



Y5WZE OPTIHEAT MODEL | 16.1 EER & 3.3 COP

AFFINITY™ SERIES

## GEOTHERMAL HEAT PUMPS

WATER TO WATER





10°

## Heating Mode

When temperatures drop, a geothermal heat pump taps into the heat stored underground and concentrates it to keep your home warm. It doesn't use combustion nor emit any on-site gasses like carbon monoxide or carbon dioxide. Moving heat instead of creating it makes geothermal the most efficient heating solution available.

The ground absorbs 46% of the sun's radiation.

96°

## Cooling Mode

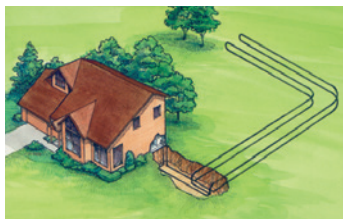
When temperatures rise, a geothermal heat pump pulls unwanted heat from your home and deposits it into the cooler earth (or uses it to create hot water). Its performance isn't affected by normal outdoor temperature swings and the result is ultra-efficient cooling and dehumidification.

55°-70°

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

## Geothermal Earth Loops

A geothermal system uses a series of underground pipes called a "loop." A loop is the secret behind a geothermal system's amazing efficiencies and the biggest difference from ordinary heating and cooling technologies.



### Horizontal Loop

A typical home needs ¼ to ¾ of an acre to utilize a horizontal loop, and trenches are dug using a backhoe or chain trencher. High density polyethylene pipes are inserted, and the trenches are backfilled.



### Vertical Loop

A typical home requires three to five bore holes, dug with a drilling rig. A pair of pipes with special u-bend fittings is inserted into the holes.



### Pond Loop

A ½ acre, 8-foot-deep pond is usually sufficient for the average home. A series of coiled, closed loops are sunk to the bottom of the body of water and are used for heat transfer.



### Open Loop

An open loop utilizes a well that has an adequate capacity to provide water flow for both domestic use and the geothermal unit. Most units require 3-10 GPM, depending on size and model.



## Efficiency

Geothermal heat pumps are much more efficient than traditional heating and cooling systems. The York Affinity Hydronic with OptiHeat Vapor Injection technology is rated with an efficient 16.1 EER and 3.3 COP.



## Cost effective

Geothermal heat pumps are so efficient that any added cost over traditional equipment is usually recovered in just a few years. And because they have a lifespan of 20-25 years, your investment will last longer and your return on investment will grow year by year.



## Comfortable

A York® Affinity™ Hydronic provides consistent comfortable heating when used in radiant floor applications and is also perfect for 100% domestic hot water use as well as a boiler replacement.



## Safe

No combustion or flames are used to operate a geothermal heat pump, making it a safe choice for your home and family. Our systems merely move heat to and from the ground rather than by burning natural gas, propane, or oil.



## Environmentally responsible

Since our units don't burn expensive, polluting fossil fuels, they're the most environmentally responsible options available today. Utilizing geothermal can minimize acid rain threats, air pollution, and the greenhouse effect.



## Affordable peace of mind

York® Affinity™ Hydronic units come with warranties up to 10 years for parts and labor allowances. Other options are available, so see your York® Contractor for details.

# The Affinity™ Hydronic is perfect for these hot water applications:

Radiant Baseboard and Floor Heating | Domestic Hot Water | Pool Heating<sup>1</sup> | Snow & Ice Melt

## OptiHeat

VAPOR INJECTION TECHNOLOGY



## Features of the Affinity™ Series

**OptiHeat Vapor Injection:** This technology incorporates an additional heat exchanger that diverts excess heat and reinjects it into the system. This creates exiting water temperatures of up to 145 degrees and optimum compressor operating conditions. Smaller loads can be accommodated and result in the ultimate in efficiency.

### Aurora Advanced Controls:

Communicating Aurora controls simplify diagnosis and setup by utilizing the Aurora Interface Diagnostic (AID) Tool. Aurora Controls offer two-way communication between components, smart operating logic, and robust troubleshooting capabilities.

**IntelliStart®:** This optional soft starter reduces start-up amperage by 60% of normal draw to reduce noise, eliminate light flicker, and increase compressor life.

**Compressor:** High efficiency scroll compressors are used with vapor injection technology. All compressors are double isolation mounted for extra quiet operation.

### Field Switchable Control Box:

The Affinity Hydronic with OptiHeat can be oriented in two different ways so your dealer can move the control box if needed for your home. This increased versatility makes the system more accessible and easier to install and service.

### Insulated Coaxial Heat Exchangers:

Affinity™ Hydronic heat exchangers are coated with foam insulation which increases both the efficiency and the consistency of our heat exchangers. Robotic application ensures an even, airtight seal.

**R-454B:** All York® geothermal units utilize R-454B refrigerant, which is friendly to the environment.



1. Not suitable for direct use with chlorinated water. Can be installed with an additional heat exchanger for chlorinated pool applications.

Learn more at [yorkgeothermal.com](http://yorkgeothermal.com)

## Make a smart choice: York®

Choosing the right contractor is the first step in selecting the best system for your home. Your York® Contractor is trained to give you professional home comfort services, including:



- An evaluation of factors such as your home's size, age, number of rooms, climate characteristics and utility costs
- A system recommendation that fits your family's comfort needs, your home, your lifestyle and your budget
- The assurance of proper installation and customer care, including warranties and maintenance options

## Stay comfortable for years to come.

York® is proud to offer the YorkCare™ Comfort Plan. It's designed to maintain your system as well as your peace of mind. With YorkCare™ you get total protection that ensures your unit is effective and efficient for years to come.

What's more, your York® Contractor offers maintenance agreements that provide upkeep while maximizing the warranty provisions. Ask about the YorkCare™ Comfort Plan. A little extra coverage is always a comforting idea.

## Long story short—our history.

OVER  
**135**  
YEARS  
OF DESIGN AND  
INNOVATION

You've probably enjoyed York® engineering for years without even knowing it. We have, after all, designed and implemented heating and cooling systems in some of the world's most famous structures, including the U.S. Capitol building, the Sydney Opera House, the entire U.S. Navy nuclear submarine fleet, and even venues such as your local mall and corner bank.

There's a reason people trust us with the big jobs. We've been doing this a long time. Over 135 years, in fact. In that time, we developed the first successful room air conditioner and cooled the world's first theater, hotel and office building. We're constantly leading the industry in our design and our technology. And our commitment has earned our products the Good Housekeeping Seal of Approval. No matter what the scale, chances are we've developed an efficient, durable and effective solution for it.



Homeowners who install an ENERGY STAR® rated geothermal system in the U.S. are eligible for a 30% federal tax credit. The 30% credit will last through 2032 and can be claimed on equipment and installation costs with no upper limit. The credit is scheduled to decrease to 26% in 2033 then to 22% in 2034, so act now for the most savings!

## ISO/AHRI/ASHRAE (13256-2) Performance Ratings

### AFFINITY™ Y5WZE WITH OPTIHEAT MODEL

MODEL & SIZE		CLOSED LOOP		OPEN LOOP	
		COOLING (EER)	HEATING (COP)	COOLING (EER)	HEATING (COP)
048	Single	16.1	3.3	20.1	3.9
060	Single	16.1	3.2	20.1	3.7

For additional product details, such as weight and dimensions, visit [www.yorkgeothermal.com](http://www.yorkgeothermal.com) or ask your York® Contractor.



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Learn more at [yorkgeothermal.com](http://yorkgeothermal.com)