



### **ThermaMax Advantages**

1. Increases heat transfer
2. Increases compressor oil lubricity
3. Greatly extends drip down time
4. Increases compressor life
5. Decreases compressor work load
6. Contains acid scavenger
7. Has no affinity for water
8. Resist corrosion and oxidation
9. Decreases compressor vibration
10. Contains no halogen compounds
11. Decreases compressor run time
12. Decreases compressor head pressure
13. Compatible with all compressor oils
14. Compatible with all refrigerants
15. Easily installed in most systems..



### **ThermaMax Advantages Over Halogenated Hydrocarbons such as Chlorinated Olefins**

1. Does not have acid forming potential
2. Has no affinity for water
3. Contains no halogen compounds
4. Is compatible with all compressor oils
5. Protects against rust
6. Is compatible with all refrigerants
7. No hazardous waste disposal problems.



## **ThermaMax**

# **POLARIZED REFRIGERANT OIL ADDITIVE**

AUTHORIZED DISTRIBUTOR:



## **ThermaMax**

A Product of:

**Chiller Services**

for

**Smith**

**Environmental  
Products**

**POLARIZED  
REFRIGERANT  
OIL ADDITIVE**



### ThermaMax

ThermaMax is a polarized, covalent, non-halogenated blend of synthetic and natural oils. ThermaMax is a polarized refrigerant oil additive that can be used in all types of air conditioning, refrigeration, and heat pump systems to increase oil lubricity and enhance heat transfer.

ThermaMax saves energy and decreases operating costs by:

1. Lowering compressor head pressure
2. Shortening compressor run time
3. Decreasing friction by increasing compressor oil lubricity
4. Increasing compressor life.

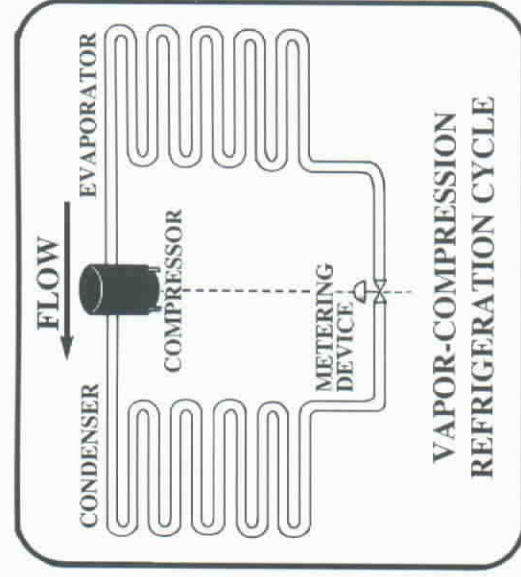
ThermaMax usually has a rapid payout on investment and continues to pay dividends in the form of lower operating expenses and energy savings throughout the life of the system.

## The Refrigeration Cycle

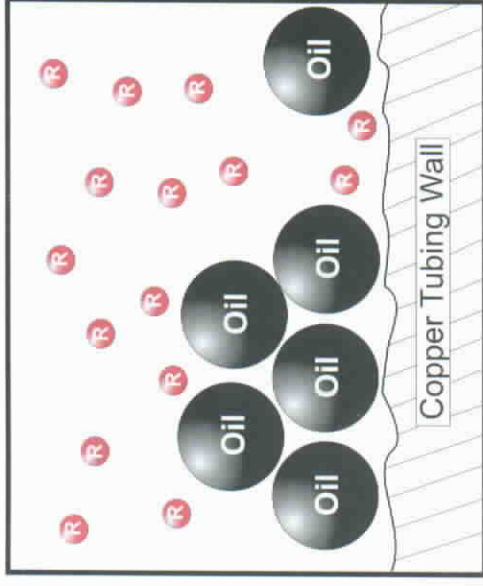
A refrigeration system consists of the following components:

1. Compressor
2. Condenser
3. Expansion device
4. Evaporator

The compressor pumps refrigerant from a low pressure area (the evaporator) to a high pressure area (the condenser). The condenser is a device for removing heat from the refrigeration system. The metering device controls the flow of refrigerant to the evaporator. The evaporator is a device for absorbing heat into the refrigeration system

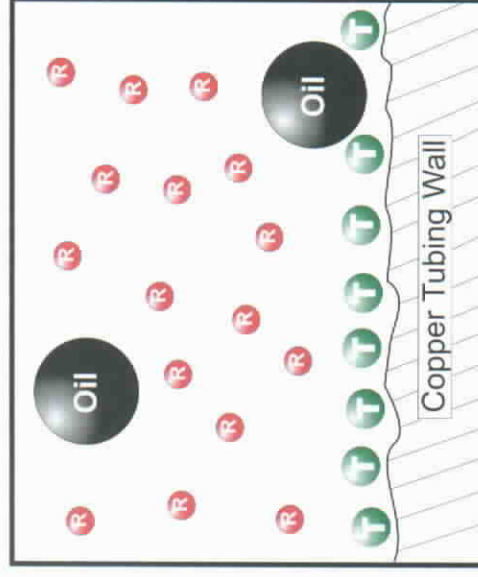


## Before ThermaMax Treatment



Oil layer attached to heat exchanger wall impeding heat transfer.

## After ThermaMax Treatment



Activated ThermaMax molecule displacing oil molecules facilitating better heat transfer.

## ThermaMax and The Refrigeration Cycle

Refrigerants carry a small amount of compressor oil, which adheres to the inside of the cooling system of the condenser and evaporator coils. The oil acts as an insulator, decreasing the ability of the evaporator and the condenser to transfer heat.

The ThermaMax molecules are covalent and share electrons with the metal on the inside of the condenser and evaporator coils. This allows the ThermaMax molecule to displace the oil on the inside of the coils. The ThermaMax molecules are also polarized and repel one another. This results in a coating of only one molecule in thickness on the inside of the system to transfer heat. More efficient heat transfer results in lower head pressure and less work required by the compressor.

More efficient heat transfer also results in colder evaporator coils, which allows for the set point to be reached quicker. This allows the compressor to run less, saving more energy. ThermaMax increases the lubricating ability of the compressor oil, which reduces friction and compressor workload.