



FIRE PLACES

A Practical Design Guide to Fireplaces and Stoves Indoors and Out



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Inner workings

Understanding how fireplaces, flues, and chimneys work together to safely vent a fire is vital, especially when planning for a new fireplace. Different layers of materials keep the smoke spiraling up a chimney safely: the flue (the hollow lining that begins at the throat above the firebox), the solid core that supports and protects the flue, and the outer cladding that enhances the architecture.

A proper flue is essential to a fireplace's performance. There are two basic types of flues: ceramic flue tile and metal flue pipe. Ceramic flues come in round, square, or rectangular dimensions and are fabricated in 3-ft. sections. They are stacked and cemented together with heat-resistant refractory mortar. Ceramic flues must be encased in a masonry core, typically concrete block, which is the least expensive material. The concrete chimney core is covered in stucco, overlaid with brick or stone, or clad in metal, depending on the architect's design.

When it comes to prefabricated fireplaces, the round metal flue pipe is part of the system and is commonly encased within wood framing sheathed in plywood. This wooden shaft can be treated with a coat of stucco, faced with brick (to imitate a masonry chimney), clad in thin, synthetic stone material, or sided with wood shingles or clapboard.

MAINTENANCE — Even with proper maintenance, a flue can be cracked or perforated by a chimney fire, coated with a buildup of dangerous amounts of creosote, or damaged by crumbling mortar and

Fireside Lore

CHIMNEY SWEEPS

Far from the image of the cheery sweep in Mary Poppins, sweeps in the 17th through 19th centuries were six-year-old boys whose task it was to shimmy down the flue tied to a rope and clean off the grime. The smaller the better, so sweeps were often underfed.



This chimney appears to have grown out of the earth, like a prehistoric stone tower. The windows alongside it are scribed to follow the taper of the chimney as it rises.