

# THE GEOSMART ENERGY WAY

In these times of fluctuating energy costs and earnest efforts to preserve the environment, the smartest way to heat and cool your home is the GeoSmart Energy way.



GeoSmart Energy draws on the passion, knowledge and experience of a seasoned team of Geothermal Specialists.



GeoSmart Energy's line of premium geothermal systems is the most cost-effective, energy efficient and environmentally friendly way to bring you worry-free, year-round indoor comfort. Using advanced geothermal technology, we tap into the earth's natural heating and cooling properties through an underground loop system to consistently and evenly distribute warm or cool air throughout your home every season of the year.

The GeoSmart Energy brand is your assurance of adherence to the highest standards in quality, functionality and workmanship. Every system is backed by superior customer service and the best warranties in the business.



## Installing Geothermal Loops

When it comes to geothermal installation, no one knows more about how to do it right than GeoSmart's Geothermal Specialists. Backed by extensive training, our Geothermal Specialists are skilled in selecting and installing the geothermal loop system best suited for your home or business regardless of the weather and soil conditions in your area.

Each loop system uses GeoSmart's high density PE100 geothermal pipe, the most resilient geothermal pipe available on the market today. Once inserted in the ground, the pipe leads into the foundation of your building through either a sleeve cemented into the wall or under the footings and connects directly to your heat pump, bringing you years of worry-free, high performance renewable heating and cooling using the earth as a natural energy source.



### HORIZONTAL LOOPS

Horizontal loops are the most common type of loop system, and are commonly used in rural areas due to the land space needed for installation. An excavator will dig several trenches about six feet deep in the ground, each one up to 300 feet long. Our green geothermal pipe is placed in the trenches which are then backfilled with soil.



### VERTICAL LOOPS

Vertical loops are primarily used in urban areas because they require little land space for installation. A specially designed geothermal drilling rig bores vertical holes into the ground each ranging from 180 to 540 feet deep. Our green geothermal pipe is inserted into each vertical bore and then the holes are filled with bentonite grout.



### POND OR LAKE LOOPS

On properties that have a nearby lake or pond that is appropriate in size and eight feet deep, a loop system can be submerged at the bottom of the body of water. A single trench is excavated from the home to the water and typically two pipes are inserted into it. These two pipes connect to several green geothermal pipes that are submerged at the bottom of the lake or pond.



### OPEN LOOPS

Open loops are most commonly used on rural properties that have existing high capacity water wells. Ground water is withdrawn from an aquifer through a supply well and pumped into the heat pump, while discharged water from the heat pump is redirected into a second well and back into the same aquifer.

For more information about the GeoSmart Energy Premium G® system, please visit our website at [www.geosmartenergy.com](http://www.geosmartenergy.com)



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MKG-BRO-EN-G-02261



Premium Forced Air  
Comfort System

The Smartest Way  
to Heat and Cool  
Your Home.

# EFFICIENT



## Why choose geothermal?

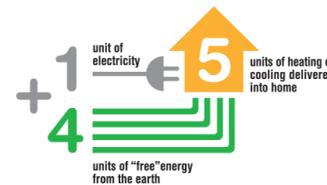
Designed using leading edge technology, GeoSmart Energy's Premium G® forced air systems set a new standard for heating and cooling efficiency while providing you with exceptional energy savings. Switching to a geothermal system like the Premium G® offers unprecedented benefits that conventional heating and air conditioning systems simply can't match.



**EXCEPTIONAL COMFORT:** Say goodbye to hot and cold spots. Our high efficiency Premium G® systems provide quiet, consistent and comfortable heating and cooling throughout every room in your home and offer superior humidity control. Using an optional intellizone zone control system, you can even regulate temperatures in different areas of your home.

**ENERGY EFFICIENT:** For every unit of electricity used by the Premium G® to operate the heat pump, it generates an incomparable four units of 'free' energy from the earth.

**COST-EFFECTIVE:** The Premium G® can dramatically reduce your annual costs for heating and cooling by as much as 75% compared with conventional furnaces and air conditioners! It is so efficient that you can expect your initial investment for installation to be offset by your energy savings. Installed in a new home, you will experience an immediate



positive return on your investment when the system cost is added to your mortgage. In homes where the system is replacing a conventional system, you should more than recover your investment through energy savings within a few years.

**SAFE, CLEAN AND ECO-FRIENDLY:** The Premium G® is neatly installed in the basement of your home, eliminating the need for unsightly and noisy outdoor air conditioning units. It is the environmental equivalent of planting 750 trees or removing two cars from the road. Unlike conventional furnace and air conditioning systems, it doesn't require combustion to generate heat. Therefore, it doesn't release harmful greenhouse gases or expose your family to risks for carbon monoxide poisoning. It also cleans the air in your home using a high efficiency electrostatic air cleaner that filters out irritants like dust and pollen.

**RELIABLE:** The Premium G® will meet all your heating, cooling and partial domestic hot water needs (optional) offering you years of worry-free comfort from the moment the system is installed. Designed to meet a wide range of home applications, it can easily be installed in both newly constructed and existing homes, regardless of what climate you live in.

The Premium G® can provide energy savings up to 75% compared with ordinary furnaces and air conditioners. Coupled with GeoSmart Energy's intelligent thermostats and an integrated monitoring system, it will provide the finest in home comfort and reliability.

## The Premium G®

The Premium G® features advanced technology and innovative components designed to achieve the highest levels of worry-free heating and cooling performance. Hidden behind its sleek blue and stainless steel exterior, the Premium G® features a durable single capacity or dual capacity scroll compressor that allows the system to dramatically change its capacity based on current weather conditions. It works at low capacity on mild days for exceptional

efficiency, and automatically shifts to full capacity on days where the temperatures are more extreme.

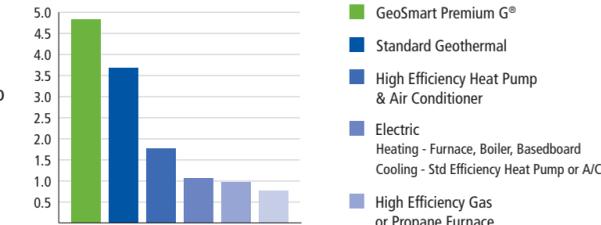
The system uses environmentally friendly R454B refrigerant, robust Aurora microprocessor controls and the unmatched energy efficiency of geothermal technology to deliver the finest in comfort and energy savings.

## Environmentally Friendly

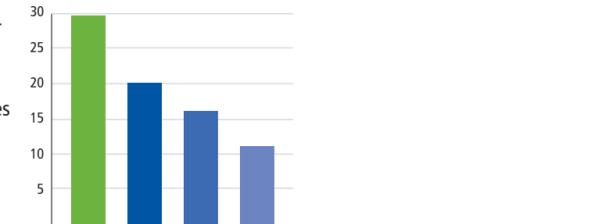
Premium G® by GeoSmart Energy sets new standards for efficiency and environmental friendliness. Because the system does not use natural gas or propane, there are no harmful emissions. It also helps to conserve precious resources that are rapidly depleting. And geothermal systems reduce our dependence on foreign oil products. In fact, geothermal systems have been recognized by the EPA and the Dept. of Energy as the most environmentally-friendly heating and cooling technology available today. So you can take comfort in knowing that your Premium G® works in harmony with nature while saving you money.

The GeoSmart Energy Premium G® series can dramatically reduce your annual costs for heating, cooling and hot water by as much as 75% per year. No other gas furnace, air conditioner or heat pump comes close to the Premium G®'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 GeoSmart Energy dealer can use a sophisticated software program to estimate the heating and cooling costs for your home based on square footage, construction style and climate.

### Heating Efficiency



### Cooling Efficiency



## Premium G® Features

**1 CABINET** The compact outer cabinet features a durable blue and stainless steel finish for long lasting beauty and protection. Reflective of today's stylish high-end appliances, the unit is fully insulated with cleanable, foil backed insulation for quiet operation.

**2 AURORA CONTROLS** Standard with Aurora Advanced Controls, offering two way communication between components, energy monitoring, desuperheater control, IntelliZone2 compatibility, and advanced troubleshooting capabilities. When paired with the WebLink, remote connectivity is made available through the homes internet connection.

**3 COMPRESSOR** Dual capacity units use a Scroll UltraTech™ compressor offering superb efficiency and reliability.



**4 BLOWER MOTOR** Our variable speed ECM (Electronically Commutated Motor) blower motor offers you up to 12 airflow selections, providing enhanced comfort, quiet operation and energy savings compared with standard motors used in conventional HVAC systems.



**5 ALUMINUM AIR COIL** Our exclusive all aluminum air coil resists corrosion and increases equipment life. Its large size improves efficiency and dehumidification during cooling.

**6 DRAIN PAN** The plastic, corrosion-proof drain pan resists bacterial growth and eliminates the possibility of condensate flooding through the use of electronic overflow protection.

**7 COATED WATER COIL** Our exclusive next generation ThermoShield™ coating on the coaxial water coil is an industry first! ThermoShield™ is a closed cell polyurethane foam insulation that is energy efficient and protects the heat exchanger for the life of the

MODEL & SIZE	COMP. MODE	CLOSED LOOP		OPEN LOOP		
		COOLING EER	HEATING COP	COOLING EER	HEATING COP	
DUAL CAPACITY	018	High	19.8	4.2	27.0	5.0
		Part	24.8	4.7	29.5	5.1
	024	High	19.2	4.1	25.2	4.9
		Part	26.6	4.6	31.8	5.2
	030	High	20.3	4.0	27.5	4.8
		Part	28.7	4.3	35.9	4.9
	036	High	20.8	4.5	28.4	5.3
		Part	30.0	5.0	35.6	5.5
	042	High	19.2	4.4	26.6	5.2
		Part	26.9	4.9	32.7	5.5
	048	High	18.9	4.4	24.9	5.1
		Part	27.3	5.0	32.7	5.5
	060	High	19.3	4.1	24.2	4.7
		Part	26.5	4.4	31.4	4.9
	072	High	18.3	4.0	23.1	4.6
		Part	25.1	4.2	29.7	4.6

## A Mark of Excellence

The GeoSmart Energy Premium G® is AHRI Performance Certified® by the Air-Conditioning, Heating and Refrigeration Institute, is safety listed by ETL (Electrical Testing Labs) and exceeds performance standards for the ENERGY STAR® rating.



GeoSmart system. It produces an even and airtight seal to prevent condensation and rusting. And not only is it green in colour, it is also environmentally safe.

**8 HOT WATER ASSIST (Optional Feature)** The unit preheats your water and delivers it directly to your water heater. The longer the Premium G® operates the more hot water it generates. In the heating mode, hot water is generated at the efficiency of the unit. In cooling mode, waste heat is recovered and your hot water is free!