



## Trane EnviroWise™ Geothermal Systems

Renewable energy keeps the comfort coming.



*It's Hard To Stop A Trane.®*





## A new frontier of home comfort.

### Trane has a tradition of quality lasting more than a century.



Trane Storefront  
La Crosse, Wisconsin 1891  
Courtesy of the La Crosse (Wisconsin)  
Public Library Archives

Over a hundred years ago, Reuben and James Trane made the decision to stand out from the crowd. To build a comfort system like no other, using uncompromising quality, innovation and reliability. Today, their legacy is found in everything Trane makes, from our premium materials to our industry-leading technology to our extensive product testing under the harshest

conditions. When you buy a Trane, you're buying a commitment from us, to you. A commitment to your total comfort, and your total peace of mind. Because that's what Reuben and James would have done.

In the years we've been in business, Trane has been driven by two factors. Your comfort, and your energy efficiency. Over the years, we've made impressive advancements in both fields that have elevated an entire industry. Now, with the introduction of Trane's line of EnviroWise™ Geothermal Systems, we're exploring new horizons in efficiency and comfort and offering our customers more. Which is just what you'd expect from a leader.

### There are a world of reasons a Trane EnviroWise™ Geothermal System is right for you.

- Efficiency, because Trane EnviroWise™ Geothermal Systems can return up to four dollars of heat for every one dollar of electricity used.\*
- Environmental friendliness, because Trane EnviroWise™ Geothermal Systems use renewable heat from deep inside the earth, a virtually limitless supply of energy.
- Comfort, because Trane EnviroWise™ Geothermal Systems provide consistent, even temperatures every day of the year.
- Reliability, because Trane EnviroWise™ Geothermal Systems are built with quality materials and exacting standards, and backed with robust warranties.
- Flexibility, because four different configurations allow Trane EnviroWise™ Geothermal Systems to adapt to any region, in any home.

\*According to [www.geoexchange.org](http://www.geoexchange.org)

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### Geothermal makes sense.

The Environmental Protection Agency has recognized geothermal systems as one of the most efficient ways to heat and cool your home. Why is this important? You may not realize it, but well over 50 percent of your home energy bill goes towards heating and cooling. Which just goes to show that a geothermal system gives you a significant opportunity for savings. In fact, a typical geothermal system operates with such efficiency that it can return up to four dollars of heat for every dollar spent on electricity.



### EnviroWise™ Geothermal Systems reduce noise pollution, too.

A Trane EnviroWise™ Geothermal System can be one of the quietest home comfort solutions you can install. Sound levels as low as 59.2 dB mean your home environment is not only more comfortable and efficient, but quieter as well.



Because it uses the near-constant temperature of the earth, geothermal is a sustainable, renewable energy source that not only won't run out, it remains efficient year after year in every kind of weather.



Since a Trane EnviroWise™ Geothermal System is so efficient, it can help lower your yearly energy use, and, therefore, your carbon footprint. You may even qualify for an energy tax credit.

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## The tough, reliable technology behind sustainable comfort.



Packaged System  
T2GX shown.

### 1 ClimaTuff® Compressor

State-of-the-art technology provides world class efficiency and reliability. Specially designed vibration damping mounts deliver near silent operation.

### 2 Variable-Speed Blower

Operates quietly and efficiently to deliver just the right amount of air to keep your home at the perfect temperature.

### 3 Coated Coil

A large surface area provides exceptional efficiency and humidity control. Specially coated to prevent formicary corrosion, enhancing long life and reliability.

### 4 Controls

Micro-processor technology combined with on-board diagnostics ensure reliability and long-lasting comfort.

### 5 Hot Water Option

Uses excess system capacity to help heat the water you need for bathing, washing dishes and laundry.

### 6 Drain Pan

Tough, durable and specially designed to prevent corrosion and bacteria. Includes electronic overflow protection.

### 7 Cabinet

Insulated for efficiency and quiet operation. Includes cleanable foil-backed insulation and a durable powder-painted surface that looks new for years.

## A Trane EnviroWise™ Geothermal System pays you back in many ways.

Not only will your Trane EnviroWise™ Geothermal System increase the efficiency of your home heating and cooling every month, thereby lowering your energy costs, it can also qualify you for a 30% tax credit\* through 2016. Local incentives and rebates may be available as well. See your Trane dealer for details.



\* Tax credit is subject to IRS regulations. Consult a tax professional for advice on tax preparation.

## Introducing True Variable Compressor Technology with Advanced Communicating Control.

Trane EnviroWise™ VS Series Geothermal Heat Pumps offer homeowners the ultimate in comfort and performance with the highest efficiency (over 40 EER and 5.3 COP) available today. In fact, 30% higher efficiency than two-stage geothermal heat pumps.



The VS Series incorporates the latest technologies in Variable Speed Compressors and Motors, Variable Speed loop pumps, and an advanced control system that includes energy monitoring, full diagnostic capability, and a dedicated communicating color touchscreen control. The VS Series is for those who accept only the best, and our Trane dealers have been trained to install this product to the highest standards.

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**Trane EnviroWise™ Geothermal Systems are available in one of three applications. Your Trane dealer can determine which system is right for your home.**



### **Packaged systems.**

These all-in-one systems circulate fluid through the earth, and through a coil that absorbs or dissipates heat depending on the season.

#### **TVGX**

The Trane TVGX series offers the ultimate in performance with an EER surpassing 40 and a COP over 5. Utilizing a true variable capacity compressor and variable speed blower with a fully communicating control package, this system offers comfort and efficiency at the highest level possible.

#### **T2GX / T1GX**

Trane's most selected packaged geothermal solution, offering the best features and efficiencies up to 29.4 EER efficiency and available in single and two-stage. The variable speed blower motor offers up to 12 airflow selections, to keep your comfort even and efficient. Optional heating for your water supply is available.

#### **T2GY**

A rating of up to 23.7 EER and two-stage heating and cooling mean you'll enjoy incredible comfort and efficiency from a combination of forced air heating, forced air cooling, radiant heat and a dedicated hot water heater. Variable speed airflow offers 12 different settings, and optional heating for your water needs is available.

#### **T2GC**

This mid-efficiency (up to 22 EER) two-stage is our most affordable and compact packaged system. Features like a ClimaTuff® compressor, optional hot water heating, and on-board diagnostics make this a sound investment.



### **Split systems.**

These systems use a ground loop connected to a refrigerant loop to absorb or dissipate heat, working more like a traditional heating and cooling system with an air handler or furnace inside your home.

#### **T2GN (indoor)**

These two-stage systems offer up to 33.1 EER, and work in conjunction with an air handler or furnace for enhanced indoor comfort. The GN system also offers optional heating for your water needs.

#### **T2GE (outdoor)**

Like the GN, this system offers the comfort of two-stage heating and cooling. It works in conjunction with an air handler, or with an indoor furnace to provide consistent temperatures from two different sources. The GE system has all geothermal components outside your home, therefore minimizing the space requirements inside.

#### **Hyperion XL (indoor air handler)**

Trane has engineered a model series of the Hyperion XL to specifically match with our EnviroWise geothermal heat pumps. The Hyperion XL's unique cabinet design meets the 2% energy loss standard and eliminates condensation. It also allows less moisture and fewer dust particles to be drawn in from garages, attics or crawl spaces.



### **Water heating and cooling systems.**

These systems circulate the fluid through the earth, transferring heat to and from another fluid loop built into your geothermal unit. They are ideal for radiant floor heating applications and can be used with select models of our Hyperion XL air handler and accessory water coil to deliver heated and cooled air through a ducted air system.

#### **T1GW**

Offers the efficiency of up to 17.5 EER and single-stage heating and cooling. Maintains comfortable temperatures through radiant heating and cooling, while providing hot water for daily use.

#### **T2GW**

For larger size applications and an efficiency of up to 22.5 EER, along with the flexibility of two-stage radiant heating and cooling.

### **EER and Savings**

The efficiency of any geothermal unit is measured by its EER, or Energy Efficiency Ratio. The higher the EER, the less energy your geothermal system uses to heat and cool your home, and the more you'll save every month.

**Ask about special financing plans  
for Trane Geothermal Systems**

## Efficiency starts deep inside the earth.

### Geothermal explained.

Simply put, a geothermal system doesn't heat or cool your home by burning fossil fuels or using electricity in the ways you're used to. Instead, it uses electricity to transfer the near-constant temperatures found deep in the earth to your home.

Geothermal works on a very simple principle: no matter what the air temperature is outside, under the surface of the earth, the temperature remains constant. Which means that during the summer, the earth is cooler than the outside air, and during the winter, the earth is warmer than the outside air.

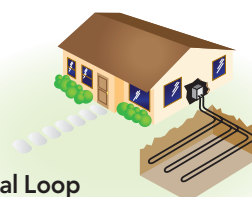
A geothermal system works like a heat pump, only on a much larger scale. In cold weather, your home is warmed by heat brought in from the earth. During warm weather, your home is cooled by the movement of heat from your home back into the earth.

There are four types of geothermal ground loops possible. Your Trane dealer will help determine which installation works best for your needs.



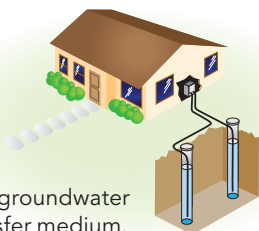
#### Vertical Loop

When space is limited, the heat transfer tubes are sunk straight down into the earth.



#### Horizontal Loop

When plenty of space is available, the heat transfer tubes are not as deep, and extend out rather than down.



#### Open Loop

Uses existing groundwater as a heat transfer medium.



#### Pond Loop

Uses the water in a nearby lake or pond to gather or reject heat through transfer tubes.

### From daily heating to showers and dishes.

Most EnviroWise™ geothermal systems have a hot water generator option that can be used to heat the water you need throughout the day, for everything from showers to laundry and dishes. So in addition to more efficient heating and

cooling for your home, you'll also save the energy you'd normally use to power a water heater. It's just one more way a Trane EnviroWise™ Geothermal System can help keep you comfortable and more energy efficient.



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Innovative Trane controls and thermostats enhance the comfort of your Trane EnviroWise™ Geothermal System.



ComfortLink™ II XL950 Control



XL824 Control



XR Series

#### **ComfortLink™ II XL950 Programmable Control:**

This central planning center integrates technology and comfort into your personal lifestyle like nothing else. The ComfortLink™ II XL950 Control features a high-definition color touchscreen, advanced scheduling, digital picture display capabilities, live weather forecasts, wireless connectivity and so much more.

**XL824 Programmable Control:** An interactive color touchscreen makes this control easy to use. With programmable schedules and wireless connectivity you can manage your energy consumption more efficiently. And the indoor relative humidity display helps you enhance your comfort even more.

**XR Digital Thermostat:** Easy to use and easy to see, thanks to a backlit display and keys. Features an outdoor temperature sensor, automatic changeover between heating and cooling and an air filter change reminder for forced-air EnviroWise™ Geothermal Systems.



**Ask your dealer how to get total control from wherever.**

Remote climate access is included through Nexia™ Home Intelligence with the Trane ComfortLink™ II Control. Nexia allows you to adjust heating and cooling in your home, and monitor and control energy use, all from wherever you happen to be, using your smart phone or web-enabled tablet or computer.



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## Independent Trane dealers value reliability as much as you do.



Your independent Trane dealer knows his or her reputation is made at every sale, and with every installation. Therefore, they are as personally invested in your comfort as you are, and take great pride in creating your perfect indoor environment.

Trane dealers are some of the most highly trained in the business, with advanced technical skills to optimize every installation and solve any issue.

They have an extensive understanding of the movement and conditioning of air, and the expertise to create a perfectly balanced, ultra-efficient system for every home.

Trane dealers believe in doing the job right, every time. Otherwise, they wouldn't be Trane dealers.

## Take comfort in our warranties.

Your Trane EnviroWise™ Geothermal System is all about comfort and peace of mind. So is the robust, no-nonsense limited warranty behind it. Every Trane EnviroWise™

Geothermal Heat Pump includes 10 years parts protection and 5 years labor allowance\*. So the comfort keeps coming. Specific details are available from your Trane dealer.

\*Labor subject to fixed rates set by manufacturer.



Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$13 billion global business committed to a world of sustainable progress and enduring results.



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