# Precedent® Hybrid Dual Fuel Heat Pumps

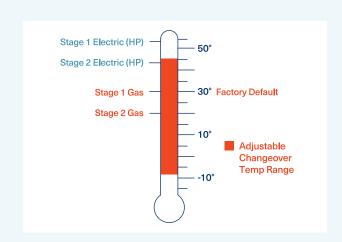


# Sustainablity and comfort through all four seasons

Traditional all-electric heat pumps provide energy-efficient cooling and heating for buildings in mild climates, but they struggle when temperatures plummet in the winter. They must work harder to extract the little heat in cold winter air and transfer it into a building, reducing their energy efficiency.

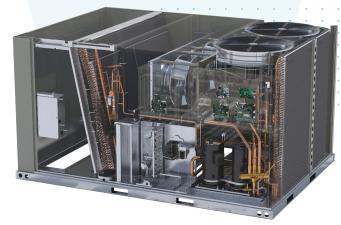
A Precedent Hybrid Dual Fuel Heat Pump overcomes this limitation by combining electric heat pump technology with a natural gas or propane furnace that turns on only when needed.

- Sustainability: The Precedent Hybrid Dual Fuel Heat Pump switches from electric heating to gas only when needed. This means you can heat your building with electricity during transitional chilly weather and use fossil fuels only when temperatures drop below a certain threshold
- Easy Install: Replacing a Trane gas heat rooftop unit with a
  Precedent Hybrid Dual Fuel unit is as easy as replacing it with a new
  gas unit. With the same gas and electrical connections and no need
  to upgrade the electrical supply, you can save on installation costs.



The changeover temperature from heat pump to natural gas can be adjusted to occur between -8°F and 45°F depending on your goals for balancing comfort, payback and emissions reduction.





#### Consistency across the product line

We recently upgraded the Precedent portfolio to ensure maximum consistency across the product family. Just choose the efficiency level and capacity of your unit — from 3 to 25 tons. You'll be able to get the features and options you really want, no matter the model's size.

	Hybrid Dual Fuel Heat Pumps	Heat Pumps
Models	DSK/DHK	WSK/WHK
Capacities	3-25 Tons	3-25 Tons
Fuel Type	Electric Heat Pump + Gas	Electric Heat Pump + Optional Aux Electric Resistance
Efficiencies	Standard & High Efficiency	Standard & High Efficiency
Ambient Temperature Range	-20°F to 125°F	-8°F* to 125°F *Aux Electric Resistance Heat Recommended below 32°F
Unit Controller	Symbio® 700 with Service & Installation App	Symbio 700 with Service & Installation App
Warranty	3 Year Parts, 5 Year Compressor, 10 Year Heat Exchanger	3 Year Parts, 5 Year Compressor
Humidity Control (HGRH) Option	Yes	Yes
Stable Temperature Control (Modulating Gas Heat) Option	10:1 Natural Gas, 6:1 LP	Not applicable
Refrigerant	R-454B	R-454B



### Standard on Every Precedent® Unit

**Advanced Symbio**\* **700 Controls** — Precedent Rooftop Units provide connectivity through a factory-installed Symbio 700 controller. Having Symbio on board offers seamless integration into a Trane or non-Trane building automation system (BAS).

Symbio's intuitive onboard display and Service & Installation app helps make implementing your system quick and easy, and once your unit is operational, Symbio helps enhance its day-today performance. And the Symbio software is upgradable for proactive cybersecurity, ongoing enhancements and building optimization.

**Direct-Drive Fans** — For better efficiency. Maintenance-free with no belts to adjust or replace, available with variable speed adjustment in Symbio controller, and simplified serviceability with fan/motor slide rail design.

**R-454B Refrigerant** — This next-generation, environmentally friendlier refrigerant (less than 500 GWP) is now built into all Precedent rooftop units. Precedent models also include factory-installed leak detection systems where applicable.



Toolless Coil Guards — Coil guards add extra protection and the toolless design allows for easier coil cleaning.

**Industry-Leading Warranty** — Trane reliability is built into every Precedent rooftop unit. Compressors are covered under a five-year standard warranty, with three years on parts.

## **Popular Options Available Across the Board**

Modulating Hot Gas Reheat (HGRH) — Available on all next-generation Precedent® units. Controlled by space dew point or relative humidity, modulating HGRH helps to maintain consistent, comfortable temperature and humidity.

Single-Zone and True Multiple-Zone VAV — For zoned rooftop systems, our single-zone VAV control offers full supply fan modulation across the available airflow range. Multiple-Zone VAV systems deliver optimum comfort cooling and heating across various areas and types of spaces.

**10:1 Modulating Gas Heat** — Available on Precedent Dual Fuel units. Enhance heating comfort with the factory-installed 10:1 modulating natural gas heat option. Modulating heat improves comfort by keeping temperatures stable with less on/off cycling.

**Symbio**\* **Expansion Modules** — With your unit's factory-installed Symbio 700 controller, you have the option to add Symbio XM expansion modules, allowing your HVAC system to grow with your needs. You'll be able to add custom programming in the field to configure the XM module inputs and outputs, allowing you to adapt to emerging requirements or aftermarket changes.

**BACnet**<sup>™</sup> — Precedent units are compatible with many different BAS communication protocols — in addition to LonTalk, Precedent is also compatible with BACnet. BACnet uses open standard protocols and works with virtually any supplier's BAS without gateways or special hardware.

Air-Fi\* — Trane\* Air-Fi wireless communication is a reliable, flexible solution that frees you from the hassles associated with wired components for your building controls system. You can help to save both time and money by not pulling wire through the building.

For more information visit Trane.com/Precedent-Heat-Pumps or contact your Trane Account Manager



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.com or tranetechnologies.com*.