

# R454B refrigerant on scroll units

## Chillers, heat pumps and rooftops



**R454B : the lowest GWP value option to replace R410A**

The **fluorinated refrigerants phase-down**, as defined in the EU F-Gas Regulation, is a step-by-step approach where the quantities of HFCs, expressed in CO<sub>2</sub> equivalent, that are placed on the market are gradually reduced. As a result of the phase-down, HFC consumption will be **reduced by 79% by 2030**. This is an unprecedented reduction and means that industry and users need to make, over time, the transition to refrigerants with a **lower Global Warming Potential (GWP\*)**.

## Trane's position

Trane, already recognized as a leading innovator in the HVAC industry, has experience in designing products operating with low-GWP refrigerants. Our entire portfolio of screw, high-speed centrifugal and centrifugal units is available with low-GWP refrigerant alternatives such as R1234ze, R1233zd, and R513A.

**Now**, we have extended the initiative to encompass **our portfolio of chillers, heat pumps and rooftops with scroll compressors** to continue to be front running in the marketplace and to support your strong sustainability objectives.

These scroll units are **offered with R454B** and are designed to lower their environmental impact with next-generation, low global warming potential (GWP) refrigerants and high-efficiency operation.

## Portfolio



Conquest™  
chillers and heat pumps  
CGAX/CXAX



Sintesis™ Advantage  
chillers and heat pumps  
CGAF/CXAF



Sintesis™ Balance  
multi-pipe units  
CMAF



Airfinity™  
rooftops  
IC/IH

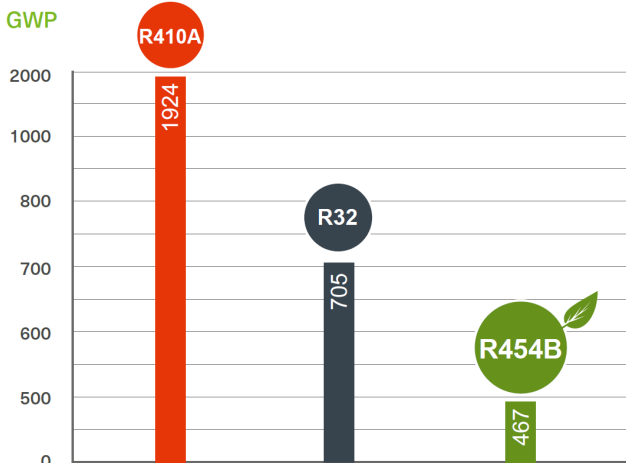


Flex<sub>2</sub>O...and  
more. Contact  
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# Why R454B?

## Lower impact on the environment

This is the **lowest GWP** value option to replace R410A, with a GWP **decrease of 76% and 34% lower than R32**. Units will deliver **better cooling/heating capacity and power usage** compared to R410A - up to 5% improvement.



GWP values according to IPCC Fifth Assessment Report (AR5)

## Quality and reliability

**Tested and tight refrigerant circuits** that keep the refrigerant contained and with its original manufactured composition, ensure the **highest performance** as the unit was designed to achieve, for years to come.

We regularly make significant investments in our manufacturing facilities and European Research and Development laboratories to continue to deliver products of superior quality and reliability.

## Extended operating maps

R454B is an even more attractive choice considering that there is **no compromise in terms of operating maps**. They are as wide as for units operating with R410A or R32.

The large operating maps in both cooling and heating mode have been extensively **tested and proven**.

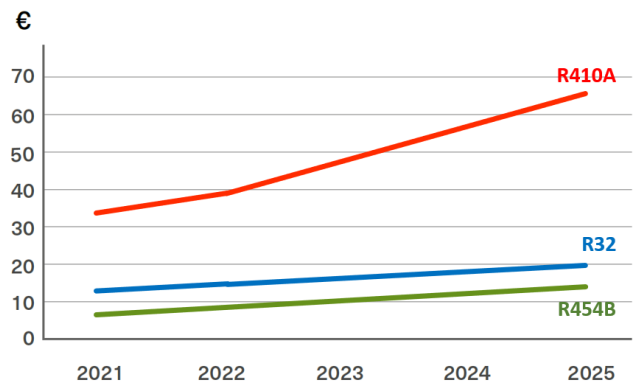
This advantage makes the heat pump units **suitable for heating in colder climates**, delivering hot water at a minimum of 45°C at -10°C ambient air temperature.

## Lower operating costs

Our units with R454B are very **competitive** versus legacy Trane products (1-5% more efficient) and other products on the market. In addition, because we choose the lowest GWP available and reduce the total refrigerant charge volume, we **limit the financial impact of operating costs**.

**How?** Governments set tax schemes and subsidy programs based on GWP values (the lower the GWP, the lower the tax). By investing in a lower GWP, **you are reducing your cost** of future refrigerant purchases.

Example of forecast – tax on refrigerant  
In Euro per equivalent ton of CO<sub>2</sub>



## Experience in design and manufacturing

**Decades of experience** allows us to design refrigerant circuits optimized for any refrigerant. Our **rigorous manufacturing and servicing processes** guarantee a minimal risk for leakages. Your investment, and the environment are **safer and protected**.

## Trane Service

Our Service Technicians are **highly experienced** with refrigerant. For R454B, they received specific PED certifications to perform brazing. They also are **trained** to handle this new refrigerant with care during commissioning and service operations.



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](http://trane.eu) or [tranetechnologies.com](http://tranetechnologies.com).

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