

TRANQUILITY® WATER-TO-WATER SERIES



CLIMATEMASTER® GEOTHERMAL HEATING AND COOLING
DECLARE YOUR PERSONAL ENERGY INDEPENDENCE



NATURALLY CONTROL CLIMATE AND COST

Wherever you live, the temperature beneath your home remains constant regardless of the season. ClimateMaster® Geothermal Heating and Cooling Systems harness the stable underground temperature



to provide heating, cooling, and hot water at remarkably high efficiencies. So high, in fact, that energy use

can be cut by up to 80%. As the world's largest and most progressive leader in clean, renewable geothermal technology, ClimateMaster leads the way with its award-winning Tranquility® Series geothermal heat pumps.

HARNESS CLEAN, RENEWABLE ENERGY STORED IN THE EARTH

Nearly half the solar energy our planet receives is absorbed by the ground.

As a result, below the surface the earth remains a constant moderate temperature year-round. This provides an ideal source for heating and cooling your home. Geothermal systems use a sealed underground loop piping filled with circulating water and an ultra high-efficiency Tranquility® heat pump to exchange heat between your home and the earth.

In the winter, the earth is your source of heat.

Water circulating in the loop piping absorbs heat from the earth and carries it to the heat pump, where it is concentrated and sent as warm, comfortable air throughout your home.

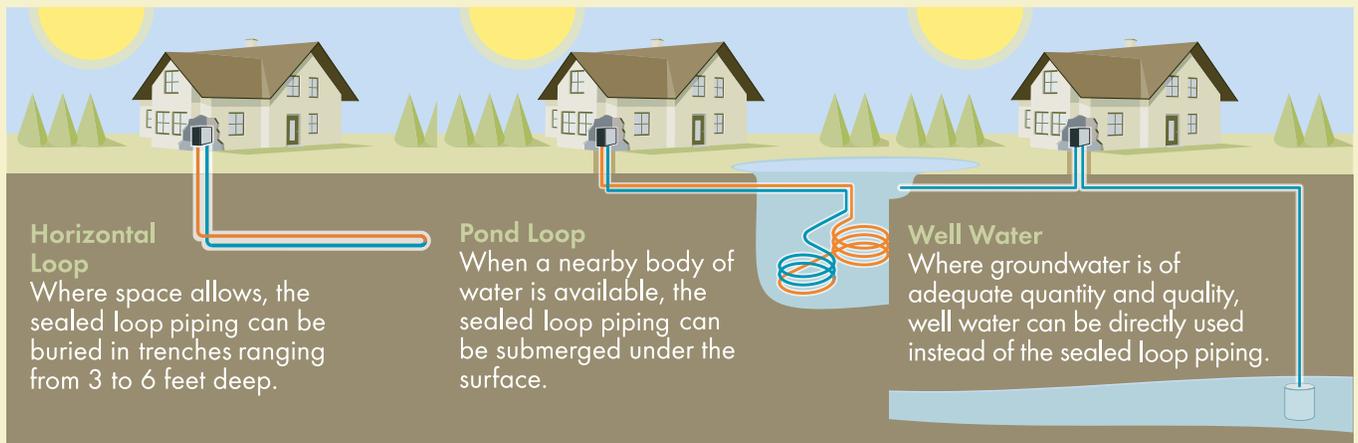
In the summer, the earth is your source of cooling.

The heat pump absorbs heat from the air in your home and transfers it to water circulating in the loop piping where it is absorbed by the earth. This provides cool, dehumidified and comfortable air throughout your home.

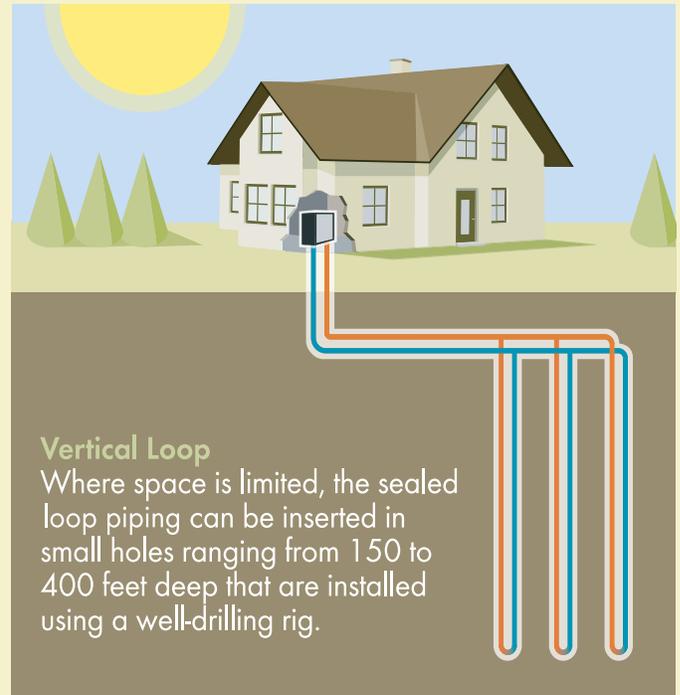
In all seasons, the system may provide nearly free hot water whenever it is in use.

Flexible to install.

Your geothermal loop is custom designed to fit your exact needs and available space.



ClimateMaster systems work year-round, in all climates, providing heating, cooling and hot water.



* Tranquility Brazed Plate (TBW) Water-to-Water units are **not intended for use with open loop (well water) applications.**

**Tranquility Coaxial (TCW) Water-to-Water units are intended for use with open loop (well water) applications only.



The Tranquility® Brazed Plate and Coaxial Water-to-Water Units.
The units can fit in a basement (as shown), utility closet, or garage.

COST SAVINGS

Natural Savings.

Over 70% of the total energy used in a typical home is for heating, cooling and water heating. With a geothermal heat pump system, up to 80% of this energy comes free directly from the earth.

Geothermal technology uses the stability of underground temperatures to maximize efficiency.

Low Utility Bills.

The Tranquility® Digital Split Series with vFlow® variable water flow technology provides you the highest energy efficiency of any heating and cooling system available. Efficiency equals savings, which means you will see substantially lower utility costs compared to even the most efficient traditional systems.

More Ways to Save.

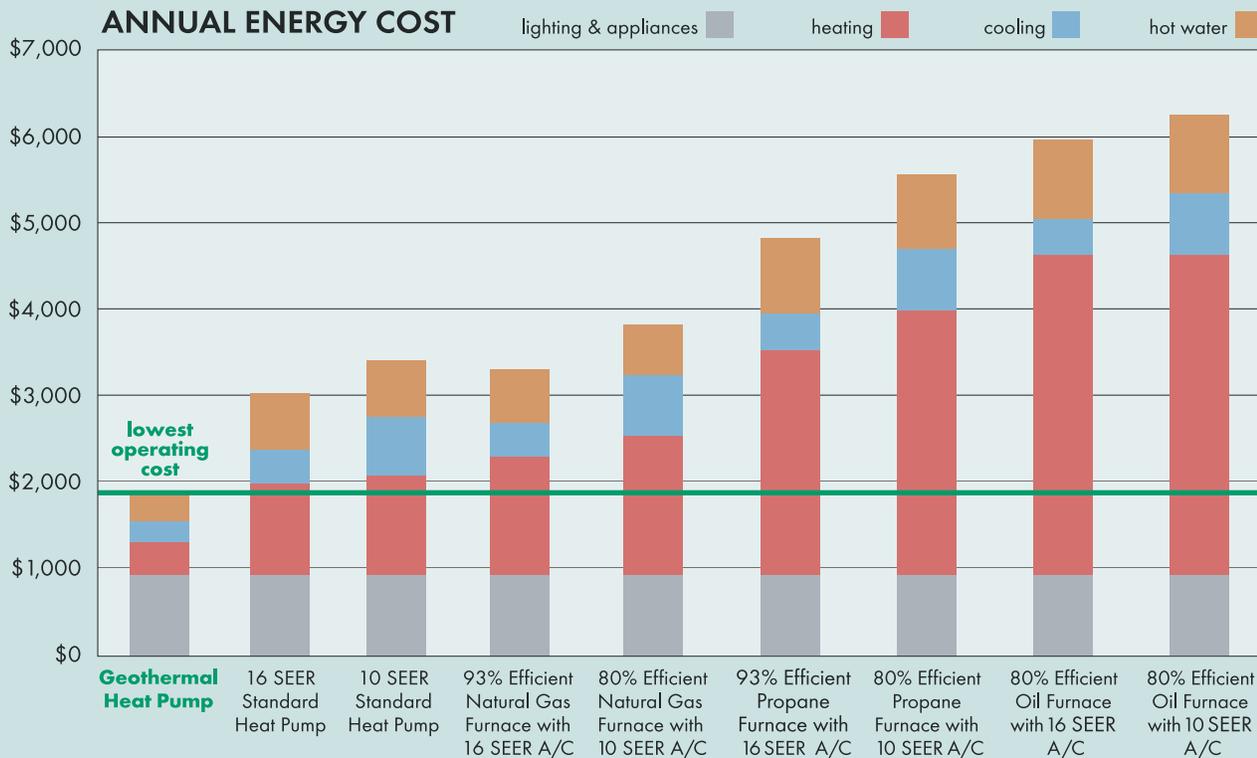
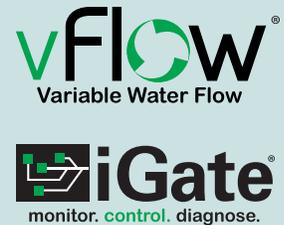
A federal tax credit saves you 30% on the total cost when you install a Tranquility® Digital Split system. Check with your state and local utilities to find out if additional incentives are available.

Leading Technology.

Get the latest in geothermal heat pump technology. The Tranquility® Digital Series advanced design includes two-stage operation, variable-speed fan, vFlow® variable water flow and iGate® communicating controls. This provides higher efficiency, quiet operation and automatically adapts to provide the optimum comfort and reliability no matter what the weather is outside. The variable-speed blower motor helps even out hot or cold spots in your home and eliminates the air blasts you feel with traditional systems. The Tranquility® Digital Split assures you of blissful comfort, maximum efficiency and low utility bills.

vFlow® varies the water flow through the unit to enhance reliability and reduce the cost to run water pumps by 60–80% compared to traditional single-speed external pumps.

iGate® uses the power of 2-way communication to monitor, control and diagnose your system. The result is maximum efficiency, superb comfort and improved reliability.



Calculations are based upon current utility costs for a typical home in the U.S. Midwest. Visit climatemaster.com to use our online energy calculator or contact a dealer for your detailed savings estimate.

ENVIRONMENTAL TRANQUILITY

Savings and Flexibility.

The ClimateMaster Tranquility® Water-to-Water series brings together the advantages of radiant floor heating with the benefits of geothermal technology, providing unmatched comfort and savings. The Tranquility® Water-to-Water series has installation options that can be used for snow/ice melt, spa, pool water heating, and free hot water. Water-to-water units can also provide chilled water to small fan coil units for zoned forced-air cooling if desired. The water-to-water series is available in a wide range of unit sizes for most any installation.

Pure Comfort.

A radiant floor heating system uses a series of pipes underneath the floor to heat a room. The entire surface of the floor radiates heat evenly, warming the feet and body first, making you feel warm. You may even set your thermostat several degrees lower as the floor temperature might be 85°F while the air temperature in the room is only 65°F. This saves you money, without sacrificing comfort.

Look Good.

One of the greatest advantages of radiant floor heating is the system is “invisible.” There are no registers, baseboard units, or radiators to obstruct furniture arrangements and interior design plans. There are no restrictions on where you can hang pictures and other décor in a room, making the most effective use of your wall and floor space.

Track Record.

Geothermal heat pumps are a reliable and proven technology that has been widely used for more than 30 years. Millions of geothermal heat pumps are in operation worldwide, keeping people comfortable in homes, schools, hospitals, military facilities and many other buildings.

Rest comfortably — knowing you are saving up to 80% on energy costs while reducing your impact on the environment.

Star Among Energy Stars.

The environmental advantages of ENERGY STAR® qualified Tranquility® heat pumps are clear. Up to 80% of energy supplied comes directly from the Earth and is clean, free and renewable. This means geothermal heat pumps offer the lowest carbon footprint of any space conditioning technology. According to the U.S. Environmental Protection Agency (EPA), geothermal systems are “the most energy-efficient, environmentally clean and cost-effective space conditioning systems available today.”



One advantage of the Tranquility® Water-to-Water Series is radiant floor heating that can also be used for snow/ice melt.

TRANQUILITY® TBW SERIES ADVANCED FEATURES AND OPERATION



Ground Loop Heat Pump			
Cooling		Heating	
Capacity (Btuh)	EER (Btuh/W)	Capacity (Btuh)	COP
30,400	16.5	26,900	3.10
56,700	17.3	47,100	3.10
113,400	17.3	94,200	3.10

ASHRAE/AHRI/ISO 13256-2

Installing TBW on open loop system will void warranty and unit will not be eligible for federal tax credit.

SYSTEM FEATURES

Water-to-Water Series

● Standard ○ Optional

Tranquility® Brazed Plate Water-to-Water (TBW)

Efficiency	Cooling	16.4
	Heating	3.1
ENERGY STAR® Designation		*Tier 3
30% Federal Tax Credit Eligible		Yes
Generates Load Hot Water up to 130°F EWT		●
Generates Load Chilled Water		●
Single-Stage Compressor		Yes
Source Heat Exchanger		Stainless Steel Brazed Plate
Load Heat Exchanger		Stainless Steel Brazed Plate
Thermal Expansion Valve (TXV)		●
Dual-Level Compressor Isolation		●
Stainless Steel Front Panel		●
Non-Communicating Electronic Controls		●
External Fixed-Speed Flow Controller		○
Warranty–10-Year Parts; 5-Year Labor Allowance		●
Warranty–10-Year Parts; 10-Year Labor Allowance		○

*TBW intended for ground loop (geothermal) applications only

Installing TBW on open loop system will void warranty and unit will not be eligible for federal tax credit.

TRANQUILITY® TCW SERIES ADVANCED FEATURES AND OPERATION



Ground Water Heat Pump			
Cooling		Heating	
Capacity (Btuh)	EER (Btuh/W)	Capacity (Btuh)	COP
36,200	23.10	35,300	4.00
56,600	20.30	60,300	4.00
113,200	20.10	120,600	3.90

ASHRAE/AHRI/ISO 13256-2

SYSTEM FEATURES

Water-to-Water Series

● Standard ○ Optional

		Tranquility® Coaxial Water-to-Water (TCW)
Efficiency	Cooling	23.1
	Heating	4.0
ENERGY STAR® Designation		**Tier 3
30% Federal Tax Credit Eligible		Yes
Generates Load Hot Water up to 130°F EWT		●
Generates Load Chilled Water		●
Single-Stage Compressor		Yes
Source Heat Exchanger		Coaxial Cupro-Nickel
Load Heat Exchanger		Copper or Cupro-Nickel
Thermal Expansion Valve (TXV)		●
Dual-Level Compressor Isolation		●
Stainless Steel Front Panel		●
Non-Communicating Electronic Controls		●
External Fixed-Speed Flow Controller		○
Warranty–10-Year Parts; 5-Year Labor Allowance		●
Warranty–10-Year Parts; 10-Year Labor Allowance		○

**TCW intended for open loop (ground water) applications only

NOTES:

The Right Choice.

ClimateMaster is the world's largest and most progressive manufacturer of geothermal heat pumps. We are committed to innovation and dedicated to environmentally clean, economically sound and superbly comfortable home and business environments. Each ClimateMaster product is produced in our state-of-the-art facility utilizing quality management systems. We strive for the highest product quality and service after the sale to give you peace of mind.

An LSB Industries, Inc. company (NYSE: LXU), ClimateMaster has been designing and building equipment that enhances environments we live and work in every day for more than 50 years. In addition to geothermal heat pumps, ClimateMaster offers the most extensive product line of water source heat pumps for use in a wide variety of applications.

ClimateMaster products are built in the U.S.A.



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An LSB Industries, Inc. Subsidiary (NYSE: LXU)



ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time for order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 405-745-6000 for specific information on the current design and specifications. Savings vary due to weather conditions, local conditions, user preferences, and utility rates. Statements and other information contained herein are not warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products.