

TRANQUILITY® 20 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 Heat Pump Systems harness the stable under-



ground temperature to provide heating, cooling, and hot water at remarkably high efficiencies. 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.

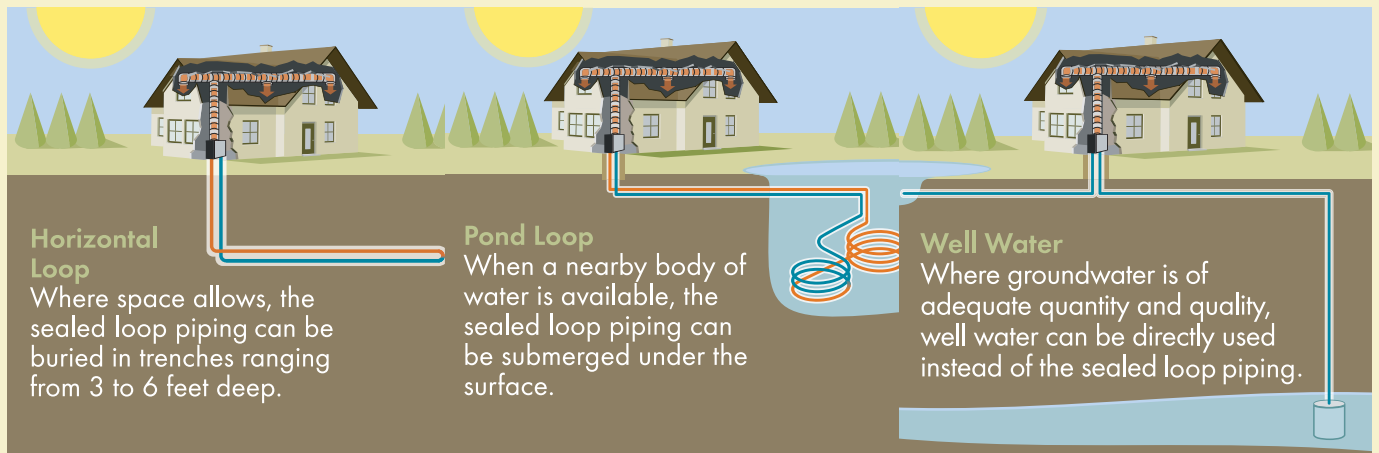
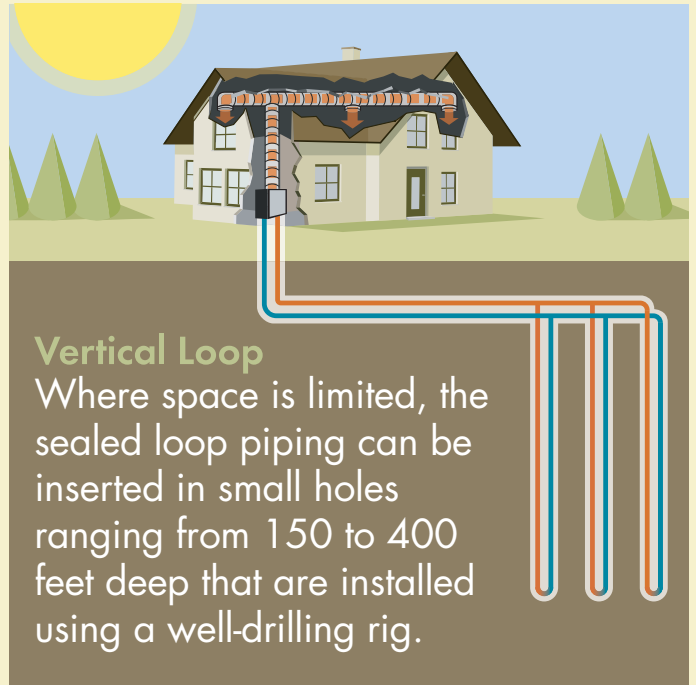
The heat pump absorbs heat from the air in your home and transfers it to water circulating in the loop piping where it is absorbed by the earth. This provides cool, dehumidified and comfortable air throughout your home.

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.





The Tranquility® 20 Series

The unit can fit in a utility closet (as shown), garage, basement, or attic.

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.

Check with your state and local utilities to find out if additional incentives are available.

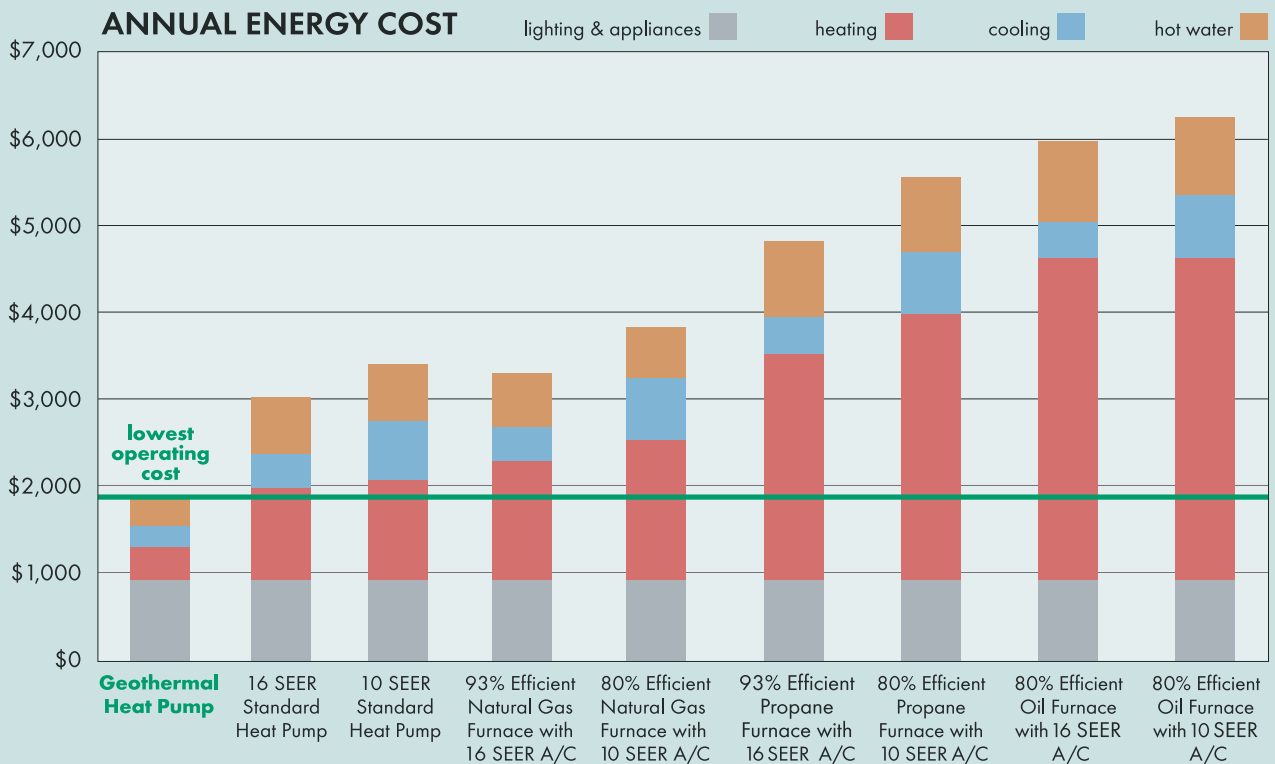
Leading Technology.

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.

HOMEOWNER SATISFACTION

Ultra-Quiet Operation.

To reduce noise, the Tranquility® Digital Series was designed and tested in our own certified sound lab, an industry exclusive. This series uses a double compressor isolation system that eliminates vibration and an acoustically lined cabinet. Also, unlike traditional systems, geothermal heat pumps have no noisy outdoor fans to disturb you or your neighbors.

Long System Life.

The Tranquility® Digital Series is designed for a long service life, assuring you of savings for many years to come. Exclusive iGate® technology ensures worry-free operation. Each unit is backed by a 10-year limited warranty. Underground pipe provided by ClimateMaster carries a 50-year limited warranty.

Safety and Cleanliness.

Geothermal systems use no flames to heat your home, so dangerous carbon monoxide and gas leaks are eliminated. The Tranquility® Digital Series uses foil-faced insulation and a stainless steel drain pan for easy cleaning.

Star Among Energy Stars.

The Tranquility® Digital Series has been recognized as the Most Efficient of ENERGY STAR® 2015 for both exceeding stringent efficiency requirements and for incorporating smart iGate® controls. This ensures you are getting both an EFFICIENT system and an INTELLIGENT system.



Track Record.

Geothermal heat pumps are a reliable and proven technology that has been widely used for more than 50 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.

Breathe Easier.

The Tranquility® Digital Split Series delivers superior air filtration for improved indoor air quality when equipped with the optional MERV 11 rated air filter. The optional EarthPure® Air Cleaner not only removes dust and pollen with high efficiency, it also removes odors that traditional filters are unable to remove.



TRANQUILITY® SERIES ADVANCED FEATURES

High-efficiency filter system provides superior indoor air quality.

Tin-plated air coil protects against corrosive environments.

Optional variable-speed blower motor helps reduce noise, increases comfort and adapts to zoning systems.

Optional hot water generator.

Electronic controls constantly monitor operation for reliability and long life.



The narrow cabinet is designed for easy movement through doorways, crawl spaces, and attic access.




Acoustically engineered for ultra-quiet operation.

Easy to clean, foil-backed insulation and stainless steel drain pans.

High-efficiency scroll compressor operates at lower pressures, extending service life.

Stylish, modern design.

SYSTEM COMPARISONS

Packaged Series ● Standard ○ Optional		Trilogy® 45 Q-Mode® (QE)	Tranquility® 30 Digital (TE)	Tranquility® 22 Digital (TZ)	Tranquility® 20 (TS)
		Efficiency	Cooling	45 EER	29.6 EER
	Heating	5.1 COP	5.0 COP	4.1 COP	4.3 COP
ENERGY STAR® Designation		Most Efficient			Tier 3
Compressor		Variable	Two Stage	Two Stage	One Stage
Q-Mode®—Free Cooling		●			
Communicating System					
iGate® ClimaZone™		○			
Advanced Monitoring and Diagnostics		●			
Wi-Fi Communicating Thermostat		●			
Non-Communicating Electronic Controls					●
Hot Water Generation		Dedicated Full Time	Part Time	Part Time	Part Time
Front Panels		Stainless Steel	Stainless Steel	Powder Coated	Stainless Steel
Air Filter		2" MERV 11	2" MERV 11	1" MERV 8	2" MERV 11
vFlow® Internal Variable Water Flow		●	○	○	
Indoor Fan	Variable Speed	●	●	●	○
	Single Speed				●
Configuration	Vertical Upflow	○	○	○	○
	Horizontal	○	○	○	○
	Vertical Downflow	○	○		○
Air Coil		Micro-channel	Tin Plated*	Tin Plated	Tin Plated**
Warranty—10-Year Parts; 5-Year Labor Allowance		●	●	●	●
Warranty—10-Year Parts; 10-Year Labor Allowance		○	○	○	○

*TE026-049 uses Micro-channel aluminum coil

** TS024-048 uses Micro-channel aluminum coil

TRANQUILITY® 20 Ground Loop Heat Pump Operation

Unit	ECM Motor Operation				PSC Motor Operation			
	Cooling		Heating		Cooling		Heating	
	Capacity (Btuh)	EER (Btuh/W)	Capacity (Btuh)	COP	Capacity (Btuh)	EER (Btuh/W)	Capacity (Btuh)	COP
TS-018	20,200	19.4	14,500	3.9	19,500	18.4	14,500	3.6
TS-024	25,500	20.9	19,100	4.2	25,300	18.9	19,200	4.0
TS-030	29,200	19.4	22,000	4.1	29,200	18.5	22,200	3.9
TS-036	34,600	20.4	25,600	4.3	34,300	19.2	25,900	4.1
TS-042	40,700	21.9	27,400	4.1	40,100	19.4	28,700	3.8
TS-048	50,600	18.8	36,100	3.7				
TS-060	64,400	18.4	46,400	3.9	63,900	17.2	46,900	3.7
TS-070	73,000	17.2	53,000	3.6				

Tested in accordance with ASHRAE/AHRI/ISO 13256-1

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.

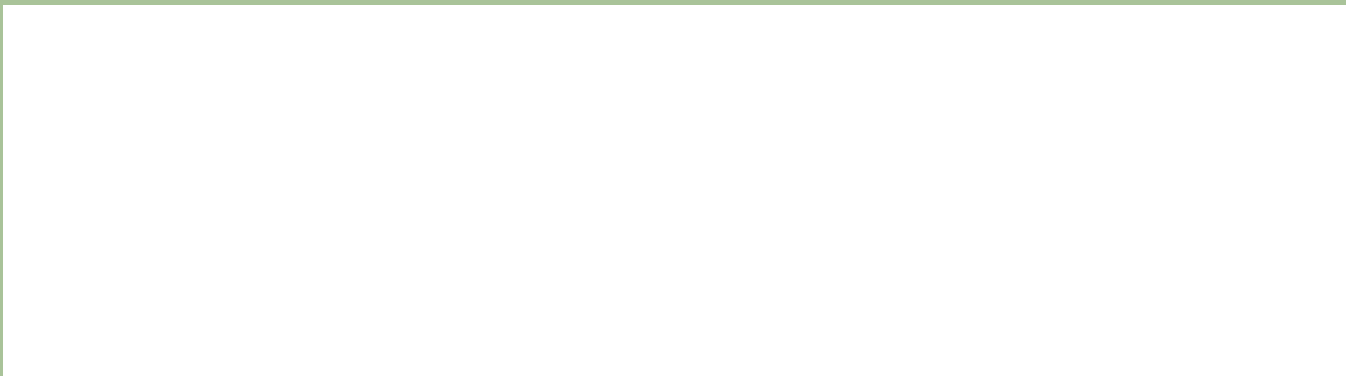
ClimateMaster has been designing and building equipment that enhances environments we live and work in every day for more than 50 years. In addition to geothermal heat pumps, ClimateMaster offers the most extensive product line of water source heat pumps for use in a wide variety of applications.

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



24-hour information:
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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.

Engineered and Assembled in the USA