



## “COMFORT CONDITIONERS”

AIR CONDITIONERS & HEAT PUMPS . . .

FACT vs FICTION\*

TRANE “MATCHED SYSTEMS”

*\*Or*

*What you don't know  
about central air conditioning  
and heat pumps can cost  
you plenty . . .*

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**ARE THERE ANY SIGNIFICANT  
DIFFERENCES BETWEEN  
COMPRESSORS?**

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A compressor has to work hard to keep your home comfortable. It is the single most important component in an air conditioner. It must be rugged and extremely reliable.

Since a compressor can be expensive to replace, it is important to select one that has proven its reliability and is backed by a strong warranty.

**CONSIDER:**

Most manufacturers buy their compressors from outside suppliers, so they have little control over quality. But not us. We not only design and manufacture the finished compressor, but also build most internal parts as well. Each Trane Climatuff™ compressor meets exacting standards. So you can see, there is a difference between compressors.

The Climatuff has also proven itself in more than 11+ million compressors! And on the XL Top-of-Line, Trane backs its compressor with a 10-year limited warranty — first manufacturer to offer this depth of warranty protection!

The Climatuff is reliable because it was built for rugged heat pump situations. This means it is designed to work year-round in all temperatures across the United States! ■



**TRANE™**

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**WHICH IS BEST?**

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**A COPPER/ALUMINUM COIL OR . . . :**

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**AN ALUMINUM/ALUMINUM**

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**SPINE FIN COIL?**

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Coils referred to as "copper coils" are combination metal coils with copper tubing and aluminum fins. Residential homeowners sometimes have problems with this combination. When salt and/or pollutants are in the air, a chemical or galvanic reaction takes place between the two different metals, causing corrosion wherever they touch. This microscopic reaction begins immediately and gets worse with time. And even microscopic corrosion hurts performance and efficiency causing and contributing to increased electrical consumption.

On the other hand, Trane Spine Fin™ coils feature aluminum alloy tubing and fins and, therefore, there is no corrosion problem caused by dissimilar metals. In fact, Trane aluminum Spine Fin coils have a successful 30+ year record of performance at industrial plants and offshore rigs.

Spine Fin coils also have up to 70% fewer brazed joints when compared to the plate-type coils. So it is easy to understand why Trane coils are less likely to leak.

Where physical unit size/capacity is a factor, we do provide high efficiency DuraTuff™ plate fin coils. Trane is so confident on the quality of its Spine Fin/DuraTuff coils that they are backed by a 10-year limited warranty on XL units and 5 years on other models. ■

**No other manufacturer has a 10 year  
Warranty on their outdoor coil!**



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## WHAT SIZE UNIT SHOULD I HAVE?

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The answer is simple in theory — get one large enough to do the job. But in practice, determining the right size unit involves using a complex formula which takes into account many separate elements.

Your authorized Trane dealer is trained to scientifically analyze your cooling and heating needs, and to make a precise recommendation on the size and type of unit which will give the best results.

### *IMPORTANT:*

Too often an inexperienced or poorly trained dealer may suggest a much larger unit than needed. The results of this over capacity can be serious, such as:

1. *The unit cycles too often meaning that adequate dehumidification is rarely achieved.* With heavy moisture still in the air, the interior may be cool, but it remains damp and feels like a cave. To be comfortable, reducing humidity is just as important as reducing the temperature.
2. *This frequent cycling also means a unit is not likely to reach its maximum efficiency rating, so the operating cost will be higher than it should be.* It is like an automobile that gets better mileage when driven on an Interstate versus stop and go city driving.

Ask your Trane dealer for a sizing and energy analysis. You'll be surprised at how much you can save on "comfort conditioning" costs and how much more comfortable you can be. ■



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## WHAT IS SEER AND

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## WHY IS IT IMPORTANT?

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Simply put, Seasonal Energy Efficiency Ratio (or SEER) is the measure of how efficiently an air conditioning unit converts a given amount of electrical power into cooling over an entire summer season. For example, a typical 10-year old central air conditioner would have a SEER of about 6 to 8 compared to the Trane XL Top of the Line's SEER of 15+. This means Trane is twice as efficient as the older unit.

With today's high monthly utility bills, it's easy to understand why it is so important to choose a unit with a high SEER. The savings can literally help pay for the new unit over a period of time.

Your Trane dealer can calculate the savings you could anticipate by upgrading your old unit to a new XL 1200 or XL 1400. You'll likely be amazed!

### *IMPORTANT:*

"Comfort Conditioners" are not all created equal. Your Trane dealer can give you considerable information which proves again that there is no substitute for quality.

At first you may think there is little difference between two air conditioners with the same capacity and SEER ratings. Think again! For example: a manufacturer can achieve a higher SEER by increasing the number of fins in a condensing coil. But trouble comes when tightly spaced fins aren't kept scrupulously clean. Dirt can so easily be trapped in these tiny spaces. As dirt builds up, airflow decreases and efficiency drops. And should airflow become too restricted the unit can even overheat and blow the compressor.



So check carefully when you notice a unit that is physically much smaller than another unit with the same capacity and SEER rating. On the smaller unit the fins may be too close together!

Another way to show a higher SEER rating is to increase Sensible Capacity (temperature reduction) at the expense of its capacity to remove humidity. To get maximum comfort from your cooling system, the latent capacity (the ability to remove humidity) should be between 25 to 30% of its total capacity. When considering high efficiency equipment, be sure to ask the dealer for information on both latent and sensible capacity. ■

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**IT'S NOT THE HEAT —**

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**IT'S THE HUMIDITY.**

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It's true. To be comfortable a central air conditioner must do more than cool, it must also remove humidity from the air. Unfortunately, many central air conditioners are not engineered or installed to remove humidity both efficiently and effectively.

There are two primary reasons why some central units do not remove enough humidity to keep you comfortable:

1. *The unit may be too large for the area being cooled.* Some inexperienced dealers and many people think, "The bigger the better." Wrong. An oversized unit will cool an area so rapidly that it cycles off after a brief running time. Since an air conditioner can remove humidity only when it is running, this means the oversized unit leaves the area cool but damp, like a cave, and therefore uncomfortable.



Also, should the air remain damp, one tends to set the thermostat lower in a futile attempt to get comfortable, which uses more energy.

2. *The unit may be deliberately mismatched (indoor/outdoor units not the same capacity/airflow).* Sometimes units are deliberately aligned with a different capacity/airflow to get a certain SEER (Seasonal Energy Efficiency Ratio). If this indoor/outdoor combination is ARI approved, listed and, if your dealer recommends it, this system will perform to manufacturers' ratings and may be perfect for a particular consumers home.

However, if this mismatch is just a choice to lower the cost of the installation (by not replacing indoor or outdoor unit), it is highly probable this type of "mismatch" system will not give you - the consumer - rated capacity and efficiency. This mismatch can shorten the life of the new equipment and again, may diminish the system's ability to remove humidity. In other words, it is not good match if it is not a "TRANE MATCHED COMFORT SYSTEM!"

So, be sure your system is both the right size and has coils correctly matched. Your Trane dealer can give you precise information on the proper Trane system for your home. Trane has a unit size and a price point to fit virtually every need.

The "Enhanced Comfort Mode" is another Trane first in humidity control. On our variable speed indoor products, we cool the coil before we slowly turn on the fan for more humidity removal in less time. Coils cannot remove humidity till they are cold! We pre-cool our coils for consumers' Enhanced Comfort! ■



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HOW CAN I BE SURE MY  
AIR CONDITIONER IS  
PROPERLY INSTALLED?

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Correct installation is one of the most important considerations for satisfactory air conditioner performance. Even a superior unit will not perform properly if the installation is faulty.

An air conditioner manufacturer can control the quality of its products, but must depend on its dealers for quality installation. To help insure better installation the Trane Company does several things.

1. *Trane Dealerships meet high technical standards and must have a reputation for fair and honest work.*
2. *Trane provides continuous product and service training to keep its dealers updated on its equipment and on advanced service and installation techniques.*
3. *Trane has a full-time Technical Representative, stationed in this area, to provide technical back-up on Trane Air Conditioning systems. And should the need arise, the Trane Technical Representative is available to assist the dealer with any special installation or service procedure on Trane equipment.*

**REMEMBER:**

A few dollars saved on installation may be very costly in the long run if the installation technician does not have sufficient training and experience. So call on Trane. Fifty million people take comfort in it, and in its dealers. Also remember "It's Hard to Stop a Trane"! ■





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## HAVE YOU CONSIDERED

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### A HEAT PUMP?

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We at Trane are Weathertron® Heat Pump Specialists — getting heat as well as cooling into your home. Our Climatuff compressor was designed for, built to, and tested at Heat Pump extremes. Most manufacturers put a cheaper compressor in their air conditioners — we put a heat pump compressor in all our units!

When you install a Heat Pump, the majority of your heating hours are at a lower cost because you get 3-4 times the heating output between 30-60° F for the same “electric heat” KW costs.

And, most importantly, on dual fuel systems, you have the safety and security of electric heat or gas furnace heat on those extremely chilly 20° F and lower days! The best of both worlds! ■

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## HOW IMPORTANT IS A

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### WARRANTY AND HOW CAN

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### I TELL WHICH IS BEST?

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Major repairs on a central air conditioner can be costly — such as replacing a coil or compressor. So a standard or extended warranty is very important.

To get the best warranty — compare. Read the fine print. Know exactly what the warranty covers and for what period of time.

Trane provides its own standard and extended warranties through our dealers!

Extended warranties are available in 5 to 10 year on residential outdoor units and 15 to 20 year on heat exchangers.



**IMPORTANT:**

Remember, a warranty is no better than the company which issues it. For example, a written warranty from a large, reputable manufacturer is likely to be much better than a verbal promise by someone who may be here today and gone tomorrow.

But there are even significant differences between warranties offered by major manufacturers. So again, it will pay to make close comparisons on coverages offered.

There are many things to consider. Do you know the company which issues the warranty? Who will do the repair work? Are repair parts readily available? If a special problem arises, does the manufacturer have field personnel in your area who can offer assistance.

The Trane XL 1200 and XL 1400 warranty is a good example of consumer protection. It carries an exclusive manufacturer's 10-year limited warranty on the coil and on the compressor. This is twice as long as many other air conditioners.

Trane's original warranty and extended warranty are made between the consumer and the manufacturer. You do not have to depend on a third party to pay off in the event of repair. ■

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**MONEY SAVING TIPS.**

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There are a number of things you can do to insure more efficient operation and longer life for your central air conditioner or heat pump.

1. *A clean filter is important.*

Excessive accumulation of dust and dirt in a filter can block airflow, which forces a unit to work harder to maintain the desired temperature. So replace your filter once a month (or more if needed) to help achieve top efficiency.



2. *Keep outdoor unit clean.*

The outdoor unit should be clear of debris, leaves, and shrubbery. The unit needs a free flow of air over the coil. So keep the coil clean with periodic washdowns and avoid anything which restricts airflow.

3. *Let the thermostat do its job.*

Your system will perform more efficiently when you let the thermostat control it. Continually adjusting the temperature can be very inefficient. Set the thermostat at a comfortable level and leave it.

4. *If possible, reduce indoor humidity.*

An air conditioner does more than cool the air. It also helps remove the excess moisture that can make the inside air feel muggy. When removing the moisture, your system must work harder than when simply cooling the air. That's why kitchens, bathrooms and utility rooms should have vents and exhaust fans. These devices help prevent accumulation of moisture. So your air conditioner works less to keep you comfortable. And that helps keep operating costs down.

5. *Depend on your authorized Trane dealer.*

Periodic maintenance by an authorized Trane dealer using dealership "Full Service Contract" will help keep your unit in top operating condition. You can depend on Trane and its dealers for all of your service and installation needs. ■

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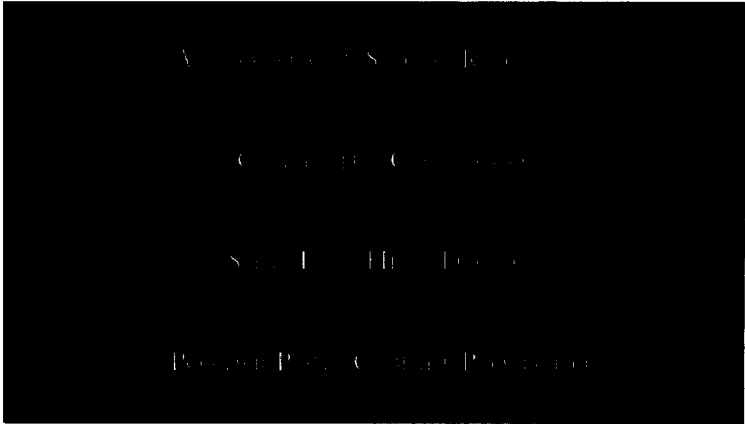
## TRANE "MATCHED SYSTEMS"

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Replacing both the indoor and outdoor units by reputable, trained, authorized Trane dealer assures years of trouble free operation. ■



*It's Hard To Stop A Trane.™*



*It's Hard To Stop A Trane.™*

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