



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE 2111.1
FIREPLACE AND CHIMNEY DETAILS

MASONRY

**TABLE 2111.1
SUMMARY OF REQUIREMENTS FOR MASONRY FIREPLACES AND CHIMNEYS^a**

ITEM	LETTER	REQUIREMENTS	SECTION
Hearth and hearth extension thickness	A	4-inch minimum thickness for hearth, 4-inch minimum thickness for hearth extension.	2111.9
Hearth extension (each side of opening)	B	8 inches for fireplace opening less than 6 square feet. 12 inches for fireplace opening greater than or equal to 6 square feet.	2111.10
Hearth extension (front of opening)	C	16 inches for fireplace opening less than 6 square feet. 20 inches for fireplace opening greater than or equal to 6 square feet.	2111.10
Firebox dimensions	—	20-inch minimum firebox depth. 12-inch minimum firebox depth for Rumford fireplaces.	2111.6
Hearth and hearth extension reinforcing	D	Reinforced to carry its own weight and all imposed loads.	2111.9
Thickness of wall of firebox	E	10 inches solid masonry or 8 inches where firebrick lining is used.	2111.5
Distance from top of opening to throat	F	8 inches minimum.	2111.7 2111.7.1
Smoke chamber wall thickness dimensions	G	6 inches lined; 8 inches unlined. Not taller than opening width; walls not inclined more than 45 degrees from vertical for prefabricated smoke chamber linings or 30 degrees from vertical for corbeled masonry.	2111.8
Chimney vertical reinforcing	H	Four No. 4 full-length bars for chimney up to 40 inches wide. Add two No. 4 bars for each additional 40 inches or fraction of width, or for each additional flue.	2111.3.1, 2113.3.1
Chimney horizontal reinforcing	J	1/4-inch ties at each 18 inches, and two ties at each bend in vertical steel.	2111.3.2, 2113.3.2
Fireplace lintel	L	Noncombustible material with 4-inch bearing length of each side of opening.	2111.7
Chimney walls with flue lining	M	4-inch-thick solid masonry with 5/8-inch fireclay liner or equivalent. 1/2-inch grout or airspace between fireclay liner and wall.	2113.11.1
Effective flue area (based on area of fireplace opening and chimney)	P	See Section 2113.16.	2113.16
Clearances	R		
From chimney		2 inches interior, 1 inch exterior or 12 inches from lining.	2113.19
From fireplace		2 inches back or sides or 12 inches from lining.	2111.11
From combustible trim or materials		6 inches from opening	2111.12
Above roof		3 feet above roof penetration, 2 feet above part of structure within 10 feet.	2113.9
Anchorage strap	S	3/16 inch by 1 inch	
Number required		Two	2111.4
Embedment into chimney		12 inches hooked around outer bar with 6-inch extension.	
Fasten to		4 joists	2113.4.1
Number of bolts		Two 1/2-inch diameter.	
Footing	T		
Thickness		12-inch minimum.	2111.2
Width		6 inches each side of fireplace wall.	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 square foot = 0.0929 m², 1 degree = 0.017 rad.

a. This table provides a summary of major requirements for the construction of masonry chimneys and fireplaces. Letter references are to Figure 2111.1, which shows examples of typical construction. This table does not cover all requirements, nor does it cover all aspects of the indicated requirements. For the actual mandatory requirements of the code, see the indicated section of text.