

"What causes water in a gas furnace flue?"

The modern, high-efficiency gas furnace is a fabulous engineering marvel.

In the old days, low-efficiency gas furnaces sent almost as much heat up the chimney as they put into your home. This pushed your utility bills sky-high and wasted precious natural resources.

Today's high-efficiency gas furnaces extract more heat during the burning process and send much less of it up the flue. But for all the benefits these furnaces offer, there's one important side effect that must be dealt with — excessive moisture in the flue.

You see, water is a by-product of burning. In fact, when you burn 1 cubic foot of gas, you create 2 cubic feet of water vapor. Those old, inefficient furnaces sent so

much heat up the flue that the water created in the combustion process stayed in the form of hot steam all the way up and out the chimney.

New high-efficiency furnaces don't put as much heat into the flue; they put it into the home where you want it. The problem is, the water vapor that's created during burning now doesn't have the draft power to push it up and out your furnace flue. So what happens? It condenses on the walls of your chimney. And, unfortunately, no chimney is designed to be constantly bathed with water, especially the acid-laden water that is found in your furnace flue.

The result is the deterioration we've outlined in the middle of this brochure. Installing a new, high-quality AL 29-4C stainless steel HomeSaver Chimney Liner will vent these water vapors efficiently and with maximum safety.

Some common symptoms of excessive moisture in a gas furnace chimney

Inside

- ▶ Peeling wallpaper
- ▶ Blistering paint
- ▶ Flaking plaster
- ▶ Ceiling stains
- ▶ Damp patches
- ▶ Mold

Outside

- ▶ White stains on brick
- ▶ Eroded mortar joints

"What problems result from sulfur compounds in an oil furnace?"

While we commonly think of a masonry chimney as a permanent structure, practically impervious to damage, that's not the case. Without a proper liner and annual maintenance, the toll can be a heavy one.

When the oil you heat with is burned, a sulfur soot is formed on the inner wall of your chimney.

This sulfur-laden soot combines with moisture in the flue, a natural byproduct of today's highly efficient furnaces. This forms an acid mixture which attacks your chimney, eroding your flue tiles and mortar joints.

This leaves dangerous voids and allows the sulfuric acid mixture to attack the brickwork, your last line of defense against deadly sulfur dioxide and

carbon monoxide poisoning. Additional danger exists as the chimney debris, or silt, falls to the bottom of your chimney. This can eventually plug the chimney, allowing dangerous gases to enter your home.

Installing a new, high-quality AL 29-4C stainless steel HomeSaver Chimney Liner will vent this dangerous sulfur soot efficiently and with maximum safety.

Some common symptoms of problems in an oil furnace chimney

Inside

- ▶ Silt in chimney
- ▶ Soot floating in the house
- ▶ Soot coming from barometric damper
- ▶ Odor
- ▶ Flaking plaster
- ▶ Damp patches

Outside

- ▶ White stains on brick
- ▶ Eroding mortar joints
- ▶ Deteriorating bricks

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HOME SAVER