

2113.9 Termination. Chimneys shall extend not less than 2 feet (610 mm) higher than any portion of the building within 10 feet (3048 mm), but shall be not less than 3 feet (914 mm) above the highest point where the chimney passes through the roof.

2113.9.1 Chimney caps. Masonry chimneys shall have a concrete, metal or stone cap, sloped to shed water, a drip edge and a caulked bond break around any flue liners in accordance with ASTM C1283.

2113.9.2 Spark arrestors. Where a spark arrestor is installed on a masonry chimney, the spark arrestor shall meet all of the following requirements:

1. The net free area of the arrestor shall be not less than four times the net free area of the outlet of the chimney flue it serves.
2. The arrestor screen shall have heat and corrosion resistance equivalent to 19-gage galvanized steel or 24-gage stainless steel.
3. Openings shall not permit the passage of spheres having a diameter greater than $\frac{1}{2}$ inch (12.7 mm) nor block the passage of spheres having a diameter less than $\frac{3}{8}$ inch (9.5 mm).
4. The spark arrestor shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.

2113.9.3 Rain caps. Where a masonry or metal rain cap is installed on a masonry chimney, the net free area under the cap shall be not less than four times the net free area of the outlet of the chimney flue it serves.

2113.10 Wall thickness. Masonry chimney walls shall be constructed of concrete, solid masonry units or hollow masonry units grouted solid with not less than 4 inches (102 mm) nominal thickness.

2113.10.1 Masonry veneer chimneys. Where masonry is used as veneer for a framed chimney, through flashing and weep holes shall be provided as required by Chapter 14.

2113.11 Flue lining (material). Masonry chimneys shall be lined. The lining material shall be appropriate for the type of appliance connected, according to the terms of the appliance listing and the manufacturer's instructions.

2113.11.1 Residential-type appliances (general). Flue lining systems shall comply with one of the following:

1. Clay flue lining complying with the requirements of ASTM C315.
2. *Listed* chimney lining systems complying with UL 1777.
3. Factory-built chimneys or chimney units *listed* for installation within masonry chimneys.
4. Other *approved* materials that will resist corrosion, erosion, softening or cracking from flue gases and condensate at temperatures up to 1,800°F (982°C).

2113.11.1.1 Flue linings for specific appliances. Flue linings other than those covered in Section 2113.11.1 intended for use with specific appliances shall comply

with Sections 2113.11.1.2 through 2113.11.1.4, 2113.11.2 and 2113.11.3.

2113.11.1.2 Gas appliances. Flue lining systems for gas appliances shall be in accordance with the *International Fuel Gas Code*.

2113.11.1.3 Pellet fuel-burning appliances. Flue lining and vent systems for use in masonry chimneys with pellet fuel-burning appliances shall be limited to flue lining systems complying with Section 2113.11.1 and pellet vents *listed* for installation within masonry chimneys (see Section 2113.11.1.5 for marking).

2113.11.1.4 Oil-fired appliances approved for use with L-vent. Flue lining and vent systems for use in masonry chimneys with oil-fired appliances *approved* for use with Type L vent shall be limited to flue lining systems complying with Section 2113.11.1 and *listed* chimney liners complying with UL 641 (see Section 2113.11.1.5 for marking).

2113.11.1.5 Notice of usage. When a flue is relined with a material not complying with Section 2113.11.1, the chimney shall be plainly and permanently identified by a *label* attached to a wall, ceiling or other conspicuous location adjacent to where the connector enters the chimney. The *label* shall include the following message or equivalent language: "This chimney is for use only with (type or category of appliance) that burns (type of fuel). Do not connect other types of appliances."

2113.11.2 Concrete and masonry chimneys for medium-heat appliances. Concrete and masonry chimneys for medium-heat appliances shall comply with Sections 2113.11.2.1 through 2113.11.2.5.

2113.11.2.1 Construction. Chimneys for medium-heat appliances shall be constructed of solid masonry units or of concrete with walls not less than 8 inches (203 mm) thick, or with stone masonry not less than 12 inches (305 mm) thick.

2113.11.2.2 Lining. Concrete and masonry chimneys shall be lined with an *approved* medium-duty refractory brick not less than $4\frac{1}{2}$ inches (114 mm) thick laid on the $4\frac{1}{2}$ -inch bed (114 mm) in an *approved* medium-duty refractory mortar. The lining shall start 2 feet (610 mm) or more below the lowest chimney connector entrance. Chimneys terminating 25 feet (7620 mm) or less above a chimney connector entrance shall be lined to the top.

2113.11.2.3 Multiple passageway. Concrete and masonry chimneys containing more than one passageway shall have the liners separated by a minimum 4-inch-thick (102 mm) concrete or solid masonry wall.

2113.11.2.4 Termination height. Concrete and masonry chimneys for medium-heat appliances shall extend not less than 10 feet (3048 mm) higher than any portion of any building within 25 feet (7620 mm).

2113.11.2.5 Clearance. A minimum clearance of 4 inches (102 mm) shall be provided between the exterior surfaces of a concrete or masonry chimney for medium-heat appliances and combustible material.