**FIREPLACES**

**Fireplaces:**

*Waste more heat than they make?*

A charming old wood-burning fireplace may seem warm and cheery, but it likely loses more heat from your home than it gives off. Warm air in a home is sucked up the chimney and is replaced by cold air leaking into the house. Especially as the fire dies down, more heat is drawn up the chimney than is created by the fire—and the reduced rate of airflow can lead to backdrafting of dangerous flue gases and smoke into the living space.

Follow these tips to improve the operation and safety of your fireplace and to reduce your energy losses:

- **Improve the seal of the flue damper.** To test the damper’s seal, close the flue, light a small piece of paper, and watch the smoke. If the smoke goes quickly up the flue, there’s an air leak. Seal around the damper assembly with refractory cement, but don’t seal the damper closed.

- **Install tight-fitting glass doors or an airtight fireplace insert unit.** Controlling the airflow in your fireplace improves combustion efficiency by 10 to 20% and reduces air leaks up the chimney. When there is no fire or embers, close all vents and dampers tightly.

- **If you infrequently use the fireplace, install an inflatable “chimney balloon” in the flue of the chimney to reduce heat loss.** These are available in several sizes and, if properly installed, can significantly reduce heat loss through the flue. Most have a quick-release handle, and many have a safety feature that will instantly deflate the balloon if a fire is started without removing the balloon.

- **Many fireplaces and stoves have a source of fresh air to aid in combustion—in fact it is required for most new installations.** Fresh air supplies should have a well-sealed damper to prevent air leakage when not in use.

- **The joint where a brick or stone chimney meets the wall or ceiling can be a source of air leakage.** Foam or caulk to prevent unwanted airflow.

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**Seal fireplaces**

There are several ways to improve the energy efficiency of a fireplace, including:

- **Seal flue damper.**
- **Install airtight doors (with good gaskets).**
- **Install a “chimney balloon” in seldom used fireplaces.**
- **Insure proper operation/sealing of fresh air supply.**
- **Caulk/foam where brick/stone meet wall or ceiling.**