marking, testing and quality control for grease separators. This standard applies to separators for the separation of greases and oils of vegetable and animal origin from wastewater by means of gravity and without any external energy. This standard does not cover grease separators intended to treat domestic wastewater from kitchen areas of single family dwellings, where the separator has a nominal size less than 1.</p>	<p><b>Scope:</b></p> <p>This standard specifies definitions, nominal sizes, principles of design, performance requirements, marking, testing and quality control for grease separators. This standard applies to separators for the separation of greases and oils of vegetable and animal origin from wastewater by means of gravity and without any external energy. This standard does not cover grease separators intended to treat domestic wastewater from kitchen areas of single family dwellings, where the separator has a nominal size less than 1.</p>
--	--

**ICS** 13.060.99

**Võtmesõnad:**

ICS 13.060.99

English version

**Grease separators - Part 1: Principles of design, performance  
and testing, marking and quality control**

Séparateurs à graisses - Partie 1 : Principes pour la  
conception, les performances et les essais, le marquage et  
la maîtrise de la qualité

Abscheideranlagen für Fette - Teil 1: Bau-, Funktions- und  
Prüfgrundsätze, Kennzeichnung und Güteüberwachung

This European Standard was approved by CEN on 1 July 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Contents

Foreword.....	4
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions .....	8
4 Nominal sizes .....	9
5 Requirements .....	9
5.1 General.....	9
5.2 Materials .....	9
5.2.1 General.....	9
5.2.2 Concrete .....	9
5.2.3 Metallic materials .....	10
5.2.4 Plastics materials.....	11
5.2.5 Vitrified clay.....	12
5.2.6 Sealing materials .....	12
5.2.7 Coatings/linings .....	12
5.2.8 Chemical resistance .....	13
5.2.9 Reaction to fire.....	14
5.3 Design requirements .....	14
5.3.1 Dimensions and dimensional tolerances.....	14
5.3.2 Watertightness of components .....	14
5.3.3 Accessibility.....	14
5.3.4 Inlets, outlets and connectors .....	14
5.3.5 Internal components .....	15
5.3.6 Sludge traps .....	15
5.3.7 Access covers.....	15
5.3.8 Height and storage capacity of the grease collection area.....	15
5.3.9 Fall .....	15
5.3.10 Ventilation.....	15
5.4 Structural stability .....	16
5.4.1 General.....	16
5.4.2 Grease separators made of unreinforced concrete, fibre-reinforced concrete, reinforced concrete .....	16
5.4.3 Grease separators made of glass fibre-reinforced plastics .....	16
5.5 Functional requirements .....	16
5.5.1 General.....	16
5.5.2 Automatic warning devices and other auxiliary equipment.....	16
5.5.3 Determination of the nominal size .....	16
5.5.4 Volume of the sludge traps.....	18
6 Marking .....	18
7 Manufacturer's product information .....	19
8 Test methods.....	19
8.1 Materials .....	19
8.1.1 Concrete .....	19
8.1.2 Plastics material.....	19
8.1.3 Vitrified clay.....	19
8.1.4 Coatings.....	19
8.2 Chemical resistance of internal surfaces.....	21
8.2.1 General.....	21
8.2.2 Plastics materials and linings .....	21
8.2.3 Sealing materials .....	21
8.2.4 Coatings.....	21

8.3	Chemical resistance of external coatings.....	22
8.4	Watertightness of grease separator components.....	22
8.4.1	Watertightness.....	22
8.4.2	Height and storage capacity of the grease collection area, sludge traps, fall, ventilation, built-in components, inlets, outlets, connectors and accessibility.....	23
8.4.3	Access covers.....	23
8.5	Determination of the nominal size.....	24
8.5.1	Prefabricated separators.....	24
8.5.2	Separators built in-situ.....	29
8.6	Reaction to fire.....	29
8.6.1	Products deemed to satisfy the requirements for reaction to fire Class A1.....	29
8.6.2	Products not deemed to satisfy reaction to fire Class A1.....	29
9	Type testing of factory made separators.....	30
9.1	General.....	30
9.2	Prototypes and documentation.....	30
10	Evaluation of conformity.....	32
10.1	General.....	32
10.2	Factory production control.....	32
Annex A	(normative) Analysis of effluent samples.....	33
A.1	General.....	33
A.2	Infrared spectroscopy method.....	33
A.2.1	Extraction and preparation of the extract.....	33
A.2.2	Evaluation.....	34
A.3	Gas chromatography method.....	35
A.3.1	General.....	35
A.3.2	Reagents.....	35
A.3.3	Interferences.....	35
A.3.4	Procedure.....	35
A.3.5	Gas chromatographic analysis.....	35
A.3.6	Example GC conditions.....	36
A.3.7	Calibration.....	36
A.3.8	Calculation of the oil concentration.....	37
Annex B	(normative) Factory production control.....	38
Annex C	(informative) Established methods of calculation and testing.....	42
C.1	Germany.....	42
C.2	The Netherlands.....	42
C.3	France.....	42
C.4	Austria.....	42
Annex D	(informative) Control by third party (third party control).....	43
D.1	General.....	43
D.2	Procedure of the third party control.....	43
D.2.1	Factories certified to EN ISO 9001.....	43
D.2.2	Factories not certified to EN ISO 9001.....	43
D.3	Report by the third party.....	44
D.4	Non-conforming units.....	44
Annex E	(normative) Relevant extracts from EC Decision 96/603/EC, as amended.....	45
Annex ZA	(informative) Clauses of this European Standard addressing the provisions of EU Construction Products Directive.....	46
ZA.1	Scope and relevant characteristics.....	46
ZA.2	Procedure for the attestation of conformity of grease separators.....	47
ZA.2.1	System of attestation of conformity.....	47
ZA.2.2	Declaration of conformity.....	47
ZA.3	CE Marking and labelling.....	48

## Foreword

This document (EN 1825-1:2004) has been prepared by Technical Committee CEN/TC 165 "Waste water engineering", 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 2005, and conflicting national standards shall be withdrawn at the latest by March 2005.

This is the first part of the two part standard for grease separators. Part 2 gives guidelines for selection, installation, operation and maintenance of grease separators.

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).

For the relationship with EU Directive(s), see informative Annex ZA, which is an integral part 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, 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 Scope

This standard specifies definitions, nominal sizes, principles of design, performance requirements, marking, testing and quality control for grease separators.

This standard applies to separators for the separation of greases and oils of vegetable and animal origin from wastewater by means of gravity and without any external energy.

This standard does not cover grease separators intended to treat domestic wastewater from kitchen areas of single family dwellings, where the separator has a nominal size less than 1.

The standard is not applicable for the separation of light liquids, e.g. petrol, fuel and heating oil, and does not cover the treatment of wastewater exclusively containing stable emulsions of greases and oils.

The standard does not cover the use of biological means (bacteria and enzymes).

## 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 124:1994, *Gully tops and manhole tops for vehicular and pedestrian areas – Design requirements, type testing, marking, quality control.*

EN 206-1, *Concrete – Part 1: Specification, performance, production and conformity.*

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

EN 295-3, *Vitrified clay pipes and fittings and pipe joints for drains and sewers – Part 3: Test methods.*

EN 476, *General requirements for components used in discharge pipes, drains and sewers for gravity systems.*

EN 681-1, *Elastomeric seals – Material requirements for pipe joint seals used in water and drainage applications – Part 1: Vulcanised rubber.*

EN 976-1:1997, *Underground tanks of glass-reinforced plastics (GRP) – Horizontal cylindrical tanks for the non-pressure storage of liquid petroleum based fuels – Part 1: Requirements and test methods for single wall tanks.*

EN 978, *Underground tanks of glass-reinforced plastics (GRP) – Determination of factor  $\alpha$  and factor  $\beta$ .*

EN 1253-4, *Gullies for buildings – Part 4: Access covers.*

EN 10088-1, *Stainless steels – Part 1: List of stainless steels.*

EN 10088-2, *Stainless steels – Part 2: Technical delivery conditions for sheet/plate and strip for general purposes.*

EN 10088-3, *Stainless steels – Part 3: Technical delivery conditions for semi-finished products, bars, rods and sections for general purposes.*

EN 12350-1, *Testing fresh concrete - Part 1: Sampling.*

EN 12390-2, *Testing hardened concrete - Part 2: Making and curing specimens for strength tests.*

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

EN ISO 178, *Plastics – Determination of flexural properties (ISO 178:2001)*

EN ISO 180, *Plastic – Determination of Izod impact strength (ISO 180:2000).*

EN ISO 291, *Plastics - Standard atmospheres for conditioning and testing.*

EN ISO 527-2, *Plastics – Determination of tensile properties – Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2:1993 including Corr 1:1994).*

EN ISO 527-4, *Plastics - Determination of tensile properties - Part 4: Test conditions for isotropic and orthotropic fibre-reinforced plastic composites (ISO 527-4:1997).*

EN ISO 1172, *Textile–glass–reinforced plastics – Prepregs, moulding compounds and laminates – Determination of the textile – glass and mineral – filler content – Calcination methods (ISO 1172:1996).*

EN ISO 1514, *Paints and varnishes – Standard panels for testing (ISO 1514:1993).*

EN ISO 1518, *Paints and varnishes – Scratch test (ISO 1518:1992).*

EN ISO 2409, *Paints and varnishes – Cross-cut test (ISO 2409:1992).*

EN ISO 2808, *Paints and varnishes – Determination of film thickness (ISO 2808:1997).*

EN ISO 2812-1, *Paints and varnishes – Determination of resistance to liquids – Part 1: General methods (ISO 2812-1:1993).*

EN ISO 2815, *Paints and varnishes – Buchholz indentation test (ISO 2815:2003).*

EN ISO 4624, *Paints and varnishes – Pull-off test for adhesion (ISO 4624:2002).*

EN ISO 4628-2, *Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 2: Assessment of degree of blistering (ISO 4628-2:2003).*

EN ISO 4628-3, *Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 3: Assessment of degree of rusting (ISO 4628-3:2003).*

EN ISO 7253, *Paints and varnishes - Determination of resistance to neutral salt spray (fog) (ISO 7253:1996)*

EN ISO 8501-1, *Preparation of steel substrates before application of paints and related products – Visual assessment of surface cleanliness – Part 1: Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings (ISO 8501-1:1988).*

EN ISO 9377-2, *Water quality – Determination of hydrocarbon oil index – Part 2: Method using solvent extraction and gas chromatography (ISO 9377-2:2000).*

EN ISO 14125, *Fibre-reinforced plastic composites - Determination of flexural properties (ISO 14125:1998).*

EN ISO 15607, *Specification and qualification of welding procedures for metallic materials - 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).*

ENV 10080, *Steel for reinforcement of concrete weldable ribbed reinforcing steel B 500 – Technical delivery conditions for bars, coils and welded fabric.*

ISO 48, *Rubber vulcanized or thermoplastic – Determination of hardness (hardness between 10 IRHD and 100 IRHD).*

ISO 185, *Grey cast iron – Classification.*

ISO 630, *Structural steels – Plates, wide flats, bars, sections and profiles.*



ISO 877, *Plastics – Methods of exposure to direct weathering, to weathering using glass-filtered daylight, and to intensified weathering by daylight using Fresnel mirrors.*

ISO 1083, *Spheroidal graphite cast irons – Classification.*

ISO 1133, *Plastics – Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics.*

ISO 1183-1:2004 *Plastics -- Methods for determining the density of non-cellular plastics -- Part 1: Immersion method, liquid pycnometer method and titration method*

ISO 1183-2:2004 *Plastics -- Methods for determining the density of non-cellular plastics -- Part 2: Density gradient column method (available in English only)*

ISO 1521, *Paints and varnishes – Determination of resistance to water – Water immersion method.*

ISO 1817, *Rubber vulcanized – Determination of the effect of liquids.*

ISO 1920, *Concrete tests – Dimensions tolerances and applicability of test specimens.*

ISO 3755, *Cast carbon steels for general engineering purposes.*

ISO 4012, *Concrete – Determination of compressive strength of test specimens.*

ISO 6272, *Paints and varnishes – Falling-weight test.*

ISO 8217, *Petroleum products – Fuels (class F) – Specifications of marine fuels.*