WaterFurnace
Smarter from the Ground Up™

Geothermal Comfort System

7 Series

700R11

The 7 Series 700R11

Indoor Split with Variable Capacity Technology

The WaterFurnace 7 Series is quite possibly the most advanced heating and cooling system on the planet. It provides homeowners the ultimate in comfort and performance and represents our finest products. This line is for those who accept only the best and is built using the latest technologies and highest standards.

The 7 Series signifies groundbreaking innovations on multiple fronts - and now we're offering it in a split configuration for flexibility in installation. With incredible efficiency ratings surpassing 40.8 EER and 5.2 COP, the 7 Series Split is vastly more efficient than ordinary conditioning systems and 30% more efficient than current two-stage geothermal heat pumps. The 700R11 is ENERGY STAR rated and was engineered in the HVAC industry's only ISO 17025:2017 accredited Laboratory.

Our Aurora communicating controls work in unison with the variable capacity compressor, variable speed loop pump, and variable speed blower motor in the air handler to offer a level of comfort you have to experience to believe. Best of all, 7 Series units use the stored energy in your yard to provide savings up to 70% on heating, cooling, and hot water. We're extremely excited to share it with you.

Why Geothermal?

Geothermal is perfect for those who want to dramatically reduce their energy usage, save money on bills, and enjoy a more even, consistent comfort in their home. Over the next few pages we'll tell you a little more about geothermal and show you how you can benefit from a technology that's ***Smarter from the Ground Up™***.

Comfort that gives back

Geothermal's benefits

Geothermal heat pumps are not only the most comfortable way to heat and cool, they're also the most cost effective. They're versatile enough to excel in almost any home or any environment, and you'll find geothermal in more than 1 million households across Canada and all 50 U.S. states. They can be scaled for single-family homes to entire college campuses. In fact, we heat and cool our entire 110,000 square-foot headquarters with WaterFurnace equipment. Here are a few reasons why geothermal is one of the fastest growing technologies available for your home.

QUALIFIES✓ GEO TAX CREDIT **30%**

Extra savings for geothermal

A 30% tax credit on equipment and installation costs is currently available to U.S. homeowners who install an ENERGY STAR rated geothermal system. The credit can be used to offset both AMT and regular income taxes and can be carried forward into future years. The 30% tax credit will last until the end of 2032 when it is scheduled to decrease to 26% in 2033 and 22% in 2034. Hurry and act now for the most savings!

Safe

Because no natural gas, propane, or oil is used in a geothermal installation, it's the safest method of heating and cooling available for your home.

Comfortable

WaterFurnace units are designed to run more often at low speeds to provide stable temperatures throughout the home and help eliminate hot or cold spots. They provide a comfort you need to experience to believe. To achieve precise control over temperatures in up to 6 areas, add our IntelliZone2 zoning system.

Reliable

Because geothermal units aren't subjected to the punishing effects of outdoor weather or fuel combustion, they last longer than nearly any other heating and cooling system. According to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, geothermal units have an average equipment life of 25 years while the underground loop system has a rated material life of more than 100 years. Ordinary air conditioners, furnaces and heat pumps are rated for only 12-18 years.

Quiet

WaterFurnace systems don't require noisy outdoor units that can disturb your peaceful surroundings or create unsightly additions to your home's appearance. We've also taken a number of steps to ensure your unit is as quiet as possible so you can enjoy the peaceful, clean comfort that only geothermal can provide.

Environmentally Friendly

Geothermal systems are recognized by the United States Environmental Protection Agency as the most environmentally friendly, cost effective and energy efficient heating and cooling technology available. These systems also minimize the threats of acid rain, air pollution, the greenhouse effect and global warming—problems directly linked to the burning of fossil fuels. In fact, installing a single geothermal unit is the environmental equivalent of planting 750 trees or removing two cars from the road.

Cost Effective

Because of the extraordinary efficiency of a WaterFurnace system, most homeowners save more on monthly bills than they pay for the system when installation costs are added to the mortgage. Any added investment over traditional equipment is usually recovered in just a few years, and many homeowners see a return on investment of 10-20% over the life of the system.

No Fossil Fuels

When installed with a WaterFurnace Air Handler, no fossil fuels are used in a 700R11 installation. WaterFurnace systems don't create heat—they simply move it to and from the earth. Since there are no fossil fuels, geothermal comfort is the cleanest method of heating and cooling available today.

Flexible

One compact WaterFurnace unit provides heating, central air conditioning, and supplemental domestic hot water for your entire home. Indoor splits are available for a wide range of home applications, including newly constructed as well as existing homes.No matter what climate you live in, your WaterFurnace system will deliver.

Energy Efficient

WaterFurnace systems are rated number one in energy efficiency because they can deliver more than five units of energy for every one unit of electrical energy used. Compare that to even the best ordinary system that delivers less than one unit of energy for every unit it consumes. That translates into an efficiency rating exceeding 520%, compared to the most efficient gas furnace which rates only 98%.

Using the earth to heat & cool

The geothermal difference

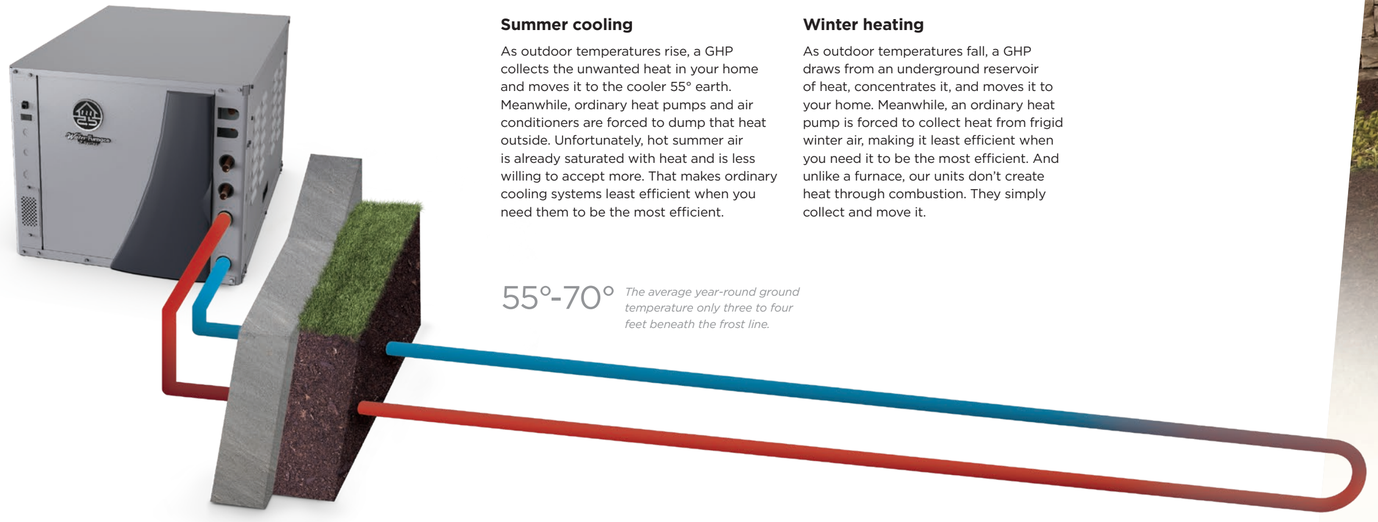
A geothermal heat pump (GHP) taps into the renewable solar energy stored in the ground to provide savings up to 70% on bills. Using a series of underground pipes, it exchanges heat with the earth instead of outdoor air. While air temperatures can vary greatly from day to night or winter to summer, the temperature just a few feet below the earth's surface stays an average 55°-70°F year-round.

Summer cooling

As outdoor temperatures rise, a GHP collects the unwanted heat in your home and moves it to the cooler 55° earth. Meanwhile, ordinary heat pumps and air conditioners are forced to dump that heat outside. Unfortunately, hot summer air is already saturated with heat and is less willing to accept more. That makes ordinary cooling systems least efficient when you need them to be the most efficient.

Winter heating

As outdoor temperatures fall, a GHP draws from an underground reservoir of heat, concentrates it, and moves it to your home. Meanwhile, an ordinary heat pump is forced to collect heat from frigid winter air, making it least efficient when you need it to be the most efficient. And unlike a furnace, our units don't create heat through combustion. They simply collect and move it.



55°-70° *The average year-round ground temperature only three to four feet beneath the frost line.*

Note: Illustration represents how geothermal works and is not to scale. Loops are generally 4-6 feet below the earth's surface and between 150-400 feet long.

Traditional Air Conditioner

Summer air is already saturated with heat and is less willing to accept more. Thanks to the constant temperature of the earth, geothermal is more than twice as efficient at cooling than any ordinary heat pump or air conditioner.

Fossil Fuel Furnace

Ordinary furnaces return less than 98¢ of heat for each dollar spent burning polluting fossil fuels, while a geothermal system returns up to five dollars of heat for each dollar spent on electricity. That's because our units don't create heat through combustion. They simply collect and move it.

The heart of a geothermal system

Geothermal earth loops

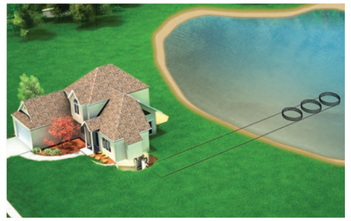
A geothermal system uses a series of underground pipes called a “loop.” The earth loop eliminates the need for fossil fuels. It’s the heart of a geothermal system and its biggest advantage over ordinary heating and cooling technologies. The type of loop used is based on available land space and installation costs for specific areas.

Horizontal Loop

Used where adequate land is available, horizontal loops involve one or more trenches that are dug using a backhoe or chain trencher. High density polyethylene pipes are inserted, and the trenches are backfilled. A typical home requires 1/4 to 34 of an acre for the trenches.

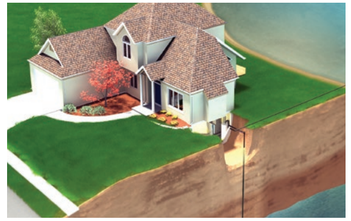
Vertical Loop

Vertical loops are used when space is limited. Holes are bored using a drilling rig, and a pair of pipes with special u-bend fittings is inserted into the holes. A typical home requires three to five bores with about a 15-foot separation between the holes.



Pond Loop

If an adequately sized body of water is close to your home, a pond loop can be installed. A series of coiled, closed loops are sunk to the bottom of the body of water. A 12 acre, 8-foot-deep pond is usually sufficient for the average home.



Open Loop

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 WaterFurnace unit. 7 Series units require 3-10 GPM, depending on size.

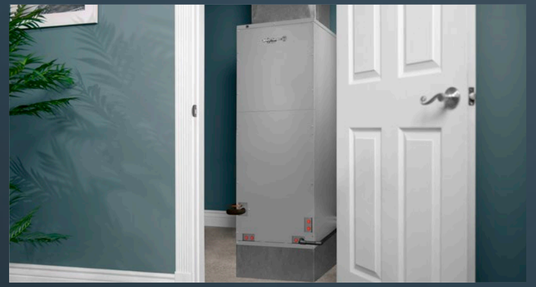
Directional Bore

Perfect for homeowners who need minimal landscape disruption, these loop types take advantage of the space available below ground. A directional bore loop can be installed either vertically or horizontally depending on yard space.

Split configuration for maximum flexibility

The 7 Series Indoor Split technology

WaterFurnace 7 Series Splits are engineered for homes with limited utility space or that require multiple units. While the 700R11 is perfect for providing heating, cooling, and hot water to the entire building, it can also be added to a packaged 7 Series 700A11 for improved humidity and temperature control in hard-to-condition areas like an upstairs bedroom or a basement. In either case, a 7 Series is the most efficient way to condition any home and is a smart investment for your family.



The 7 Series SVH Air Handler—Engineered for the 700R11

The 700R11 was designed to operate exclusively with the SVH Air Handler. It features a variable speed ECM blower motor for the ultimate in efficiency and can be ordered with electric backup heat for those rare instances where you need an extra boost of heating.

Compact design meets ultimate performance

Components of the 7 Series 700R11

Design Components:

1. Cabinet: The cabinet comes standard with a professional grade finish for long-lasting beauty and protection. The system is fully insulated for quiet operation with cleanable foil-backed insulation.

2. Aurora Interface Diagnostic Port: WaterFurnace is the first to offer an external communication port, which allows service and diagnosis of our units without ever having to open them.

3. Hot Water Generation: With an optional hot water assist, the 7 Series 700R11 preheats your water and delivers it to your water heater. The longer the unit operates, the greater the amount of hot water generated.

4. ThermaShield™: Our exclusive coaxial heat exchanger coating protects against condensation for temperatures below 50°F, extending its life.

ISO/AHRI 13256-1

		Closed Loop		Open Loop	
	Model & Size	Cooling EER	Heating COP	Cooling EER	Heating COP
033	Full Load	20.3	3.4	29.2	4.5
	Part Load	36.0	5.2	46.0	5.7
042	Full Load	19.7	3.5	28.2	4.2
	Part Load	40.8	5.1	52.0	5.8
050	Full Load	17.1	3.2	24.3	3.8
	Part Load	35.5	5.0	45.6	5.8

Most Efficient 2024 ENERGY STAR www.energystar.gov

AHRI CERTIFIED www.ahridirectory.org Water Source HP ANSI/AHRI/ISO/ASHRAE/ISO13256-1

5. Variable Capacity Compressor: WaterFurnace was the first geothermal brand to offer residential variable capacity units. Variable capacity compressors offer soft start capabilities and gently ramp up to speed for quiet and efficient operation.

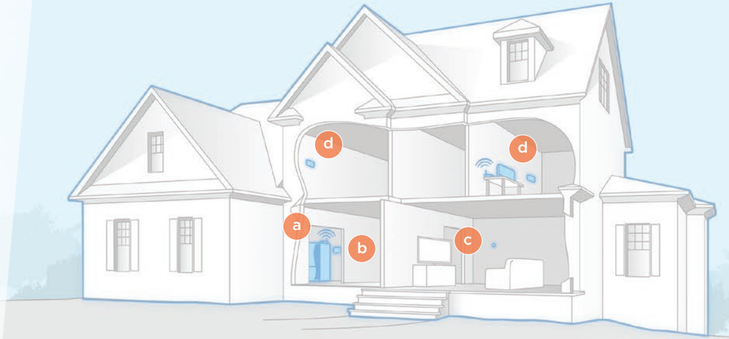
6. Aurora Controls: The powerful Aurora Controls offer two-way communication between components, advanced operating logic, and robust trouble shooting capabilities. Aurora also adds support for true energy and performance monitoring as well as compatibility with the Symphony Home Comfort Platform and our IntelliZone2 zoning system.

7. Split Configuration: The 700R11 was designed to operate exclusively with the SVH Air Handler. It features an ECM blower motor for the ultimate in efficiency and electric backup heat for those rare instances where you need an extra boost of heating. It's field convertible and offers quiet and efficient comfort.

Finishing touches

Accessories

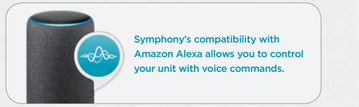
Choosing the right accessories can greatly improve the comfort levels in your home and can even allow you to expand the functions of your existing WaterFurnace system. Each item has been designed to work hand in hand with your system to allow flawless and convenient operation. Here are some of our most popular accessories. Visit ***waterfurnace.com*** for more.



Symphony Web-Enabled Home Comfort Platform

Imagine a platform that can provide detailed feedback of your comfort system in real-time and the tools to control it all from any web-enabled smart phone, tablet, or computer. That's Symphony. Symphony is a Wi-Fi based comfort platform that's unsurpassed in its ease of use, feature set and the level of information it provides. Symphony marries the Aurora controls of a WaterFurnace geothermal system with our WebLink router, giving you access to the comfort system from practically anywhere. Symphony is cloud-based so there's no software to install and provides control over the entire geothermal system-not just the temperature as in other 'smart thermostat' systems.

a. Aurora WebLink
b. Symphony Thermostat
c. Invisible Thermostat Capability
d. Advanced Zoning System



Symphony's compatibility with Amazon Alexa allows you to control your unit with voice commands.

Note: Depending on the control package not all Symphony features may be available.

TPCC32U01 Deluxe Touch-Screen

A beautiful communicating color touch-screen thermostat that provides intuitive comfort control. This programmable thermostat can also provide instantaneous and 13 month energy monitoring history.* The TPCC32U01 features 3 heat and 2 cool stages, dual fuel capabilities, Comfort Talk error communication, humidity control, outdoor sensors and more.

** Energy monitoring requires our AXB advanced controls.*

TPCM32U04A Elite Programmable

This powerful thermostat is great for any system. It allows dual fuel capability, winter humidity control, text based output and Comfort Talk error communication.

IntelliZone2®

The IntelliZone2 allows you to precisely control temperatures in up to four different areas with our dual capacity systems and up to six different areas with our variable capacity equipment. The result is the ultimate in comfort and cost savings. You've already chosen the finest heating and cooling system available; now choose the most advanced zoning system available to control it.

The IntelliZone2 24V option is also available for any WaterFurnace system not equipped with Aurora Advanced (AXB) Controls.

SVH Air Handler

Combining comfort with versatility, the SVH Air Handler was engineered specifically for the 7 Series 700R11 to provide the ultimate in heating and cooling for your home.

GeoTank™

The WaterFurnace GeoTank is simply the best way to capture free preheated water from your unit.*

**GeoTank is to be used in series with another hot water heater to maximize hot water generation capacity.*

The WaterFurnace name has been synonymous with geothermal since we were founded in 1983. Over the years we've worked to innovate new technologies, integrate key trends and grow our core business to represent clean and sustainable solutions. Our units combine sound engineering with the highest levels of quality control to provide you with some of the most efficient heating and cooling systems on the planet. WaterFurnace—***Smarter from the Ground Up.***

ISO Accreditation and Certifications:

Registered ISO 9001:2015 Company

Accredited ISO 17025:2017 Laboratory

Certified ISO 14001:2015 Company

WaterFurnace® *Smarter from the Ground Up™*

visit us at ***waterfurnace.com***

MADE IN THE MIDWEST

GEO PROUD MEMBER

c ETL LISTED US Intertek

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