Series R™ Helical Rotary Screw High-Temperature Heat Pump Chiller Model RTZA

Sustainable Heating from A to Z

Designed for those looking to modernize with smarter, electrified solutions, the RTZA is a game-changer in thermal management. **Engineered for today's demands and tomorrow's requirements, the RTZA heat pump chiller delivers hot water temperatures to 210°F (99°C), the highest of any helical rotary screw heat pump chiller in North America.**



Efficiency That Drives Progress

Engineered to deliver high-performance, high-efficiency heating that helps reduce system operating costs.

- **Results You Can Measure**
  Achieve over three times the efficiency of traditional fossil-fuel-powered boilers.
- **Improved System Performance at Lower Loads**
  Exceptional turndown capability as low as 30% of design capacity for high performance and efficiency, even at lower loads.

Precision Performance In Every Degree

Delivering precision performance built on the legendary Series R™ platform.

- **Resilient by Design**
  Rapid Restart™ capability allows unit recovery to 80% design capacity after power failure in just under 3 minutes.
- **Reliable**
  The compressor uses a direct drive design with fewer moving parts that improves the uptime, precision and efficiency of the unit.

Plug Into A Smarter Future

A sustainable alternative to fossil-fuel-powered boilers, helping to lower carbon emissions and support environmental goals.

- **High Impact, Low Carbon**
  Reduces the need for gas-powered boilers, supporting sustainability efforts.
- **Unlock Incentives for Building Performance**
  Available incentives such as tax deductions, rebates, and grants can help lower the initial cost of equipment upgrades and can also help offset the capital expense of electrification installations.

Thoughtful System Integration

Integrates into new or existing hydronic systems, recovering waste heat from cooling loads, condenser water, exhaust air, wastewater, thermal storage, and geothermal sources.

- **Reduce Installation Disruptions**
  Compact footprint fits through a standard double door (72-inch-wide by 80-inch-tall) without disassembly and fit through a single-door (36-inch-wide by 80-inch-tall) with minimal disassembly, making it ideal for retrofit projects.
- **Advanced Connectivity**
  The Symbio® 800-unit controller provides enhanced system performance and enables seamless connectivity with the Tracer® SC+ building automation system.

RTZA Heat Pump Chiller

Performance Data

Capacity Range	1300 - 3000 MBH (110-250 Ton)
Efficiency *(COP)*	2.54 to 6.5**
Temperature Range *(Condenser leaving water temperature)*	160.1°F (71.1°C) - 210°F (99°C)
Min Leaving Evaporator	80°F
Max Leaving Evaporator	120°F

Physical Data

Compressor	Helical rotary screw
Number of Circuits	2
Refrigerant	R-1233zd(E) — Ultra-low GWP of 1
Refrigerant Charge (lbs)	180.8/180.8

Electrical Data

Voltage	MCA	MOP
460V/60Hz/3	354	500
575V/60Hz/3	287	400

Certifications

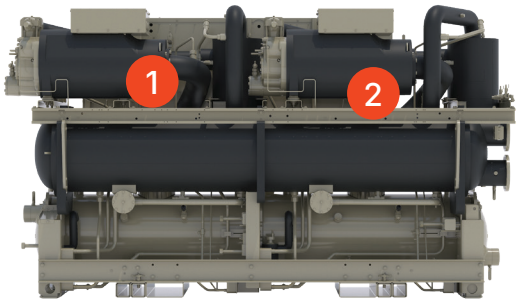
UL 60335 | ASME

Dimensional Data

3507.2mm *(Length)* **1276.2mm** *(Width)* **1982.8mm** *(Height)*

138.07in *(Length)* **50.24in** *(Width)* **78.06in** *(Height)*

*Compared to a traditional gas powered boiler, based on U.S. grid average emission factors (.39 metric tons CO2 per MWh) and product usage testing completed in lab facility in Davidson, NC operating 30 hours a week.
**Dependent on building conditions.



1 Proven Technology

Accelerated life testing simulates thousands of hours of operation on the helical rotary screw compressor.

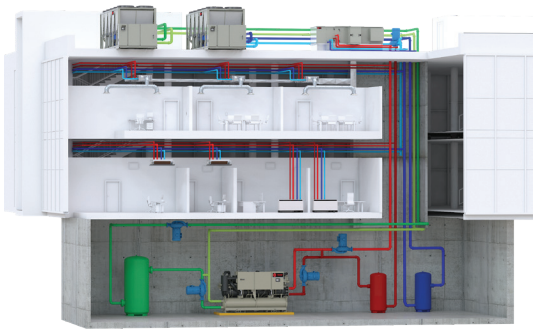
2 Built-In Redundancy

The dual-compressor dual-circuit design offers added reliability and redundancy.

Proven to Reduce Carbon Emissions

by nearly 100 metric tons of CO_2 annually, equivalent to the annual electricity use of a 25,000-sq-ft office building or a small K-12 school*

based on product usage testing completed in lab facility in Davidson, NC operating 30 hours a week.



Elevate Your Heating System

As part of an Air-to-Water or Water-to-Water cascade heat pump system, the RTZA increases the leaving water temperatures to 210°F (99°C), delivering efficient and precise high-temperature heating performance. The RTZA functions as a booster heat pump, raising a partially heated source fluid to achieve maximum lift of 130°F (54°C) at full load. System designs like Trane's Air-to-Water Cascade Heat Pump System repurpose existing high-temperature hot-water supply, coils, and distribution when converting from boilers to heat pumps.

Contact your local Trane representative today or visit trane.com/Series-R for more information.

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