



# SLOVENSKI STANDARD SIST EN ISO 24252:2023

01-januar-2023

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## Bioplin - Negospodinski sistemi brez uplinjanja (ISO 24252:2021)

Biogas systems - Non-household and non-gasification (ISO 24252:2021)

Biogasanlagen - Nicht häusliche und nicht auf Vergasung beruhende Anlagen (ISO 24252:2021)

Installations de méthanisation - Non domestique et sans gazéification (ISO 24252:2021)

Ta slovenski standard je istoveten z: **EN ISO 24252:2022**

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Biological sources and  
alternative sources of energy

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## Biogas systems - Non-household and non-gasification (ISO 24252:2021)

Installations de méthanisation - Non domestique et sans gazéification (ISO 24252:2021)

Biogasanlagen - Nicht häusliche und nicht auf Vergasung beruhende Anlagen (ISO 24252:2021)

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Contents	Page
European foreword.....	3

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## European foreword

The text of ISO 24252:2021 has been prepared by Technical Committee ISO/TC 255 "Biogas" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 24252:2022 by Technical Committee CEN/TC 408 "Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid" 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of an identical text or by endorsement, at the latest by March 2023, and conflicting national standards shall be withdrawn at the latest by March 2023.

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 has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association.

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.

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### Endorsement notice

The text of ISO 24252:2021 has been approved by CEN as EN ISO 24252:2022 without any modification.



INTERNATIONAL  
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**Biogas systems — Non-household and  
non-gasification**

*Installations de méthanisation — Non domestique et sans  
gazéification*

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# Contents

Page

<b>Foreword</b> .....	<b>vi</b>
<b>Introduction</b> .....	<b>vii</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Abbreviated terms</b> .....	<b>2</b>
<b>5 Guide for reading this document</b> .....	<b>2</b>
<b>6 Safety principles</b> .....	<b>3</b>
<b>7 Safety studies</b> .....	<b>4</b>
7.1 General.....	4
7.2 Risk assessment and evaluation.....	4
7.2.1 Risk assessment construction, start-up and maintenance.....	4
7.2.2 HAZOP/HAZID.....	4
7.3 Explosion protection document (EPD).....	5
7.4 Environmental requirements.....	5
<b>8 General design requirements</b> .....	<b>6</b>
8.1 Materials and structures.....	6
8.1.1 General.....	6
8.1.2 Materials.....	6
8.1.3 Structures, weight and stability calculations.....	7
8.1.4 Use of used materials and equipment.....	7
8.2 Process system facilities.....	7
8.2.1 General.....	7
8.2.2 Gas-side part of the system.....	7
8.2.3 Cooling systems.....	8
8.3 Pressure protection.....	8
8.4 Safety distances.....	9
8.5 Electronic monitoring of the process.....	11
8.5.1 General.....	11
8.5.2 Monitoring of the process.....	11
8.6 Buildings and building services.....	12
8.6.1 General.....	12
8.6.2 Gas detection and electronic monitoring inside buildings.....	12
8.6.3 Ventilation.....	13
8.7 Noise protection.....	14
8.8 Odour prevention.....	14
8.9 Soil and surface water protection.....	14
8.10 Condensate and particle removal.....	15
8.11 Storage of hazardous substances.....	15
8.11.1 Storage hazardous substances in general.....	15
8.12 Facilities at power failure.....	15
8.13 Air pollution control devices for removal of superfluous biogas (flares, thermal oxidizers gas, etc.).....	16
8.14 Unwanted venting and discharges of hazardous gases.....	17
8.15 Flame protection and mitigation.....	17
8.16 Fire-fighting and extinguishing.....	17
8.17 Earthing and lightning protection.....	18
8.18 Emergency routing.....	18
8.19 Anti-collision.....	18
8.20 Access control.....	18
8.21 Electrical, instrumentation and process control.....	18

## ISO 24252:2021(E)

<b>9</b>	<b>Biogas pipelines for untreated biogas</b>	<b>19</b>
9.1	General	19
9.2	Materials	19
9.3	Civil design	20
9.4	Removal of moisture and contaminants	20
<b>10</b>	<b>Technical specifications and requirements biogas production</b>	<b>20</b>
10.1	General	20
10.2	Biomass supply and storage	21
10.3	Desulphurization	21
10.4	Biogas buffer	21
10.5	Storage, removal and stabilizing digestate	21
10.6	Specific attention points and requirements landfill sites	22
10.7	Specific requirements additional to <a href="#">Clause 8</a>	22
10.7.1	Materials and structures	22
10.7.2	Equipment, pipes, valves and other process system facilities	23
10.7.3	Pressure protection	23
10.7.4	Foam	23
10.7.5	Safety distances	24
10.7.6	Electronic monitoring of the process	24
10.7.7	Buildings and building services	24
10.7.8	Noise protection	24
10.7.9	Soil and surface water protection	24
10.7.10	Condensate and particle removal	25
10.7.11	Storage of hazardous substances	25
10.7.12	Facilities at power failure	25
10.7.13	Air pollution control devices for removal of superfluous biogas (flares, thermal oxidizers gas etc.)	25
10.7.14	Venting	25
10.7.15	Flame protection and mitigation	25
10.7.16	Firefighting and extinguishing	25
10.7.17	Earthing and lightning protection	26
10.7.18	Emergency routing	26
10.7.19	Anti-collision	26
10.7.20	Electrical, instrumentation & process control	26
<b>11</b>	<b>Technical specifications and requirements biogas treatment, CHP, upgrading and liquefaction</b>	<b>26</b>
11.1	General	26
11.2	Desulphurization	26
11.3	Biogas upgrading and liquefaction	27
11.4	Process system facilities	27
11.4.1	General	27
11.4.2	Gas-side part of the system	27
11.4.3	Cooling systems	27
11.5	Specific requirements additional to <a href="#">Clause 8</a>	28
11.5.1	Materials and structures	28
11.5.2	Pressure protection	28
11.5.3	Safety distances	28
11.5.4	Electronic monitoring of the process	28
11.5.5	Buildings and building services	28
11.5.6	Noise protection	28
11.5.7	Soil protection	28
11.5.8	Condensate and particle removal	29
11.5.9	Storage of hazardous substances	29
11.5.10	Facilities at power failure	30

11.5.11	.....	30
	Air pollution control devices for removal of superfluous biogas (flares, thermal oxidizers gas etc.) .....	30
11.5.12	.....	30
	Venting.....	30
11.5.13	.....	30
	Flame protection and mitigation.....	30
11.5.14	.....	30
	Fire-fighting and extinguishing.....	30
11.5.15	.....	30
	Earthing and lightning protection .....	30
11.5.16	.....	30
	Emergency routing.....	30
11.5.17	.....	30
	Anti-collision.....	30
11.5.18	.....	30
	Electrical, instrumentation & process control.....	30
<b>12</b>	<b>Construction and testing</b> .....	<b>31</b>
12.1	General.....	31
12.2	Construction.....	31
	12.2.1 Safety during construction.....	31
	12.2.2 Prefabrication.....	31
	12.2.3 Construction on site.....	31
12.3	Testing and commissioning.....	31
12.4	Start-up.....	32
12.5	Requirements for commissioning and start-up of specific systems.....	32
	12.5.1 Biogas production systems.....	32
	12.5.2 Biogas treatment, CHP, upgrading and liquefaction systems.....	32
<b>13</b>	<b>Operations and maintenance</b> .....	<b>32</b>
13.1	General.....	32
13.2	Supplier of the biogas system.....	33
13.3	System owner.....	33
13.4	Emergency plan.....	34
13.5	Service technician.....	35
13.6	Requirements for commissioning and start-up of specific systems.....	35
	13.6.1 Biogas production systems.....	35
	13.6.2 Biogas treatment, CHP, upgrading and liquefaction systems.....	35
13.7	Requirements for shut-down of biogas system.....	36
	<b>Annex A (informative) Explanation to the scope</b> .....	<b>37</b>
	<b>Annex B (informative) Biogas characteristics, processes and classifications</b> .....	<b>40</b>
	<b>Annex C (informative) Guidelines to prevent risks from gases and explosive atmospheres in buildings</b> .....	<b>48</b>
	<b>Bibliography</b> .....	<b>50</b>

## ISO 24252:2021(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 255, *Biogas*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Introduction

## 0.1 General

The technical committee on biogas (ISO/TC 255) was established in 2011 in order to:

- provide liberalization and facilitation for international trade of biogas systems;
- contribute to international co-operation on technical regulations, standards and assessment procedures;
- curb discriminatory technical requirements as the main form of trade protectionism; and
- reduce and eliminate the technical barriers for international trade of biogas systems.

This document about biogas systems is applicable for biogas production by anaerobic digestion, biogas conditioning, biogas upgrading and biogas utilization. The main purpose of this document is the safe operation of biogas systems without damaging the environment.

The availability of a standard for biogas systems is necessary in order to:

- ensure that biogas systems are built, operated and maintained safely;
- facilitate development of regional and national regulations and incentive programs to regulate methane emissions;
- moderate communication between the different biogas parties through meaningful discussions;
- contribute to reinforcement of biogas flares' safety and business competitiveness with recognized terms and definitions that clarify actors' expectations related to procurement, contracts and services as well as reporting on biogas related action plans, road maps, etc.; and
- contribute to the use of standards by facilitating their development and furthering users' understanding and application of standards.

ISO/TC 255 intends to promote international technology exchange and to accelerate international application of biogas (products) and equipment by developing and maintaining globally harmonized standards. For the avoidance of doubt, it is noted that national legislation may apply which may deviate from or may be additional to the contents of this document.

## 0.2 Description of the applied technologies

Biogas systems are amongst others applied at industrial plants like food and beverage industries, waste water treatment plants, waste plants, landfill sites, and small-scale plants next to agricultural companies.

Biogas is produced by anaerobic digestion of organic matter.

Biogas mainly comprises methane, carbon dioxide, nitrogen, oxygen, hydrogen sulphide and/or water and furthermore could contain hydrogen, carbon monoxide, heavier hydrocarbons (including aromatic hydrocarbons), siloxanes and/or other substances.

Biogas can be treated in order to eliminate hydrogen sulphide, siloxanes, water and other substances and be upgraded to a gas with higher methane content. Sometimes the biogas is pressurized.

A description of the most common technologies used in biogas systems is included in [Annex B](#).

Guidelines to prevent risks from gasses and explosive atmospheres in buildings are included in [Annex C](#).



# Biogas systems — Non-household and non-gasification

## 1 Scope

This document applies for systems for biogas production by anaerobic digestion, biogas conditioning, biogas upgrading and biogas utilization from a safety, environmental, performance and functionality perspective, during the design, manufacturing, installation, construction, testing, commissioning, acceptance, operation, regular inspection and maintenance phases.

The following topics are excluded from this document:

- boilers, burners, furnaces and lighting in case these are not specifically applied for locally produced biogas;
- gas fuelled engines for vehicles and ships;
- the public gas grid;
- specifications to determine biomethane quality;
- transportation of compressed or liquefied biogas;
- transportation of biomass or digestate;
- assessment and determination whether biomass is sourced sustainably or not.

An informative explanation of the scope is included in [Annex A](#).

## 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.

ISO 20675, *Biogas — Biogas production, conditioning, upgrading and utilization — Terms, definitions and classification scheme*

ISO 22580, *Flares for combustion of biogas*

IEC 60079-10-1, *Explosive atmospheres — Part 10-1: Classification of areas — Explosive gas atmospheres*

IEC 62305-2, *Protection against lightning — Part 2: Risk management*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20675 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>