

**PERFECT SOLUTIONS**  
WATERFURNACE COMMERCIAL PRODUCTS  
Water Source/Geothermal Heat Pumps



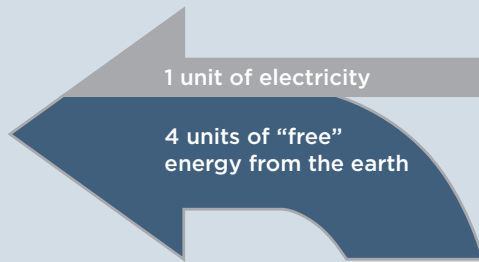
**WaterFurnace**  
Commercial Solutions

# GEOHERMAL TECHNOLOGY

## THE BENEFITS

**ENERGY EFFICIENT:** *WaterFurnace geothermal systems are simply the most efficient units available.* They can deliver up to five dollars of energy for every dollar of electrical energy used. That translates into an astounding efficiency rating of 500 percent, compared to the most efficient gas furnace, which rates only 97 percent.

five units  
returned



**COST EFFECTIVE:** Because of the extraordinary efficiency of a WaterFurnace system, any added costs over ordinary equipment are usually more than offset by your annual energy savings. In fact, most building owners experience an immediate positive return on their investment. In replacement and retrofit installations, costs are usually recouped within just a few years.

**RELIABLE:** The WaterFurnace reputation for reliability has been earned by using only the highest-quality components, design and workmanship. Computer run-testing after assembly ensures that your equipment performs flawlessly at start-up.

**CLEAN:** High-efficiency air cleaners found in WaterFurnace systems improve your indoor air quality by removing dust and pollen so you can breathe easier. For added protection, ask about our AlpinePure line of premium indoor air quality solutions.

**FLEXIBLE:** Regardless of climate, WaterFurnace systems deliver. A variety of configurations and sizes are available to fit any application— heating, cooling, supplemental domestic hot water, hot gas bypass and hot gas reheat.

## EARTH LOOPS

The type of loop selected is based on available land space and installation costs for specific areas.



### VERTICAL LOOP

The ideal choice when limited land surface is available. Well-drilling equipment is used to bore the 75 ft. to 300 ft. deep, small-diameter holes that will accommodate the loop.



### OPEN LOOP

These loop systems utilize ground water as a direct energy source. In ideal conditions an open loop application can be the most economical type of ground-source system.



### BOILER/TOWER

Where large ground-source systems are not viable, existing boiler/tower installations are often retrofitted. Hybrid systems use a ground-source loop coupled with down-sized conventional heat rejection or boiler/tower equipment.



### POND LOOP

Very economical to install when an adequate body of water is available, because excavation costs are virtually eliminated. Coils of pipe are simply placed on the bottom of the nearby pond or lake.

## LEED CERTIFICATION

The LEED system is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. The USGBC (United States Green Building Council), promotes buildings that are environmentally responsible, profitable and healthy places to work with these ratings. WaterFurnace water source and geothermal systems can contribute in several sections of LEED, including energy efficiency and IAQ, to help you achieve points and the ultimate status in green building.



## COMMERCIAL PRODUCTS

LEADING THE GEOTHERMAL INDUSTRY, WATERFURNACE IS DEDICATED TO INNOVATION, QUALITY AND CUSTOMER SATISFACTION. EVERY UNIT BUILT IS EXPOSED TO A WIDE RANGE OF QUALITY CONTROL PROCEDURES THROUGHOUT THE ASSEMBLY PROCESS. EQUIPMENT IS SUBJECTED TO A RIGOROUS BATTERY OF COMPUTERIZED RUN TESTS TO CERTIFY THAT PERFORMANCE MEETS OR EXCEEDS STANDARDS FOR EFFICIENCY, SAFETY, AND RELIABLE OPERATION. BY CHOOSING WATERFURNACE PRODUCTS, YOU'RE INVESTING IN THE ULTIMATE COMFORT SYSTEM AND PEACE OF MIND FOR YEARS TO COME.

### VERSATEC BASE - 0.5 to 6 ton

Overall efficiency, performance & features: ★★★ 17.0 EER / 3.5 COP

The Versatec Base provides a true value product line to the commercial water source heat pump industry. This product is engineered to offer high efficiency operation while maintaining a small cabinet footprint and an impressive list of value-added features. With its compact design and ability to perform optimally in both water loop and geothermal applications, the Versatec Base is an ideal solution for both retrofit and new construction applications.



### VERSATEC ULTRA - 0.75 to 6 ton

Overall efficiency, performance & features: ★★★½ 18.5 EER / 3.8 COP

Designed to adhere to the footprint of lower efficiency legacy equipment while operating at the high efficiencies of today's technology. The Versatec Ultra is available in a wide selection of capacities (009-070 kBtuh output), cabinet sizes, and an array of factory installed options to offer unmatched application flexibility.



### ENVISION<sup>2</sup> COMPACT - 0.75 to 6 ton

Overall efficiency, performance & features: ★★★★★ 30.0 EER / 4.8 COP

Industry-leading efficiencies in a much smaller cabinet perfect for retrofit and boiler/tower applications. Featuring the Aurora generation of controls, the Envision<sup>2</sup> Compact units are more than twice as efficient as the ASHRAE 90.1 standard and utilize environmentally friendly R410A refrigerant. Options include a factory-installed 24V motorized on/off water valve option for VFD pumping with automatic internal water flow control; hot gas bypass and reheat; and high-efficiency PSC, 5-Speed ECM, or variable speed ECM motors to fit your efficiency and comfort needs.



# COMMERCIAL PRODUCTS



## ENVISION<sup>2</sup> NXW CHILLER - 10 to 50 ton

Overall efficiency, performance & features: ★★★★★ **22.2 EER / 3.7 COP**

Large in capacity but compact in size, these units will fit through most doors for easy installation. High efficiencies are obtained using two single-speed scroll compressors. Units are controlled using the Johnson Controls FX10 microprocessor which sequences all components and functions to achieve maximum performance, and enables easy connection to a Building Automation System with Open N2, BacNet, or LonWorks protocols. The unit's brazed plate heat exchangers are constructed with 316 stainless steel for long life.



## ENVISION XL - 7 to 25 ton

Overall efficiency, performance & features: ★★★★★½ **21.0 EER / 4.2 COP**

An exceptional choice for large zones in commercial and institutional applications. These units are available for both water-source heat pump applications and extended range geothermal applications. Envision units provide the user with high efficiency, excellent performance, flexibility and reliability.

(Standard FX10 control is included for flexible integration into facilities with building automation systems.)



## ENVISION - 30 ton

Overall efficiency, performance & features: ★★★★★ **13.8 EER / 3.4 COP**

WaterFurnace Envision 30 Ton Water Source Heat Pumps (WSHP) are an exceptional choice for large zones in commercial and institutional applications. Featuring a take-apart design, the 30 Ton can be moved into a building in two different sections, providing lower weight, smaller footprint, and better maneuverability. The sections can then easily be rejoined when the unit is ready to be installed. A variable frequency drive (VFD) with an LCD display is a new feature and allows for modifying blower speeds without manual pulley adjustments. The 30 Ton also boasts a wide range of factory-installed features like hot gas reheat, internal 2-way valves, waterside economizer, electrical disconnects, and many more.



## ENVISION CONSOLE - 0.75 to 1.5 ton

Overall efficiency, performance & features: ★★★★★ **16.0 EER / 3.5 COP**

The Envision Console achieves high efficiencies through its single speed LG rotary compressor, high performance 3-speed ECM blower motor, and aluminum air coil that provides impressive efficiencies at low face velocities. The console also features WaterFurnace's AlumiShield coil coating as an option for superior protection and an oversized and convoluted coaxial heat exchanger (optional cupronickel) for maximum heat transfer. Standard control for this equipment is the Aurora Base Control with an optional UPC for building automation system tie-in.





### LOW SILL CONSOLE - 0.75 to 1.5 ton

Overall efficiency, performance & features: ★★★★★ **14.3 EER / 3.0 COP**

The Envision Low Sill Console is perfect for hotels, classrooms, or any room without ductwork. Fitting perfectly beneath windowsills, the Envision Low Sill Console provides cutting edge technology in heating and cooling for any commercial application. Utilizing the latest in component and design technology, the Console is available in a variety of cabinet and piping configurations. A single speed R-410A rotary compressor is the heart of the system while it features the capacity of extreme loop temperature operation. The cabinet footprint is designed to match "legacy" consoles for easy retrofitting.



### ENVISION HYDRONIC - NSW: 1.5 to 6 ton

Overall efficiency, performance & features: ★★★½ **17.5 EER / 3.1 COP**

NSW Hydronic Heat Pumps provide super efficient hot water generation for pool/spa heating, radiant floor, snow melt, aquaculture, and process water installations. Its wide range of operating temperatures, compact size, reversible control box and piping allow the NSW series to be used in a variety of applications. The NSW samples entering water temperatures and automatically enables the pumps and compressor for peak performance. Easy to use controls and status lights ensure hassle free operation. NSW units can be selected as heating only or heating/cooling models. Scroll compressors, R-410A refrigerant, and oversized heat exchangers combine to provide users with exceptional energy savings.



### ENVISION HYDRONIC - NDW: 8 to 15 ton

Overall efficiency, performance & features: ★★★★★ **22.0 EER / 3.5 COP**

NDW units provide high capacity heating and cooling performance, but still deliver the features expected from our Envision line. Two high efficiency, single speed scroll compressors keep operating costs low for pool/spa heating, radiant floor, snow melt, aquaculture and process water installations. An advanced controller comes with each unit to monitor operation and provide an intuitive user interface. Brazed plate heat exchangers provide efficiency and allow for a compact unit.





# PRODUCT SPECIFICATIONS

3-DAY QUICK SHIP



VERTICAL & HORIZONTAL MODELS AVAILABLE



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|   | Versatec Base   | Versatec Ultra  | Envision <sup>2</sup> Compact  | Envision <sup>2</sup> NXW Chiller  |
|---|---|---|--|--|
| <b>Style</b>                              | Water to Air  | Water to Air  | Water to Air   | Reversible Chiller   |
| <b>Capacity Range</b> (Tons)              | 0.5 - 6   | 0.75 - 6  | 0.75 - 6   | 10 - 50  |
| <b>Sizes Available</b> (Tons)             | 0.5, 0.75, 1, 1.25, 1.5, 2, 2.5, 3, 3.5, 4, 5, 6  | 0.75, 1, 1.25, 1.5, 2, 2.5, 3, 3.5, 4, 5, 6   | 0.75, 1, 1.25, 1.5, 2, 2.5, 3, 3.5, 4, 5, 6  | 10, 15, 20, 30, 50   |
| <b>Efficiency</b><br>Water Loop Heat Pump | 13.2 - 14.7 EER<br>4.5 - 4.9 COP  | 14.3 - 15.7 EER<br>4.5 - 5.1 COP  | 15.0 - 21.6 EER<br>4.8 - 6.4 COP   | 15.2 - 17.4 EER<br>4.3 - 5.1 COP   |
| Ground Loop Heat Pump                     | 15.6 - 17.0 EER<br>3.3 - 3.5 COP  | 16.1 - 18.5 EER<br>3.4 - 3.8 COP  | 17.0 - 30.0 EER<br>3.7 - 4.8 COP   | 16.5 - 22.2 EER<br>3.0 - 3.7 COP   |
| <b>Compressor</b>                         | Rotary or Reciprocating   | Rotary or Scroll  | Rotary or Scroll   | Dual Scroll  |
| <b>Refrigerant</b>                        | R-410A  | R-410A  | R-410A   | R-410A   |
| <b>Blower</b>                             | PSC, 5-Speed ECM,<br>Variable Speed ECM   | PSC, 5-Speed ECM,<br>Variable speed ECM,<br>High Static Options   | PSC, 5-Speed ECM,<br>Variable speed ECM,<br>High Static Options  | NA   |
| <b>Cabinet Configuration</b>              | Vertical upflow<br>Horizontal upflow  | Vertical upflow<br>Horizontal upflow  | Vertical upflow<br>Horizontal upflow   | Enclosed   |
| <b>Control Type</b>                       | Aurora Base Control (ABC),<br>Aurora UPC DDC,<br>Aurora UPC DDC<br>with Lon   | Aurora Base Control (ABC),<br>Aurora UPC DDC,<br>Aurora UPC DDC<br>with Lon   | Aurora Base Control (ABC),<br>Aurora UPC DDC,<br>Aurora UPC DDC<br>with Lon  | FX10 with<br>Building Automation<br>Communication capability   |
| <b>Hot Water Generator</b> (Coil Only)    | NA  | 015 - 070 Vertical only   | 015-070 Vertical only  | NA   |
| <b>Available Voltages</b>                 | 208-230/60/1<br>265/60/1<br>208-230/60/3<br>460/60/3<br>575/60/3  | 208-230/60/1<br>265/60/1<br>208-230/60/3<br>460/60/3<br>575/60/3  | 208-230/60/1<br>265/60/1<br>208-230/60/3<br>460/60/3<br>575/60/3   | 208-230/60/3<br>380/60/3<br>460/60/3<br>575/60/3   |
| <b>Air Coil Construction</b>              | All-Aluminum  | All-Aluminum  | All-Aluminum   | NA   |
| <b>Options</b>                            | - Internal 2 way valve<br>- Flow regulator<br>- MERV 13 2" filter<br>- Internal non-fused disconnect<br>- Coated Coil<br>- Sound Kit<br>- Stainless Steel Drain Pan | - Hot gas reheat<br>- Internal 2 way valve<br>- Flow regulator<br>- Hot gas bypass<br>- Stainless steel drain pans<br>- MERV 13 2" filter<br>- IntelliStart<br>- Internal non-fused disconnect<br>- Coated Coil | - Hot gas reheat<br>- Hot gas bypass<br>- Internal 2 way valve<br>- Stainless steel drain pans<br>- Internal non-fused disconnect<br>- MERV 13 2" filter<br>- IntelliStart<br>- Right or left return<br>- Sound attenuation kit<br>- Coated air coil | - IntelliStart<br>- Temp setpoint control software<br>- Field-installed piping accessories<br>- Factory-installed pressure gauges<br>- Fused disconnect<br>- Phase guard |

5-DAY QUICK SHIP



VERTICAL & HORIZONTAL  
MODELS AVAILABLE



| Envision XL   | Envision 30 Ton   | Envision Console   | Low Sill Console  | Envision Hydronic NSW   | Envision Hydronic NDW   |
|---|---|--|---|---|---|
| Water to Air  | Water to Air  | Water to Air   | Water to Air  | Water to Water  | Water to Water  |
| 7 - 25  | 30  | 0.75 - 1.5   | 0.75 - 1.5  | 1.5 - 6   | 8 - 15  |
| 7, 8, 10, 13, 15, 20, 25  | 30  | 0.75, 1, 1.25, 1.5   | 0.75, 1, 1.25, 1.5  | 1.5, 2, 3.5, 4, 5, 6  | 8, 10, 12, 15   |
| 13.8 - 18.9 EER<br>4.6 - 5.4 COP  | 12.1 - 12.7 EER<br>4.2 - 4.3 COP  | 12.3 - 13.6 EER<br>4.3 - 4.9 COP   | 12.2 EER<br>4.3 - 4.4 COP   | 12.3 - 15.5 EER<br>4.2 - 4.8 COP  | 13.3 - 15.8 EER<br>3.9 - 4.6 COP  |
| 16.2 - 21.0 EER<br>3.4 - 4.2 COP  | 13.1 - 13.8 EER<br>3.2 - 3.4 COP  | 14.2 - 16.0 EER<br>3.1 - 3.5 COP   | 13.5 - 14.3 EER<br>2.8 - 3.0 COP  | 14.0 - 17.5 EER<br>2.9 - 3.1 COP  | 15.8 - 22.0 EER<br>2.7 - 3.5 COP  |
| Dual Scroll   | Dual Scroll   | Rotary   | Rotary  | Scroll  | Dual Scroll   |
| R-410A  | R-410A  | R-410A   | R-410A  | R-410A  | R-410A  |
| Belt Drive (Low/High Static Options)  | VFD   | 3-Speed ECM  | PSC (ECM on 15 & 18)  | NA  | NA  |
| Vertical Upflow, Side Discharge<br>Horizontal   | Vertical Upflow, Side Discharge<br>Modular  | Console: Floor Mount, Slope Top, Chassis Only, Extended Slope Top, Flat Top  | Console: Floor Mount, Slope Top, Chassis Only, Flat Top                               | Compact Unit  | Compact Unit: Top & Back mounted water connections. Field switchable control box. |
| Aurora Base Control (ABC), Aurora UPC DDC, Aurora UPC DDC with Lon  | Aurora Base Control (ABC), Aurora UPC DDC, Aurora UPC DDC with Lon  | Aurora Base Control (ABC), Aurora UPC DDC, Aurora UPC DDC with Lon   | Aurora Base Control (ABC), Aurora UPC DDC, Aurora UPC DDC with Lon                    | Water to water microprocessor control, FX10 with Building Automation Communication capability | FX10 with Building Automation Communication capability                            |
| NA  | NA  | NA   | NA  | 040 - 075 models only   | NA  |
| 208-230/60/3<br>460/60/3<br>575/60/3  | 208-230/60/3<br>460/60/3<br>575/60/3  | 115/60/1<br>208-230/60/1<br>265/60/1   | 115/60/1<br>208-230/60/1<br>265/60/1  | 208-230/60/1<br>265/60/1<br>208-230/60/3<br>460/60/3<br>575/60/3                              | 208-230/60/1<br>208-230/60/3<br>460/60/3<br>575/60/3                              |
| All-Aluminum  | All-Aluminum  | All-Aluminum   | All-Aluminum  | NA  | NA  |
| - Hot gas reheat<br>- Hot gas bypass<br>- Stainless steel drain pans<br>- MERV 13 2" filter<br>- Coated Coil<br>- Sound Kit | - Hot gas reheat<br>- Hot gas bypass<br>- Stainless steel drain pans<br>- MERV 13 2" filter<br>- Coated Coil<br>- Sound Kit | - 1-3 kW boilerless electric heat<br>- Remote wall thermostat<br>- Unit mounted thermostat<br>- Coated Coil<br>- Sound Kit | - Remote wall thermostat<br>- Unit mounted thermostat<br>- Coated Coil<br>- Sound Kit | - Copper or Cupronickel coaxial heat exchangers<br>- IntelliStart                             | - IntelliStart  |

## WATERFURNACE—THE SMART DECISION

WaterFurnace is dedicated to providing you with safe, reliable and energy-efficient heating and cooling systems that save you money while helping protect our environment. Our engineers and technicians work to create and build quality geothermal products that are extensively tested to ensure the highest quality. An industry leader and an innovator in geothermal technology—WaterFurnace. Smarter from the Ground Up.



BR1550MW 11/15



**WaterFurnace**<sup>®</sup>

Commercial Solutions

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