

2112.1 Definition – A Masonry Heater is a solid fuel burning heating appliance constructed of concrete or solid masonry having a mass of at least 500 kg (1,100 lb.), excluding the chimney and foundation.

It is designed to absorb and store a substantial portion of heat from a ~~solid fuel~~ fire built in the firebox by routing exhaust gases through internal heat exchange channels in which the flow path downstream of the firebox includes at least one 180-degree change in flow direction before entering the chimney and which delivers heat by radiation from the masonry surface of the heater.

2112.2 Installation – A Masonry Heater shall be installed according to one of the following:

1. ~~The~~ terms of its listing, or
2. ASTM E 1602 and the manufacturer's instructions, or
3. ASTM E 1602 and ~~under~~ the supervision of a skilled masonry heater builder.

2112.3 Seismic Reinforcing – Masonry heaters shall be anchored and reinforced as required in this chapter. All masonry heaters shall maintain a minimum clearance of 2 inches (50 mm) to adjacent framing. In ~~s~~Seismic Design Categories A, B ~~or and~~ C, reinforcement and seismic anchorage ~~is shall~~ not be required. In ~~s~~Seismic Design Categories D, E and F, masonry heaters shall be anchored to the foundation. Seismic reinforcing shall not be required within the body of a masonry heater whose height is equal to or less than ~~3.5~~ 3 times its ~~body width minimum plan dimension (and ratio for width to depth of 3 to 2),~~ and where the masonry chimney serving the heater is not supported by the body of the heater. Where the masonry chimney shares a common wall with the facing of the masonry heater, the chimney portion of the structure shall be reinforced in accordance with Section 2113.

2112.4 Masonry Heater Clearance – Any portion of a masonry heater shall have a minimum air space clearance to combustibles of 4 inches (100 mm) and a maximum surface temperature of 230 degrees F (110 degrees C) except within 8 inches (200 mm) surrounding the fuel loading door(s). The minimum wall thickness of the firebox shall be as follows: either:

1. ~~4 inches (102mm) provided that the wall thickness of the firebox is not less than 8 inches (200mm) provided the wall is constructed~~ of solid masonry, ~~of~~ which consists of at least 4 inches (100 mm) ~~includes of~~ firebrick conforming to ASTM C27 or ASTM C1261, laid with refractory mortar conforming to ASTM C199 and the wall thickness of the heat exchange channels is not less than 5 inches (125 mm) of solid masonry, or
2. ~~? inches (? mm) provided the wall is constructed of soapstone, or~~
3. ~~2. distances as specified according to the terms of its listing, or 3. distances specified according to the manufacturer's instructions.~~

Unless otherwise stated by the terms of the listing, ~~or the manufacturer's instructions, clearances to combustibles shall be 4", and~~ the required airspace between the heater and the combustibles shall ~~not be filled~~ vented, except to provide ~~fire~~draftstopping and fireblocking according to Section ~~R1003.14716~~. A clearance of at least 8 inches (203mm) shall be provided between ~~the a~~ gas-tight capping slab of ~~the a~~ heater and a combustible ceiling.