



SLOVENSKI STANDARD
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Plinske naprave za gostinstvo - 2-1. del: Posebne zahteve - Odprti gorilniki in vok gorilniki

Gas heated catering equipment - Part 2-1: Specific requirements - Open burners and wok burners

Großküchengeräte für gasförmige Brennstoffe - Teil 2-1: Spezifische Anforderungen - Offene Brenner und Wok-Brenner

Appareils de cuisson professionnels utilisant les combustibles gazeux - Partie 2-1 : Exigences particulières - Brûleurs découverts et woks

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Ta slovenski standard je istoveten z: EN 203-2-1:2021

ICS:

97.040.20	Štedilniki, delovni pulti, pečice in podobni aparati	Cooking ranges, working tables, ovens and similar appliances
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SIST EN 203-2-1:2022

en,fr,de

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EUROPEAN STANDARD

EN 203-2-1

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Gas heated catering equipment - Part 2-1: Specific requirements - Open burners and wok burners

Appareils de cuisson professionnels utilisant les combustibles gazeux - Partie 2-1 : Exigences particulières - Brûleurs découverts et woks

Großküchengeräte für gasförmige Brennstoffe - Teil 2-1: Spezifische Anforderungen - Offene Brenner und Wok-Brenner

This European Standard was approved by CEN on 3 October 2021.

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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.

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

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Contents		Page
European foreword.....		3
1	Scope.....	5
2	Normative references.....	5
3	Terms and definitions.....	5
4	Classification.....	6
5	Constructional requirements.....	6
6	Performance requirements.....	6
7	Test conditions.....	7
8	Marking and instructions.....	16
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/426 aimed to be covered.....		19
Bibliography.....		22

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[SIST EN 203-2-1:2022](https://standards.iteh.ai/catalog/standards/sist/2d323beb-8903-41f8-bc32-cebd5e535993/sist-en-203-2-1-2022)
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European foreword

This document (EN 203-2-1:2021) has been prepared by Technical Committee CEN/TC 106 “Large kitchen appliances using gaseous fuels”, 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.

This document supersedes EN 203-2-1:2014.

The main changes compared to the previous edition are the following:

- alignment with EN 203-1:2021;
- clarification of the scope according to EN 203-1:2021;
- modification of the definition of wok burner in 3.2.2.103;
- clarification of supply of combustion air and evacuation of combustion products in 5.1.6;
- update the requirement of rational use of energy in 6.9;
- modification of the text in 7.1.5.2 Conditions of supply and adjustment of the appliances;
- addition of a general subclause on 7.4.2 Limit temperatures;
- clarification of influence of wind and draughts in 7.4.3.3;
- clarification on the pan to be used for open burners in 7.6.1.101;
- modification of the test 7.6.101 for abnormal use;
- addition of a pan of 60 cm internal diameter in Table 101, Table 102 and Table 103;
- deletion of the adjustment of the sequential function control (moved to EN 203-1:2021);
- clarification of the test for rational use of energy (7.10) and consistency with EN 203-1:2021 for ambient temperature during testing;
- updating of Clause 8 on marking and instructions.

This document is used in conjunction with EN 203-1:2021 “Gas heated catering equipment – Part 1: General safety requirements”. This document specifies particular requirements for open and wok burners.

Enclosed and solid tops are covered by EN 203-2-9:2005.

Where a particular subclause of EN 203-1:2021 is not mentioned in this part 2, the subclause of EN 203-1:2021 applies as far as is reasonable. Where this document states "addition", "modification" or "replacement", the relevant text of EN 203-1:2021 is adapted accordingly.

Subclauses, Figures and Tables which are additional to those in EN 203-1:2021 are numbered starting with 101.

EN 203-2-1:2021 (E)

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

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

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, Turkey and the United Kingdom.

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1 Scope

The scope of EN 203-1:2021 applies, with the following modifications:

— replace the 2nd paragraph with the following:

This document applies to open burners, non-enclosed covered burners and wok burners appliances.

— replace the 3rd paragraph with the following:

This document does not cover appliances of type B.

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 203-1:2021, *Gas heated catering equipment - Part 1: General safety requirements*

EN 631-1:1993, *Materials and articles in contact with foodstuffs - Catering containers - Part 1: Dimensions of containers*

EN 631-2:1999, *Materials and articles in contact with foodstuffs - Catering containers - Part 2: Dimensions of accessories and supports*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 203-1:2021 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 <https://www.electropedia.org/>

Clause 3 of EN 203-1:2021 applies with the following additions:

3.101 Terminology referring to type of appliances

3.101.1

open burner

appliance with hot plate burner for which the pan is heated directly by the flame and the products of combustion are evacuated directly to atmosphere without following a specific way

3.101.2

non-enclosed covered burner

appliance with burner, designed so that partial visibility of the flame is possible in normal operation, and for which the pan or the foodstuffs being heated is screened from direct flame contact by the interposition of a surface on which they rest and where all products of combustion are evacuated directly to the atmosphere (e.g. around the periphery of the plate)

Note 1 to entry: A non-enclosed covered burner may be:

- permanent, i.e. designed to be used only with the plate in position;
- dual purpose, i.e. designed so that it may also be used as an open burner after removal of the removable plate.

EN 203-2-1:2021 (E)**3.101.3****wok burner**

appliance with open burner designed to be used with round-bottomed cooking vessels (wok)

4 Classification

Clause 4 of EN 203-1:2021 applies.

5 Constructional requirements**5.1 General****5.1.6 Supply of combustion air and evacuation of combustion products****5.1.6.1 General**

Shall be according to EN 203-1:2021, 5.1.6.1 with the following addition:

Obstruction of the combustion air inlets and of the evacuation of the products of combustion by the pan used shall be made impossible.

5.3 Particular requirements**5.3.1 Food spillage**

Shall be according to EN 203-1:2021, 5.3.1 with the following addition:

After the test described in 7.8.101, the burner shall be able to be re-ignited.

Possible food spillage shall not be able to enter in the burner or block the burner air inlet. Yellow tips and unstable flames are allowed while the spilled water is still present but shall not be permanent.

5.3.2 Stability and mechanical safety

Shall be according to EN 203-1:2021, 5.3.2 with the following addition:

The griddles and supports shall ensure the stability of pans which are intended to be used as stated in the user instructions, in accordance with 7.8.1.

There shall be an adequate number of points of support for vessels to rest level in a stable fashion on the supports of each of the uncovered burners.

5.3.3 Safety from fire risk

Shall be according to EN 203-1:2021, 5.3.3 with the following addition.

Compliance is checked by the tests of 7.4.2 and 7.8.101.

6 Performance requirements**6.7 Combustion**

Shall be according to EN 203-1:2021, 6.7 with the following addition.

6.7.101 Abnormal use

The CO concentrations in the dry, air-free products of combustion shall not exceed 0,20 % when the appliance is supplied with the reference gases under the conditions of 7.6.101.

6.9 Rational use of energy

Shall be according to EN 203-1:2021, 6.9 with the following addition:

6.9.101 Open burners

Under the test conditions of 7.10.101, the RUI (rational use of energy index) shall not be less than 50 %. The measured value shall be reported in the technical documentation.

6.9.102 Wok burners and non-enclosed covered burners

Under the test conditions of 7.10.102, the RUI shall be less of 0,8 kWh/kg. The measured value shall be reported in the technical documentation.

7 Test conditions

7.1 General

7.1.5 Practical method of test

7.1.5.2 Conditions of supply and adjustment of the appliances

Shall be according to EN 203-1:2021, 7.1.5.2 with the following addition:

For appliances fitted with griddles or pan-supports suitable for more than one position, the tests for combustion (see 7.6) and rational use of energy (see 7.10) are carried out in every possible position.

For dual purpose non-enclosed covered burners, the tests for combustion (see 7.6) and rational use of energy (see 7.10) are carried out with and without the plate.

7.4 Operational safety

7.4.2 Limit temperatures

7.4.2.1 General

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Shall be according to EN 203-1:2021, 7.4.2.1 with the following addition:

Each burner is covered with pan described in Table 101 and Figure 101. A distance of at least 10 mm shall be kept between the side surface of each pan and all other pans and between the side surface of each pan and any test panel. If this arrangement is not possible with the pans mentioned above for the heat input of the burners, the test shall be done with the pan having the largest diameter that can be accommodated. In this case, and if necessary, the input of the burner is adjusted, with the corresponding control knob, in order not to have flames touching the sides of the pans.

During the test, the pan is covered by its lid and hot water is added to ensure a sufficient water level in order to maintain the boiling.

When a burner can operate covered or uncovered, the test is carried out using the arrangement as uncovered burner.

7.4.3 Ignition - cross-lighting - flame stability

7.4.3.1 General

Shall be according to EN 203-1:2021, 7.4.3.1 with the following addition:

The tests are carried out with and without pans. For open burners, the pans are those described in Table 101 and Figure 101. For wok burners, the pan indicated in the instructions for use shall be used.

EN 203-2-1:2021 (E)

In the case of a possible covering of several burners by the same pan, the tests are carried out with the largest pan recommended in the instructions for use.

Table 101 — Pans to be used according to the heat input of the burner

Internal diameter cm	Input on net calorific value kW	Mass of water to be introduced kg
22	< 1,79	3,7
24	2,13	4,9
26	2,50	6,1
28	2,91	7,8
30	3,33	9,4
32	3,80	11,8
34	4,28	13,6
38	5,35	18,7
42	6,53	24,9
46	7,84	32,4
50	9,26	41,2
60	≥ 12	50
If the heat input value is not equal to ones listed in this Table but included in an interval, the pan with greater diameter shall be used for the tests, if not differently indicated in the standard.		

NOTE In case of a greater burner diameter or greater plate hole than pan diameter corresponding to its heat input, the pan having the smallest diameter that can cover full burner and can be accommodated is used.

7.4.3.3 Influence of wind and draughts

Shall be according to EN 203-1:2021, 7.4.3.3 with the following addition:

When a reduced heat input exists, the test shall be repeated at the minimum heat input.

7.6 Combustion

7.6.1 General

Shall be according to EN 203-1:2021, 7.6.1 with the following additions:

7.6.1.101 Open burners

Each burner supplied and adjusted under the conditions of 7.6.2.1 of EN 203-1:2021, is tested in sequence, covered by the pan, as defined in Table 101 and Table 102 and Figure 101. Other burners are switched off. The products of combustion shall be sampled using the corresponding ring defined in Table 103 and Figure 102.

If in this position the flame comes in contact with the ring, the height of the ring is adjusted to avoid disturbance of the flame, and to conserve the level of sampling of CO₂ similar to that defined in EN 203-1:2021.

The burners next to the burner under test shall be covered by pans with the biggest possible diameter.

Distance between the pans and between the pans and the rings shall be at least 10 mm.

If the instructions specify a smaller pan support for use with smaller diameter pans, a combustion test is carried out with a pan as determined in Table 102, directly greater than the pan diameter stated by the instructions.

If the user instructions define different pan supports, the tests are repeated with each pan support.

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