



ASTON SERIES INDOOR & OUTDOOR SPLIT

HEATING | COOLING | HOT WATER

www.geostar-geo.com



GEO THERMAL HEAT PUMPS

WHAT IS GEOTHERMAL?

Geothermal units use the solar energy stored just below our feet to provide heating, air conditioning and hot water. The earth acts as a giant solar panel, absorbing roughly half of the sun’s heat energy. A series of pipes called a “loop” (see next page for more) is buried just below the frost line to tap into that stored energy. In the winter, heat is brought in

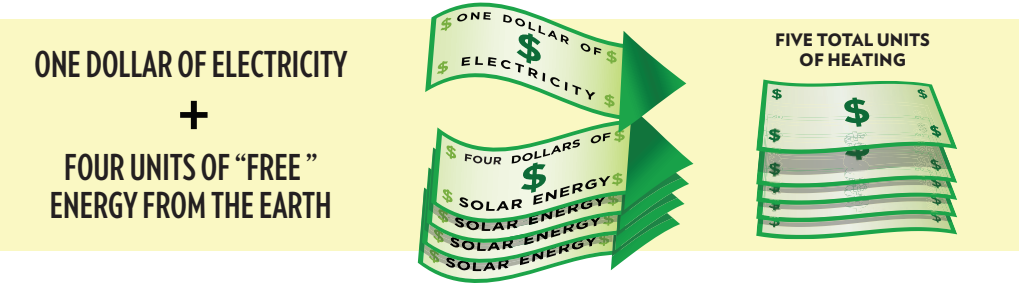
through the loop, concentrated, and delivered throughout your home. During summer, the excess heat in your home is removed and delivered back to the earth, completing the cycle. Because geothermal units use the earth’s natural heat, they are among the most efficient and comfortable heating and cooling technologies available.



GEOSTAR BENEFITS

Thanks to the unique way geothermal units operate, they provide a host of exciting benefits to you and our environment.

AMAZING ENERGY EFFICIENCY: Geothermal heat pumps don’t create energy, they simply move it. Only a small amount of electricity is used to circulate heat to and from your home. This allows GeoStar units to provide \$5 of heating for every \$1 worth of electricity used, while current “high-efficiency” fossil fuel furnaces provide only 98c. Our units are far more efficient than any conventional furnace!



COST EFFECTIVENESS: Though geothermal systems can be more expensive to purchase up front, the cost difference will be returned through drastically lower energy bills. Most GeoStar owners see savings up to 70% on their utility bills!

GREATER COMFORT: If used with the GeoStar air handler, a GeoStar unit runs only at the level needed by using a variable speed motor. It’ll slowly ramp up to speed rather than “roaring” to life like a traditional unit - resulting in even, consistent comfort. You won’t experience the large temperature fluctuations associated with other heating and cooling solutions.

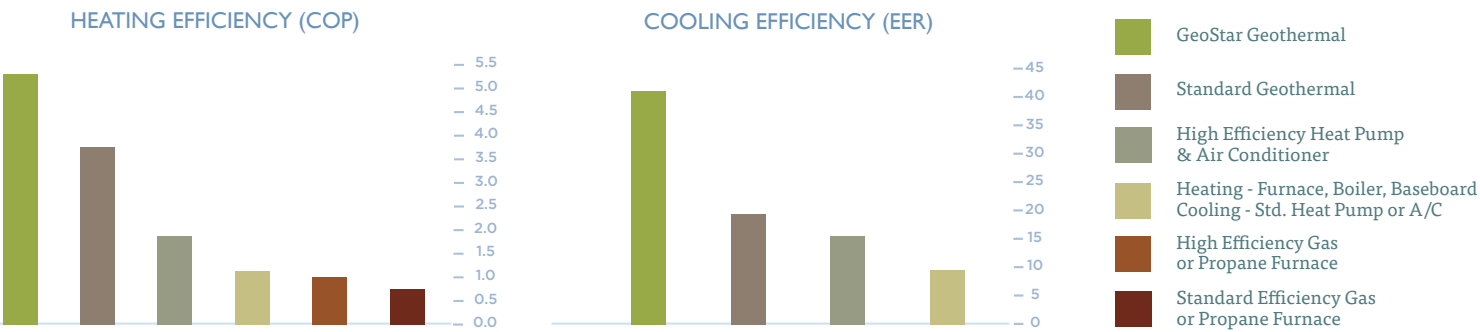
QUIET: With our unit, there’s no noisy outdoor equipment to disturb the peace or clutter your yard. Some homeowners have reported checking the unit to see if it’s running.

LONGER LIFE AND RELIABILITY: Because GeoStar units don’t require any outdoor equipment, they are protected from the rain, snow, environmental contaminants and abuse that hinders the efficiency of traditional air conditioners and heat pumps.

ENVIRONMENTALLY FRIENDLY: Geothermal units don’t burn any fossil fuels or create carbon monoxide. This reduces our dependence on foreign oil while working to reduce greenhouse gas emissions. One GeoStar geothermal unit is the environmental equivalent of taking two cars off the road forever. In fact, the Environmental Protection Agency (EPA) says the use of geothermal heat pumps is the most environmentally friendly and cost-effective way to condition our homes.

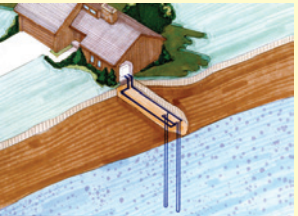
COMPARE THE PERFORMANCE

A GeoStar unit can reduce your annual heating, cooling and hot water costs by as much as 70% per year. No other gas furnace, air conditioner or heat pump comes close to the GeoStar’s efficiency. With continuous and dramatic increases in the cost of fossil fuels like natural gas, propane and fuel oil, the savings possibilities are even greater in the future. Your GeoStar dealer can use software modeling tools to estimate the heating and cooling costs for your home based on square footage, construction style, and climate.



GEOHERMAL LOOP TYPES:

There are four main loop types used in the geothermal industry today. Your GeoStar dealer can provide you with guidance and advice for your specific situation.



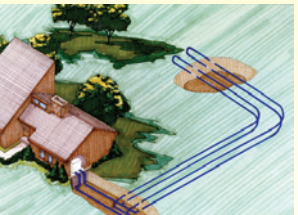
VERTICAL LOOP

Used when space is limited. Holes are bored approximately 125 to 250 ft. deep using a drilling rig. A pair of polyethylene pipes with a u-bend fitting is inserted into the holes. A typical home requires three to five bores with roughly a 15-foot separation between the holes.



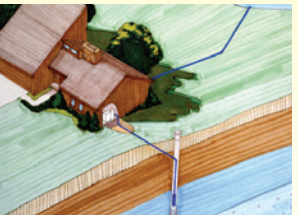
POND LOOP

If an adequately sized body of water is close to your home, a pond loop can be installed. A series of closed loops are coiled and sunk to the bottom of the pond or lake. A 1/2 acre, 8-foot-deep pond is usually sufficient for the average home.



HORIZONTAL LOOP

Used where adequate land is available. Horizontal loops involve one or more trenches dug using a backhoe or chain trencher. Polyethylene pipes are inserted, and the trenches are backfilled. A typical home requires 1/4 to 3/4 of an acre for the trenches.



OPEN LOOP

An open loop is used where there is an abundant supply of quality well water. The well must have enough capacity to provide adequate flow for both domestic use and the GeoStar unit. GeoStar units require 3 - 10 GPM, depending on size.



Homeowners who install an ENERGY STAR® rated geothermal system in the U.S. are eligible for a 30% federal tax credit. The 30% credit will last through 2032 and can be claimed on equipment and installation costs with no upper limit. The credit is scheduled to decrease to 26% in 2033 then to 22% in 2034, so act now for the most savings!



ASTON INDOOR SPLIT

GeoStar split systems are engineered for installations where space is an issue. Their compact size allows use in places where packaged units would be unable to fit, like attics or crawl spaces. The Aston Split is often used as a secondary unit in the home for a more remote zone. An optional hot water generator is available on the indoor split to provide preheated water at amazing efficiencies.

ASTON OUTDOOR SPLIT

GeoStar outdoor split systems are designed as an easy replacement to ordinary air source heat pumps. Their rugged, sealed cabinets allow use outdoors while still providing protection from the constant abuse of the elements. The loop pumps and earth loop connections are self-contained in the unit housing, eliminating the need for any indoor loop piping.

ASTON SPLIT FEATURES

Whether the split is located indoors or outdoors, it can be connected to a matching GeoStar air handler to efficiently heat and cool your entire home, one or more smaller zones, or add the unit to an existing fossil fuel furnace and the system will automatically select the most efficient fuel source for your home regardless of outside temperatures. Like all GeoStar products, the Aston Splits are designed to provide versatile heating and cooling with unmatched savings and environmentally friendly operation.

AURORA CONTROLS: Aurora Advanced Controls provide two-way communication between components and easy-to-use diagnostic capabilities. With the Advanced control option, it also provides energy, refrigeration and performance monitoring, and enables communicating zoning and Symphony remote diagnostics.

CABINET: The cabinet is covered with a clean, durable powder-coat finish providing long lasting protection against the elements. It is also fully insulated providing quiet operation.

COMPRESSOR: Premium scroll compressors provide exceptional efficiency and reliability. All compressors are mounted on a heavy-duty isolation plate with sound dampening rubber grommets to reduce operation noise.

REFRIGERANT SYSTEM: Aston split units utilize R-454B refrigerant which is recognized as having low global warming impact to protect the planet now and for future generations. Nitrogen is used in brazing to ensure an oxygen-free environment and prevents oxidation in the refrigerant lines. Each unit is vacuum tested and joints are thoroughly checked to prevent leaks.

SPLIT CONFIGURATION: Aston Series Split units provide the efficiency of geothermal and the versatility of a split system. When added to an existing fossil fuel system, the geothermal unit provides super-efficient heating and cooling with backup. When combined with our GeoStar air handler, the unit is ENERGY STAR rated.

FACTORY QUALITY: Our units are upheld to the strictest standards. Only the best components are used and assembled by our skilled technicians. Each unit is computer run-tested to make sure it's running at peak efficiency.



Brought to you by:

AHRI / ISO / ASHRAE PERFORMANCE RATINGS (13256-2)

Model & Size			Closed Loop		Open Loop	
			Cooling (EER)	Heating (COP)	Cooling (EER)	Heating (COP)
Dual Capacity	024	Full Load	18.4	3.9	23.8	4.6
		Part Load	25.2	4.3	30.0	5.0
	036	Full Load	19.8	4.2	25.2	5.0
		Part Load	27.8	4.5	33.8	5.1
	048	Full Load	18.2	4.2	24.3	4.8
		Part Load	25.8	4.6	30.9	5.1
	060	Full Load	18.2	3.9	23.7	4.4
		Part Load	25.4	4.2	30.5	4.7
	066	Full Load	16.9	3.7	22.1	4.2
		Part Load	23.5	4.0	28.1	4.4