



EarthWise™ Purge System

Environmental responsibility made easy



EarthWise™ purge system sets the standard in efficiency and reliability



Generating savings like no other purge, and EarthWise purge reduces both maintenance and operating costs.

Purges are an important component on any centrifugal low pressure chiller. They keep the system free from non-condensable gases such as air, water vapor and contaminants. These non-condensable gases cause an increase in condenser pressure and a loss of operating efficiency. Furthermore, water vapor can interact with the refrigerant in the chiller to form hydrochloric and hydrofluoric acids that deteriorate the internal components and cause chiller failure. Some of the problems associated with non-condensable gases in a chiller are:

- High head pressures and discharge temperatures
- Hermetic motor burnout
- Tube damage
- Bearing failure
- Reduced heat transfer efficiency

Since 1990, Trane has offered the most reliable and best performing centrifugal chiller purges in the market. The Trane EarthWise purge combines Trane's proven purge technology and the Tracer™ chiller controller to provide unequalled purge performance. Industry ratings prove that the EarthWise purge is 25 times more efficient than the next best purge. The EarthWise purge returns the refrigerant to the chiller, instead of releasing it into the atmosphere, which is better for the environment.

Trane has set the industry standard by developing the first purge to have an AHRI-rated, maintenance-free, emissions filter system and the first to have an optional touch-screen display. Also, the EarthWise purge can remove air faster than ever before in most conditions. With its high efficiency and unequalled reliability, the EarthWise purge has set the standard for chiller purges.

Reduced maintenance

The EarthWise purge is the only purge with a self-regenerating emissions filter. This eliminates the need for periodic filter maintenance and replacement. This unique feature sustains the EarthWise purge's ultra high efficiency throughout its life, and eliminates the cost of annual maintenance, refrigerant loss associated with other purges and hazardous material disposal issues.

Faster pumpout

The EarthWise purge intelligently varies its pumpout rate to maximize air-removal speed. Tests show that the patented feature¹ allows the EarthWise purge to remove air twice as fast as previous purges. This can get your chiller back online faster and operating at peak performance when you need it most.

Ultra high efficiency

The EarthWise purge has several features to ensure peak performance, including its unique emissions filter that reduces refrigerant lost from the chiller to mere ounces. And compared to the best rated “high-efficiency” purge, the EarthWise will save 90 pounds of refrigerant during a typical 20-year chiller life. As the cost of refrigerants rise, it’s easy to see that the EarthWise purge is an effective way to save operating costs and maintain your chiller’s efficiency.

Ultra wide operating range

The advanced R-404a refrigeration system allows the EarthWise purge to operate in a much wider range than other purges. Such a wide operating range means that the EarthWise purge will function more reliably and efficiently in applications such as chillers in series, free cooling, ice-making and on outdoor chillers.

Integrated operation

The EarthWise purge has the most-advanced display and controls ever seen on a purge system. With its Tracer control system, the EarthWise purge can be fully integrated with Tracer chiller controls and building control systems. This integration allows the EarthWise purge to function as a very effective leak detector. Using the Tracer controller’s trending ability, pumpout rates can show when leaks are developing so they can be caught and repaired early, maintaining chiller efficiency.

The Tracer controller integration also allows you to see more information than ever before in a simple and easy-to-read format. With 7-day reports, graphical trending abilities, a well-organized display, and the ability to run automatically or manually, the EarthWise purge can easily handle any facility’s needs. EarthWise purge can also be run independently of the Tracer control system using an optional touch screen.

If you have questions, or for more information about the EarthWise purge, please contact your local Trane office.

1. Patent number 6,647,736

The EarthWise purge is designed to be the best-performing, most maintenance-free purge ever. All while having an emissions efficiency that’s 25 times better than its closest competitor.

Learn more at trane.com



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.com or tranetechnologies.com.

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CAP-SLB005-EN
08/26/2020