



Trane[®] Products within the EcoWise[™] Portfolio

Efficiency, sustainability and compliance for today and tomorrow



Smart solutions for a changing world



Trane® CenTraVac™ chillers can operate with either R-123 or with one of our next-generation refrigerants, R-514A or R-1233zd, both of which offer ultra-low GWP levels of less than 2.

By offering multiple refrigerant options in our larger-tonnage chillers, we have the flexibility to better optimize solutions for our customers' application needs.

Helping the industry find new solutions

Working with other industry leaders, Trane is helping find new refrigerant solutions like R-452B, a next-generation, low GWP refrigerant with strong safety, design and sustainability performance. R-452B is currently being evaluated by the industry for use in unitary and residential equipment, as a replacement for R-410A.

Trane can help you meet sustainability goals without compromising efficiency, reliability, cost savings or safety. With our expertise and history of innovation in the industry, we are uniquely positioned to bring you industry-leading products with next-generation, low global warming potential (GWP) refrigerants, and high efficiency operation of the Trane® products within the EcoWise™ portfolio.

Energy efficiency from an industry leader

Maintaining an efficient HVAC system is often the most effective way to minimize greenhouse gas (GHG) emissions. Trane takes a balanced approach to optimizing efficiency and lowering energy costs. We deliver high full-load performance to reduce energy demand and high part-load performance to reduce energy consumption. The Trane products within the EcoWise portfolio are designed to offer high efficiency, exceeding established industry standards by at least 5 percent.

Reliability

Higher efficiency means lower operating costs for your facility. The result is a lower total cost of ownership for your HVAC system. The Trane products within the EcoWise portfolio feature simple yet robust designs that enable equipment to last longer than other systems in the industry. Leveraging more than 100 years of experience with industry-leading technology, Trane ensures the highest levels of reliability for your system installation.



Safety

Many considerations go into the designs of our equipment and the refrigerants used. Trane focuses on using safe refrigerants with low flammability characteristics. Innovative heat exchanger designs in our air-cooled chillers lower the refrigerant charge by 40 percent while reducing the potential for leaks. The low-pressure and leak-tight design of CenTraVac chillers keeps the refrigerant inside the machine, resulting in the lowest field-documented leakage rates in the industry. These design choices result in a safer environment for your building and its occupants.

Environmental sustainability

Trane helps you reach your sustainability goals with a lower overall environmental impact. This is possible through the use of next-generation, low GWP refrigerants and highly efficient system operation. You will use less energy to cool your building while using refrigerants that minimize the potential for global warming. Plus, depending on your system requirements, we offer additional energy-saving options, like heat recovery, thermal storage and free cooling.

Peace of mind

Given the highly regulated nature of the refrigerant industry, building owners and facility managers often have concerns about product compliance with existing and proposed regulations. We can help you in understanding all requirements, the options you have available, and the transition to next-generation refrigerants when the time is right. Knowing that your HVAC system is capable of operating using a next-generation refrigerant is your assurance that your assets are designed for the most up-to-date regulatory compliance and the ability to retain market value.

Trane Sintesis™ chillers

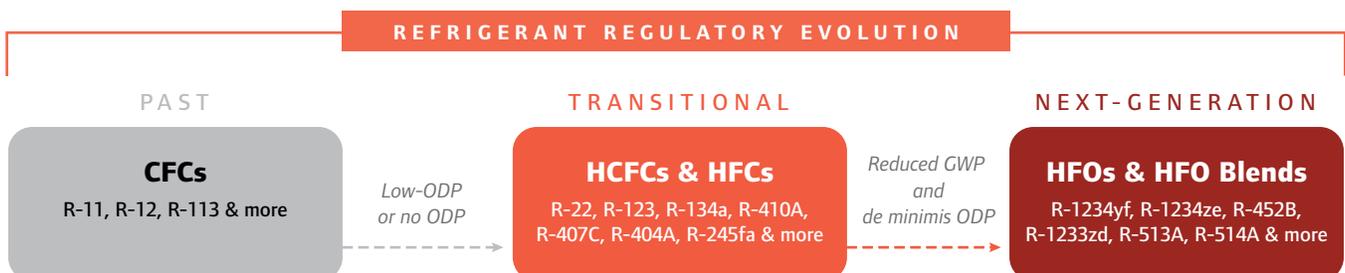
are compatible and convertible with R-513A, a non-flammable, next-generation refrigerant that has a 55 percent lower GWP than R-134a.

Commercial, residential and industrial buildings are responsible for 47 percent of global GHG emissions and 49 percent of the world's energy consumption. * HVAC systems are an important component in both. Trane is leading the effort to reduce GHG emissions by providing options to use next-generation refrigerants without compromising energy efficiency or safety.

*Source: Navigant Research

Ongoing service and support

Our customers are supported by the largest service team in the industry. Trane building professionals provide the ongoing support and consultation you need, leveraging deep systems knowledge to optimize your HVAC system. Look to us to simplify the complexities of compliance and help you maintain efficiency, reliability and sustainability.



ODP: ozone depletion potential
 GWP: global warming potential
 de minimis: lacking significance or importance, so minor as to merit disregard

Ingersoll Rand Climate Commitment



50%

Reduction in the greenhouse gas refrigerant footprint of our products by 2020, and incorporating alternatives with lower GWP across the company's product portfolio by 2030.



35%

Reduction in greenhouse gas footprint of our own operations by 2020.



\$500M

Investment in product-related research and development by 2020 to fund the long-term reduction of GHG emissions.

EcoWise™

The Ingersoll Rand EcoWise™ portfolio of products designed to lower environmental impact with next-generation, low global warming potential (GWP) refrigerants and high-efficiency operation is part of our climate commitment to increase energy efficiency and reduce the greenhouse gas emissions (GHG) related to our operations and products.

Scan the code or visit
Trane.com/EcoWise
to learn more.



Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$13 billion global business committed to a world of sustainable progress and enduring results.



ingersollrand.com