

STN	Čistiarne odpadových vôd Časť 5: Čistenie odpadových vôd v lagúnach	STN EN 12255-5 75 6410
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Wastewater treatment plants - Part 5: Lagooning processes

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/24

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English Version

Wastewater treatment plants - Part 5: Lagooning processes

Stations d'épuration - Partie 5 : Lagunage

Kläranlagen - Teil 5: Abwasserbehandlung in Teichen

This European Standard was approved by CEN on 22 January 2024.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 12255-5:2024 (E)

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European foreword

This document (EN 12255-5:2024) 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of an identical text or by endorsement, at the latest by September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

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

This document supersedes EN 12255-5:1999.

The main changes in comparison with the previous edition EN 12255-5:1999 are:

- a) comprehensive revision and additions in all sections;
- b) adaptation to the current state of the art;
- c) updating of the Normative references;
- d) editorial revision.

It is the fifth part prepared by Working Group CEN/TC 165/WG 40 relating to the general requirements and processes for treatment plants for a total number of inhabitants and population equivalents (PT) over 50. EN 12255 with the generic title *Wastewater treatment plants* consists of the following parts:

- *Part 1: General construction principles*
- *Part 2: Storm water management systems*
- *Part 3: Preliminary treatment*
- *Part 4: Primary settlement*
- *Part 5: Lagooning processes*
- *Part 6: Activated sludge process*
- *Part 7: Biological fixed-film reactors*
- *Part 8: Sludge treatment and storage*
- *Part 9: Odour control and ventilation*
- *Part 10: Safety principles*
- *Part 11: General data required*
- *Part 12: Control and automation*
- *Part 13: Chemical treatment — Treatment of wastewater by precipitation/flocculation*

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- *Part 14: Disinfection*
- *Part 15: Measurement of the oxygen transfer in clean water in aeration tanks of activated sludge plants*
- *Part 16: Physical (mechanical) filtration*

NOTE 1 Part 2 is under preparation.

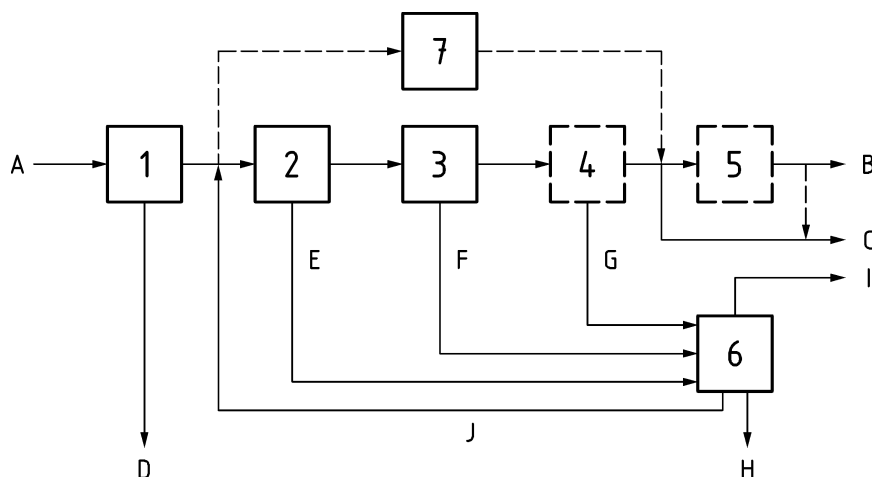
NOTE 2 For requirements on pumping installations at wastewater treatment plants see EN 752, *Drain and sewer systems outside buildings — Sewer system management* and EN 16932, *Drain and sewer systems outside buildings — Pumping systems*.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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

Introduction

Differences in wastewater treatment throughout Europe have led to a variety of systems being developed. This document gives fundamental information about the systems; this document has not attempted to specify all available systems. A generic arrangement of wastewater treatment plants is illustrated in Figure 1.



Key

- 1 preliminary treatment
- 2 primary treatment
- 3 secondary treatment
- 4 tertiary treatment
- 5 additional treatment (e.g. disinfection or removal of micropollutants)
- 6 sludge treatment
- 7 lagoons (as an alternative)
- A raw wastewater
- B effluent for re-use (e.g. irrigation)
- C discharged effluent
- D screenings and grit
- E primary sludge
- F secondary sludge
- G tertiary sludge
- H digested sludge
- I digester gas
- J returned water from dewatering

Figure 1 — Schematic diagram of wastewater treatment plants

Detailed information additional to that contained in this document may be obtained by referring to the bibliography.

The primary application is for wastewater treatment plants designed for the treatment of domestic and municipal wastewater.

EN 12255-5:2024 (E)**1 Scope**

This document is applicable to lagoons and specifies the performance requirements for the installation of lagooning processes.

This document applies to wastewater lagooning processes treating municipal wastewater from combined or separate sewage systems and when used as a tertiary treatment.

NOTE Lagoon systems are especially suitable for the treatment of wastewater where large flow variations occur (e.g. arising from surface water connections in the collection system). They are also especially suitable where large load variations occur (e.g. arising from fluctuating seasonal or industrial flows).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12255-1, *Wastewater treatment plants — Part 1: General construction principles*

EN 12255-10, *Wastewater treatment plants — Part 10: Safety principles*

EN 12255-11, *Wastewater treatment plants — Part 11: General data required*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN