

SVENSK STANDARD

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Avlopp – Reningsanläggning upp till 50 pe – Del 7: Förtillverkat kompletterande reningssteg

Small wastewater treatment systems for up to 50 PT – Part 7: Prefabricated tertiary treatment units



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Europastandarden EN 12566-7:2016 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 12566-7:2016.

Denna standard ersätter SS-EN 12566-7:2013, utgåva 1.

The European Standard EN 12566-7:2016 has the status of a Swedish Standard. This document contains the official English version of EN 12566-7:2016.

This standard supersedes the Swedish Standard SS-EN 12566-7:2013, edition 1.

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Denna standard är framtagen av kommittén för Avloppsteknik, SIS/TK 198/AG 165.

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EUROPEAN STANDARD

EN 12566-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2016

ICS 13.060.30

Supersedes EN 12566-7:2013

English Version

Small wastewater treatment systems for up to 50 PT - Part 7: Prefabricated tertiary treatment units

Petites installations de traitement des eaux usées
jusqu'à 50 PTE - Partie 7: Unités préfabriquées de
traitement tertiaire

Kleinkläranlagen für bis zu 50 EW - Teil 7: Im Werk
vorgefertigte Einheiten für eine dritte Reinigungsstufe

This European Standard was approved by CEN on 25 June 2016.

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-CENELEC Management Centre or to any CEN member.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 12566-7:2016) has been prepared by Technical Committee CEN/TC 165 “Wastewater 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of an identical text or by endorsement, at the latest by February 2017, and conflicting national standards shall be withdrawn at the latest by May 2018.

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.

This document supersedes EN 12566-7:2013.

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 relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

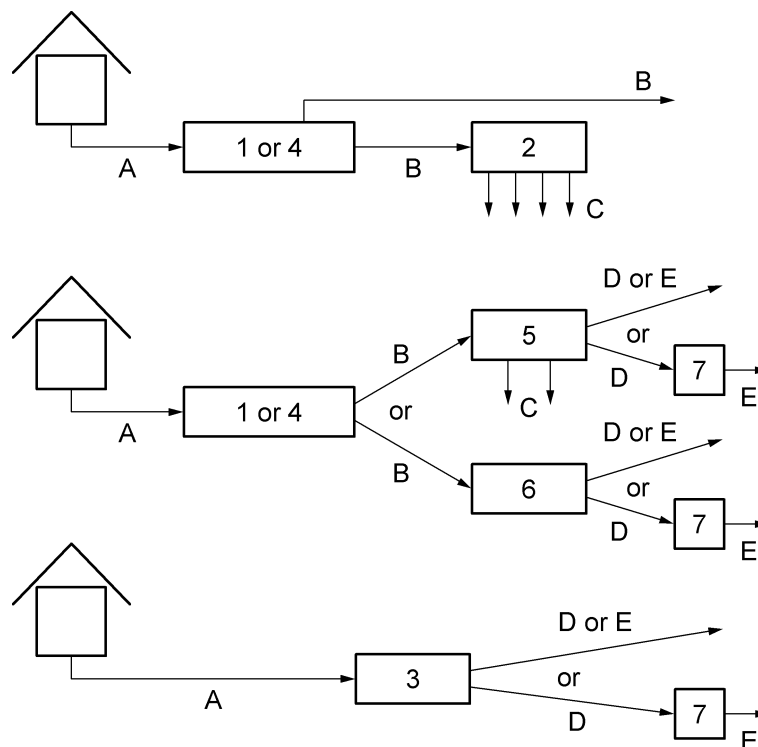
The differences between this version and EN 12566-7:2013 are mainly editorial changes according to the Construction Product Regulation (CPR) and declaration of power consumption and desludging during treatment efficiency test.

The standard series EN 12566 “Small wastewater treatment systems for up to 50 PT” contains the following parts (see Figure 1):

- *Part 1: Prefabricated septic tanks;*
- *Part 3: Packaged and/or site assembled domestic wastewater treatment plants;*
- *Part 4: Septic tanks assembled in situ from prefabricated kits;*
- *Part 6: Prefabricated treatment unit used for septic tank effluent;*
- *Part 7: Prefabricated tertiary treatment unit (this document).*

For filtration systems, CEN/TC 165 decided to publish the following CEN Technical reports, which are considered as Code of practices and do not specify treatment requirements:

- *Part 2: Soil infiltration systems;*
- *Part 5: Pre-treated Effluent Filtration systems.*



Key

- | | | | |
|---|------------------------------|---|--|
| A | domestic wastewater | 1 | prefabricated septic tank |
| B | septic tank effluent | 2 | soil infiltration system |
| C | treated infiltrated effluent | 3 | packaged and/or site assembled domestic wastewater treatment plant |
| D | treated wastewater | 4 | septic tank assembled <i>in situ</i> from prefabricated kit |
| E | tertiary treated wastewater | 5 | pre-treated effluent filtration system |
| | | 6 | prefabricated treatment unit used for septic tank effluent |
| | | 7 | prefabricated tertiary treatment unit |

National regulations may specify different arrangements between the products described in the standard series EN 12566.

Figure 1 — Scheme related to the arrangement of the parts of EN 12566

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies requirements, test methods, the marking and evaluation of conformity for a packaged and/or site assembled tertiary treatment unit (see Figure 1).

It applies for tertiary treatment units that are placed on the market as complete units used for the tertiary treatment of domestic wastewater by biological, physical, chemical, electrical processes and coming from:

- a) units in accordance with EN 12566-3 or EN 12566-6;
- b) installations designed and constructed in accordance with CEN/TR 12566-5.

Equivalent secondary treated effluent may come from existing systems.

Package and/or site assembled tertiary treatment units according to this standard consist of one or more watertight tanks without any direct infiltration into the ground, made of concrete, corrosion resistant or coated steel, un-plasticised poly-vinyl chloride (PVC-U), polyethylene (PE), glass reinforced thermosetting plastics (GRP) based on polyester resin (UP) (GRP-UP), polypropylene (PP), polydicyclopentadiene (PDCPD) and flexible sheets (HDPE, PP, PVE and EPDM).

This standard applies to tertiary treatment units for use above ground (outside the building) or buried in the ground where no vehicle loads are applied to the unit.

This standard does not apply to tertiary treatment systems forming part of units covered by EN 12566-3 and EN 12566-6.

This standard does not cover the systems for microorganism reduction.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12566-3:2016, *Small wastewater treatment systems for up to 50 PT — Part 3: Packaged and/or site assembled domestic wastewater treatment plants*

CEN/TR 12566-5, *Small wastewater treatment systems up to 50 PT — Part 5: Pre-treated Effluent Filtration systems*

EN 12566-6:2016, *Small wastewater treatment systems for up to 50 PT — Part 6: Prefabricated treatment units for septic tank effluent*

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

EN 16323:2014, *Glossary of wastewater engineering terms*

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12566-3:2016, EN 12566-6:2016, EN 16323:2014 and the following apply.

3.1.1

tertiary treatment

additional treatment process which results in further purification than that obtained by applying primary and secondary treatment

Note 1 to entry: It is recommended that the expression for the treatment, e.g. nitrogen removal, phosphorus removal, polishing effects, suspended solid removal, is used since in some case the tertiary treatment can also be integrated in the secondary treatment.

3.1.2

packaged unit

prefabricated factory-built unit

3.1.3

site assembled unit

unit composed of prefabricated components assembled on site coming from one manufacturer

3.1.4

biological processes

processes in which the treatment is mainly carried out by micro-organism activity

3.1.5

physical processes

processes in which the treatment is mainly carried out by using the physical properties of a media

3.1.6

chemical processes

processes in which the treatment is mainly carried out by the addition of chemical agents

3.1.7

electrical processes

processes in which the treatment is mainly carried out by the use of electricity

3.1.8

product family

group of products in which, for the purpose of evaluation, the selected property(s) is/are similar for all products within the group

Note 1 to entry: The definition of family takes into account at least similar shape, equipment, materials and conditions of end use and ensures the minimum hydraulic efficiency and minimum structural behaviour for all the products in the range.

Note 2 to entry: The minimum level of performance (hydraulic efficiency and structural behaviour) are given by the test carried out on one model of the family.

3.1.9

tertiary treatment retrofit unit

tertiary treatment unit installed within an existing package and/or site assembled domestic wastewater treatment plant in accordance with EN 12566-3, or a secondary treatment unit in accordance with EN 12566-6 or a pre-treated effluent filtration system in accordance with CEN/TR 12566-5

Note 1 to entry: Where such a retrofit unit affects the declared performance of EN 12566-3 or EN 12566-6 unit in which it is installed, then the overall unit should be tested for its conformity with the relevant standard.