

Installing a Flue-Top

Replace a drafty fireplace damper with a rooftop model that keeps rain and animals outside and conditioned air inside

BY MIKE GUERTIN

After the third bat in a month, I decided to put a stop to the parade of animals taking refuge inside my house. I knew the only place they could be getting in was through the chimney flue. The downstairs fireplace's throat-damper frame had rusted out and left a hole big enough for a raccoon to come in last winter.

Replacing a throat-damper frame is a dirty, time-consuming job that won't stop critters from getting into the chimney. I decided to install a flue-top damper instead. Flue-top dampers take less than two hours to install and keep out uninvited guests. And unlike ordinary flue screens, flue-top dampers close down on top of the flue liner.

A flue-top damper has a metal frame that mounts to the top of the flue. A stainless-steel cable routed through the flue pipe and into the firebox operates the spring-loaded cap. To open the cap when the fireplace is going to be used, you simply release the cable from the retainer. When not in use, the damper cap is sealed shut.

Flue-top dampers are available in two styles (sidebar facing page), and I've found both to be reliable, easy to install, and simple to operate. They come sized to fit standard flue liners, but due to regional variations in the finish dimensions of flue liners, the damper frames have wide flanges and may hang a little inside or outside the liner opening. □

Mike Guertin (www.mikeguertin.com) is a builder, a remodeling contractor, and a contributing editor to *Fine Homebuilding*. Photos by Charles Bickford, except where noted.



Secure the damper with glue, bolts, and angle brackets

Manufacturers recommend a high-temperature silicone-adhesive sealant to glue the damper frame to the flue. I use the sealant, but I also fasten the frame to 2-in. or 2½-in. galvanized- or stainless-steel angle brackets bolted to the flue liner. It's easy to fracture a flue liner, so I start each hole with a ⅛-in. masonry bit and finish with a ¼-in. or

⅝-in. bit (1). When bolting the brackets, I try not to overtighten the nuts, which can crack the liner. Thread-lock compound or double nuts can be used to prevent the nuts from loosening. After dry-fitting the damper, I trim any bracket that extends past the damper flange (2) and spread the adhesive sealant along the edge of the flue (3).

The cable goes in before the damper goes on

Before bolting the damper, I feed the stainless-steel cable down the flue liner (4). If the flue liner is not straight to the smoke shelf, I sometimes tie a weight (a piece of chain or a fishing sinker) to the end of the cable to

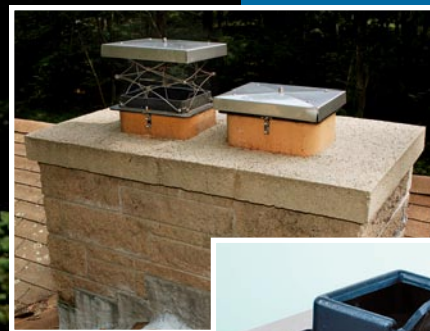
help pull it down to the firebox. Then I set the damper in place, making sure that the sealant fills all the gaps between the damper frame and the flue liner. Bolt the frame to the brackets carefully, without overtightening.

Mount the cable retainer on one side of the firebox

After it's dropped from the roof, the cable still might hang up on the smoke shelf. I use a flashlight or feel around to locate and pull it into the firebox. The cable retainer should be mounted on the side of the firebox; I prefer to locate it toward the front and just high enough so that it's not visible from sitting positions in the room. For a strong

connection, locate the bracket holes squarely over a firebrick, not on a mortar joint. Mark and drill holes for the fasteners (usually supplied in the kit). When attaching the cable to the pull (5), check to make sure the cap is closed fully, and adjust the cable length if necessary. Trim the cable so that it hangs 2 in. to 3 in. past the retaining slug on the chain pull.

Damper



◀ Pop-up damper

Hinged damper
▼



Spring-loaded in two styles

The Lock-Top model (photo above left) shown in this article has a stainless-steel cap mounted to diagonal spring wire. The cap stays level as it opens and closes.

The other style (Lyemance; photo above right) has a spring-loaded pivoting cast-metal damper hinged to the frame. It's a lower profile and isn't as noticeable from the ground when opened. The frame, cable, and retaining bracket mount the same as with the Lock-Top model.

I've used both styles of damper and have no preference. Both install and operate similarly. Prices for both models run from \$150 to \$350, depending on flue size. If the cable breaks on either type, the damper automatically opens. Eventually, the stainless-steel cables have to be replaced. Depending on use, this could be a couple of years or decades. I save the cable offcut when the damper is installed; plenty is left to replace cables for the fireplace of a single-story home. You also can buy cable at many hardware or boating-supply stores.



SOURCES

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