Climatuff[™]Coil Technology



Conventional coils require a complex manifold to direct the

Simple manifold design

refrigerant. In the Climatuff coil, however, all the channels share one common inlet and one common outlet. This structure allows for fewer brazed joints, reducing the likelihood of leaks, while also allowing for the use of less metal overall, reducing the weight of the coil.

Designed to perform

The shape of the Climatuff coil's refrigerant tubes contribute to the overall efficiency of the coil's heat transfer because of these factors.

More primary surface area allows more of a pathway for heat to dissipate through the aluminum.

KHAI

Multiple channels allow the refrigerant flowing through them to have more of its overall surface exposed to the aluminum, permitting more heat to transfer.

The streamlined tubes

improve aerodynamic efficiency adding to the overall heat transfer effectiveness.

With the introduction of the Climatuff[™] coil to our systems, we've found an effective way to offer Trane reliability and performance to the cost-conscious market that might not have previously considered Trane. Therefore, giving Trane dealers a whole new market segment to call on.





READ ONLY The Advanced Heat Exchanger technology advantage

This heat exchanger technology represents an entirely new technology for Trane, yet one that's already been proven many times over in other industries. Originally created for use in automobile air conditioning systems due to its small size, strength and efficiency, Advanced Heat Exchanger technology has proven durable and dependable over millions of miles on the road.

Many of the qualities innate in Advanced Heat Exchanger technology make it a perfect fit for air conditioner applications.

- The wide, flat shape of the tubes and the complete fin-to-channel contact make it structurally rigid and tough. A leading edge 2.5 times thicker than the tube walls adds further strength, helping it resist cracks and leaks.
- Since it can be made entirely from aluminum, it resists corrosion from the elements and formicary corrosion caused by contact between copper and aluminum.
- For added reliability, the top and bottom channels are not part of the

refrigerant circuit. So there's no danger of a leak developing from contact with the base or top of the air conditioner.

 Because it uses many small channels instead of a few large tubes, the refrigerant has greater surface contact with the aluminum coil. That means the entire system works well with less refrigerant, making it more ecologically sound, while also reducing the stress placed upon the components of the refrigerant circuit.

Tested and proven worthy of the Trane name



UL testing mandates that coils undergo a minimum of 250,000 stress cycles to insure their integrity. During its lifetime, the typical coil will undergo approximately 500,000 cycles. But Trane is anything but typical. To prove its strength and reliability, we tested the Climatuff coil by subjecting it to over 3 million cycles. The Climatuff coil has also proven itself through extreme temperature testing in Trane's Systems Environmental Extreme Testing (SEET) Lab, where

it easily survived sixteen weeks of brutal cold, blistering heat and other extreme weather conditions without failure.

Straightforward coil cleaning

Because of its design, the Climatuff coil is inherently strong. For added protection, it is surrounded by a robust metal coil guard with ³/₈" openings that shields the coil from physical damage while still permitting easy cleaning to maintain peak efficiency.



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Marketing strategies

The Climatuff[™] coil has a wide array of characteristics that make it ideal for several specific market segments.

- **Cost-conscious market**. The increased heat transfer efficiency of the Climatuff coil allows Trane to manufacture air conditioners that deliver substantial value. This makes them appealing to the cost-sensitive market that may be constrained by a budget, but still want a reliable, well-performing air conditioner.
- **Contractors**. Because of competition in the new home market, contractors are often pushed to save money wherever possible. Air conditioners built with the Climatuff coil offer a costsensitive solution that still includes Trane's outstanding reliability, performance and warranty.
- Multi-family dwellings. The Climatuff coil's reduced weight and substantial reliability make it perfect for apartments, condominiums and other multi-family dwellings. Air conditioners using a Climatuff coil can typically be built with reduced weight, making them easier to swap out and install. Climatuff coilequipped units are also typically smaller than comparable units, making them easier to store and install in tight places.

