

SLOVENSKI STANDARD
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Gospodinjiski in podobni električni aparati - Varnost - 2-9. del: Posebne zahteve za žare, opekače in podobne prenosne aparate za pripravo hrane

Household and similar electrical appliances - Safety -- Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-9: Besondere Anforderungen für Grillgeräte, Brotröster und ähnliche ortsveränderliche Kochgeräte

Appareils électrodomestiques et analogues - Sécurité -- Partie 2-9: Règles particulières pour les grils, grille-pain et appareils de cuisson mobiles analogues

Ta slovenski standard je istoveten z: EN 60335-2-9:2003/FprAD:2010

ICS:

13.120	Varnost na domu	Domestic safety
97.040.20	Štedilniki, delovni pultji, pečice in podobni aparati	Cooking ranges, working tables, ovens and similar appliances

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**Household and similar electrical appliances - Safety -
Part 2-9: Particular requirements for grills, toasters
and similar portable cooking appliances**

Appareils électrodomestiques et
analogues - Sécurité -
Partie 2-9: Règles particulières pour les
grils, grille-pain et appareils de cuisson
mobiles analogues

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke -
Teil 2-9: Besondere Anforderungen für
Grillgeräte, Brotröster und ähnliche
ortsveränderliche Kochgeräte

This draft amendment FprAD, if approved, will modify the European Standard EN 60335-2-9:2003; it is submitted to CENELEC members for Unique Acceptance Procedure.
Deadline for CENELEC: 2010-06-11.

It has been drawn up by CLC/TC 61.

If this draft becomes an amendment, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

This draft amendment was established by CENELEC in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

1 Foreword

2 A proposal to amend EN 60335-2-9:2003, document CLC/TC 61(SEC)1685, was discussed during the
3 Brussels meeting of CENELEC TC 61 in June 2009, when it was decided to submit a draft for an
4 amendment to the Unique Acceptance Procedure.

5 The draft was circulated in January 2010 and was approved by CENELEC as amendment AX to
6 EN 60335-2-9:2003 on 200X-.

7 The following dates are proposed:

- latest date by which the existence of the amendment
has to be announced at national level (doa) dor + 6 months
- latest date by which the amendment has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting
with the amendment have to be withdrawn (dow) dor + xx months *)

8 **) The dow has been left open. CLC/TC 61 wishes that BT takes a decision on it.*

9 This amendment supplements or modifies the corresponding clauses of EN 60335-2-9:2003 and its
10 amendments A1:2004, A2:2006 & A12:2007.

11 There are no special national conditions causing a deviation from this amendment.

12 There are no national deviations from this amendment.

13 *CLC/TC 61 note:*

14 *A consolidated version containing IEC 60335-2-9:2002 as well as the common modifications brought*
15 *by EN 60335-2-9:2003 and its (future) amendments is presented in the informative Annex ZX.*

16 *This annex has been prepared by WG 4 for a better understanding of the proposed amendment and*
17 *shall not be voted upon.*

18

19 1 Scope

20 *Replace the 3rd paragraph by the following:*

21 As far as is practicable, this standard deals with the common hazards presented by appliances that
22 are encountered by all persons in household and similar environments.

23 However, in general, it does not take into account:

- 24 • **children** playing with the appliance;
- 25 • the **use of the appliance** by **very young children**;
- 26 • the **use of the appliance** by **young children** without supervision;
- 27 • **user maintenance** by **children**, including cleaning the appliance.

28 It is recognized that **very vulnerable people** may have needs beyond the level addressed in this
29 European Standard.

30 3 Definitions

31 3.6.3

32 **accessible part**

33 *Modification:*

34 Insert "and probe 18" after "test probe B".

35 *Add the following new definitions:*

36 3.Z101

37 **children**

38 young persons comprising **very young children**, **young children** and **older children**

39 NOTE **Children** are not expected to perform cleaning or **user maintenance** of the appliance.

40 3.Z102

41 **very young children**

42 young persons aged from 0 up to and including 36 months

43 NOTE **Very young children** are not expected to use appliances

44 3.Z103

45 **young children**

46 young persons older than 36 months and younger than 8 years

47 NOTE **Young children** are not expected to use appliances safely unless continuous supervision is given.

48 3.Z104

49 **older children**

50 young persons aged from 8 years up to and including 14 years

51 NOTE **Older children** can use appliances safely after they have been given appropriate supervision or instruction
52 concerning use of the appliance.

53 **3.Z105**54 **vulnerable people**

55 persons having reduced physical, sensory or mental capabilities (e.g. partially disabled, elderly having
56 some reduction in their physical and mental capabilities), or lack of experience and knowledge (e.g.
57 **older children**)

58 NOTE **Vulnerable people** can use appliances safely after they have been given appropriate supervision or instruction
59 concerning use of the appliance.

60 **3.Z106**61 **very vulnerable people**

62 persons having very extensive and complex disabilities

63 NOTE **Very vulnerable people** are not expected to use appliances safely unless continuous supervision is given or
64 appliances are adapted accordingly with arrangements beyond the scope of this standard.

65 **3.Z107**66 **use of the appliance**

67 all actions required to have the appliance perform its intended function, such as plugging in, switching
68 on, using, regulating, cleaning the appliance or performing **user maintenance**

69 **7 Marking and instructions**

70 This clause of Part 1 is applicable except as follows.

71 **7.1** *Delete the paragraphs “cookers, portable ovens ... CAUTION: hot surface”.*

72 *Addition:*

73 When the provisions of footnote ^b to Table Z101 apply, the appliance shall be marked with

- 74 - the substance of “CAUTION: Hot surface” and NOTE Z101, or
- 75 - symbol IEC 60417-5041.

76 The warning shall be put on the surface of the appliance having the highest temperature and shall be
77 visible during normal operation.

78 **7.10** *Addition:*

79 Devices used to start/stop operational functions of the appliance, if any, shall be distinguished from
80 other manual devices by means of shape, or size, or surface texture, or position, etc. A tactile or an
81 audible and visual feedback shall give an indication that the device has been operated.

82 NOTE The sound of a motor or actuator switching ON/OFF is regarded as audible feedback if it covers also the switching
83 ON/OFF of the appliance.

84 **7.12** *Delete the following paragraphs:*

85 *“The instructions for appliances having accessible metal surface ... the instruction shall state that the*
86 *surfaces are liable to get hot during use.”*

87 *“if symbol 5041 of IEC 60417 ... to get hot during use.”*

88 *Addition:*

89 The instructions shall include the substance of the following:

90 This appliance can be used by children aged from 8 years and above and persons with reduced
91 physical, sensory or mental capabilities or lack of experience and knowledge if they have been given
92 supervision or instruction concerning use of the appliance in a safe way and understand the hazards
93 involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made
94 by children without supervision.

95 *Add the following indent:*

96 Keep the appliance and its cord out of reach of children less than 8 years, when it is switched on or
97 cooling down.

98 *Add the following new subclause before 7.12.1:*

99 **7.12.Z101** The specific instructions related to the safe operation of this appliance (as given in 7.12 of
100 this standard) shall be collated together in the front section of the user instructions. The height of the
101 characters, measured on the capital letters, shall be at least 4 mm.

102 NOTE Z101 For the evaluation of legibility and clarity of safety warnings guidance can be found in EN 62079.

103 These instructions shall also be available in an alternative format, e.g. on a website.

104 **7.14** *Modification of the addition of A12:*

105 The height of symbol IEC 60417-5041 shall be at least 12 mm.

106 **8 Protection against access to live parts**

107 This clause of Part 1 is applicable except as follows.

108 **8.1.1** *Replace the 3rd paragraph by the following:*

109 Test probe B and probe 18 of EN 61032 are applied without appreciable force, the appliance being in
110 every possible position. Through openings, the test probe is applied to any depth that the probe will
111 permit and is rotated or angled before, during and after insertion to any position. If the opening does
112 not allow the entry of the probe, the force on the probe in the straight position is increased to 20 N
113 when probe B is used or 10 N when probe 18 is used. If the probe then enters the opening, the test is
114 repeated with the probe in the angled position. However when using test probe 18 the appliance shall
115 be fully assembled as in normal operation without any parts removed; parts that are intended to be
116 removed for user maintenance shall not be removed.

117 **8.2** *Modification*

118 Replace "test probe B of EN 61032" by "test probes of EN 61032".

119 **11 Heating**

120 This clause of Part 1 is applicable except as follows.

121 **11.1** *Delete the paragraphs "compliance of toasters ... 11.Z101".*

122 *Replace the Addition in A12 by:*

123 For **ovens, rotary grills, rotisseries and cookers**, compliance is also checked by the test of
124 11.Z101.

125 For **contact grills, waffle irons, sandwich makers, radiant grills, raclette grills, griddles,**
126 **barbecues**, hot plates, candy floss, **pop corn makers**, compliance is also checked by the test of
127 11.Z102.

128 For **breadmakers and food dehydrators**, compliance is also checked by the test of 11.Z103.

129 For **toasters**, compliance is also checked by test of 11.Z104.

130 For **roasters**, compliance is also checked by test of 11.Z105.

131 **11.8** *Replace the Addition in A12 by:*

132 *Near operational devices such as grips, switches, keypads and knobs that are intended to be touched*
133 *in normal use, the temperature rise is measured as follows:*

134 • *over an area of 20 mm around the part normally gripped or touched to operate the appliance;*

135 *NOTE* *The distance is measured along the surface as for clearances distances unless it is evident from the*
136 *construction that the hot part cannot be touched unintentionally.*

137 *Near handles, the temperature rise is measured as follows:*

138 • *over an area of 20 mm around the orthogonal projection of all points located at a clearance less*
139 *than 40 mm between the rear (inner) part of a clearly identified handle and the hot part;*

140 *NOTE* *Examples on how to measure such dimensions are given in Figure Z102.*

141 • *or 80 mm centered on the shape of the handle (whichever is the more unfavorable) and the hot*
142 *part.*

143 *When measured, the temperature rise of such surfaces shall not exceed the values specified in*
144 *Table Z.101 without taking into account note (b).*

145 **11.Z101 Ovens, rotary grills, rotisseries and cookers** are supplied at rated power and operated
146 under **normal operation**.

147 All **heating units** that can be connected to the supply mains at the same time during normal use are
148 switched on.

149 **Ovens** are operated without accessories.

150 Temperature rises are not measured on the following surfaces (see Figure Z102):

151 • surfaces on the **oven** door within 10 mm from the edge of the door (Zone 1);

152 • surfaces around the **oven** door within 10 mm from the left right or lower edge of the door, or
153 25 mm from the upper edge of the door (Zone 2);

154 • surfaces within 25 mm of vents (Zone 3);

155 • underside surfaces that are not accessible with test probe 41 of EN 61032;

156 • the rear surface of appliances which, according to the instructions, shall be placed against a wall;

157 • Surfaces within 25 mm from the level of the top surface of **cookers** when the **hotplate** is in
158 operation.

159 During the test, the temperature rise of surfaces shall not exceed the values specified in Table Z101.

160 **Ovens** having settings higher than 240 °C are also operated at the maximum setting until steady state
 161 conditions are established or for 60 min, whichever is shorter. The temperature rise limits of
 162 Table Z101 are increased by 10 K.

163 **Table Z101 –Temperature rise limits for touchable surfaces**

Surface ^d	Temperature rise K
	Surfaces of appliances likely to be touched ^{a b}
Bare metal	45
Coated metal ^e	55
Glass and ceramic	60
Plastic and plastic coating > 0,3 mm ^c	65

^a In addition to surfaces described in 11.Z101 to 11.Z105 the following surfaces or elements shall not be taken into consideration:

- hot functional surface: surface which is intentionally heated by an internal heat source and which has to be hot to carry out the function for which the equipment is intended to be used;
- handles or control knobs including keypads, keyboards and the like;
- surfaces of heated cavities or surfaces adjacent to the functional areas and which have the same thermal properties.

^b When, due to the construction or dimensional limitations of the appliance, the required values cannot be met, the maximum temperature rise shall not be higher than twice the values indicated. In such cases, a warning shall be marked on the relevant surface of the appliance.

^c The temperature rise limit applies also for plastic material having a metal finish of thickness less than 0,1 mm.

^d When the thickness of the plastic coating does not exceed 0,3 mm, the temperature rise limits of the coated metal or of glass and ceramic material apply.

^e Metal is considered coated when a coating made by enamel or non substantially plastic coating is used.

164 **11.Z102** For **contact grills, waffle irons, sandwich makers, radiant grills, raclette grills and**
 165 **griddles, barbecues, hot plates, candy floss, pop corn makers,** the temperature rise limits in
 166 Table Z101 apply. The appliance is supplied at rated power and operated under normal operation.

167 Temperature rises are not measured on:

- 168 • surfaces within 25 mm in all direction of the hot functional surface;
- 169 • surfaces within 25 mm from the ventilation openings;
- 170 • underside surfaces that are not accessible with test probe 41 of EN 61032.

171 The probe is applied without appreciable force.

172 **11.Z103** For **breadmakers and food dehydrators,** the temperature rise limits in Table Z101 apply.

173 The appliance is supplied at **rated power** and operated under **normal operation**.

174 Temperature rises are not measured on:

- 175 • surfaces within 25 mm from the edge of the lid;
- 176 • surfaces within 25 mm from the ventilation openings;
- 177 • underside surfaces that are not accessible with test probe 41 of EN 61032.

178 The probe is applied without appreciable force.

179 **11.Z104** For **toasters**, the temperature rise limits in Table Z101 apply.

180 The appliance is operated for three cycles at rated power and operated under normal operation.

181 Temperature rises are not measured on:

- 182 • the top side of top loaded appliances and surfaces within 25 mm below the top surface;
- 183 • surfaces within 25 mm in all direction of the hot functional surface;
- 184 • surfaces within 25 mm from the ventilation openings;
- 185 • underside surfaces that are not accessible with test probe 41 of EN 61032.

186 The probe is applied without appreciable force

187 **11.Z105** For **roasters**, the temperature rise limits in Table Z101 apply.

188 The appliance is supplied at rated power and operated under normal operation.

189 Temperature rises are not measured on:

- 190 • the lids;
- 191 • surfaces within 25 mm from the edge of the lid;
- 192 • surfaces within 25 mm from the ventilation openings;
- 193 • underside surfaces that are not accessible with probe 41 of EN 61032.

194 The probe is applied without appreciable force.

195 **20 Stability and mechanical hazards**

196 This clause of Part 1 is applicable except as follows.

197 *Add:*

198 **20.2** *Add the following requirement:*

199 Appliances are fully assembled as in normal operation without any parts removed.

200 *Replace the 1st paragraph of compliance by:*

201 *Compliance is checked by inspection, by the tests of 21.1 and by means of*

202 – *a test probe that is similar to test probe B of EN 61032 but having a circular stop face with a*
203 *diameter of 50 mm, instead of the non circular face, applied with a force of 5 N, and*

204 – *test probe 18 of EN 61032, applied with a force of 2,5 N.*

205 **22 Construction**

206 This clause of Part 1 is applicable except as follows.

207 *Add:*

208 **22.12** *Add at the end of the first sentence of the first paragraph “including an ingestion or a choking*
209 *hazard for vulnerable people”.*

210 Add the following figure:

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220 Handle

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233 Bibliography

234 Addition:

235 EN 62079, Instructions for use of products of consumer interest (IEC 62079)

236 ISO/IEC Guide 50, Safety aspects - Guidelines for child safety

237 CEN/CENELEC Guide 6, Guidelines for standards developers to address the needs of older persons
238 and persons with disabilities (ISO/IEC Guide 71)

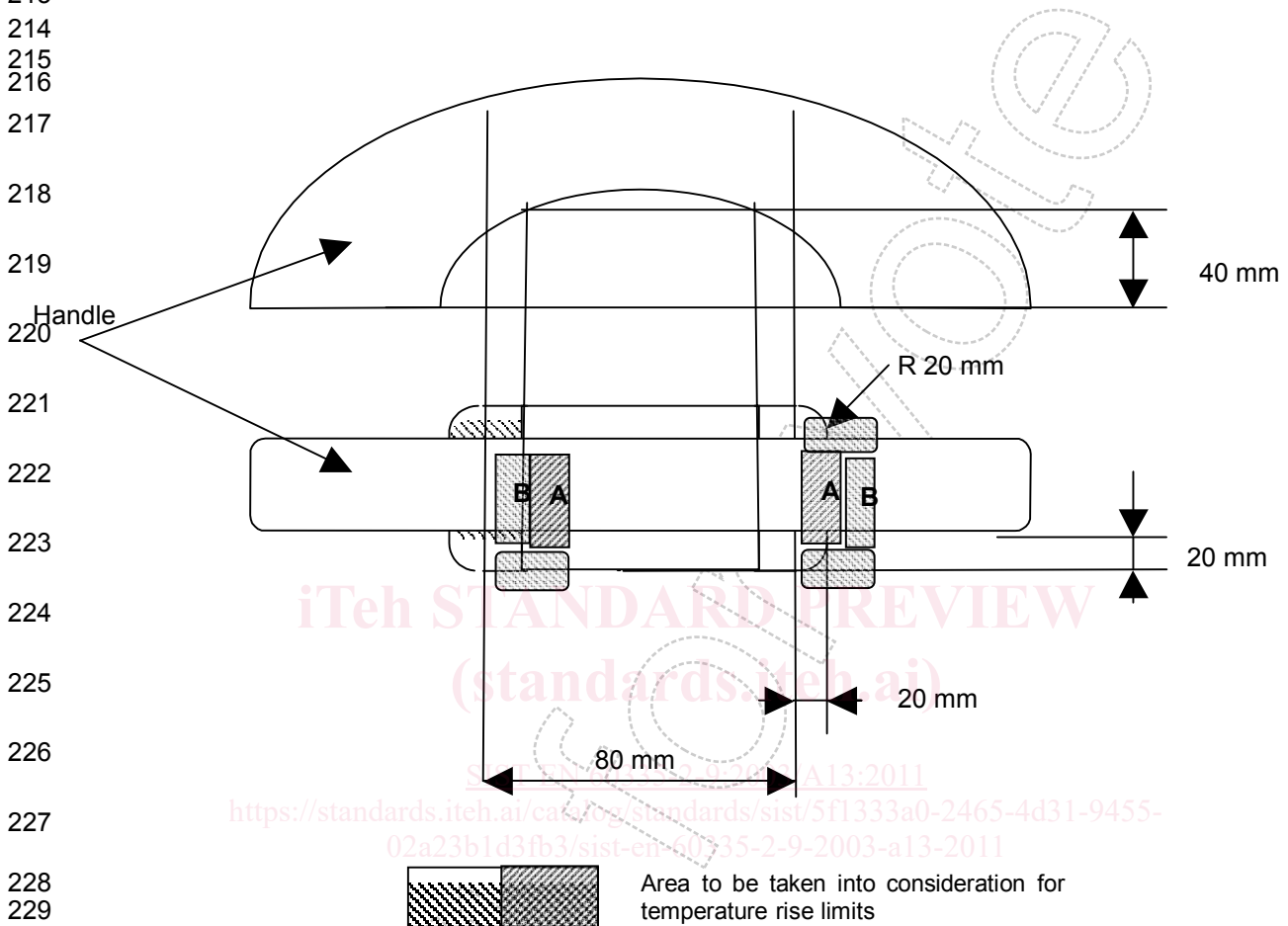


Figure Z102 – Projection of the accessible part of a handle

Annex ZX (informative)

Future consolidated version of EN 60335-2-9 ¹⁾

1 Scope

This clause of Part 1 is replaced by the following.

This European Standard deals with the safety of electric **portable appliances** for household purposes that have a cooking function such as baking, roasting and grilling, their **rated voltage** being not more than 250 V.

NOTE 101 Examples of appliances that are within the scope of this standard are

- **barbecues** for indoor use;
- **breadmakers**;
- **contact grills** (griddles);
- **cookers**;
- **food dehydrators**;
- **hotplates**;
- **pop-corn makers**;
- **portable ovens**;
- **raclette grills**;
- **radiant grills**;
- **roasters**;
- **rotary grills**;
- **roisseries**;
- **toasters**;
- **waffle irons**;

Examples are illustrated in Figure 101.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by all persons in household and similar environments.

However, in general, it does not take into account:

- **children** playing with the appliance,
- the use of the appliance by **very young** children and **young children** without supervision,
- **user maintenance** by **children**, including cleaning the appliance.

It is recognized that **very vulnerable people** may have needs beyond the level addressed in this standard.

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children.

NOTE 102 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour and similar authorities.

NOTE 103 This standard does not apply to

- **stationary** ovens and stationary grills (IEC 60335-2-6);
- warming plates (IEC 60335-2-12);
- frying pans and deep fat fryers (IEC 60335-2-13);

¹⁾ CCMC note: As this annex is not part of the text to be voted upon the layout has not been fully editorially checked.

- microwave ovens (IEC 60335-2-25);
- barbecues for outdoor use (IEC 60335-2-78);
- appliances intended for commercial catering;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

IEC 60068-2-52, *Environmental testing — Part 2: Tests — Test Kb: Salt mist, cyclic (sodium chloride solution)*

ISO 3864-1, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs in workplaces and public areas*

3 Definitions

This clause of Part 1 is applicable except as follows.

3.1.9 Replacement:

Normal operation

Operation of the appliance as specified in the following subclauses.

NOTE 101 Appliances not mentioned but which nevertheless perform one of the functions are operated as specified for this function as far as possible.

3.1.9.101 Toasters are loaded with the maximum number of slices of white bread specified in the instructions and operated in cycles, each cycle consisting of an operating period and a rest period. The bread is approximately 24 h old and the dimensions of the slices are approximately 100 mm x 100 mm x 10 mm. The rest periods have a duration of 30 s or the minimum period needed for the resetting of a control, whichever is longer. The slices of bread are replaced during each rest period. The operating period is established by adjusting controls to give the bread a golden-brown colour. For toasters without a control, each operating period is terminated as soon as the colour of the bread turns golden-brown.

Toasters incorporating a device for heating rolls are loaded with the maximum number of rolls specified in the instructions. The **toaster** is operated in cycles, each cycle consisting of an operating period followed by a rest period of 30 s when the rolls are turned or replaced. The control is adjusted in accordance with the instructions. If instructions are not given, the control is adjusted for the toasting operation.

Sandwich-toasting attachments are loaded with one or more sandwiches that are positioned in accordance with the instructions to produce the most unfavourable result. Each sandwich comprises two slices of white bread filled with a single slice of suitable cheese having an area equal to a slice of bread and a thickness of approximately 5 mm. The toaster is then operated in accordance with the instructions in cycles, each cycle consisting of a toasting operation followed by a rest period of 30 s, or the minimum period needed for the resetting of a control, whichever is longer.

NOTE Processed cheese and other cheeses that readily melt when heated are suitable.

3.1.9.102 Rotary grills are operated with the load on the rotating spit shown in Figure 102.

3.1.9.103 Waffle irons having a **thermostat** are operated with the **thermostat** adjusted to the highest setting. Other **waffle irons** are operated so that the temperature at the centre of the heated surface is maintained at $210 \text{ }^{\circ}\text{C} \pm 15 \text{ }^{\circ}\text{C}$ by switching the supply on and off.