



# HALLOWELL INTERNATIONAL

Heating and Cooling Systems

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## Acadia Product Brochure



## Acadia™ vs Typical Heat Pump



Many people find our product when they are looking to replace an older typical air source heat pump. Why should you choose the Acadia™ over a typical system? We'll explain below.

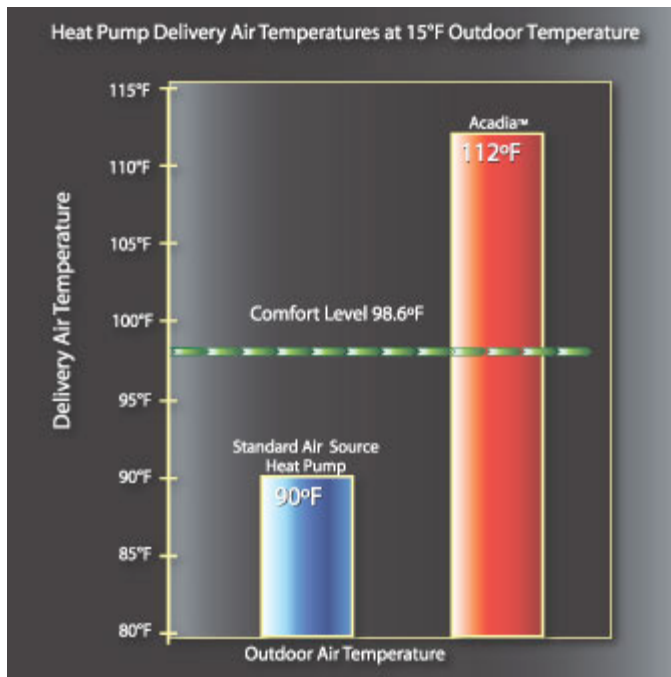
Heat pumps have become a dominant heating source in the Southern United States. They have proven efficiencies that far surpass those of fossil fuel systems and, unlike fossil fuel systems, heat pumps can provide both heating and cooling.

Even with the proven efficiencies of heat pumps, there are still some lingering stereotypes about comfort in the home. We talk about each of these issues in the sections below.

### Low Delivery Air Temperatures

One complaint that we hear regularly about typical air source heat pumps is that the temperature of the air coming out of the ductwork feels cold. This is because at certain outdoor temperatures, a typical air source heat pump doesn't have the capacity to provide enough heat output to keep the delivery air at a temperature that feels warm.

Using the patented Opti-Cycle™ Technology, the Acadia™ is able to provide delivery air temperatures as high as 120°F without degrading it's efficiency. This is heat that you can feel, even at very cold outdoor temperatures.



## Back-up Heat Source

Since a typical heat pump cannot effectively heat your home when temperatures are below 30°F, a secondary heat source is required.

In some cases, this backup heat is in the form of electric resistance strips which are expensive to use. (See our section on Resistance Heat located here) This resistance heat is about 1/3rd as efficient as the Acadia™ and it can be very expensive to operate. In many cases, a typical heat pump is turned off and the home is heated entirely with the electric resistance source.

In other cases, the heat pump is married with a fossil fuel system to take over in heating the home. (See our section on Fossil Fuel Systems located here) These fossil fuel burning systems are not efficient and can tie the owner to the volatile oil market.

The Acadia™ is specifically designed for heating. It does not require these types of backup heat because it can maintain high heating capacity even at low outdoor temperatures.

This difference in low-temperature performance can be attributed directly to a large difference in cost of operation. Heating your home with the Acadia™ instead of a typical heat pump will lead to savings of up to 60%, right from the start.

## Outdoor Unit Noise

Many typical heat pumps have their operating components open to the fan plenum of the outdoor unit and this makes these components, including the compressors, clearly audible outside the unit. In many cases, the noise from these outdoor units can be heard inside the home, in the yard or even in a neighboring home.

We've taken extra steps with the Acadia™ to make sure that the units are as quiet as possible. The main way that we achieve quiet operation is by installing the compressors within an insulated enclosure inside the unit. This means that they are not exposed to the outdoor air and the noise from these compressors is significantly attenuated. Additionally, both compressors are isolated from the heat pump structure, minimizing the amount of energy that is transferred into the cabinet that could rattle and radiate out in the form of noise.

The other main noise from a typical air source heat pump is the outdoor fan. Our fan blade was specifically designed for efficient and quiet operation. We use a swept wing type fan that minimizes the air turbulence that causes loud fan noise while optimizing fan efficiency.

Hands down, the Acadia™ can provide better performance with less hassle and less noise than a typical heat pump.

Cost Comparison*		
Acadia™	Typical Heat Pump	Difference
\$1,369	\$2,490	\$1,121

### Highlights:

- No Backup System Required
- No Fossil Fuel Needed
- Low Temperature Operation
- 3 Stage Heating / 2 Stage Cooling
- Delivery Air Temperatures Up To 120°F
- Acoustically Optimized Outdoor Unit
- Variable Speed Air Handler
- Efficient Outdoor Fan Design

\*Based on \$0.10 per kWh as compared with a standard air source heat pump. Yearly heating load assumed to be approximately 120,000,000 BTU. This is intended as an example only. Various factors including but not limited to home construction, insulation and home location will determine actual savings over other heating systems.

