

When it comes to comfort

You may not know it, but you already own the cleanest, most efficient, and comfortable source for heating and cooling your home . . . the earth in your own yard! Geothermal DX brings it inside.

Direct Exchange Your Natural Energy Source



DX is the way of the future.

If you have never heard of geothermal heating and cooling before, we are confident you soon will. According to the Environmental Protection Agency (EPA), GeoExchange systems are the most energy-efficient, environmentally clean, and cost-effective space conditioning systems available. These systems can offer 40%-70% savings in your monthly utility bill and can be installed virtually anywhere from Texas to Minnesota. Direct Exchange can

be used in most residential and light commercial applications as well as retrofitted to existing systems.

We are American Geothermal DX and we manufacture the most efficient and comfortable GeoExchange system available today. We believe in the words Thomas Edison once said, "There is a better way to do it. Find it!" Because we are a state-of-the-art company we are continually

sharpening the edge of heating and cooling technology in our products and services. We also believe in simplicity, durability, and reliability. Our system will last twice as long as conventional HVAC and is backed by one of the best warranties in the business. Before making your decision to buy a geothermal heating and cooling system, we want you to know four things about us:

- We manufacture the most energy efficient and comfortable geothermal heating and cooling system in the world today.
- We want you to make an educated buying decision that is right for you, and we will do whatever it takes to help you learn what you need to know.
- We know what we're doing. We do it to the best of our ability, and we stand behind our products and everything we do.
- We are always accessible to you—before, during, and after the sale.

American Geothermal DX—It's the natural choice.



Your Local Dealer is:



Copper Development
Association
www.cda.org

1037 Old Salem Road
Murfreesboro, TN 37129 USA
www.amgeo.com
AmGeo@bellsouth.net
1-800-776-8039
(615) 890-6985
FAX (615) 890-6926



[www.epa.gov/appdstar/hvac/
geothermal.html](http://www.epa.gov/appdstar/hvac/geothermal.html)

Save 40%-70% on Your Utility Costs



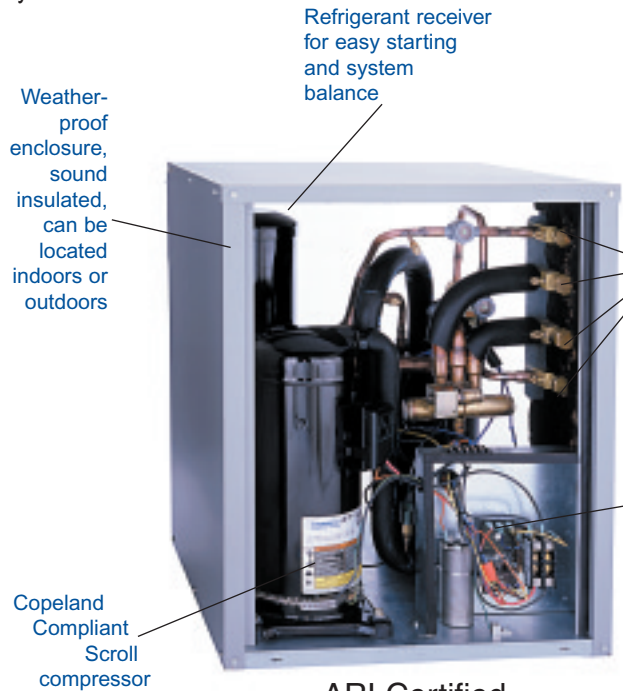
GEOTHERMAL HEATING AND COOLING... THE NATURAL CHOICE



The Natural Choice for Return on Investment...

Heating and cooling typically accounts for 75% of residential utility costs, and the type of system you choose controls whether or not you are comfortable when you are at home. The DX system cuts utility bills by 40% to 70% over other electric and fossil fuel systems. Its earthsmart design uses the ground as its primary energy source so additional electric power is only used to run the compressor and distribute heat into the home. With this efficiency, most homeowners recoup the installation cost within three to six years. Surveys by utilities illustrate a high level of satisfaction with GHPs compared to conventional systems. In fact, more than 95% of all GHP users would recommend a similar system to their friends and family. Plus the DX system has lower maintenance costs and longer equipment life -- almost double the life of most traditional systems.

Your HVAC system is the most important appliance in your home.



Weather-proof enclosure, sound insulated, can be located indoors or outdoors

Refrigerant receiver for easy starting and system balance

Isolation valves for easy maintenance

Simple but effective controls

Copeland Compliant Scroll compressor



The Natural Choice for Ultimate Comfort...

Superior efficiency is worthless if your home is not comfortable. The DX has been designed with that in mind. Our goal is to deliver unmatched comfort to your family. Sometimes air source heat pumps produce air temperatures that may feel drafty and uncomfortable in the winter. Conversely, fossil fuel systems generate blasts of heat that tend to dry out the air and reduce indoor air quality. The DX delivers supply air with a higher humidity level that is warm and comfortable to the skin, while maintaining a safe, healthy air quality for your family. In the summer, superior dehumidification and cooler exiting air temperatures combine to provide crisp, dry air that will actually allow you to raise your thermostat and achieve a level of comfort you have not experienced before. And with no outside unit, there is no concern with noise or unsightly equipment.

DX means Direct Exchange. The DX system exchanges the air temperatures in your home with temperatures found below the earth's surface -- cooler than the outdoor air in the summer and warmer than the outdoor air in the winter.

How? The earth around your home maintains a fairly constant temperature all the time. DX takes advantage of this stable temperature by circulating a clean and environmentally safe refrigerant through rugged copper tubing that has been installed beneath the frost or radiant heat line in your yard. DX systems exchange the heat from the earth by extracting it, compressing it to make it hotter, then evenly distributing this warm air throughout your home during the cold seasons. You feel warm, clean air coming from your vents.

The earth is the best choice for natural heating and cooling.

During warm seasons, DX exchanges the heat from your home, transferring it back to earth, where it is cooled and recirculated into your home. The air you feel is cool and clean, with low humidity. Direct Exchange moves the heat rather than creating the heat, and DX does this nature's way--without the use of fossil fuel. Because the system obtains its energy from the ground, it is typically able to provide 300%-600% more energy than the amount used to operate the equipment.

Air is circulated through the use of an air handler. Fans and ductwork are similar to those found in any forced-air furnace or air conditioner. In fact, you may be able to use most of your existing duct system and split unit to save on a Direct Exchange system. And, as a bonus, your DX system heats your water during the cooling season. No wonder DX is "The Natural Choice."



Monthly Bill before DX: \$221.00
Monthly Bill after DX: \$52.99

Home of Dennis Hyde
Middle Tennessee
Annual Savings \$2,016.12!
(76%)

Ground coil installation leaves your yard in a natural condition.

"...I heated previously with natural gas and cooled with a conventional system. With 3,800 square feet of living space...I was paying on the average of \$221.00 per month..."

"I would like to say thanks for convincing me to install a Direct Exchange Geothermal Heat Pump...after one year my heating and cooling bill now averages \$52.99 a month."

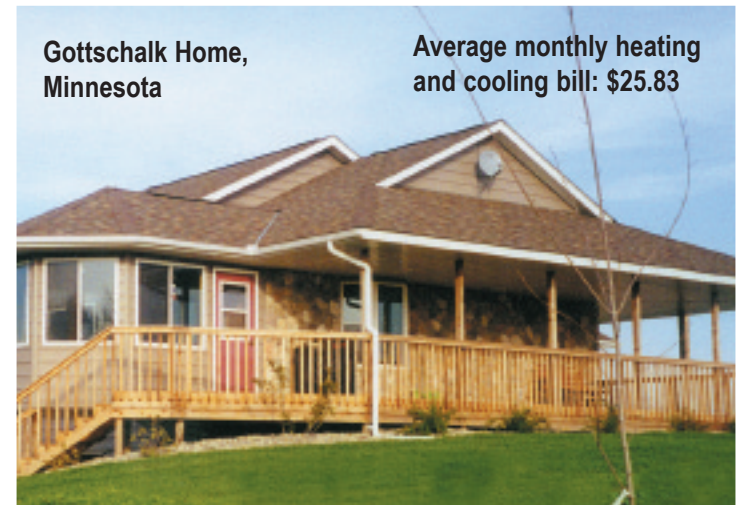
"Not only was the savings substantial, but the comfort was superior. No gas odors in the winter and super de-humidification while cooling. My wife suffers from allergies and she is convinced that this new system made a big difference."

The installation of a DX system usually takes two or three days.

Installation is similar to that of a conventional heat pump or split unit heating/cooling system, with the exception of the copper ground coil. The components are the copper ground coil assembly, a compressor unit, an air handler unit, ductwork, and a thermostat. The ground coil and compressor are supplied by American Geothermal. All other mechanical and electrical components are available from your local HVAC dealer and may include components made by Carrier, Trane, or many other manufacturers.

The installation of your DX system is completed by your independent dealer/contractor, and does not require any special certification or training. The copper ground coil may be set in either a field excavation or trench system or in vertical loops requiring drilling or boring. Depending on your site requirements, the ground coil can be installed in one day.

The compressor unit is exceptionally quiet-making about the same amount of noise as a refrigerator. It can be mounted indoors, outdoors, or in a crawl space or basement. If you already have a split unit, you may be able to use your existing air handler unit or furnace with the DX compressor unit and save the purchase of an air handler. (An existing furnace may also offer the advantage of dual-fuel backup heating.) The thermostat and air handler unit must be factory approved to ensure compatibility. And many of our customers upgrade comfort by installing name-brand variable speed blower motors or electronic air cleaners.



Gottschalk Home, Minnesota

Average monthly heating and cooling bill: \$25.83

"Our system was installed for our new home in July 1998. Our heating and cooling expenses have ranged from \$270 to \$350 per year. The system has been maintenance free thus far."

"If we were ever to build again, we would definitely make the same choice in our heating and cooling system."

Scott and Astrid Gottschalk
Minnesota



UT Test Home

Average Annual heating and cooling bill: \$310

Visit our website for energy savings on this retrofitted home monitored for over 3 years by the University of Tennessee.

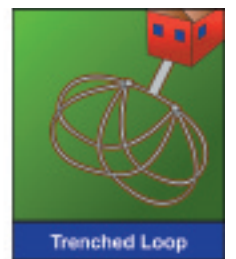
Installation Options



Horizontal Loop



Vertical Loop



Trenched Loop

DX is the Natural Choice for:

- ✓ 40%-70% Savings on Heating and Cooling
- ✓ No Visible or Noisy Outdoor Equipment
- ✓ Free Hot Water (75% of Your Utility Costs are for Heating, Cooling and Water Heating)
- ✓ Superior Supply Air Temperatures (100°-106° for heating & as low as 52° for cooling)
- ✓ Lower Maintenance
- ✓ An Environmentally Friendly System (with no outdoor air, ground, or noise pollution.)
- ✓ A Low Cost Replacement Option
- ✓ No Well Drilling or Water Pumps (Unlike Water-Source Geothermal Units)
- ✓ Longer Equipment Life
- ✓ Limited Lifetime Warranty on the Copper Ground Coil

Electric Utilities and Mortgage Companies Agree...

Geothermal is your economical heating & cooling option. Many electric utilities offer rebates and other incentives for customers who choose geothermal heating and cooling. Call your local electric utility for more information on financial incentives available in your area. And be sure to ask your mortgage lender about an Energy Efficient Mortgage which may help you qualify for more loan value based on lower expected utility bills.