



Series RTM Helical Rotary Chiller model RTHD

Proven chiller technology



A solid foundation



The Series R™ Helical Rotary Chiller model RTHD virtually eliminates worries about chiller performance, in nearly any setting. With its highly reliable semi-hermetic design, excellent lift and linear-unloading capabilities, and easy-to-manage controls, RTHD chiller technology offers proven advantages. It provides dependable operation in comfort cooling applications such as hospitals and hotels, and supports sensitive industrial processes with precision temperature control.

*Available in: 175–450 ton 60 Hz,
150–400 ton 50 Hz*

Advantages for many applications

Ice/thermal storage

Excellent compressor lift (operating temperature range) makes this helical-rotary chiller excellent for use in partial or full thermal storage applications. Operating at its coldest temperatures, RTHD supports a thermal storage system by making ice at night, when utility

companies charge less for electricity. The stored ice supplements or even replaces mechanical cooling during the day when utility rates are at their peak.

Heat recovery and water side heating

The RTHD heat-recovery system can support your organization's energy-saving initiatives. It reduces energy consumption by repurposing heat that normally would be rejected into the atmosphere. Typical uses are tempering supply air and preheating water for laundry or boiler use. At the high end of its temperature range, the RTHD chiller can serve as a heater in moderate climates.

Retrofits and replacements

RTHD is an excellent choice for retrofit or replacement projects. It fits through a standard double-door frame. For extremely tight installations, the standard bolt-together design can be readily disassembled to fit through a single-width door and easily reassembled on site.

Superior full-load and optimized part-load energy efficiency

RTHD performs efficiently in hot, humid climates that require maximum output day after day . . . and in colder locations where chiller loads seldom reach their peak. Energy efficiencies at or below 0.60 kW/ton at AHRI conditions are available throughout the tonnage range. Full-load efficiencies are comparable to most centrifugal chillers, while part-load efficiencies can exceed them.



Outstanding chiller performance

Currently in its fourth generation, this hard-working chiller remains one of the most robust chiller models on the market today. Proven technology enables RTHD to achieve first-cost and ongoing operational cost savings in real-world applications.

- Full-load energy efficiency reduces operating and lifecycle costs
- Reduced sensitivity to water temperature alleviates startup concerns
- Advanced design enables chilled water temperature control to $\pm 0.5^\circ\text{F}$ (0.3°C) which in turn allows more precise humidity control
- Flexible evaporator and/or condenser arrangements and other chiller features enable you to specify the level of efficiency that is best for your system, building and operations

Simply reliable and virtually maintenance free

The key to RTHD reliability is design simplicity. It has very few complicated moving parts to break down. As a result, the only required maintenance for the RTHD chiller is an annual oil analysis. Recommended maintenance is limited to cleaning the condenser tubes as needed and reviewing operating logs.

- Direct-drive, low-speed, semi-hermetic compressor has only three moving parts
- Semi-hermetic design enables the compressor motor to operate in a cool, clean environment

Dependable chiller controls

User-friendly Tracer™ CH530 controls, with a touch-screen display and BACnet™ or LonTalk® capabilities simplify the operation of RTHD chillers.

The Adaptive Control™ microprocessor monitors operation of the chiller and keeps it running during extreme operating conditions when other controllers would typically shut the machine down.

An LCD touch-screen provides easy access to inputs and outputs, and all operating information and reports are viewed using a scrolling display.



Tracer SC dashboard uses an easy-to-interpret, graphical display to report current operating conditions and energy

Manage multiple chillers from any location

Adding the Tracer™ SC controller to a system provides a flexible, cost-effective solution for managing your HVAC system that can extend to lighting and energy consumption. Its simplified, web-based management tools help improve efficiencies, increase tenant comfort and reduce energy costs.

- Chiller sequencing routines optimize chiller plant energy efficiency by rotating individual chiller operation to equalize run time, and by matching capacity to the building cooling load
- Coordinates pumps and cooling towers with the chiller operation for greater energy efficiency and reduced costs
- Alarms and diagnostic messages provide easier monitoring and troubleshooting



**EarthWise systems:
responsible for the long run**

Trane EarthWise™ systems offer the best of all worlds: Cooling that improves energy efficiency and reduces emissions, while driving down costs for building owners. Designed around an energy-efficient Trane chiller—such as RTHD—and performance-optimizing controls, EarthWise systems use smaller fans, narrow ductwork, fewer pumps and less plumbing . . . reducing initial materials costs and lowering long-term operating costs. Trane builds EarthWise systems to deliver responsible cooling, and sustains the performance through a full lifecycle of building services.

Supporting LEED Certification

Because of its energy efficiency and refrigerant selection and usage, the Trane Series R Helical Rotary Chiller can move you forward on your path to LEED® Building Certification. Both full- and part-load performance of the RTHD chiller exceed the ASHRAE 90.1 standard that serves as the LEED baseline.

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BACnet is a trademark of ASHRAE.

LEED is a registered trademark of the U.S. Green Building Council.



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