

Can I Use My Chimney With My New Furnace?

WE'RE GLAD YOU ASKED!



The answer is a definite maybe. Or more likely, maybe not. Truth is, furnace technology has advanced significantly in recent years. The higher efficiencies and enhanced performance achieved by today's furnaces make specific demands many existing masonry chimneys simply can't meet. Your local independent Lennox dealer can offer the best advice on how to configure your new furnace to get the most comfort for years to come.

SIZE CAN BE AN ISSUE

There are several reasons why new furnaces and existing masonry chimneys aren't compatible. One area of concern for an HVAC contractor might be the size of the chimney. Modern, higher efficiency furnaces transfer more heat into your home and less heat up the chimney than older, less-efficient units. That's great news because it means you're getting more for your energy dollar. But it also means your existing chimney might now be too large for the new furnace, preventing proper venting of flue products and causing condensation problems inside the chimney.

In addition, today's induced draft furnaces often require an additional natural draft appliance (such as a gas water heater) be installed into the same chimney for proper venting. Relining the masonry chimney with a metal vent can eliminate this requirement. Other areas for furnace-chimney incompatibility could include the absence of a tile liner in the chimney and the location of the chimney on an outside wall of the home.

IT IS POSSIBLE TO MIX OLD AND NEW

There are installations where it is possible to marry a new furnace to an existing chimney. Chimney height and location are key factors, as are proper lining and physical condition of the chimney. Building codes also must be taken into consideration. These requirements must be met to ensure proper draft in the chimney for adequate venting.

WHY IS CONDENSATION A PROBLEM

An older less efficient furnace produced a higher volume of flue gas carrying more water vapor, a natural product of combustion, up and out of the chimney. Flue gas from today's higher efficiency furnaces contain less dilution air from inside the home which can increase the risk of condensation. This means the chimney is cooler and water vapor will condense on the inside walls of a cold chimney, just the reverse of taking a glass of ice water outside on a hot summer day. Water drops condense on the glass and run off quickly forming a puddle under the glass. The problem is greatly magnified in the inside of the chimney due to its' size.

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Condensate in your chimney is the source of two major problems. The water combines with flue gases and forms corrosive acids which eat away at the chimney deteriorating tiles, bricks and mortar. Secondly, in winter conditions, moisture freezes and thaws breaking away mortar and bricks. This can not only quickly destroy a chimney and create leaks into the house, but moisture can damage interior drywall near the chimney as well as running back into the furnace causing corrosion there too.

UNLINED VERSUS TILE-LINED CHIMNEYS

The difference between an unlined masonry chimney and one lined with tile is simple but significant. An unlined masonry chimney is

constructed only of brick and mortar. A tile-lined chimney has the same brick-and-mortar exterior appearance but it also uses rectangular or round fired clay tile pipe in the center. An air space separates the liner from the brick exterior. If you have an unlined masonry chimney, a listed metal liner kit should be installed by a reputable HVAC contractor. All new masonry chimneys are built with a clay tile liner, but in some cases even a tile lined chimney can't be used to vent some new furnaces. So call your local independent Lennox Dealer for more information on matching a new furnace with an existing chimney. That way, when it comes time to make a decision on a new, efficient Lennox furnace, you'll be warmed with all the facts and the right information!

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