

Heat exchanger

Why should I care what my heat exchanger is made of?

If you are like most people, you've probably never seen the inside of your gas furnace. Nor are you likely to have seen the heat exchanger that is the heart of your system. So, why is this something that you should care about?

**1-800-849-2881**  
**8 to 8 - 7 Days a Week!**

**Locally Owned  
& Family Operated  
since 1985**



The reason is simple. A crack in your heat exchanger can kill everyone in your home in as little as 10 minutes!

Unfortunately, this bold statement is absolutely true. Two hundred perfectly healthy people die each year and thousands more are sickened by carbon monoxide (CO) poisoning! The government's Environment Protection Agency has set a maximum allowable exposure concentration of only 9 PPM or parts per million (0.0009%), and that is almost nothing! A rating of only 400 PPM (0.04%) is life threatening in only three hours. Increase that level to 6400 PPM (0.64%) and it can kill everyone in the home in as little as 10 minutes!

For more information on carbon monoxide (CO) poisoning, read this article.

What causes Heat Exchangers to crack or rust through?

Several reasons actually.

Rusting can be caused when the aluminized steel is repeatedly heated and cooled and then exposed to excessive moisture.

Untimely changing of filters can restrict the air flow over the heat exchanger, causing it to glow red-hot during each cycle. This soon causes metal fatigue and failure.

"Clamshell" designed heat exchangers can develop splits in the seams where they are crimped together when heated and cooled repeatedly.

Tubular heat exchangers usually fail where the metal has been "stretched thin" around "U-shaped" bends in the manufacturing process.

Joints where tubes join smaller tubes and exchange boxes can leak or rust due to different metal temperatures.

So what makes the EnergyMiser HeatMiser™ Heat Exchanger better?

All EnergyMiser HeatMiser™ Heat Exchangers come with a Lifetime Replacement Warranty, for as long as you own the home

All EnergyMiser HeatMiser™ Heat Exchangers are made with stainless steel, so they resist rust.

Our manufacturers' test Heat Exchanger not only passed the government's mandated 10,000 firing cycles, it has continued to perform flawlessly after 1,487,000 test cycles!

Our patented crimping process maintains the same wall thickness in the "U-bends" as the rest of the tubing. Thin wall points are eliminated.

The "reducer joints" are designed where the larger pipe goes inside the smaller pipes, so that when hotter, larger pipe expands, it forms a leak-proof seal.

What kind of heat exchanger is in your furnace?

The following chart shows new heat exchangers from various manufacturers gas furnaces. This chart does not show every heat exchanger in every model of furnace. Your heat exchanger may be different based on the model and the year of manufacturer.

Carrier • Bryant • Payne

Clam-shell Heat Exchanger made with aluminized steel

Armstrong • Lennox

Clam-shell Heat Exchanger made with aluminized steel. Some newer units have a tubular

Nordyne • Gibson • Westinghouse • Tappan • Kelvinator • Frigidare • Philco

Grandeaire • Intertherm

Tubular design made with aluminized steel. The crimps increase air flow inside the tube, but can weaken the metal. Rheem • Ruud

This tubular design made with aluminized steel has a Muffler Box to reduce the flow size.

Trane • American Standard

made with aluminized steel. Some higher end units have a tubular stainless steel exchanger. York • Fraser Johnston

made with aluminized steel