

Gas heated catering equipment

Part 3: Materials and parts in contact with food and other sanitary aspects

ICS 97.040.20

National foreword

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The UK participation in its preparation was entrusted to Technical Committee GSE/19, Catering equipment (gas).

A list of organizations represented on this committee can be obtained on request to its secretary.

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Gas heated catering equipment - Part 3: Materials and parts in contact with food and other sanitary aspects

Appareils de cuisine professionnelle utilisant les combustibles gazeux - Partie 3: Matériaux et parties en contact avec les denrées alimentaires et autres aspects sanitaires

Großküchengeräte für gasförmige Brennstoff - Teil 3: Materialien und Bauteile in Kontakt mit Lebensmitteln und sonstige hygienische Aspekte

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Foreword

This document (EN 203-3:2009) 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of an identical text or by endorsement, at the latest by December 2009, and conflicting national standards shall be withdrawn at the latest by June 2010.

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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 EC Directive(s).

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

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1 Scope

This part 3 of EN 203 applies to all appliances covered by EN 203-1:2005 and related part 2.

It has been written in order to specify the requirements concerning the hygiene aspects of large kitchen appliances using gaseous fuels, so as to eliminate or minimise the risk of contagion, infection, illness or injury arising from the consumption of contaminated food.

2 Normative references

The following referenced documents are indispensable for the application 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.

N/A

3 Definitions

**3.1
food zone**
surface of the appliance in direct contact with food and/or from which food and/or other products may emanate, drip, diffuse and/or splash back onto the food

**3.2
splash zone**
surface on which food may splash or flow along under intended conditions of use and does not return onto the food or cooking chamber

**3.3
non food zone**
any area other than those specified above

**3.4
corrosion resistant material**
material resistant to normally occurring action of chemical or electrochemical nature; it includes food processing, cleaning and disinfection according to the instructions for use

**3.5
non absorbent material**
material which, under intended conditions of use, does not retain substances with which it comes into contact so that it has no adverse influence on food

**3.6
non toxic material**
material which does not produce or release substances injurious to health under intended conditions of use

4 Materials of construction

The type and surface conditions of materials likely to come into contact with food shall be such that they do not contaminate or spoil the food.

In addition to the general requirements under intended conditions of use, the materials used for food zone and splash zone shall be:

- corrosion resistant;
- non toxic;
- non absorbent (except when technically or functionally unavoidable).

Also the materials shall:

- not transfer undesirable odours, colours or taints to the food;
- not contaminate the food or have any adverse influence on the food.

5 Constructional requirements

5.1 Food zone

5.1.1 Angles and corners

Internal angles and corners of the food zone shall be constructed in such a way as to be easily and properly cleaned.

The junction between the lower parts and the vertical sides shall be constructed with a radius more than or equal to 3,5 mm (see Figure 1) or with two angles equal to $135^\circ \pm 2^\circ$.

Dimensions in millimetres

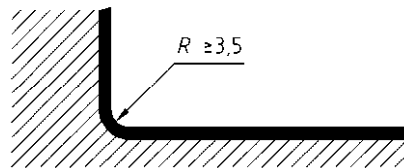


Figure 1 - Internal angles and corners

An internal corner formed by the intersection of these planes shall have either two intersections with a minimum radius of 3,5 mm or with an angle of more than or equal to 135° and the third intersection shall have a minimum radius of 7 mm. The dimension between the two bends shall be equal to or greater than 7 mm (see Figure 2).

Dimensions in millimetres

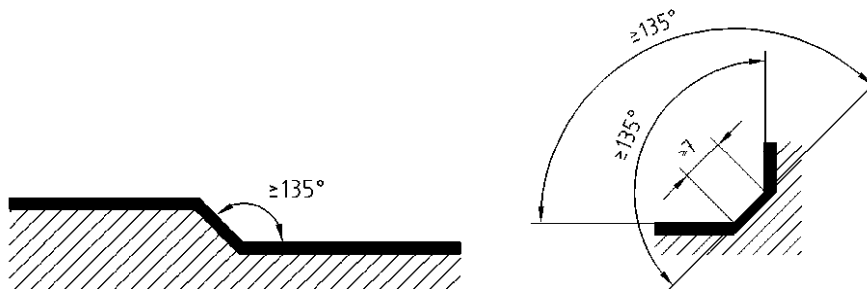


Figure 2 – Intersection of two planes

The junction between the upper parts and vertical sides may be constructed with an angle of 90° without any particular requirement for the radius.

5.1.2 Connection of internal surfaces

Assemblies shall be designed in such a way as to reduce projections, edges and recesses to a minimum. They shall preferably be made by welding or continuous bonding. Screws, screw-heads and rivets shall not be used except where technically unavoidable.

If screws are used, the screw thread shall not project by more than one and a half threads, if the screw-heads are apparent they shall comply with Figure 7.

5.1.3 Surface assembly

Assembled surfaces are considered joined:

- either by continuous weld (see Figure 3); or

Food Zone



Figure 3 – Assembly by continuous weld

- by continuous bonding and flush joint (see Figure 4).

Food Zone

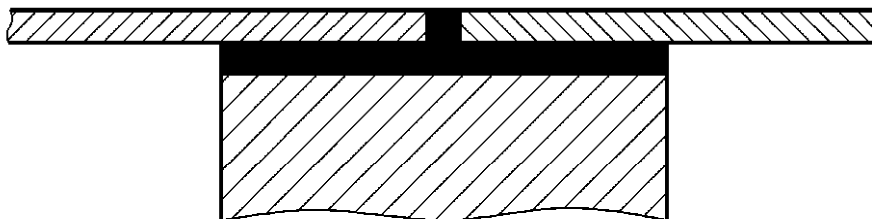


Figure 4 – Assembly by continuous bonding and flush joint

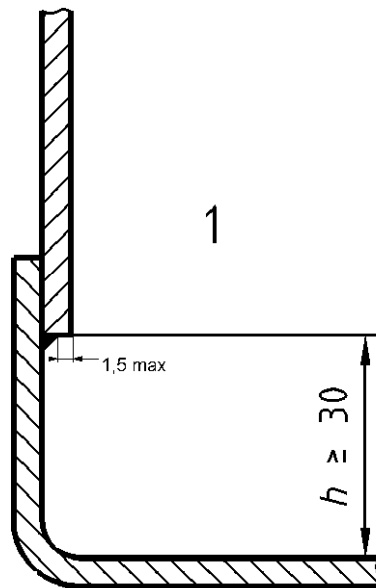
5.1.4 Surface overlapping

Assemblies may be made by the overlapping of sheet, in which case the assembled surfaces shall be joined to each other:

- either by a continuous weld:

the upper surfaces shall overlap the lower surfaces in direction of liquid flow. The end of the overlapping and the corner shall be separated with a distance h more than or equal to 30 mm. The overlapping shall not provide a horizontal projection of a depth greater than 1,5 mm (see Figure 5).

Dimensions in millimetres



Key

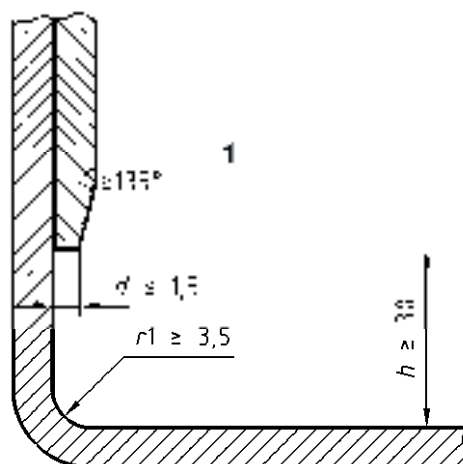
1 Food Area

Figure 5 - Assembly by continuous weld

· or by non welded assembly:

when the overall thickness of the overlapping part joint is more than 1,5 mm, the upper part shall be chamfered in order to reduce the thickness d to less than or equal to 1,5 mm (see Figure 6).

Dimensions in millimetres



Key

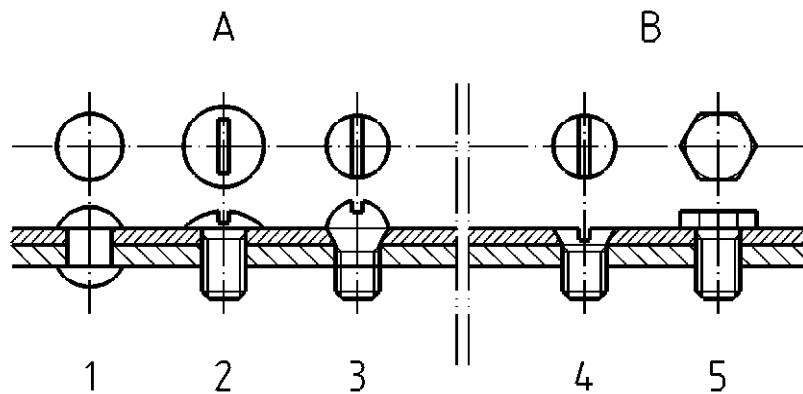
1 Food Area

Figure 6 – Non welded assembly

5.2 Splash zone

The splash zone shall be designed so as to avoid the accumulation of dirt in recesses.

The allowed screws are given in Figure 7.



Key

- 1 Round head rivet
- 2 Slotted oval head screw
- 3 Slotted raised countersunk screw
- 4 Slotted countersunk screw
- 5 Hexagon head bolt
- A Allowed screw
- B Tolerated screw

Figure 7 – Allowed screws

5.3 Non food zone

5.3.1 Wall mounted or floor standing appliances

5.3.1.1 Non mobile appliances

Appliances shall be:

- either put on the ground with interposition of a continuous and tight seal, the instructions for installation specifying the jointing procedure; or
- provide a height of at least 150 mm between the horizontal base of the appliance and the ground. This distance may be reduced to 100 mm if the depth of the space to be cleaned is less than 650 mm.

Those requirements are not applicable to appliances of which the mass is less than 18 kg or for appliances between 18 kg and 36 kg with handling means.

If the appliance is fitted with feet, those shall be designed so as not to provide a dirt accumulation zone. Threads of feet screws or jacks shall not be exposed. The concentric clearance between the smooth part of the screw and the sheath shall be less than or equal to 1 mm. A distance greater than or equal to 20 mm, when the screw jack is closed, shall be obtained between the lower part of the sheath and the ground. Where the supporting part of the adjustment screw is of a diameter greater than those of its cylinder part, the height of the supporting part shall be less than or equal to 7 mm and the radius of the junction between the supporting part and the cylinder part shall be greater than 3,5 mm or have 2 junction angles of at least 135°. If

the feet surface is greater than 1 dm², the feet surface shall be considered as put on the ground (with interposition of a seal).

5.3.1.2 Mobile appliances

Systems allowing mobility will be easily cleanable.

If the appliance is fitted with castors, the design shall be such as to facilitate cleaning. In particular, the distance between the hoop and the screed shall be at least 6 mm.

The finish of the screw shall be flush. The hoop shall be smooth. The braking system shall be designed so as to avoid crevices. The carenage surface shall be reduced to the minimum.

5.3.2 Appliances put on a table

If the appliance is fitted with feet requirements applicable to feet described in 5.3.1.1 shall be met.

Furthermore the minimum height of the feet H is function of the distance of accessibility P given in Table 1:

Table 1 – Minimum height of feet

P mm	H mm
≤ 650	≥ 75
> 650	≥ 150

Those requirements are not applicable to appliances of which the mass is less than 18 kg or for appliances between 18 kg and 36 kg with handling means.

5.3.3 Control panel

The control panel shall be located in the non-food zone and be accessible for cleaning as required.

The distance *L* between two control panel components shall be greater than or equal to:

- 20 mm;
- 12,5 mm if their height *h* is less than or equal to 8 mm.

If the above requirements cannot be complied with, controls shall be protected by cap.

Those configurations are described in Figure 8.

The above requirements are not applicable if the control panel components are easily removable and can be cleaned after removing.

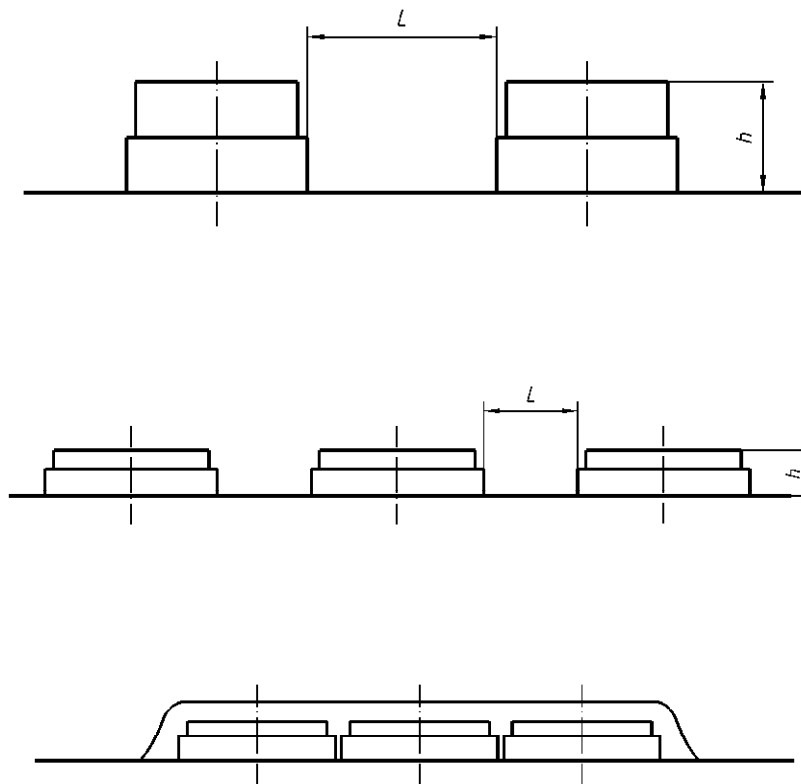


Figure 8 – Distances and protection cap for control panel components

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 90/396/EEC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 90/396/EEC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA 1 — Correspondence between this European Standard and Directive 90/396/EEC

Relevant Clauses	Essential requirement	Subject
4	3.7	Foodstuffs and water used for sanitary purposes
5.1	1.1	Operating safety

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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