



NSAI
Standards

Irish Standard
I.S. EN 12050-1:2015

Wastewater lifting plants for buildings and sites - Part 1: Lifting plants for wastewater containing faecal matter

I.S. EN 12050-1:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 12050-1:2015

Published:

2015-03-18

This document was published under the authority of the NSAI and comes into effect on:

2015-04-06

ICS number:

91.140.80

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

EN 12050-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2015

ICS 91.140.80

Supersedes EN 12050-1:2001

English Version

Wastewater lifting plants for buildings and sites - Part 1: Lifting plants for wastewater containing faecal matter

Stations de relevage d'effluents pour les bâtiments et terrains - Partie 1 : Stations de relevage pour effluents contenant des matières fécales

Abwasserhebeanlagen für die Gebäude- und Grundstücksentwässerung - Teil 1: Fäkalienhebeanlagen

This European Standard was approved by CEN on 17 January 2015.

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.

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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

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

EN 12050-1:2015 (E)

Contents	Page
Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms, definitions, symbols and abbreviations	6
3.1 Terms and definitions	6
3.2 Symbols and abbreviations	7
3.2.1 Symbols	7
3.2.2 Abbreviations	7
4 Materials and product characteristics	7
4.1 Materials	7
4.2 Collection tank	7
4.2.1 Mechanical resistance.....	7
4.2.2 Watertightness	8
4.2.3 Odourtightness	8
4.2.4 Protection against explosion.....	8
4.3 Lifting effectiveness	8
4.3.1 General.....	8
4.3.2 Pipe connections	8
4.3.3 Minimum dimensions of ventilating pipe system.....	8
4.3.4 Minimum flow rate	9
4.3.5 Minimum free ball passage of the lifting plant	9
4.3.6 Minimum size of discharge connections for non-macerating faecal lifting plants.....	9
4.3.7 Minimum size of discharge pipe system for macerating faecal lifting plants	10
4.3.8 Useful volume	10
4.4 Control equipment.....	10
4.5 Electrical equipment.....	10
4.6 Fixing devices	10
4.7 Reaction to fire.....	10
4.7.1 General.....	10
4.7.2 Plants classified as Class A1 without the need for testing.....	10
4.7.3 Plants classified according to test results.....	11
4.8 Noise level	11
4.9 Durability	11
4.9.1 General.....	11
4.9.2 Durability of watertightness and odourtightness.....	12
4.9.3 Durability of lifting effectiveness	12
4.9.4 Durability of mechanical resistance	12
4.10 Dangerous substances	12
4.11 Need for a stand-by pumping device (Twin lifting plant).....	12
5 Testing	13
5.1 Preparation	13
5.1.1 General.....	13
5.1.2 Testing for hydraulic performance	13
5.2 Tightness testing	13
5.2.1 Water pressure test	13
5.2.2 Odourtightness	13
5.2.3 Discharge pipe connection.....	13
5.2.4 Hot water test	13
5.3 Lifting effectiveness	14

5.3.1	Test arrangement	14
5.3.2	Test procedure.....	14
5.3.3	Macerating faecal lifting plants	15
6	Assessment and verification of constancy of performance - AVCP.....	15
6.1	General	15
6.2	Type testing	15
6.2.1	General	15
6.2.2	Test samples, testing and compliance criteria	16
6.2.3	Test reports	17
6.2.4	Shared other party results.....	17
6.2.5	Cascading determination of the product type results	18
6.3	Factory production control (FPC).....	19
6.3.1	General	19
6.3.2	Requirements.....	19
6.3.3	Product specific requirements.....	23
6.3.4	Initial inspection of factory and of FPC [only for products covered by AVCP system 1].....	23
6.3.5	Continuous surveillance of FPC [only for products covered by AVCP system 1]	24
6.3.6	Procedure for modifications.....	24
6.3.7	One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity	24
7	Marking, labelling and packaging.....	25
7.1	Manufacturer's declaration.....	25
7.2	Marking.....	25
8	Manufacturer's instructions for installation, operation and maintenance	25
	Annex A (informative) Recommended materials	26
	Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation	27
ZA.1	Scope and relevant characteristics	27
ZA.2	Procedure for AVCP of lifting plants for wastewater containing faecal matter	29
ZA.2.1	System(s) of AVCP	29
ZA.2.2	Declaration of performance (DoP)	32
ZA.2.2.1	General.....	32
ZA.2.2.2	Content.....	32
ZA.2.2.3	Example of DoP.....	33
ZA.3	CE marking and labelling.....	36
	Bibliography.....	39

EN 12050-1:2015 (E)

Foreword

This document (EN 12050-1:2015) 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 September 2015 and conflicting national standards shall be withdrawn at the latest by December 2016.

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 12050-1:2001.

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 the Regulation (EU) No. 305/2011.

For relationship with EU Regulation, see informative Annex ZA, which is an integral part of this document.

The series of standards EN 12050 “*Wastewater lifting plants for buildings and sites*” consists of the following parts:

- Part 1: *Lifting plants for wastewater containing faecal matter;*
- Part 2: *Lifting plants for faecal-free wastewater;*
- Part 3: *Lifting plants for limited applications;*
- Part 4: *Non-return valves for faecal-free wastewater and wastewater containing faecal matter.*

The main changes with respect to the previous edition are listed below:

- a) reaction to fire added;
- b) hot water test added;
- c) Clause 6 updated in accordance with “Implementation of the Construction Products Regulation (CPR) in harmonized standards”;
- d) Annex ZA updated in accordance with “Implementation of the Construction Products Regulation (CPR) in harmonized standards” (adoption of the Regulation EU No. 305/2011);
- e) editorially revised.

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 applies to lifting plants for wastewater containing faecal matter (referred to as “faecal lifting plants” in this standard) for drainage of locations below flood level in buildings and sites to prevent any backflow of wastewater into the building. These lifting plants may be prefabricated or delivered as prefabricated kits and assembled on site. This standard specifies general requirements, basic construction and testing principles, together with information on materials and assessment and verification of constancy of performance.

Construction and testing requirements for non-return valves used in wastewater lifting plants are given in EN 12050-4.

This European Standard does not apply for pumping installations for drain and sewer systems outside buildings for pumping of municipal wastewater according to EN 752:2008, Annex F.

NOTE Lifting plants for wastewater containing faecal matter can also be used for wastewater that does not contain faecal matter and for surface water.

This European Standard applies also to lifting plants for wastewater containing faecal matter which are not prefabricated but composed of individual components purchased from different suppliers and put together on site.

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 124, *Gully tops and manhole tops for vehicular and pedestrian areas — Design requirements, type testing, marking, quality control*

EN 12056-1:2000, *Gravity drainage systems inside buildings — Part 1: General and performance requirements*

EN 12056-4:2000, *Gravity drainage systems inside buildings — Part 4: Wastewater lifting plants - Layout and calculation*

EN 12566-1:2000/A1:2003, *Small wastewater treatment systems for up to 50 PT — Part 1: Prefabricated septic tanks*

EN 12566-4:2007, *Small wastewater treatment systems for up to 50 PT — Part 4: Septic tanks assembled in situ from prefabricated kits*

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

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

EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*

EN 13598-1, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) — Part 1: Specifications for ancillary fittings including shallow inspection chambers*

EN 60079-0, *Explosive atmosphere — Part 0: Equipment — General requirements (IEC 60079-0)*

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-