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Introduction

Description

The provisions of the 2012 *International Fuel Gas Code*[®] (IFGC[®]) are divided into nine sections: Scope and Administrative, Definitions, General Regulations, Piping Insulation, Chimneys and Vents, Specific Appliances, Gaseous Hydrogen Systems, Referenced Standards and Appendices. The format of the IFGC allows each chapter to be devoted to a particular subject, with the exception of Chapter 3, General Regulations, which contains general subject matters that are not extensive enough to warrant their own independent chapter.

This code is founded on principles intended to establish provisions consistent with the scope of a fuel gas code that adequately protects public health, safety and welfare; provisions that do not unnecessarily increase construction costs; provisions that do not restrict the use of new materials, products or methods of construction; and provisions that do not give preferential treatment to particular types or classes of materials, products or methods of construction.

This seminar is designed to familiarize and assist code officials in locating, describing and applying the applicable code requirements of the IFGC to determine compliance or noncompliance.

Goal

The goal of this seminar is for you to apply the 2012 IFGC to the design, plan review, installation and inspection of all fuel-gas-related construction.

Objectives

Upon completion of this seminar, you will be better able to:

- Locate general topics in the 2012 IFGC.
- Locate applicable tables in the 2012 IFGC for specific situations.
- Apply code requirements to real world situations.
- Explain the intent behind a given code requirement.
- Use judgment to identify borderline scenarios as compliant or noncompliant.



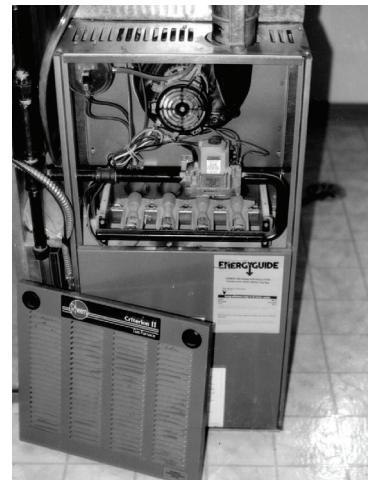
2012 IFGC,
Tables 504.2(1)–(4),
pages 99-108

Sizing of Category I Appliance Venting Systems–504

Tables 504.2(1) through 504.2(4) apply to gas-burning appliances with draft hoods that are listed and labeled by an approved agency, and gas-burning appliances with draft hoods or fan-assisted combustion that are listed as Category I appliances. Specific types of appliances and labeled equipment to which the tables apply include (see Figure 52):

- Central furnaces (forced-air types);
- Low-pressure boilers (hot water and steam);
- Water heaters;
- Duct furnaces;
- Unit heaters;
- Vented room heaters (with appropriate input compensation);
- Floor furnaces (with appropriate input compensation); and
- Conversion burners (with draft hoods).

Figure 52: Typical Gas-fired, Fan-assisted, Category I Forced-air Furnace



Sizing of venting systems for a single appliance–504.2

The tables do not apply to Type BW vents; vents for decorative gas appliances; vents for Category II, III or IV appliances; dual-fuel appliance vents; and venting systems for appliances listed only for connection to chimneys. Category I appliances can be a fan-assisted design or can be a draft-hood-equipped design, and each such design has different vent system design considerations.

Minimum size–504.2.2

If the vent size determined from the tables is smaller than the appliance draft hood outlet or flue collar, the smaller size must not be used, except where all of the following apply:

- Total vent height is a minimum of 10 feet (3048 mm);
- Vents for appliance draft hood outlets or flue collars 12 inches (305 mm) in diameter or less are not reduced more than one size;
- Vents for appliance draft hood outlets or flue collars greater than 12 inches (305 mm) in diameter are not reduced more than two sizes;

