

Chapter 8

Code, Clearances, and Building Permits

ASTM E1602, IRC, IBC, insurance, and permit requirements

Building Codes That Apply

ASTM E1602: Standard Guide for Construction of Solid Fuel Burning Masonry Heaters. This is the primary technical standard for masonry heater construction in North America. Defines construction requirements, clearances, and performance criteria specific to masonry heaters.

International Building Code (IBC) and International Residential Code (IRC): The IBC addresses masonry heaters in Chapter 21. Most states have adopted the IBC or IRC as their base building code. Your local building official has the authority to accept a masonry heater as equivalent to a masonry fireplace for code purposes.

IBC 2024 Chapter 21 - Masonry Heaters: <https://codes.iccsafe.org/content/IBC2024V2.0/chapter-21-masonry>

Full masonry heater building codes page: <https://solidrockmasonry.com/masonry-heater-building-codes/>

Clearances to Combustibles

The following are minimums required under ASTM E1602. Local codes may require additional clearances. Always verify with your local building official before construction.

Foundation to combustible framing: 2 inches.

Heater facing to combustible walls - sides and back: 4 inches, measured from face of masonry veneer.

Heater facing overhead clearance: 10 inches to combustible ceiling or framing above.

Chimney to combustible framing: 2 inches at ceiling and floor penetrations.

Hearth extension in front of firebox: 16 inches of non-combustible material.

Combustibles in front of firebox door: 48 inches - no combustible materials within 4 feet in front of the door.

Wing walls and partition walls may touch the heater by using metal stud framing with cement board attached directly to the heater face. Note: a combustible wall with non-combustible material applied to its surface without an intervening air space is still considered a combustible wall for clearance purposes.

Insurance and Liability

Contact your homeowner's insurance carrier before installing a masonry heater. Most major insurers cover them, particularly when installed with a building permit and built to ASTM E1602 standards. A building permit is the appropriate mechanism for code compliance - masonry heaters are not UL listed but are built under the masonry fireplace provisions of your local building code.

When hiring a masonry heater builder or ordering a kit, verify that they carry both general liability insurance and errors and omissions (E&O;) insurance specifically covering masonry heater design and manufacturing. General liability covers physical property damage during construction. E&O; insurance covers financial losses resulting from design errors or defective products.

Solid Rock Masonry Heat carries full insurance including errors and omissions coverage for heater design and manufacturing. We are happy to provide certificates of insurance upon request.

Chimney Fires and Safe Operation

Confirmed chimney fires attributable to masonry heaters are extremely rare in the North American masonry heating community. In every case on record, the root cause was the same: a new homeowner purchased a home with an existing masonry heater, did not know how to operate it correctly, burned green or wet wood, damped the fire down to slow it causing smoldering combustion, and over time creosote accumulated in the chimney.

This sequence of events is essentially impossible when a masonry heater is operated correctly: hot, fast fires with properly seasoned dry wood at or below 20 percent moisture content, with the chimney damper left fully open during the entire burn cycle. Correct operation produces no creosote, period.

Full code and clearance details: <https://solidrockmasonry.com/masonry-heater-building-codes/>

Download the complete guide at:

<https://solidrockmasonry.com/masonry-heater-planning-guide/>

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