

# TODAY'S SOLUTION TO HIGH ENERGY COSTS

## ARTICMASTER™ RMS

Advanced Refrigerant Management System

### APPLICATION NOTES

Articmaster™ Refrigerant Management System

- Residential
- Commercial
- Industrial
- Food Processing
- Refrigeration

## About the ArticMaster™ RMS

ArticMaster™ RMS represents over ten years of research and development, and is the first major breakthrough in the refrigerant industry in fifty years. In October 1996, the ArticMaster™ RMS (formerly known as Talon) was awarded "Best New Product" at the 1996 Northern California Plant Engineering and Maintenance Show. ArticMaster™ RMS is a product without competition.

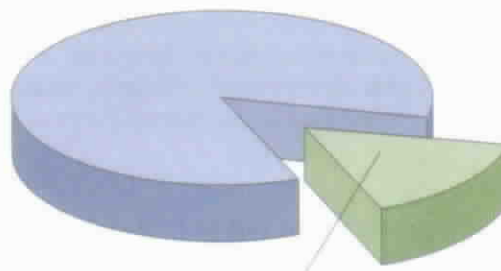
All ArticMaster™ models work equally well to achieve a minimum 20% energy savings on all air cooled equipment, and 8% on water cooled systems. Most air cooled systems will achieve savings of approximately 35% or above, depending on the ambient temperature and the condition of the equipment to which it is installed. The hotter it is, the better it works! Once ArticMaster™ RMS is installed, the reduced pressure in the system will not only save energy, but will also greatly increase the life expectancy of the compressor. ArticMaster™ RMS works with all refrigerants.



## Reduces Energy Costs by a Minimum of 20% . . . Guaranteed!

After ArticMaster™ RMS is installed by a trained and certified installer, the manufacturer guarantees a minimum of 20% increase in cooling capacity and/or reduction in energy demand to run your existing air cooled A/C system (8% minimum on water cooled units), or your cost of the ArticMaster™ will be promptly refunded by the manufacturer through your authorized Dealer. With proven energy savings of 20% to 40%, larger users of cooling and heating systems can realize significant energy savings.

### Energy Use & Cost Savings



**20%**  
**Minimum Reduction**

## The Hotter It Gets, the Better It Works

ArticMaster™ RMS achieves maximum BTU output at ambient air temperatures of 90 degrees F and greater while reducing energy consumption of the system. The greater the load demand or ambient temperature, the better it works.

## Cut Overhead Costs

ArticMaster™ RMS is a gravity assisted pump that utilizes a vortex through a fixed impeller to reduce compressor load. It has no moving parts to wear out and replace. Most importantly, while increasing the cooling efficiency of the unit, it reduces energy costs and extends the useful life of your system's compressor, thus saving you more money on replacement costs and long-term maintenance fees.

## Easy to Install

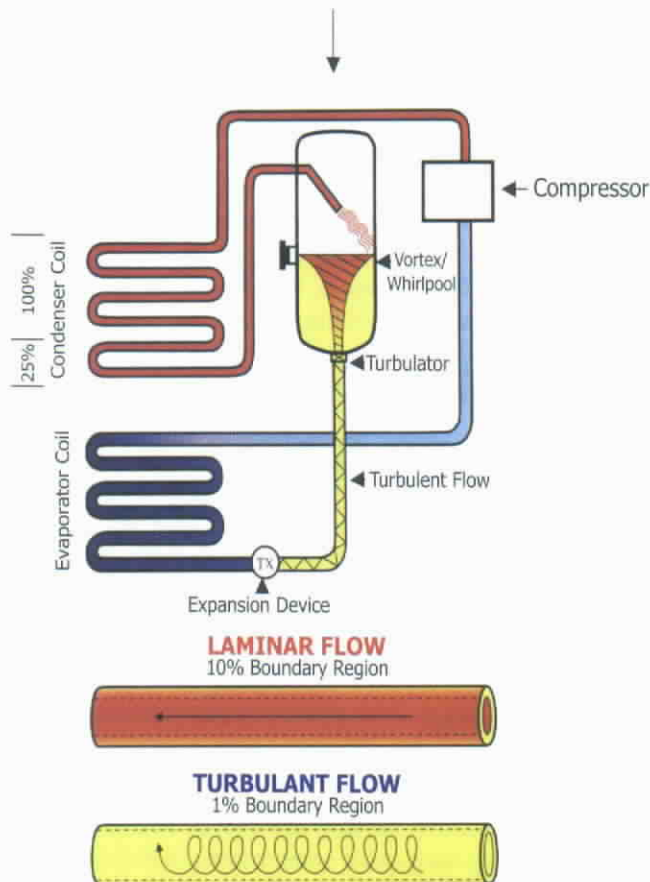
Easily installed by a licensed and certified installer, ArticMaster™ RMS fits virtually any type of new or existing HVAC equipment, such as air compressors, heat pumps and refrigeration systems.

## How the ArticMaster™ RMS Works

ArticMaster™ RMS uses principles of fluid mechanics (gravity, velocity, vortex and refrigerant turbulence), combined with thermodynamics, to achieve maximum refrigerant efficiency while reducing energy consumption. ArticMaster™ RMS is installed between the condenser and the expansion device (before cap tube, tx valve, fixed orifice, etc.).

When refrigerant enters the ArticMaster™ RMS vessel, it is directed into a spiral motion by design of the vessel and gravity's influence, inducing a powerful whirlpool or vortex that passes through a fixed impeller at the bottom of the ArticMaster™ RMS vessel. Wing-tip turbulence is added to the vortex reducing the boundary layer of negative flow associated with straight flow physics. Turbulent flow reduces this boundary area and forces more refrigerant to the external area of the vessel and the line, thus removing the oil that has collected and acting as an insulator. The heat will now be dissipated throughout a greater surface area of the vessel and conduit walls. This, combined with the pumping action, reduces the pressure of the system.

## ArticMaster™ RMS



## Increases System Efficiency

- Reduces system run time
- The hotter the ambient temperature the better it works

## Extends Compressor Life

- Lowers system pressure at high ambient temperatures
- Guards against thermal overload of compressor
- Saves money on replacement and maintenance costs

## Cooler/Hotter Air Output

- Significant reduction in discharge and suction pressure even with increased ambient temperatures
- Ensures maximum BTU output while reducing energy load
- Floating ball in the visual sight glass eliminates need for pressure gauge hookup to check refrigerant level **after installation** of ArticMaster™ RMS
- Easier to charge
- Quicker to inspect refrigerant levels
- Provides for earlier warning of possible leaks
- Eliminates even minute releases of gas to exceed EPA standards

## Easy Installation

- Fits new and existing equipment
- Works with all refrigerants including "blends"
- ArticMaster™ RMS will not void any manufacturer's warranty on new or existing air conditioning or refrigeration systems, and your total satisfaction is 100% guaranteed

## High Return on Investment

- Guaranteed minimum of 20% savings in reduced energy costs and/or increased cooling capacity
- No moving parts to wear out, no electrical components or wiring
- Reduces maintenance costs
- 50 year life expectancy in non-corrosive atmospheres
- Most expensive add-on energy devices shut down your air conditioning system to save you money. With ArticMaster™ RMS you never need shut down or cut back your air conditioning system. ArticMaster™ RMS is the only cost effective system in the world that saves energy while your HVAC system is operating!

*Distributed by:*