

>PREMIUM **G**



**GEOSMART**  
ENERGY

Premium Comfort System

*Your best solution to high energy costs, enhanced comfort and improved reliability is the GeoSmart Energy System. Designed with leading edge technology, the Premium G Series takes heating and cooling efficiency to a new standard.*

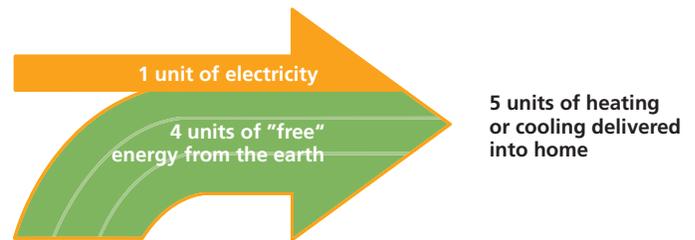
*Compared to ordinary furnaces and air conditioners, the Premium G can provide you with energy savings of up to 75%. Coupled with today's best thermostats and an integrated monitoring system, GeoSmart will provide the finest in comfort and reliability. Best of all, this smart technology uses the earth as a free energy source.*

## > THE GREEN CHOICE

GeoSmart Energy systems use the Earth's ability to store heat energy as a perfect source for high efficiency heating and cooling. Using advanced technology, GeoSmart systems tap into that stored energy to provide comfort for your home year round. Heat energy is collected and transferred through an earth loop—an underground piping system. With a GeoSmart Energy system, you'll not only save money, but you'll experience enhanced comfort and safe, quiet operation with a system that's environmentally friendly. That's why we call it "GeoSmart from the Ground Up".

## > GEOTHERMAL BENEFITS

**ENERGY EFFICIENT:** GeoSmart Energy systems are rated number one in energy efficiency because they can deliver an astounding five units of energy for every unit of electrical energy used.



**COST EFFECTIVE:** Because of the extraordinary efficiency of a GeoSmart Energy system, any added investment related to installing a geothermal unit is usually more than offset by your energy savings.

**COMFORTABLE:** Capturing the relatively stable temperature of the Earth to heat and cool your home, GeoSmart Energy systems provide consistent, comfortable heating and cooling.

**RELIABLE:** The GeoSmart Energy reputation for reliability has been earned by using only the highest-quality components, design and workmanship. Like your refrigerator, your geothermal unit will provide many years of dependable operation.

**QUIET:** GeoSmart Energy systems do not require noisy outdoor units that can disturb your peaceful surroundings or create unsightly additions to your homes appearance. All visual components are conveniently located in your mechanical room.

**SAFE:** Because fossil fuel is not required to operate a GeoSmart Energy unit, there is no combustion, flames or fumes and no chance of carbon-monoxide poisoning.

**FLEXIBLE:** One compact GeoSmart Energy unit provides heating, air conditioning and partial domestic hot water (optional).

**CLEAN:** Standard high-efficiency electrostatic air cleaners found in all GeoSmart Energy systems keep your indoor air quality clean, removing dust and pollen so you can breathe easier.

**ENVIRONMENTALLY FRIENDLY:** GeoSmart Energy systems harness free, renewable energy and provide an environmentally friendly way to heat and cool your home. Installing a GeoSmart Energy system is the environmental equivalent of planting an acre of trees or removing two cars from the road.

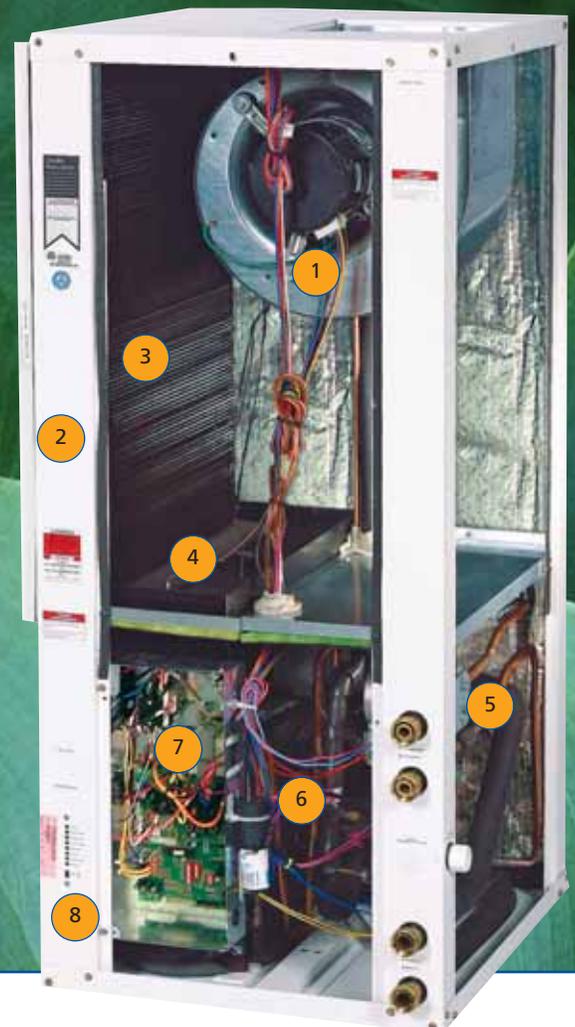
## > THE PREMIUM G TECHNOLOGY

GeoSmart Energy's **Premium G** products feature advanced technology and innovative components to achieve the highest levels of performance and peace of mind. Environmentally safe R-410A refrigerant is used in all units. **Premium G** units also include Copeland Scroll™ compressors in either single speed or dual capacity models. Scroll compressors are widely regarded throughout the industry as the most durable and efficient compressor technology. Dual capacity Scroll compressors used in some sizes allow the **Premium G** units to operate in low capacity on mild days for exceptional efficiency, then automatically shift to full capacity on days with extreme temperatures. This dual capacity operation provides you with the finest in comfort and energy savings. And with sophisticated yet robust microprocessor controls, compressor monitoring and today's best digital thermostats, the **Premium G** series sets the new industry benchmark.

## > THE PREMIUM G SERIES DESIGN

- 1 **BLOWER MOTOR:** A variable-speed ECM blower motor with up to 12 air-flow selections allows the unit to provide enhanced comfort, quiet operation and energy savings.
  - 2 **CABINET:** The cabinet is made of heavy-gauge galvanized sheet metal finished with a durable white powder-coated paint for long lasting beauty and protection. Fully insulated for quiet operation. Cleanable, foil backed insulation.
  - 3 **COATED AIR COIL:** Our exclusive FormiShield™ coating on the air coil resists corrosion and increases equipment life. Its large size improves efficiency and dehumidification during cooling.
  - 4 **DRAIN PAN:** Electronic overflow protection is included to eliminate the possibility of condensate flooding. Constructed of plastic, the drain pan is also corrosion-proof and resists bacterial growth.
  - 5 **HOT WATER ASSIST:** During heating and cooling, the **Premium G** preheats your water and delivers it to your water heater. The longer the unit operates, the greater the amount of hot water generated. In the heating mode the hot water is generated at the efficiency of the unit. In cooling, waste heat is recovered and hot water is free!
  - 6 **COMPRESSOR:** Copeland Scroll™ compressors are featured in all GeoSmart Energy products. Superb efficiency and reliability. Dual capacity units include Scroll UltraTech™ compressors. Mounted on double-isolation plates for extra quiet operation.
  - 7 **CONTROLS:** Sophisticated microprocessor control sequences components to provide ultimate performance. Onboard diagnostics allow for easy service. Controls communicate with thermostat to display service messages. ComfortAlert module monitors compressor operation for added reliability and easy troubleshooting.
  - 8 **LED STATUS LIGHTS:** Externally mounted status lights indicate normal operation or display faults and assist the technician in troubleshooting.
- FACTORY QUALITY:** GeoSmart Energy systems are the result of state-of-the-art research and development. Dozens of quality checks are performed throughout the assembly process, and computer-run testing is done on every unit, ensuring flawless start-up and long-term reliability.
- R-410A:** R-410A is an environmentally friendly, non-ozone-depleting refrigerant that enhances efficiency and savings.
- ARI CERTIFIED/ETL LISTED/ENERGY STAR RATED:** GeoSmart Energy **Premium G** Units are performance-certified by the Air Conditioning and Refrigeration Institute, safety listed by ETL and exceed performance standards for the ENERGY STAR rating.

Model & Size		Comp. Mode	Closed Loop		Open Loop	
			Cooling EER	Heating EER	Cooling EER	Heating EER
Dual Capacity	026	High	19.0	4.1	25.8	5.1
		Part	28.0	4.5	33.5	5.7
	038	High	19.8	4.2	24.1	4.9
		Part	28.0	4.8	31.2	5.3
	049	High	18.3	4.1	22.7	4.7
		Part	25.0	4.5	29.6	5.1
	064	High	17.5	3.9	22.2	4.4
		Part	24.8	4.1	29.0	4.5
072	High	16.5	3.5	21.5	4.5	
	Part	23.1	4.0	27.6	4.6	
Single Speed	022	Single	22.0	4.0	32.2	5.4
	030	Single	21.2	3.9	30.0	5.1
	036	Single	21.8	4.2	29.8	5.2
	042	Single	22.2	4.1	29.5	5.1
	048	Single	19.5	4.0	27.0	4.9
	060	Single	19.2	3.8	25.5	4.6
	070	Single	17.9	3.7	24.3	4.5

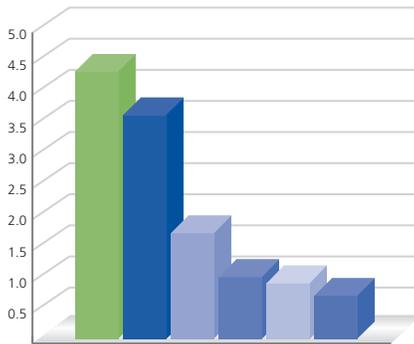


## >COMPARE THE PERFORMANCE

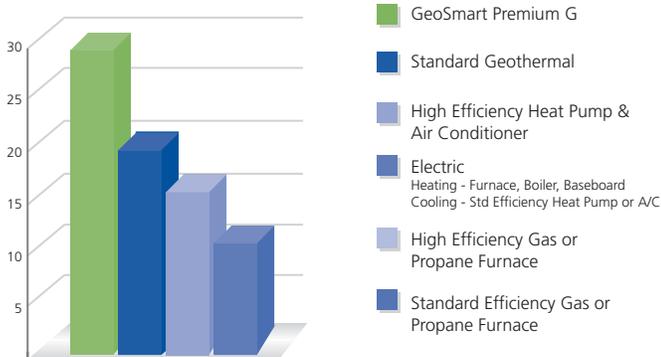
**Premium G** by GeoSmart Energy sets new standards for efficiency and environmental friendliness. Because the system does not use natural gas or propane, there are no harmful emissions. It also helps to conserve precious resources that are rapidly depleting. And geothermal systems reduce our dependence 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 60% 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

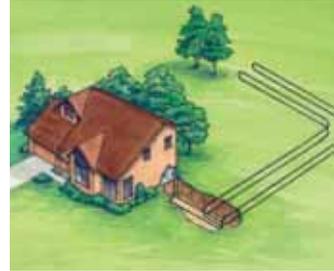


### COOLING EFFICIENCY



## >GEOTHERMAL LOOP TYPES

Our Geothermal Specialists are trained to determine the best type of earth loop to use in any situation. The type of loop used is based on available land space and installation costs for specific areas.



### HORIZONTAL LOOPS

Used where adequate land space is available, horizontal loops involve one or more trenches that are dug using a backhoe or excavator. High Density Green Geothermal Pipe is inserted, and the trenches are backfilled. Each trench ranges in length up to 300'.



### VERTICAL LOOPS

Vertical loops are used when space is limited. Holes are bored using a drilling rig, and a pair of High Density Green Geothermal Pipes with special u-bend fittings is inserted into the holes. A typical home requires three to five bores with about 10' between each hole. Bore holes can range from 75' to 300'.



### POND LOOPS

Gaining popularity in "Cottage Country," Pond or Lake Loops are a great choice if an adequately sized body of water is close to your home. This is an affordable alternative as excavation costs can be virtually eliminated. A series of High Density Green Geothermal closed loops can be extended and sunk to the bottom of the water body. A 1/2-acre, 8-foot-deep pond is usually sufficient for the average home.



### OPEN LOOPS

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 GeoSmart Energy unit. Discharge water should be sent directly to a second recharge well.

For more information on our Premium G systems please visit our website [www.geosmartenergy.com](http://www.geosmartenergy.com)



101 Holiday Inn Drive, Unit 100E, Cambridge, Ontario, N3C 1Z3 | o: 1.866.310.6690 | f: 1.866.533.3889

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**GEOSMART** GEOTHERMAL Specialist