







for Commercial and Industrial Markets





Who we are

Trane is a leading provider of cooling, heating, ventilating, air conditioning and refrigeration (HVAC-R) systems, controls and services for commercial and industrial applications. Founded in 1913 by James Trane and his son Reuben, Trane has a long history of industry-defining innovations in intelligent, energy efficient and sustainable solutions for diverse building comfort and process needs.

Trane's integrated HVAC-R systems and services enhance business performance, improve quality of life for building occupants and enable owners and operators to meet their business and operational objectives.

Total lifecycle management

HVAC-R systems are at the core of your building infrastructure and have a lifespan of over 30 years. Backed by over 100 years of experience, Trane understands that the operating costs of your HVAC-R infrastructure alone can account for almost 4 times the cost of your capital investment.

The costs of energy, maintenance, repairs and associated labor can amount up to 80% of building lifecycle costs. Trane offers expertise that enables you to manage and optimize your HVAC-R system lifecycle and reduce your total cost of ownership.

- At the planning and concept stages, we bring you
 the technical expertise and applications' know-how
 for different building types and help ensure that
 initial specifications get off to the right start.
- At the design stage, Trane engineers work with you to define and select the best equipment and control solutions that meet your specific needs.
- Trane offers start-up, turnkey installation and commissioning for projects.
- To enable smooth operations, we offer a wide portfolio of services ranging from temporary cooling solutions to energy monitoring and retrofits that give you peace of mind and sustain your investment for life.

Integrated HVAC-R systems

Trane manufactures, manages and services HVAC-R equipment, systems and controls for buildings and industrial processes all over the world. Through our global research and development facilities, we dedicate extensive resources in innovation for HVAC-R systems. Whether it concerns a system upgrade, renovation or new construction, our projects focus on:

- · Reliability
- Energy efficiency
- · Environmental responsibility
- · Technological expertise
- · State-of-the-art design
- Operational efficiency
- Fulfilling specific business needs, no matter how simple or complex



Solutions to meet your business needs

Trane has over a century of global experience providing customized HVAC-R systems and service applications for diverse vertical markets. We offer the broadest equipment portfolio in the industry, cover applications from deep freezing to extreme heating, and we partner with you to develop and deliver the best solutions that help meet your business goals.



Data centers: A data center requires systems' know-how to ensure adequate, energy efficient on-demand cooling, increase reliability, control costs and maximize uptime. From high efficiency cooling equipment, use of solutions like ice storage and free cooling, to system controls and total HVAC infrastructure management, Trane delivers reliable systems expertise that helps you improve Power Usage Effectiveness (PUE) and generate up to 60% energy savings.



Food and beverage: Either for simple warehousing or complex food processing, Trane develops integrated low temperature systems that can meet air distribution, temperature, humidity and filtration requirements. We partner with you to build and sustain high quality, productive manufacturing, storage and processing environments that comply with food safety regulations.



Healthcare: Trane addresses healthcare facility needs with the most advanced HVAC equipment and controls that meet the precise environmental requirements for individual spaces. We foster thermal comfort and high Indoor Air Quality (IAQ) to improve patient outcomes, maintain a hygienic healing environment and achieve operational efficiency 24/7/365.



Pharmaceuticals: Trane helps you comply with Good Manufacturing Practices (GMP) with HVAC systems that are designed to maintain temperature, pressures, humidity, filtration and airflow in manufacturing, storage areas and in clean rooms. Trane systems are proven to deliver energy savings and carbon footprint reduction for pharmaceutical manufacturers.



Commercial buildings: For commercial real estate, offices or multi-purpose buildings, Trane customizes HVAC systems with integrated scalable controls to help you manage your assets for optimum energy efficiency, occupant comfort and staff productivity.



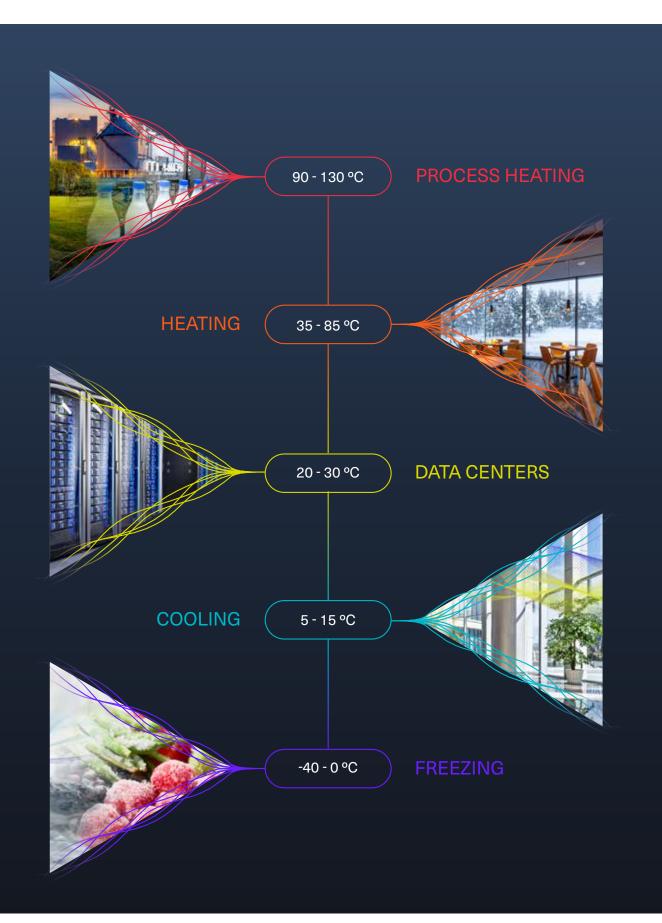
Hospitality: From empowering guest room comfort, sustaining facilities with complete care to enabling energy management and temporary cooling for outdoor recreation or events, Trane helps you deliver seamless hospitality at your hotel, restaurant, conference center or entertainment facility. Our flexible HVAC solutions ensure optimum environmental comfort for your guest experience while minimizing operating costs.



Other industries: From chemicals and plastics manufacturing to electronics, energy rentals, utilities and district cooling/heating. Trane has extensive expertise in delivering high efficiency HVAC equipment, controls and services. Trane solutions are customized for even the most demanding environments and provide reliable performance all year round.

Precision Thermal Solutions

Expertly Engineered Systems for All Temperature Requirements



Building Excellence Across Europe

Our Extensive Manufacturing Network and Facilities



Air-cooled chillers

TRANE CUBE



Scroll compressor CGC 15-55 kW

FLEX

Scroll compressor Modular Flex 55-135 kW

CONQUEST



Scroll compressor CGAX 40-165 kW

ARIESN



Scroll compressor iAriesN 175-335 kW

SINTESIS™ AD√ANTAGE



Scroll compressor CGAF 137-670 kW

SINTES!S™ PRIME



Screw compressor RTAF 300-1900 kW



Screw compressor RTDF 128-383 kW

SINTESIS* EXCELLENT



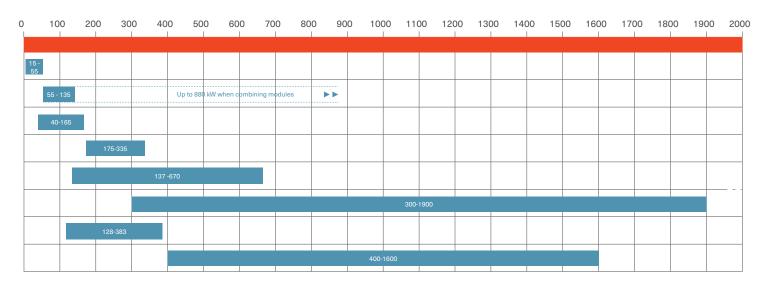
High speed centrifugal compressor GVAF 400-1600 kW

							Compressor			Water heat exchanger		Refrigerant						
		Refrigerant circuits	Adaptive Frequency [™] Drive	Free cooling	Heat recovery	Scroll	Screw	High speed centrifugal	Brazed plate	Shell and tube	R454B	R513A	R1234ze	R717	R410A	R290	R134a	
CHILLERS																		
TRANE CUBE	CGC	1	•		Р	•			•		•							
FLEX	Flex	1	•		•	•			•		•				•			
CONCUEST	CGAX	1/2			Р	•			•		•				•			
ARIESN	iAriesN	2	•		Р	•			•							•		
SINTESIS™ AD√ANTAGE	CGAF	2		•	•	•			•	•	•				•			
SINTESIS** PRIME	RTAF	1/2	•	•	•		•			•		•	•				•	
	RTDF						•			•				•				
SINTESIS™ EXCELLENT	GVAF	1/2	•	•				•		•		•	•				•	





Capacity in kW



Air-to-water heat pumps / Multi-pipe units

Air-to-water heat pumps





Inverter-driven scroll compressor Cooling 6-22 kW Heating 8-30 kW

CONQUEST



Scroll compressor CXAX Cooling 40-165 kW Heating 40-160 kW

TRANE CUBE



Scroll compressor CXC Cooling 15-55 kW Heating 18-61 kW

SINTESIS™ AD√ANTAGE



Scroll compressor CXAF Cooling 127-700 kW Heating 124-700 kW

FLEX

Liquid injection scroll compressor Modular Flex/Flex HP HT Cooling 55-144 kW Heating 54-154 kW



Screw compressor RTXC Cooling 370-950 kW Heating 380-1030 kW

	Comp	ressor		r heat anger	Refrigerant								
		Refrigerant circuits	Heat recovery	Renewable Energy for Heating	Scroll	Screw	Brazed plate	Shell and tube	R454B	R513A	R410A	R134a	R290
MULTI-PIPE UNITS													
BALANCE™	CMAC	1/2	•	•	•		•				•		
SINTESIS	CMAF	2	•	•	•		•		•		•		
	RTMG					•	•			•			
HEAT PUMPS													
LEAF					•		•						•
TRANE CUBE	CXC	1		•	•		•		•				
FLEX	Flex	1	Р	•	•		•		•		•		
CONQUEST	CXAX	1/2	Р	•	•		•		•		•		
SINTESIS** ADVANTAGE	CXAF	1/2	Р	•	•		•		•		•		
	RTXC	1/2	Р	•		•		•		•		•	



Multi-pipe units





Scroll compressor CMAC Cooling 50-140 kW Heating 50-150 kW SINTESIS BALANCE

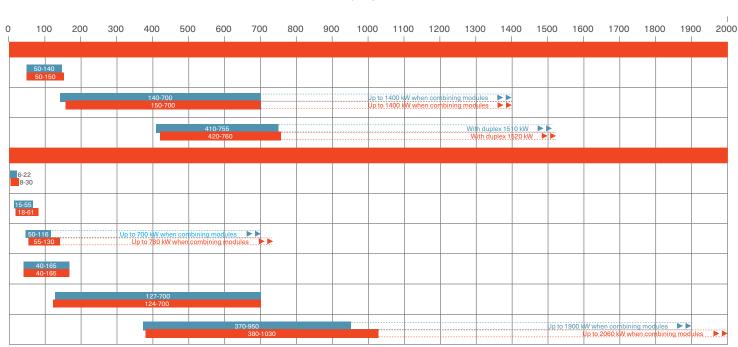


Scroll compressor CMAF Cooling 140-700 kW Heating 150-700 kW



Screw compressor RTMG Cooling 410 - 755kW (with duplex 1510 kW) Heating 420 - 760 kW (with duplex 1520 kW)

Capacity in kW



Water-cooled chillers and condenserless units

Water-cooled chillers and condenserless units





Scroll compressor Water-cooled and condenserless CGWF/CCUF 50-700 kW

CITY



Screw compressor RTSF G 185-385 kW

RTWD



Screw compressor Water-cooled and condenserless RTWD-RTUD 235-1005 kW

RTHDevo



Screw compressor RTHD Evo 545-1450 kW

						Comp	ressor			r heat anger								
		Refrigerant circuits	Adaptive Frequency™ Drive	Heat recovery	Scroll	Screw	Centrifugal	High Speed Centrifugal	Brazed plate	Shell and tube	R410A	R454B	R1234ze	R515B	R134a	R513A	R514A	R1233zd
CHILLERS	l																	
ADVANTAGE	CGWF	1/2			•				•		•	•						
CITH	RTSF	1	•			•			•				•	•				
RIWO	RTWD	2	•			•				•			•	•	•			
RTHRevo	RTHD evo	1	•			•				•					•			
XSTREAM	RTWF	2	•			•				•			•	•	•	•		
XSTREAM	RTHF	2	•			•				•			•		•	•		
XSTREAM EXCELLENT	GVWF	1/2	•					•		•			•	•	•	•		
CenTraVac™	CVHF	1	•				•			•							•	
CenTraVac™	CVHG	1					•			•							•	
Series E™ CenTraVac™	CVHH	1	•	•			•			•								•
Series E™ CenTraVac™	CDHH	2	•	•			•			•								•
CONDENSERLESS UN	ITS																	
ADVANTAGE	CCUF	1/2			•				•		•	•						
	RTUD	2	•			•				•	•	•						







High speed centrifugal compressor GVWF 350-2560 kW

XSTREAM



Screw compressor RTWF 345-1860 kW

XSTREAM



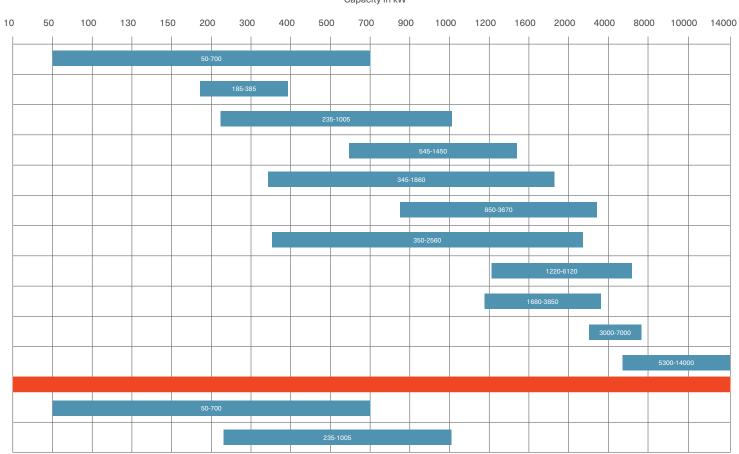
Screw compressor RTHF 850-3670 kW

Series E™ CenTraVac™ CenTraVac™



Centrifugal compressor CVHH 3000-7000 kW CDHH 5300-14000 kW CVHF 1220-6120 kW CVHG 1680-3850 kW

Capacity in kW



Water-to-water heat pumps

Water-to-water heat pumps

CITU ADVANTAGE



Scroll compressor CXWF Cooling 50-700 kW Heating 50-835 kW

LIFT



Scroll compressor Heating 36-550 kW

BOOSTER



Screw compressor RTSF G Cooling 185-385 kW Heating 205-445 kW

RTWD



Screw compressor RTWD Cooling 235-1005 kW Heating 265-1140 kW

XSTREAM



Screw compressor RTWF Cooling 345-1860 kW Heating 385-2020 kW

XSTREAM EXCELLENT



High Speed centrifugal compressor GVWF XSH G Heating 380-1510 kW

EXERGY



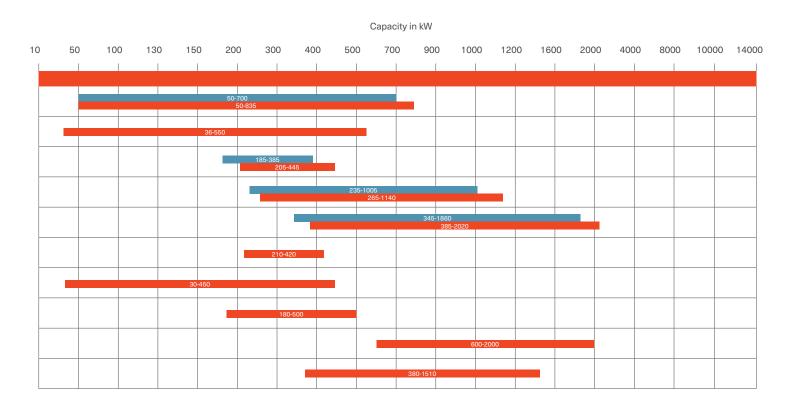
Piston, scroll or screw compressor RE/P/S Series Heating 30-2000 kW

					Compressor Water heat exchanger							Refrigerant							
		Refrigerant circuits	Adaptive Frequency™ Drive	Scroll	Screw	Piston	High Speed Centrifugal	Brazed plate	Shell and tube	R410A	R454B	R1234ze	R515B	R134a	R513A	R1233zd	R450A		
HEAT PUMPS																			
ADVANTAGE	CXWF	1/2		•				•		•	•								
LIFT		1		•				•						•	•				
CUTY	RTSF	1	•		•			•				•	•						
RIND	RTWD	2	•		•				•			•	•	•					
XSTREAM	RTWF	2	•		•				•			•	•	•	•				
EXERGY	RE	1/2		•				•		•									
EXERGY	Р	1/2				•		•				•	•	•	•	•	•		
EXERGY	S-180 - 580	1			•			•				•	•	•	•		•		
EXERGY	S-600 - 2000	2			•				•			•	•	•	•		•		
XSTREAM EXCELLENT	GVWF XSH	1/2	•				•		•			•	•						





Trane heating. Naturally.



Rooftops

Cooling only, heat pump, dual fuel and gas-fired













Airfinity S Cooling 15-80 kW Heating 15-80 kW



Airfinity One Cooling 40-130 kW Heating 40-130 kW

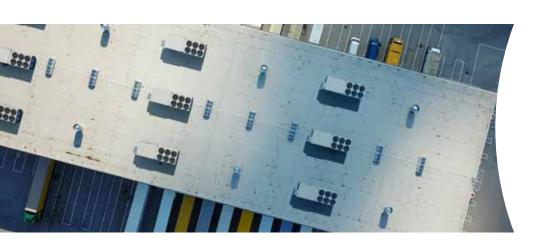


Airfinity XL Cooling 140-250 kW Heating 135-270 kW



Airfinity Mega Cooling 270-310 kW Heating 310-390 kW

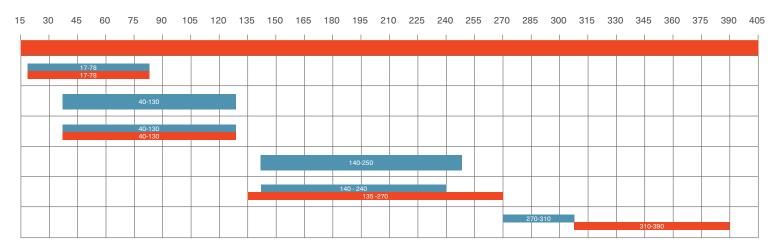
							uxiliary hea	at	Н	eat recove	Refrigerant		
		Refrigerant circuits	Free cooling	Heat pump	Cooling only	Modulating gas burner	Hot water coil	Electric heater	Enthalpy Rotary Wheel (ERM)	Energy recovery circuit (ERC)	Thermodynamic heat recovery	R410A	R454B
ROOFTOPS													
AIREINITU	IH	1	•	•		•	•	•	•	•	•		•
AIREINITU™ ONE	IC	1/2	•		•	•	•	•	•	•		•	•
ONE	IH	1/2	•	•		•	•	•	•	•		•	•
AIREINITY"	IC	2	•		•	•	•	•	•	•		•	•
X	IH	2	•	•		•	•	•	•	•		•	•
AIRFINITY MEGA	IH	2	•	•		•	•	•	•	•			•







Capacity in kW







Trane Building Advantage

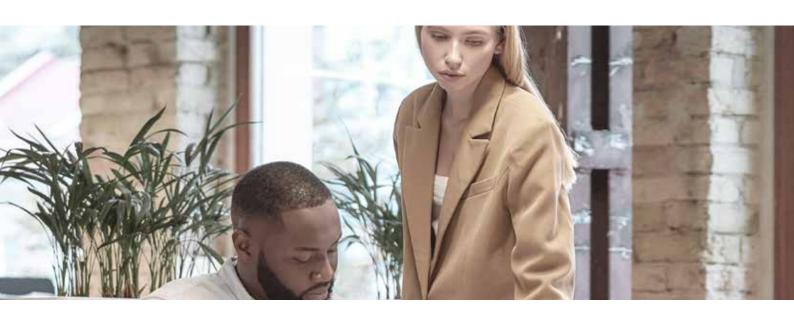
40 to 60% of your total energy budget goes into running your chiller plant. Our mission with Trane Building Advantage is clear: to bring you the services, tools, equipment and expertise to transform your building. Our customers measure HVAC systems by their reliability, efficiency and environmental impact. The suite of enhancement solutions we call Trane Building Advantage has been developed to deliver results at two levels: **Components:** By targeting individual components of the system we can ensure they meet design requirements and so optimize life cycle costs.

Plant: We leverage our expertise and use proprietary analysis software to produce a holistic system design to suit specific needs within clear cost parameters.

Trane Rental Services

Whether it's extra cooling or heating needed during extreme weather conditions or a short-term replacement following an emergency, businesses sometimes require equipment to condition an indoor environment on a temporary basis.

Trane Rental Services can provide fast, safe and cost effective solutions using modern and reliable equipment.



System Optimization

Intelligent Controls Solutions for Smarter System Management

Whatever the scale of your operations, Trane will provide you with outstanding support – helping to select, design and implement the best HVAC solutions for your building and process requirements.

Trane Tracer® architecture

Building	Tracer [®] Synchrony™
Equipment	Tracer® Symbio™
Occupant spaces	Wireless sensors

A complete range of smart solutions

The Trane Tracer® range of controls solution extends from sensors, unit controllers, system controllers and enterprise control solutions. They contain pre-engineered applications and graphics to optimize control, saving energy. Tracer® system controller can be accessed from any PC, tablet or connected devices and eliminates the need for a dedicated computer and monitor. Tracer Synchrony is a cost effective web based HVAC Management system which includes many energy savings pre engineered applications. Tracer Ensemble is a web based BAS aggregation front End. Both these products offer advanced cybersecurity features, including full support of latest BACnet Secure communication protocol, and encrypted data communication. Tracer Synchrony and Tracer Symbio controllers support seamlessly and simultaneously standard protocols such as BACnet, Modbus or LonTalk.



Chiller and Heat Pump Plant Controls

Trane has leveraged over 40 years of experience in controls to develop cooling and heating control systems, featuring chillers and heat pumps, and to provide energy-efficient and reliable cooling and heating solutions.

These include pre-engineered solutions for multiple chiller and heat pump applications. Running multiple energy strategies for optimization by operating the components of the chilled and hot water systems at their best efficiency.

Rooftop Controls

Tracer® Concierge is a packaged control solution for managing rooftops and simple on/off lighting system. most efficient point can realize significant savings.





Trane Tracer® Symbio™ Enhanced Energy Efficiency and Serviceability

Controlling large equipment for energy efficiency is critical for focused energy cost management and sustainability initiatives. Decades of global experience in chillers and heat pumps has led to development of the renowned proprietary design Trane Tracer® Symbio™ equipment controller.

It is the industry's first application-specific and field-programmable controller – providing more flexibility and customizable operation sequences. Building automation systems integration meets industry standards to enable a more integrated process and is made even more flexible with new communication protocol options.



Flexibility

As occupant and building needs evolve, Symbio solves present and future challenges. Symbio easily integrates with older systems via open standard protocols. Upgradeable software also offers proactive cybersecurity updates and future enhancements that comply with changing energy codes.



Connectivity

Connected buildings meet occupant demands with ease by allowing secure access to system and equipment data anytime, anywhere. Use data collected by Symbio to remotely monitor, troubleshoot, schedule and control equipment.



Serviceability

Symbio can be reprogrammed easily and often with non-proprietary software service tools and built-in interfaces. Users benefit from multi-language support. Utilize detailed event logs, trends, and alarm management to ensure optimized system performance. Symbio automates and streamlines equipment start-up and allows you to remotely diagnose and manage systems.







A must-see video promoting our smaller capacity product portfolio starting at 5 kW. https://www.youtube.com/watch?v=7bABj2XvO5s&t=2s



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.eu* or *tranetechnologies.com*.