

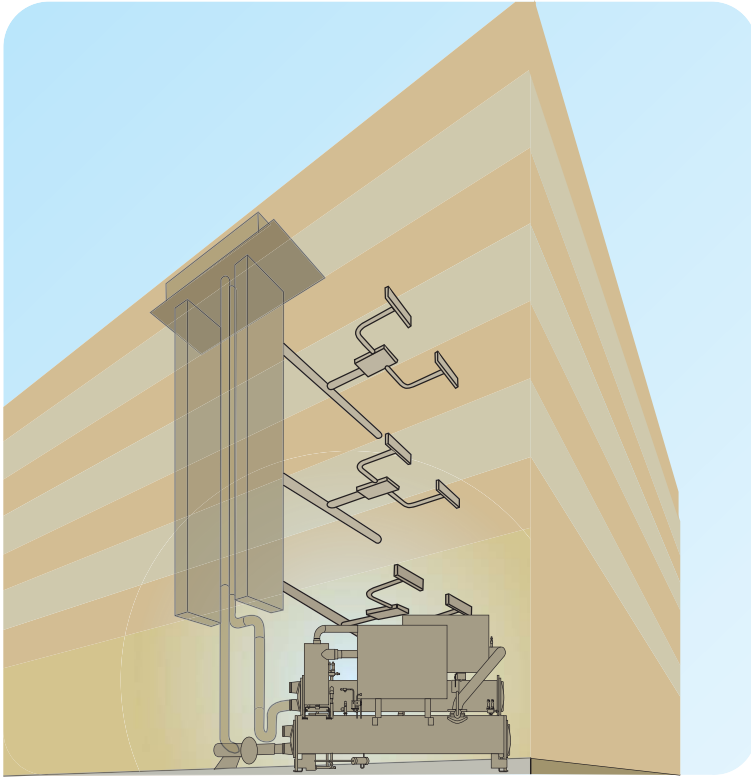


Series R™ Helical Rotary Chiller

A Strong Foundation to Make Buildings Better



A Solid Foundation

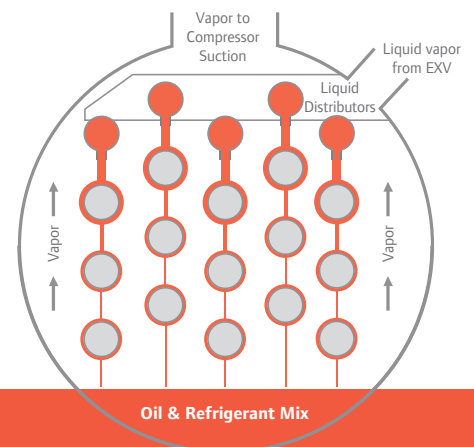


The RTWS, ranging in size from 60 to 125 tons, is designed with building owners in mind. It offers significant advances geared to reducing the total cost of ownership while still being able to operate over a wide range of conditions with day-in, day-out reliability.

A system designed just for you. As the global leader in HVAC, Trane systems and services expertise is unmatched. Our controls and equipment engineers can find ways to reduce your energy usage up to 30% vs. a conventional system and likely even more vs. your current one. They do it by optimizing energy efficiency and performance at every stage within your system. And Trane Building Services will find even more ways to save with a full energy audit and performance contract.

Energy efficiency is the foundation that a better building is built upon, for today and well into the future.

A Trane chiller provides that foundation. But long-lasting efficiency doesn't just happen. It's engineered through rigorous testing and research: the type of testing and research that have been a way of life at Trane since we built our first chiller in 1938. Since then, our commitment to product efficiency, reliability and technology/quality improvements is unparalleled. With the introduction of the water-cooled, Series R™ helical rotary chiller Model RTWS, the tradition continues.



Our patented evaporator design gives the Trane RTWS higher efficiencies using less refrigerant charge, both of which contribute to LEED certification. Refrigerant (red) is uniformly distributed over the first row of tubes. It then flows around them, precisely at the points where heat transfer occurs, to more efficiently cool the fluid (blue) inside.

Advanced Trane system designs such as Variable Primary Flow and EarthWise™ can easily be applied to RTWS, reducing the number of pumps in the chilled water system and downsizing significant portions of the HVAC system, with no loss in performance. The RTWS is designed to match up with almost any chilled water system, making it an ideal replacement for older chillers with higher operating or maintenance costs. In fact, its flexibility is perfect in almost any highperformance system, including heat recovery, ice storage, dry cooler condensing or geothermal heating/cooling.

Our TRACE 700 modeling and analysis software, can precisely determine your energy-saving potential. This will enable you and your Trane Sales Engineer to design the best system for your needs. Among the many capabilities of the TRACE 700, it can analyze configurations to project complete chiller system performance. These features are all fully integrated to help ensure your whole building meets or exceeds the industry requirements established by ASHRAE 90.1, LEED and the Energy Policy Act of 2005.

Trane efficiency begins with installation.

The RTWS will save you money right from the start by lowering installation costs. Thanks to its compact size, the RTWS easily fits into most existing mechanical rooms without requiring additional floor space or wall tear-outs. Actually, the RTWS is so narrow, all units can pass through a standard singlewidth door opening. So chiller replacement is faster, less expensive and less disruptive.

The RTWS rigs simply into the building, connecting to water, electrical and control lines with minimal changes to the existing infrastructure. All this gets your new chiller up and running fast.

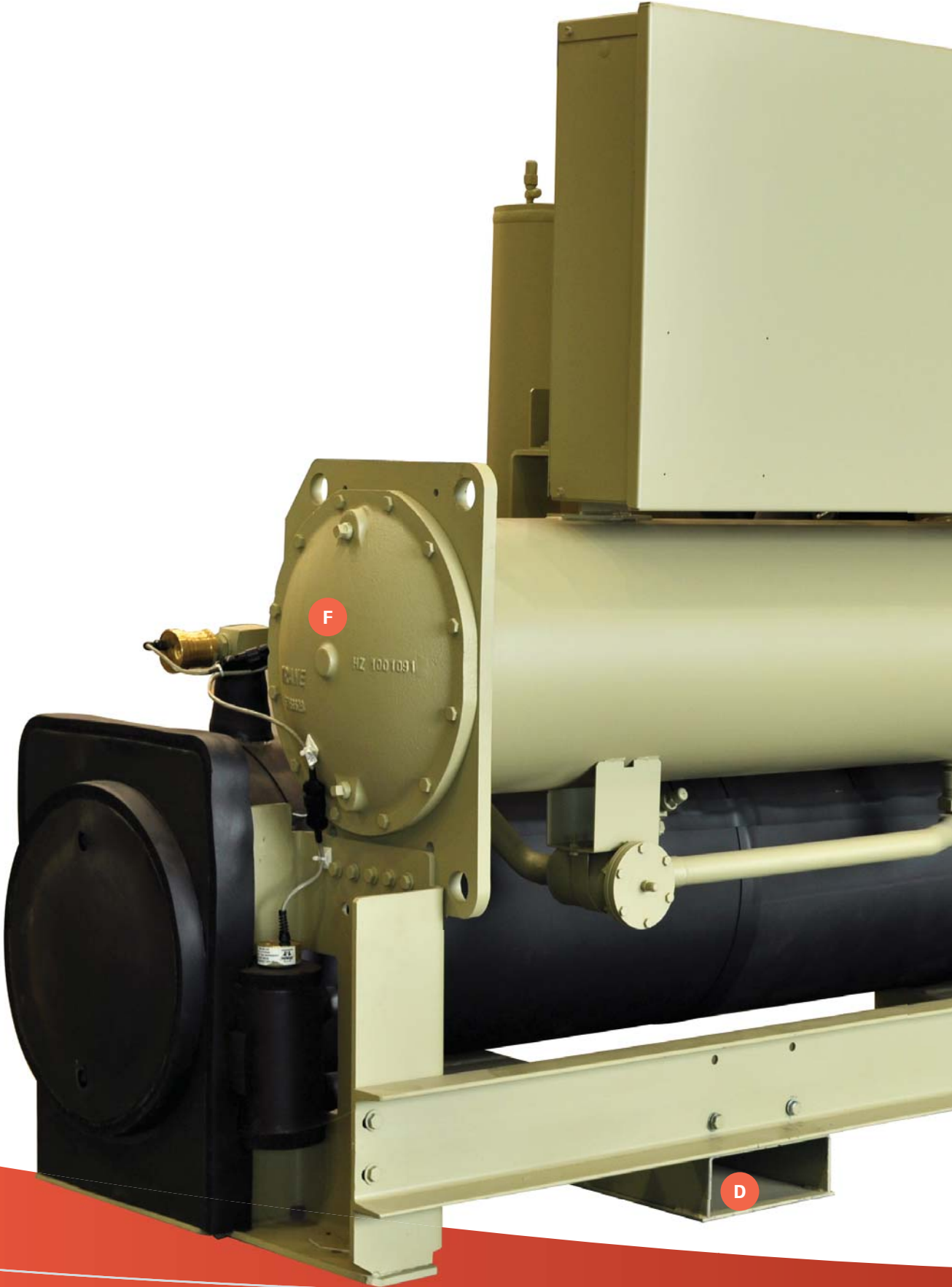
Unmatched operating efficiency

The RTWS will save money well beyond installation. With steadily rising energy prices, the operation of a chilled water system can amount to over 90% of the total lifetime cost of the system. The RTWS minimizes these expenses with an industry-leading efficiency level of 0.65kW/ton. The RTWS offers additional energy-saving capabilities for owners who require hot water in their buildings. By utilizing the condenser heat from the chiller to heat potable water, swimming pools or laundry services, schools and hotels can further lower their operational costs.



Series R™ Helical Rotary Chiller

Model RTWS (60 - 125 Ton)





A Evaporator Exclusive Trane falling film evaporator design achieves the highest efficiency in the industry, above and beyond forecasted Industry standards.

B Compressors Helical Rotary design for robust operation and unit reliability over a wide operating range.

C Controls Precision temperature control ($\pm 0.5^\circ\text{F}$) capability, as well as advanced adaptive algorithms and preventative unit safeties, keeps the chiller online when other chillers might shut down.

D Unit installation Unit installation is easy, based upon water and electrical connections as well as limited footprint and rigging options.

E Serviceability standard dual-relief valves for fast and convenient inspection of refrigerant pressure valves.

F Heat recovery Leaving condenser temperature control option up to 140°F



Trane wants to ensure owners receive the utmost in troublefree operation for the lifetime of their chiller, from day 1 to day 10,001.

Trane quality focus ensures day-to-day reliability.

Building owners know a building's efficiency and profitability are not measured in days, months or even years, but rather in decades. Trane wants to ensure owners receive the utmost in troublefree operation for the lifetime of their chiller, from day 1 to day 10,001. That's why we conduct accelerated life testing that simulates thousands of hours of operation on the compressor, the heart of the RTWS. Our compressor utilizes a direct-drive design that uses fewer moving parts than gear-driven compressor designs.

Industrial facilities can't afford downtime, imprecision or inefficiency in their systems. The RTWS has a chilled-water system designed to keep production, and revenue, flowing with precise temperature control and reliable operation.

And to help you keep your RTWS running at its best, Trane offers a wide range of Scheduled Service Agreements. These include proven preventive maintenance schedules and practices designed to refresh your system to factory specifications. These programs also help you plan your annual maintenance budget by scheduling regular and consistent preventive maintenance for your RTWS.

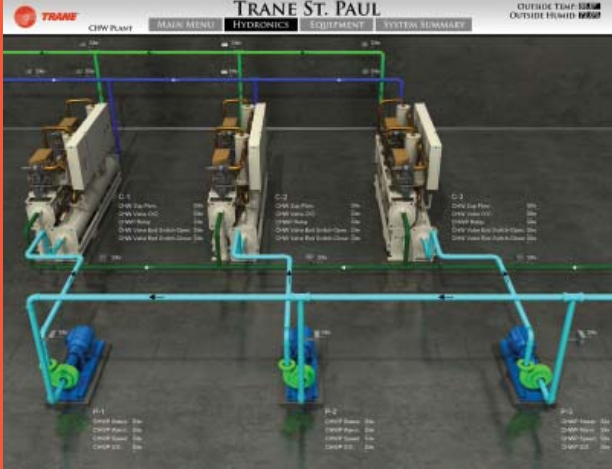
Trane chiller control – from simple to sophisticated

When it comes to chiller plant control, Trane understands that everyone's needs are different. That's why RTWS has time-of-day scheduling incorporated directly into the Tracer CH530 control panel. Users can schedule up to ten events on the chiller for adjusting many settings by time of day or days of the week without having to install a full building automation system. For example, the operation staff for a K-12 school can easily program the important school events for the week at the chiller panel, eliminating the need to rely on manual starts and shutdowns to reduce energy costs.

Sometimes chillers need to perform outside traditional comfort conditions. The RTWS is up to the task. It can be configured to produce leaving- evaporator solution temperatures as low as 10°F (-12°C), making it ideal for cold temperature operations like quick-freezing an ice rink. On the other hand, the RTWS can also be used in heat-recovery mode to generate condenser water temperatures as high as 140°F (60°C) for potable water heating or laundry services. So it can serve a variety of applications at either end of the spectrum.

Trane can provide a comprehensive control solution for any building's needs. One of the most powerful features of the Trane Tracer Summit building automation system is the Chiller Plant Control application. It enables you to commission the reliable sequencing of practically any size or configuration of chiller plant to achieve the highest level of system performance. Documentation for the commissioning process is built right into the application, which saves time and allows for troubleshooting throughout the life of the system.

Trane strives to lower costs, from installation through total time of ownership. Our Tracer Summit Chiller Plant Control offers variable primary flow or series chiller applications. These tested and proven control algorithms eliminate the guesswork in providing the most efficient and reliable control of chillers, pumps and cooling towers. This saves you the time of creating custom programming, while ensuring repeatable performance across multiple locations such as schools within a district or across a corporate campus.



Our most sophisticated control system, Tracer Summit, brings your entire building, or even an entire enterprise, together on one screen with extensive standard and custom reporting. It extends Trane Chiller Plant Control to include optimization of the air handling side of your system, which often uses as much or more energy as the refrigeration side of the system. Focusing on overall system efficiency translates to more reliable system performance and greater energy savings.

Every building needs strong support.

Trane Field Sales Engineers receive unparalleled technical systems training. They work closely with the engineering experts who help optimize chilled water system design and operation for your specific project.

Their experience with thousands of systems worldwide—and their leadership positions in industry associations such as ASHRAE and USGBC—means these experts give you proven, cost-effective and efficient system options to ensure a lifetime of savings.

The Trane Sales and Service Group operates in local markets around the world to provide system design, engineering coordination, maintenance and operation resources throughout the life of your chiller. Backed by knowledgeable service technicians and almost 200 parts outlets, Trane is ready to keep your system performing at its peak for years to come with a wide variety of in-warranty and extended warranty service options.



Contact your local Trane Sales Engineer to start laying the foundation for a more efficient building.

Efficiency begins with a phone call.

Start laying the foundation for your more efficient building. To learn more, log on to www.trane.com/Commercial. Then contact your local Trane Sales Engineer. We'll create a customized plan to make your building better with an RTWS chiller.



Ingersoll Rand (NYSE:IR) is a world leader in creating and sustaining safe, comfortable and efficient environments in commercial, residential and industrial markets. Our people and our family of brands—including Club Car®, Hussmann®, Ingersoll Rand®, Schlage®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. We are a \$13 billion global business committed to sustainable business practices within our company and for our customers.

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.
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