SLOVENSKI STANDARD
SIST EN ISO 22580:2022

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Naprave za sežig bioplina (ISO 22580:2020)

Flares for combustion of biogas (ISO 22580:2020)

Fackeln für Biogasanlagen (ISO 22580:2020)

Torchères pour la combustion du biogaz (ISO 22580:2020)

Ta slovenski standard je istoveten z: EN ISO 22580:2021

ICS:

27.190	Biološki viri in drugi alternativni viri energije	Biological sources and alternative sources of energy

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Flares for combustion of biogas (ISO 22580:2020)

Torchères pour la combustion du biogaz (ISO 22580:2020)

Fackeln für Biogasanlagen (ISO 22580:2020)

This European Standard was approved by CEN on 29 November 2021.

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

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European foreword

The text of ISO 22580:2020 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 22580:2021 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of an identical text or by endorsement, at the latest by June 2022, and conflicting national standards shall be withdrawn at the latest by June 2022.

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.

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Endorsement notice

The text of ISO 22580:2020 has been approved by CEN as EN ISO 22580:2021 without any modification.

INTERNATIONAL STANDARD

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Flares for combustion of biogas

Torchères pour les installations de biogaz

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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).

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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.

Introduction

Flares for combustion of biogas are amongst others applied at industrial plants like food and beverage industries, waste water treatment plants, waste plants, landfill sites, small scale plants next to agricultural companies and small-scale household systems.

Biogas is normally a by-product produced by amongst others wastewater treatment plants, food & beverage plants, waste plants, landfill sites, small scale plants next to agricultural companies and small-scale household systems. The main ingredients are approximately 50 ~ 65 volume % of methane and approximately 30 ~ 50 volume % of carbon dioxide and also contains many other ingredients, such as water vapor, hydrogen sulphide, ammonia, nitrogen, oxygen, siloxanes, and hydrocarbons. Methane is one of the main initiators of the greenhouse effect. Biogas will not only pollute the environment, but also causes serious potential safety hazards. Therefore, centralized processing of anaerobic methane is needed. In case the biogas output cannot be used to generate energy or upgraded to biomethane, because of economic reasons or in case the energy production installation does not work properly, the biogas or biomethane is collected and combusted in a flare. The methane percentage of biogas or biomethane to be combusted in a biogas flare can vary from 5 volume % to (almost) 100 volume %. Biogas flares have the function of improving workplace safety, increasing the social identification, reducing the odour pollution and reducing the greenhouse effect.

This document about flares for biogas plants is applicable for combustion of biogas as defined in ISO 20675. The main purposes of this document are to ensure safe flares, to prevent health hazards because of dangerous gases and explosive atmospheres and to reduce the emission of the strong greenhouse gas methane.

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

— ensure that flares 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.;

— contribute to the use of standards by facilitating their development and furthering users' understanding and application of standards.