SLOVENSKI STANDARD

SIST EN 30-1-4:2004

01-januar-2004

Plinski kuhalni aparati za gospodinjstvo ï 1-4. del: Varnost ï Aparati z enim ali veļ gorilniki z avtomatskim nadzorom gorilnikov

Domestic cooking appliances burning gas - Part 1-4: Safety - Appliances having one or more burners with an automatic burner control system

Haushalt-Kochgeräte für gasförmige Brennstoffe - Teil 1-4: Sicherheit - Geräte mit einem oder mehreren Brenner(n) mit Feuerungsautomat

Appareils de cuisson domestiques utilisant les combustibles gazeux - Partie 1-4 : Sécurité - Appareils comportant un ou plusieurs bruleurs avec systeme automatique de commande pour bruleurs

Ta slovenski standard je istoveten z: **EN 30-1-4:2002**

ICS:

97.040.20

SIST EN 30-1-4:2004 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 30-1-4

August 2002

ICS 97.040.20

English version

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Appareils de cuisson domestiques utilisant les combustibles gazeux - Partie 1-4: Sécurité - Appareils comportant un ou plusieurs brûleurs avec système automatique de commande pour brûleurs

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This European Standard was approved by CEN on 14 March 2002.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN 30-1-4:2002 E

Contents

Foreword

This document (EN 30-1-4:2002) has been prepared by Technical Committee CEN/TC 49 "Gas cooking appliances", the secretariat of which is held by UNI.

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 February 2003, and conflicting national standards shall be withdrawn at the latest by February 2003.

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 EU Directive(s).

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

It is intended to use this Standard with EN 30-1-1:1998 and EN 30-1-1/A1:1999, on which the requirements and methods of test for appliances having one or more burners with an automatic burner control system are based. In particular, this Standard identifies the requirements and methods of test specific to these appliances, which are in addition to, or replace, those given in EN 30-1-1:1998 and EN 30-1-1/A1:1999.

This present part is intended to be used together with any other part of EN 30-1-x related to “Safety”, whenever the appliances covered by this other part includes a burner with an automatic burner control system.

Requirements relating to ‘Rational use of energy’ are given in other appropriate parts of this standard, EN 30-2-x.

Matters relating to quality assurance systems, production testing and certificates of conformity, including those for auxiliary devices, are not dealt with in this standard.

Requirements concerning the emission of NO_X are not mentioned in this European standard, taking account of the usage of the appliances and their low output, their contribution to environment pollution is negligible.

NOTE For countries requesting special categories (specified in EN 437:1993), the absence of specific information concerning A.3.3 and A.3.4 implies that the general requirements (see 5.2.4 and 5.1.1) also apply for particular categories.

Other European Standards covering domestic cooking appliances burning gas are as follows:

— EN 30-1-1: Domestic cooking appliances burning gas fuel – Part 1-1 : Safety – General,

— EN 30-1-2: Domestic cooking appliances burning gas – Part 1-2 : Safety – Appliances having forced-convection ovens and /or grills,

— prEN 30-1-3: Domestic cooking appliances burning gas – Part 1-3: Safety – Appliances having a glass ceramic hotplate,

— EN 30-2-1: Domestic cooking appliances burning gas – Part 2-1: Rational use of energy – General,

— EN 30-2-2: Domestic cooking appliances burning gas – Part 2-2: Rational use of energy – Appliances having forced-convection ovens and /or grills.

Annexes A and B are informative.

Annexes C, D, E and F are normative.

1 Scope

This standard specifies the construction and performance characteristics as well as the requirements and methods of test for the safety and marking of domestic cooking appliances, capable of using the combustible gases defined in EN 30-1-1:1998 and EN 30-1-1/A1:1999, that have one or more burners with an automatic burner control system, referred to in the text as "appliances".

This standard includes specific requirements and methods of test that are applicable to burners having an automatic burner control system, whether or not the appliance is equipped with a fan for the supply of combustion air to, and/or the evacuation of the products of combustion from, the burner concerned. These specific requirements and methods of test are only applicable when the burner has a automatic burner control system and do not apply to burners having automatic ignition that fall within the scope of EN 30-1-1:1998 and EN 30-1-1/A1:1999.

This Standard is intended to be used in conjunction with EN 30-1-1:1998 and EN 30-1-1/A1:1999 and, where appropriate, other parts of EN 30-1 covering appliances having:

— forced-convection ovens and/or grills;

— a glass ceramic hotplate.

It does not cover all of the safety requirements and methods of test that are specific to forced-convection ovens and/or grills and glass ceramic hotplates.

Unless specifically excluded hereafter, this standard applies to these appliances or their component parts, whether or not the component parts are independent or incorporated into a single appliance, even if the other heating components of the appliance use electrical energy (e.g. combined gas-electric cookers).

This standard includes requirements covering the electrical safety of equipment incorporated in the appliance that is associated with the use of gas. It does not include requirements covering the electrical safety of electrically-heated component parts of their associated equipment[1].

This standard does not apply to:

— outdoor appliances;

— appliances connected to a combustion products evacuation duct;

— appliances having a pyrolytic gas oven;

— appliances having automatic burner control systems that a) have a second safety time (see EN 298:1993), or b) control one or more burners that incorporate a separate ignition burner;

— appliances having an uncovered burner or a non-enclosed covered burner (see 3.1.1) that utilises a fan for the supply of its combustion air;

— appliances having enclosed covered burners that are not equipped with an automatic burner control system;

— appliances supplied at pressures greater than those defined in 7.1.2;

— appliances equipped with air-gas ratio controls.

This standard does not cover the requirements relating to third family gas cylinders, their regulators and their connection.

This standard only covers type testing.

1) Refer to the electrical safety rules.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

The normative references in clause 2 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 apply with the following additions:

EN 30-1-1:1998, *Domestic cooking appliances burning gas fuel – Part 1-1: Safety – General*.

EN 30-1-1:1998/A1:1999, *Domestic cooking appliances burning gas - Part 1-1: Safety – General*.

EN 30-1-2:1999, *Domestic cooking appliances burning gas – Part 1-2: Safety – Appliances having forced-convection ovens and/or grills*.

prEN 30-1-3:2002, *Domestic cooking appliances burning gas – Part 1-3: Safety – Appliances having a glass ceramic hotplate*.

EN 88:1991, *Pressure governors for gas appliances for inlet pressures up to 200 mbar*.

EN 126:1995, *Multifunctional controls for gas burning appliances*.

EN 161:2001, *Automatic shut-off valves for gas burners and gas appliances*.

EN 257:1992, *Mechanical thermostats for gas-burning appliances*.

EN 298:1993, *Automatic gas burner control systems for gas burners and gas burning appliances with or without fans*.

EN 60730-2-9:1995, *Automatic electrical controls for household and similar use – Part 2-9: Particular requirements for temperature-sensing controls*.

3 Terms and definitions

Unless specifically modified as described in 3.1 hereafter the definitions of clause 3 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 apply, as well as the additional definitions given in 3.2 of this standard.

3.1 Definitions concerning parts of the appliance

3.1.1
covered burners
The text of 3.4.1.5 EN 30-1-1:1998 and EN 30-1-1/A1:1999 “covered burners” is replaced by the following text:

covered burners
hotplate burners for which the pans being heated are screened from direct flame contact by the interposition of a surface on which they rest. Two types of covered burner are recognised:

non-enclosed covered burner
a covered burner for which all products of combustion are evacuated directly to atmosphere, e.g. around the periphery of the plate and which is designed so that partial visibility of the flames is possible in normal operation.

A non-enclosed covered burner can be:

— permanent, i.e. designed to be used only with the plate in position;

— temporary, i.e. designed so that it may also be used as an uncovered burner after removal of the removable plate.

enclosed covered burner
a covered burner having a combustion circuit in which all products of combustion are evacuated to atmosphere indirectly through a purpose-designed outlet. The burner is so enclosed that flames may not be visible during normal operation.

3.1.2
tap
The definition of 3.4.2.12 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 “tap” is replaced by the following text:

manually operated burner control
a device to isolate the gas supply to a burner and possibly to adjust its thermal function during use.

A manually operated burner control may be:

— **direct-acting:** in which case the device is mechanical in operation (e.g. a tap or cock) and the gas flow is controlled directly by manipulation of a control handle as defined in 3.4.3.1 of EN 30-1-1:1998 and EN 30-1-1/A1:1999;

— **indirect:** in which case the opening and closing of the gas supply to the burner is achieved indirectly by means of one or more automatic shut off valves. This control may incorporate means of adjusting the thermal function of the burner. For example:

  — by adjusting the gas flow (e.g. high-low thermostat);

  — by on-off cycling (e.g. on-off thermostat, gas energy regulator).

3.2 Additional definitions concerning appliances having burners with an automatic burner control system

3.2.1 Definitions concerning the appliance and its components

3.2.1.1
combustion circuit
assembly comprising the air supply circuit, the combustion chamber and the products of combustion circuit up to the outlet of the appliance.

3.2.1.2
fully pre-mixed gas and air burner
burner in which the gas and a quantity of air, corresponding to at least that theoretically required to achieve complete combustion, are mixed upstream of the burner ports.

3.2.2 Definitions concerning adjusting, control and safety devices

3.2.2.1
total air adjuster
a device enabling the total air flow required for the burner or, where appropriate, the burners to be set to predetermined value according to the supply conditions. The operation of changing the setting of this device is termed the “adjustment of the total air”.

3.2.2.2
touch control
an indirect manually operated burner control actuated by contact or the close proximity of a finger, with little or no movement of the contact surface.

3.2.2.3
touch control pad
one of the contact surfaces of a touch control by which it is actuated.

3.2.2.4
gas energy regulator
an indirect manually operated burner control that cycles the burner on and off periodically. The thermal function of the burner can be controlled by adjusting the duration of the “on” and/or “off” cycles times.

3.2.2.5
automatic single burner control system
an automatic single burner control system comprises at least a single burner programming unit and all the elements of a flame detector device. The various functions of an automatic burner control system may be in one or more housings.

Similarly, the automatic burner control systems for several burners may be in the same housing. In this case the single burner programming units and all elements of the flame detector devices for these burners are so arranged as to provide independent control of each burner.

3.2.2.6
single burner programming unit
a programming unit that reacts to signals from control and safety devices, gives control commands, controls the start-up sequence, supervises the burner operation and causes controlled shut-down, and if necessary safety shut-down and lock-out. The programming unit follows a predetermined sequence of actions and always operates in conjunction with a flame detector device.

3.2.2.7
automatic multi-burner control system
an automatic multi-burner control system capable of controlling two or more burners simultaneously. It comprises at least a multi-burner programming unit and all the elements of the flame detector devices for the burners controlled. The various functions of this automatic burner control system may be in one or more housings.

3.2.2.8
multi-burner programming unit
a programming unit that reacts to signals from control and safety devices, gives control commands, controls the start-up sequences of the burners, supervises their operation and causes controlled shut-down, and if necessary safety shut-down and lock-out of the burner or burners. The programming unit follows predetermined sequences of actions and always operates in conjunction with a flame detector device for each of the burners controlled.

According to predetermined sequences it may enable the burner to start up independently, or in combination with other burners, even when one or more burners are already in operation. It supervises their operation independently and causes controlled shut-down, safety shut-down and, if appropriate, lock-out of one or all of the burners under its control.

3.2.2.9
programme
the sequence of control operations determined by the programming unit involving switching on, starting up, supervising and switching off the burner

3.2.2.10
flame detector device
a device by which the presence of a flame is detected and signalled.

It can consist of a flame sensor, an amplifier and a relay for signal transmission. These parts, with the possible exception of the actual flame sensor, may be assembled in a single housing for use in conjunction with a programming unit.

3.2.2.11
flame signal
the signal given by the flame detector device, normally when the flame sensor senses a flame.

3.2.2.12
flame simulation
a condition that occurs when the flame signal indicates the presence of a flame when in reality no flame is present.

3.2.2.13
automatic shut-off valve
valve which opens when energized and closes automatically when de-energized.

3.2.2.14
air proving device
a device that monitors the air provided by a fan and which causes safety shut-down of the burner(s) controlled by the device in the event of there being inadequate combustion air.

3.2.2.15
thermal cut-out
device which during abnormal operation limits the temperature of the controlled part automatically by shutting off the gas supply to the burner or by reducing its heat input, and which is constructed so that its setting cannot be altered by the user.

3.2.2.16
self-resetting thermal cut-out
thermal cut-out which as appropriate initiates automatic recycling of the burner or automatic restoration of the full heat input of the burner after the relevant part of the appliance has cooled down sufficiently

3.2.2.17
non-self-resetting thermal cut-out
thermal cut-out which requires a manual operation, or the replacement of a part, in order as appropriate to restart the burner or to restore its full heat input.

3.2.3 Definitions concerning the operation of the appliance

3.2.3.1
start gas rate
the mean volume rate or mass rate during the safety time where this gas rate is limited by design for the purposes of ignition.

3.2.3.2
start gas flame
a flame that can only be established at the start gas rate of the burner.

3.2.3.3
main flame
a flame established, or capable of being established, at the full-on gas rate of the burner for the purposes of ignition.

3.2.3.4
running condition of the system
either:

the condition of the automatic single burner control system in which the burner is in normal operation under the supervision of the single burner programming unit and its flame detector device,

or:

the conditions of the automatic multi-burner control system in which one or more burners are in normal operation under the supervision of the multi-burner programming unit and their individual flame detector devices.

3.2.3.5
ignition energy restoration
the process by which, after disappearance of the flame signal in the running condition or ,where appropriate, in the event of failure to ignite, the ignition device is energized again without the gas supply having been totally interrupted. This process ends with the restoration of the running condition or, if there is no flame signal at the end of the safety time:

either:

with volatile or non-volatile lock-out of the system,

or:

according to the design of the automatic multi-burner control system, with volatile or non-volatile lock-out of the burner.

3.2.3.6
automatic recycling (of the system)
the process by which, following accidental interruption of the operation of the automatic burner control system, loss of flame signal during the running condition or, where appropriate, failure to ignite, the gas supply to all of the burners controlled by the automatic burner control system is interrupted and the complete start sequence is automatically re-initiated. This process ends with the restoration of the running condition or, if there is no flame signal at the end of the safety time, or if the cause of the accidental interruption has not disappeared, with volatile lock-out or non-volatile lock-out of the system.

3.2.3.7
automatic recycling (of the burner)
the process within an automatic multi-burner control system by which, following loss of flame signal during the running condition or, where appropriate, failure to ignite, the gas supply to the burner concerned is interrupted and the burner start sequence is automatically re-initiated. This process ends with the restoration of the running condition or, if there is no flame signal at the end of the safety time, with volatile lock-out or non-volatile lock-out of the system or with volatile or non-volatile lock-out of the burner.

3.2.3.8
controlled shut-down

the process by which the power to the automatic shut-off valve(s) is removed in order to shut off the supply of gas to a burner under the control of an automatic burner control system within the extinction safety time, e.g. as a result of the action of a controlling function.

3.2.3.9
safety shut-down (of the system)
the process which is effected immediately following the detection of a fault in the burner control system or the response of a safety limiter or sensor and which shuts off the gas supply to all burners under the control of the automatic burner control system within the extinction safety time by removing the power to all of their automatic shut-off valves.

3.2.3.10
safety shut-down (of the burner)
the process which is effected immediately following the response of a safety limiter or sensor and which shuts off the gas supply to the burner concerned within the extinction safety time by removing the power to its automatic shut-off valve(s).

3.2.3.11
lock-out

3.2.3.11.1
non-volatile lock-out (of the system)
the safety shut-down condition of the system, such that a restart of the automatic burner control system can only be accomplished by a manual reset of the system and by no other means.

3.2.3.11.2
volatile lock-out (of the system)
the safety shut-down condition of the system, such that a restart of the automatic burner control system can only be accomplished by either the manual reset of the system, or an interruption of the electrical supply and its subsequent restoration.

3.2.3.11.3
non-volatile lock-out (of the burner)
the safety shut-down condition of a burner, such that a restart of the burner can only be accomplished by a manual reset of the burner control and by no other means.

3.2.3.11.4
volatile lock-out (of the burner)
the safety shut-down condition of a burner, such that a restart of the burner can only be accomplished by either the manual reset of the burner control, or an interruption of the electrical supply and its subsequent restoration.

3.2.3.12
purge
the forced introduction of air through the combustion chamber and the products of combustion circuit in order to displace any remaining gas/air mixture and/or products of combustion.

— Pre-purge: the purge which takes place between the start signal and the energising of the ignition device.

— Post-purge: the purge that takes place immediately following shut-down.

3.2.3.13
safety time
the interval between the ignition burner gas valve, the start gas valve or main gas valve, as applicable, being energized and the ignition burner gas valve, start gas valve or main gas valve, as applicable, being de-energized if the flame detector signals the absence of a flame at the end of this interval.

3.2.3.14
extinction safety time
the time interval between extinction of the supervised flame and the moment when the signal for valve closure is given to shut off the gas supply to the burner.

4 Classification

The classification given in clause 4 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 applies with the following modifications:

4.2.2.3 Appliances designed for use with gases of the third family

The text of 4.2.2.3 “Appliances designed for use with gases of the third family” of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is replaced with the following:

Appliances designed for use with gases of the third family only

Category $I_{3B/P}$: Appliances capable of using gases of the third family (propane and butane) at the fixed supply pressure.

Category I_{3+}: Appliances capable of using gases of the third family (propane and butane) and operating with a pressure couple without intervention on the appliance other than an adjustment of the primary air, or total air, for conversion from butane to propane and vice versa. The device for regulating the gas pressure of the appliance, if any, is not operational within the range of the two normal pressures of the pressure couple.

Category I_{3P}: Appliances using only gases from group P of the third family (propane) at the fixed supply pressure.

5 Constructional requirements

5.1 General

Unless specifically modified as described hereafter, the appliance shall comply with the requirements of 5.1 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 which are applicable to them, any verifications in the form of tests being carried out in accordance with clause 7 of this standard, and not in accordance with the corresponding clause of EN 30-1-1:1998 and EN 30-1-1/A1:1999.

The appliance shall also comply with the additional requirements given in 5.3 of this standard.

NOTE This section of the standard does not include all of the constructional requirements for appliances having forced-convection ovens and/or grills or glass ceramic hotplates. Additional constructional requirements are given in EN 30-1-2:1999 and prEN 30-1-3:2002 respectively.

5.1.1 Conversion to different gases

5.1.1 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 applies with the following modification:

All requirements concerning adjustment of primary air shall also apply to total air adjusters.

5.2 Special requirements

5.2.1 General

Unless specifically modified as described hereafter, the appliance shall comply with the requirements of 5.2 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 which are applicable to them, any verifications in the form of tests being carried out in accordance with clause 7 of this standard, and not in accordance with the corresponding clause of EN 30-1-1:1998 and EN 30-1-1/A1:1999.

The appliance shall also comply with the additional requirements given in 5.3 and 5.4 of this standard.

NOTE This section of the standard does not include all of the constructional requirements for appliances having forced-convection ovens and/or grills or glass ceramic hotplates. Additional constructional requirements are given in EN 30-1-2:1999 and prEN 30-1-3:2002 respectively.

5.2.2 Taps

5.2.1 of EN 30-1-1:1988 and EN 30-1-1/A1:1999 is applicable to all direct-acting manually operated burner controls. Requirements for indirect manually operated burner controls are given in 5.3.1 of this standard.

5.2.3 Control handles

5.2.2 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is applicable to control handles for all direct-acting manually operated burner controls. Requirements for indirect manually operated burner controls handles and for touch controls are given in 5.3.2 of this standard.

5.2.4 Injectors and adjusters

5.2.3 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is applicable with the following modification:

All requirements concerning air rate adjusters and primary air adjusters shall also apply to total air adjusters.

5.2.5 Oven thermostats

5.2.4 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is applicable where the oven burner is not equipped with an automatic burner control system. Requirements for oven burners having an automatic burner control system are given in 5.3.3 of this standard.

5.2.6 Ignition systems

5.2.5 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is replaced with the following:

All the components of the ignition device shall be designed to avoid damage or accidental displacement in normal use. The relative positions of the ignition device and the burner shall be sufficiently well defined to ensure satisfactory operation of the assembly.

When the ignition devices include a permanent pilot, the gas rate of this pilot shall not exceed 0,06 kW for each burner controlled.

If necessary, it shall be possible to adjust the pilot gas rate in the event of a gas change, either by adjuster or by change of injector.

A means shall be provided to cut off the gas supply to any pilot.

In the event of failure of the ignition system for the burner(s) of the appliance the following requirements shall apply:

1) For burners without automatic burner control systems, it shall be possible in the following circumstances to light the burner(s) with a match after removing, if necessary, a movable part (griddle, bottom of the oven, etc.):

   a) uncovered hotplate burners;

   b) temporary and permanent non-enclosed covered burners and griddles;

   c) oven and grill burners that can only be ignited after manual intervention.

   This requirement shall not apply to oven burners that are designed specifically to prevent the ignition by means of a match. In this case, the manufacturer's instructions for use and maintenance shall state that ignition by means of a match is prohibited.

2) For burners with automatic burner control systems, it shall be possible in the following circumstances:

   a) uncovered hotplate burners;

   b) temporary and permanent non-enclosed covered burners and griddles;

   c) burners of grills without a compartment door, or grills for which the gas supply to the burner is only possible when the compartment door is open;

   to light the burner(s) with a match unless the manufacturer's instructions for use and maintenance state that ignition by means of a match is prohibited.

The ignition system shall meet the requirements of 6.2.2 and 6.3.2 or 6.5.1 and 6.6.1 as appropriate.

5.2.7 Flame supervision devices

5.2.6 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is only applicable to burners not equipped with an automatic burner control system. Requirements for burners having automatic burner control systems are given in 5.4 of this standard.

5.2.8 Governors

5.2.7 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is replaced with the following:

Where the governor is covered by the scope of EN 88:1991, the requirements of EN 88:1991 shall be applied.

Appliances of categories having the index 2_{E+} or 3_{+} may have an appliance governor if this is not operational within the range of the two normal pressures of these pressure couples.

In other cases, the governing function is optional.

Where a governor is used, the appliance shall have a pressure test point downstream of the governor. The pressure test point shall have an external diameter of (9 ± 0,5) mm and a useful length of at least 10 mm to allow connection of a rubber tube. At least one part of the orifice of the pressure test point shall have a diameter not exceeding 1 mm.

5.2.9 Hotplates

5.2.8 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is applicable, with the following modification, to all hotplates except glass ceramic hotplates[2)] .

5.2.8.2.2 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is replaced by the following :

Covered burners and griddles

Non-enclosed covered burners and griddles may be permanent or temporary. When a non-enclosed covered burner or griddle is temporary, the plate shall be removable and shall be supplied with the appliance.

Correct replacement of the removable plate or griddle on the burner for which it is intended shall be easy and obvious. The removable plate or griddle shall be stable when in its correct position.

Griddles shall be designed such that any greases produced in cooking cannot spill onto the burner or onto parts not intended for this purpose.

5.2.10 Accumulation of unburnt gas in the appliance

5.2.12 of EN 30-1-1:1998 and EN 30-1-1/A1:1999 is applicable to parts of the appliance having burners not equipped with automatic burner control systems. Requirements for parts of the appliance having burners equipped with automatic burner control systems are given in 5.3.8 of this standard.

5.3 Additional requirements for appliances having one or more burners with an automatic burner control system

5.3.1 Indirect manually operated burner controls

5.3.1.1 General

These controls shall only be used with burners having an automatic burner control system.

5.3.1.2 Controls operated by rotation or with a sliding action

5.3.1.2.1 General

For a given appliance, all the controls controlling the same type of burners shall be of the same type, i.e.:

— with the reduced rate, if this exists:

  either:

  at the end of the travel or between the closed and full on positions for controls having a single closing direction;

  or:

  for rotating controls with two closing directions, positioned such that the same turning direction is used when turning from the full-on positions to the reduced rate positions;

— with all controls having two closing directions or with all having the same single closing direction.

NOTE This requirement does apply to combined oven and grill controls.

2) Additional requirements for glass ceramic hotplates are given in prEN 30-1-3:2002.