TRANE

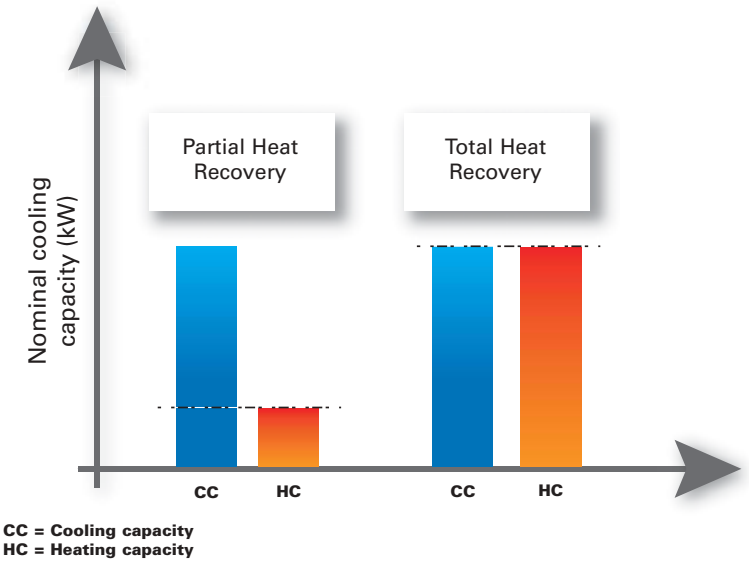
RTAD Air-Cooled Series R®
Helical-rotary liquid chillers

270-630 kW
Heat Recovery

An opportunity to achieve significant energy savings

Two options to serve a variety of applications

Trane has qualified two options allowing heat recovery with helical-rotary air-cooled RTAD chillers.



CC = Cooling capacity
HC = Heating capacity

Partial Heat Recovery: specifically designed for applications where a limited amount of heat needs to be recovered and actually used in the building. This is, for example, the case of an office or commercial building where heat recovered from the HVAC installation can be used to heat or preheat the sanitary hot water.

Total Heat Recovery: adapted for applications where a significant amount of heat needs to be recovered. Good examples of such cases are:

- Hotels and leisure resorts, which typically have an high remaining heating capacity even in summer for sanitary water (showers), kitchen and laundries.
- Process applications with simultaneous cooling and heating needs.

Is your project a good candidate to implement RTAD Heat Recovery ?

Trane provides assistance in running extensive load simulations taking into account the specificity of your building, which will determine whether it can benefit from the savings generated from the implementation of a RTAD Heat Recovery chiller.

The following parameters must be known to select the type of option and to calculate the financial viability of this choice:

- Cooling load profile: daily typical cooling load demand for each month of the year
- Heating load profile: daily typical heating load demand for each month of the year

Energy costs: electricity to run the chiller and an alternative energy (gas or fuel) that can be used for heating

A more favorable payback will be obtained when cooling and heating demand are simultaneous and when the number of running hours of the HVAC system is high. However, in the case of high heating load, the amount of energy that can be recovered from the chiller can justify the installation of a hot water storage volume to balance time offset or load offset between cooling and heating demand.

Trane's offer goes beyond heat recovery technology

Fully factory packaged equipment

Fully assembled and tested in the factory to guarantee trouble-free start-up and reduce commissioning time.

Installation time is minimized

Single Source responsibility

Trane will provide and commission the complete equipment.

No specific resource required to manage the project

Helical Rotary Technology

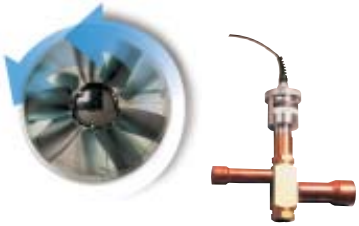
Designed to perform, Built to last. For two decades, Trane helical-rotary compressors' superior design (hermetic design, low speed direct drive, no oil pump) has established a standard in terms of high reliability, longer life design and low maintenance requirements. This is even more important for all jobs where Heat Recovery option is implemented as typically a high number of hours of operation is expected.

Higher reliability

TRANE support to design, install, set-up, optimize your chilled water production

Trane can provide you the necessary assistance at all stages of the project in order to optimize equipment selection and operation.

Guarantee of better return on investment



Full Control of technology Implemented

With the control of the design of the main equipment components, Trane is able to fully optimize the operation in order to minimize energy consumption and maximize unit dependability.

Reduced Operation Cost

Adaptive Control

Trane Adaptive Control™ has been designed to guarantee that chiller is kept on line even under most severe situations, hotter than average summer as well as colder than expected winter.

Higher dependability

Worldwide service support

Trane can provide in every European country the same level of service you can expect from an industry leader, whether you require assistance for preventive maintenance or emergency repair. This is even more important for projects which are maintained in operation all year long.

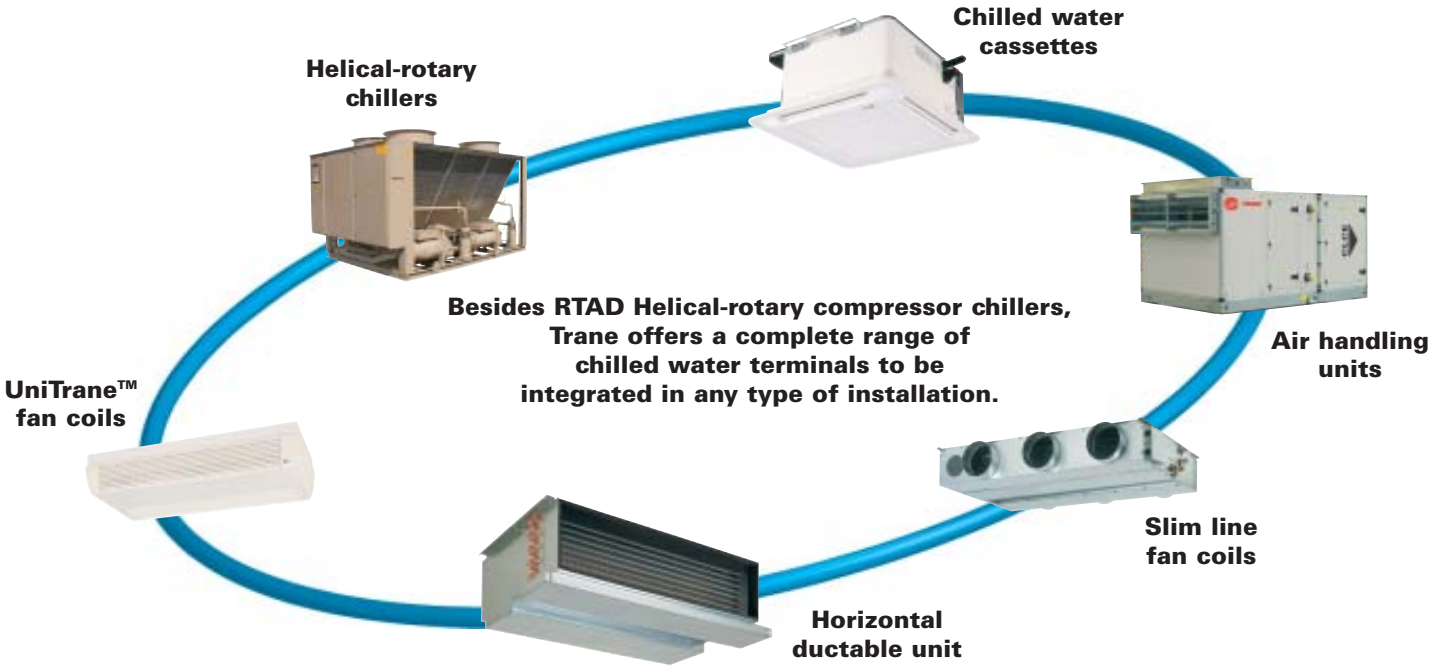
Higher dependability

General Data

Standard unit size		085	100	115	125	145	150	165	180
Nominal Cooling Capacity (1)	(kW)	274	330	395	450	515	550	600	645
Nominal Heating Capacity									
Partial Heat Recovery (2)	(kW)	58	81	105	145	140	153	165	182
Full Heat Recovery (2)	(kW)	206	237	282	325	378	385	425	451
Refrigeration Circuit									
Refrigerant		R134a							
Compressor/Refrigeration Circuits	Quantity	2	2	2	2	2	2	2	2
Evaporator									
Type/Connections		Shell and Tube - Direct Expansion / Victaulic							
Water Connection Diameter	(inch - mm)	5" - 139.7	6" - 168.3	6" - 168.3	6" - 168.3	6" - 168.3	6" - 168.3	6" - 168.3	6" - 168.3
Heat Recovery Heat-Exchanger									
Type/Hydraulic connections		Braze Plate / Victaulic Connections Diam. 2" - 60.3 mm							
Dimensions and Weight									
Length	(mm)	4430	4430	5350	5350	6370	6370	6370	6370
Width	(mm)	2250	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	2095	2095	2115	2115	2115	2115	2115	2115
Operating weight	(kg)	3420	3440	4090	4180	5580	5630	5640	5730

Notes:
(1) At Eurovent Conditions : 35°C ambient temperature / 12-7°C chilled water temperature
(2) With 35°C ambient temperature / 40-50°C hot water temperature

Trane comfort chilled water systems



Quality Management System Approval

TRANE

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