



Standard Specification for Room Heaters, Pellet Fuel-Burning Type¹

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1. Scope

1.1 This specification covers performance requirements, test methods, and marking requirements for automatic feed, pellet fuel-burning room heaters that are intended to burn wood pellets or other suitable solid fuel. These room heaters shall be drafted by forced or natural means.

1.2 Exhaust venting systems and associated externally mounted draft inducers are not evaluated by this specification unless they are part of an engineered system provided as part of the room heater. Parts specifically evaluated and determined to be acceptable for use with pellet fuel-burning room heaters are required to be specified in the room heater manufacturer's instructions and are to be used in evaluating the room heater.

1.3 Pellet fuel-burning room heaters covered by this specification are intended for installation in accordance with the applicable requirements of NFPA 211 and in accordance with the applicable building and mechanical codes.

1.4 Pellet fuel-burning room heaters covered by this specification are acceptable for use in manufactured homes when installed in accordance with the Manufactured Home Construction and Safety Standards published by the Department of Housing and Urban Development (HUD). See 24 CFR 3280.

1.5 The terms "product" or "room heater," as used in this specification, refer to all pellet fuel-burning room heaters or any part thereof covered by the requirements of this specification, unless specifically noted otherwise.

1.6 No information provided in this specification is intended to prevent the use of other methods or devices, provided that sufficient technical data are submitted to the authority having jurisdiction to demonstrate that the proposed method or device is equivalent in quality, strength, fire endurance, effectiveness, durability, and safety to that prescribed in this specification.

1.7 The notes incorporated into this specification are not prescriptive requirements. They are given for clarification and informational purposes only.

1.8 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.9 The following safety hazards caveat pertains only to the test methods portion, Section 10, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

D 1102 Test Method for Ash in Wood²

D 2015 Test Method for Gross Calorific Value of Coal and Coke by Adiabatic Bomb Calorimeter³

D 3211 Test Method for Relative Density of Black Smoke (Ringelmann Method)⁴

D 3286 Test Method for Gross Calorific Value of Coal and Coke by Isoperibol Bomb Calorimeter³

E 136 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C⁵

E 871 Method of Moisture Analysis of Particulate Wood Fuels⁶

E 873 Test Method for Bulk Density of Densified Particulate Biomass Fuels⁶

2.2 ASME Standard:⁷

ASME B36.10M Welded and Seamless Wrought Steel Pipe

2.3 U.S. Code of Federal Regulations—Housing and Urban Development:⁸

24 CFR 3280 Manufactured Home Construction and Safety Standards

2.4 NFPA Standards:⁹

NFPA 70 National Electrical Code

NFPA 211 Chimneys, Fireplaces, Vents and Solid-Fuel Burning Appliances

² Annual Book of ASTM Standards, Vol 04.10.

³ Annual Book of ASTM Standards, Vol 05.05.

⁴ Discontinued; see 1990 Annual Book of ASTM Standards, Vol 11.03.

⁵ Annual Book of ASTM Standards, Vol 04.07.

⁶ Annual Book of ASTM Standards, Vol 11.05.

⁷ Available from American Society for Mechanical Engineers, 345 E. 47 St., New York, NY 10017.

⁸ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

⁹ Available from National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

¹ This specification is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.54 on Solid Fuel Burning Appliances.

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