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**PELLET BURNERS FOR SMALL HEATING
BOILERS - DEFINITIONS, REQUIREMENTS,
TESTING, MARKING**

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English Version

Pellet burners for small heating boilers - Definitions, requirements, testing, marking

Brûleurs à granulés pour petites chaudières de chauffage -
Définitions, exigences, essais, marquage

Pelletbrenner für kleine Heizkessel - Definitionen,
Anforderungen, Prüfung, Kennzeichnung

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Foreword

This document (EN 15270:2007) has been prepared by Technical Committee CEN/TC 57 “Central heating boilers”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by June 2008, and conflicting national standards shall be withdrawn at the latest by June 2008.

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1 Scope

This European Standard relates to pellet burners having a maximum heat input of not more than 70 kW, intended for fitting with appropriate boilers for hot water, and intended for high quality pellets in accordance with CEN/TS 14961:2005 Annex A. This standard contains requirements and test methods for safety, combustion quality, operating characteristics and maintenance of pellet burners and covers and also all external equipment that influences the safety systems. This standard also contains information on how to enable a correct match between pellet burner and boiler.

Pellet burners that are sold as a complete unit together with their own dedicated boilers are not covered.

NOTE Other fuels will be considered in future amendments to this standard.

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.

EN 230:2005, *Automatic burner control systems for oil burners*

EN 298:2003, *Automatic gas burner control systems for gas burners and gas burning appliances with or without fans*

EN 12067-2:2004, *Gas/air ratio controls for gas burners and gas burning appliances – Part 2: Electronic types*

CEN/TS 14961:2005, *Solid biofuels – Fuel specifications and classes*

EN 15036-1, *Heating boilers – Test regulations for airborne noise emissions from heat generators – Part 1: Airborne noise emissions from heat generators*

CEN/TS 15404, *Solid recovered fuels – Methods for the determination of ash melting behaviour by using characteristic temperatures*

prEN 15456, *Heating boilers — Electrical power consumption for heat generators — System boundaries - Measurements*

EN 60335-2-102, *Household and similar electrical appliances — Safety — Part 2-102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections (IEC 60335-2-102:2004, modified)*

EN 60529, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN 60730-1:2002, *Automatic electrical controls for household and similar use — Part 1: General requirements (IEC 60730-1:1999, modified)*

EN 60730-2-5:2002, *Automatic electrical controls for household and similar use — Part 2-5: Particular requirements for automatic electrical burner control systems (IEC 60730-2-5:2000, modified)*

3 Terms, definitions and symbols

For the purpose of this standard, the following terms and definitions apply.

NOTE For reference use only the equivalent terms in Danish, English, French, German and Swedish, are found in informative Annex A.

3.1**pellet burner**

device for burning pellets where the control can be of different types; on-off, mechanical, modulating or multi stage. The pellets can be fed horizontally, from above or from below

3.2**modulating burner**

burner where the throughput may be infinitely varied between the lower and upper limits

3.3**multistage burner**

burner where several firing stages can be utilised. Burners with only two firing rates are included in this category

3.4**ignition device**

device used to ignite the pellets in the burner head of a pellet burner, it can be either manual, automatic or with a basic fire bed. The ignition can be caused by a hot air element, automatic ignition with liquid or gaseous fuels, electric coil or electric glow plug

3.5**basic fire bed**

quantity of glowing embers which ensures ignition of the test fuel to be charged

3.6**conveyor system, auger, feed screw**

mechanical arrangement, normally incorporating a feed screw, used for transporting the pellets from the fuel hopper to the burner head

3.7**fuel hopper**

fuel store from which fuel is fed to the pellet burner

3.8**storage with external fuel hopper**

external fuel store from which fuel is fed to the pellet burner and which is separate from the pellet burner. It can be located either inside or outside the room where the pellet burner is located

3.9**storage with integral fuel hopper**

integral fuel store container from which fuel is fed to the pellet burner and which is integral with the pellet burner

3.10**burner head**

part of a pellet burner where the pellets are burned

3.11**back burning**

situation in which the flames from the burning pellets in the burner head propagate and ignite the pellets in the conveyor system

3.12**temperature limiter**

safety level B device that causes the safe shutdown and lockout of the fuel supply and/or the combustion air supply respectively if the limiter value exceeds a pre-set limit. According to EN 14597 it is a device of Type "TB"



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