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## Decorative Shrouds - 2018 – ICC

**IRC 1004.3 Decorative shrouds.** Decorative shrouds shall not be installed at the termination of factory-built chimneys except where the shrouds are listed and labeled for use with the specific factory-built chimney system and installed in accordance with the manufacturer's installation instructions.

**IFGC 503.6.5.1 Decorative Shrouds.** Decorative shrouds shall not be installed at the termination of gas vents except where such shrouds are listed for used with the specific gas venting system and are installed in accordance with manufacturer's installation instructions.

**IMC 805.7 Decorative Shrouds.** Decorative shrouds shall not be installed at the termination of factory-built chimneys except where such shrouds are listed and labeled for use with the specific factory-built chimney system and are installed in accordance with Section 304.1.

**\*Decorative shrouds** have become a popular architectural feature that, in some cases, have proven to be a fire hazard. They are designed to be aesthetically pleasing and to hide chimney and vent terminations. These shrouds have caused fires resulting from overheated combustible construction and the accumulation of debris and animal nesting. Shrouds can also interfere with the functioning of a chimney or vent system. Shrouds are allowed only where they are listed and labeled for use with the specific factory-built chimney system. Un-listed, field-constructed shrouds are prohibited.

**\*Low-heat** and residential-type chimneys must extend at least 3 feet (914 mm) above the roof, measured from the highest point of the roof penetration. They must also be at least 2 feet (610 mm) higher than any portion of the roof within a 10-foot (3048 mm) horizontal distance [see Commentary Figure 503.5.4(1)].

The 2-foot (610 mm) termination requirement is intended to prevent wind and pressure zones from reducing the amount of draft produced by the chimney. Wind and wind-induced eddy currents can react with building structural surfaces, thereby creating air pressure zones that can diminish chimney draft and cause reverse flow (backdraft) in the chimney. Loss of draft will cause the appliance or fireplace served by the chimney to discharge combustion products into the building interior. Locating the chimney outlet well into the undisturbed wind stream and away from the cavity and wake (eddy) zones around the building can counteract the adverse effects and also prevent the re-entry of vent gases into the building through openings and fresh air intakes. Terminating a chimney in the eddy current area recirculates the combustion products and allows them to enter the building via infiltration, wall openings and air intakes. A chimney terminal properly located above the eddy current area allows the wind to carry the combustion products away from the building. Factory-built chimneys have termination caps that are part of the labeled chimney system and that must be installed. Like vent systems, the chimney cap is designed to keep out precipitation and animals and minimize the adverse effects of wind.

Routt County Regional Building Department

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The listing of the shroud must state the specific make and model of chimney with which the shroud is intended to be used. Some manufacturers are manufacturing shrouds that are listed for use with a specific make and model of chimney. Most often shrouds are field-constructed of sheet metal, masonry or stucco on frame.

## **The following additional requirements are per Chapter 10 of the IRC**

- **R1001.2 Footings and foundations.** Footings for masonry fireplaces and their chimneys shall be constructed of concrete or solid masonry at least 12 inches (305 mm) thick and shall extend at least 6 inches (152 mm) beyond the face of the fireplace or foundation wall on all sides. Footings shall be founded on natural, undisturbed earth or engineered fill below frost depth. In areas not subject to freezing, footings shall not be less than 12 inches (305mm) below finished grade.
- **R1001.9 Hearth and hearth extension.** Masonry fireplace hearths and hearth extensions shall be constructed of concrete or masonry, supported by noncombustible materials, and reinforced to carry their own weight and all imposed loads. Combustible material shall not remain against the underside of hearths and hearth extensions after construction.
- **R1001.11 Fireplace clearance.** All wood beams, joists, studs and other combustible material shall have a clearance of not less than 2 inches (51mm) from the front faces and sides of masonry fireplaces and not less than 4 inches (102mm) from the back faces of masonry fireplaces. The air space shall not be filled, except to provide fire blocking in accordance with Section R1001.12. See code for exceptions.  
\*NOTE -Exception 2 applies to masonry fireplaces constructed in concrete or masonry walls.
- **R1003.6 Changes in dimension.** The chimney wall or chimney flue lining shall not change in size or shape within 6 inches (152 mm) above or below where the chimney passes through floor components, ceiling components or roof components.
- **R1003.8 Additional load.** Chimneys shall not support loads other than their own weight unless they are designed and constructed to support the additional load. Construction of masonry chimney as part of the masonry walls or reinforced concrete walls of the building shall be permitted.