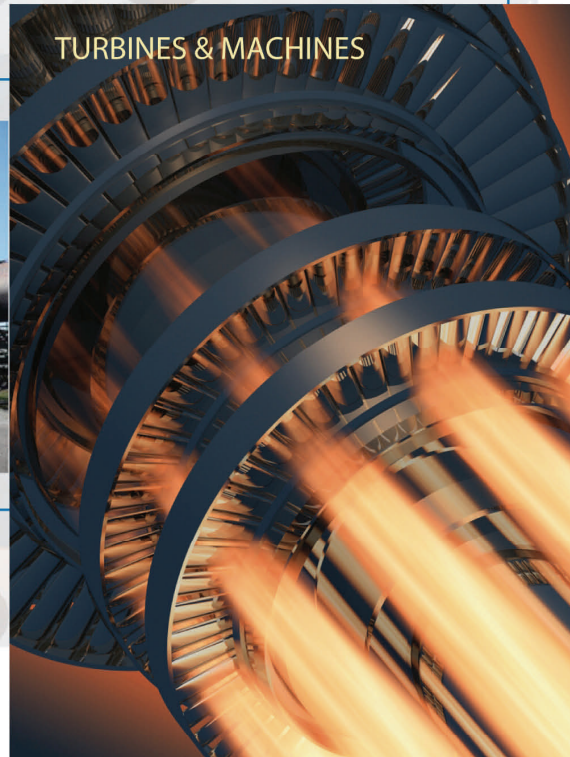


smartmist<sup>TM</sup>  
PRE-COOLING SYSTEMS

## "HARNESSING THE POWER OF MIST"

To Increase Efficiency Of Industrial Air Cooled Systems



## About Us



### Quick Facts:

- A Global Industry Leader since 1994
- Number one in experience, quality and service
- A reputation for innovation and new product development
- Hundreds of dealers worldwide
- Thousands of industrial and commercial installs

**SMARTMIST™** (formally know as Cool-N-Save™ Commercial) is a division of Cloudburst Misting Systems, Inc. Cloudburst has a reputation for quality and innovation unsurpassed in our industry. We hold several patents and have been the “first to market” with many of the mist/fog products used today.

We where already manufacturing & supplying many industrial pre-cooling products under our Cloudburst brand when in 2007, we decided to start a new division that was 100% focused on the manufacturing, marketing and product development for this fast growing market.

Since then, SMARTMIST™ has developed, tested and proven a new commercial AC/Refrigeration pre-cooling system plus, perfected our Dry Cooling Tower and Turbine pre-cooling systems. We are now poised to be the number one choice for industrial pre-cooling, just as we are for the many other mist products we manufacture and sell.

To find out more about Cloudburst Misting Systems™ - please visit us at: [www.cloudburst.com](http://www.cloudburst.com)



## The Power of SMARTMIST™ Products



### SMARTMIST™ Quick Facts:

- One of the most efficient means of pre-cooling
- Can achieve 100% evaporation
- Cools air up to 40 degrees
- Works in humid or dry climates
- Lower start up and operating cost
- Allows for fastest ROIs in the industry

**Simply put**, the Power of SMARTMIST™ Pre-Cooling comes from our ability of atomized water to evaporate and absorb heat (cool) more efficiently than any other means of evaporative cooling with very little cost or energy use (as much as 80% less than other pre-cooling methods).

SMARTMIST, a leader in the mist cooling industry since 1994, has taken this enormous cooling power and engineered it into specific systems designed to use the least amount of resources while dramatically increasing the cooling efficiency of industrial air cooled systems.

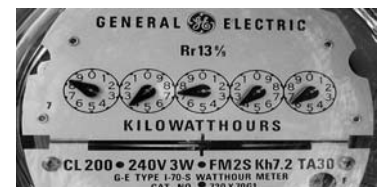


### These systems are categorized into 2 main types:

1. 100% Evaporative Air Pre-Cooling: Here we use high pressure (1000 to 2000 PSI) pumps, the smallest water atomizing nozzles and automated controls to achieve 100% inlet air evaporation. Meaning we do not get anything wet. These systems are primarily used for pre-cooling larger Dry Cooling Towers & Turbine air intakes.
2. Evaporative Air & Direct Heat Exchange Pre-Cooling: Here we use lower pressure (180 PSI) pumps, larger atomizing nozzles and automated controls to achieve a combination of air cooling and direct Heat Exchange water cooling. Meaning we cool the surrounding air of the heat exchanger, as well as get the coils slightly damp (with non-scaling, treated water). This gives us the largest efficiency boost for Air Conditioning and Refrigeration Condensers.

### The SMARTMIST™ pre-cooling systems save money by:

- Reducing equipment energy costs by up to 30% (you achieve the same or even more cooling, with much less energy).
- Allowing equipment to run more efficiently, thus extending its life.
- Delaying or eliminating the need for additional cooling equipment.
- Optimizing turbine performance by condensing inlet air.
- Keeping heat generating equipment running a peak performance and optimal output.
- Increasing the cooling capacity of air cooled equipment, allowing it to operate at full capacity even during extreme heat conditions.





## The Service

In our 15 years of experience we have learned that service is as or more important than having the best technology and products. This philosophy, and the fact that we do have some of the best technology and products in the mist industry, has allowed us to grow to be a leader in this fast growing market.

Part of this service is our ability to understand our customers concerns and be pro-active in having systems in place to address them before they happen - *i.e. we understand that it is important to have as little interruption to your daily business as possible. So we have developed our systems and install techniques to keep any interruptions to a minimum and in many cases we can complete and install with no interruption at all.*

It is also part of our service to make sure that the equipment we install lives up to our customers expectations. To do this, we constantly test and evolve our equipment to give the absolute best results. We also do not make any empty promises and make sure that everyone knows what to expect before they purchase a system from us.

As far as installation and maintenance goes, we only use factory trained Dealers and Installers. They have been trained to install our systems in a manor that meets or exceeds our client's expectations and can complete most installations in 1 to 3 days. They are well trained on both installing and maintaining our equipment and have full factory support from us when needed.

Below are some other specific services we offer for all the SMARTMIST™ systems:

- System Design
- Water Quality and Treatment Analysis
- Customer Objective Surveys
- Pre-Cleaning
- Demos
- Sub-Metered - Actual Savings Calculations
- Full Maintenance Services





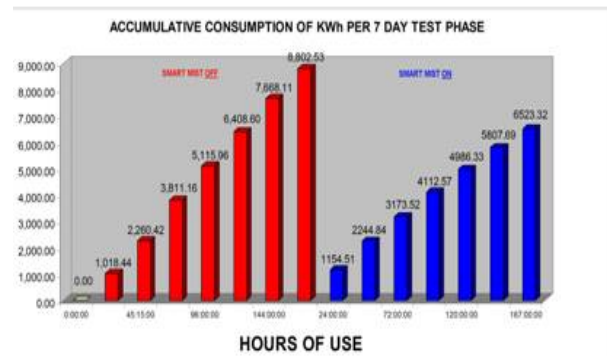
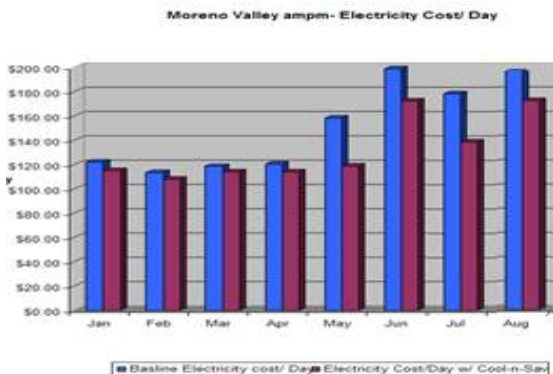
**The Guarantee**

**BETTER PERFORMANCE & ENERGY SAVINGS GUARANTEE!**

The SMARTMIST™ systems are a proven technology that will boost the efficiency of most air cooled systems thus significantly increasing their performance and/ or lowering energy use and costs. After auditing your equipment and needs, we will provide you with a minimum performance contract that will guarantee a minimum average performance increase and/or energy savings.

If your minimum performance increase and/or energy savings is not met during the first 60 days of operation, we will promptly remove our equipment and refund 100% of your money including equipment and labor upon your request.\*

\*Request must be made within 90 days of initial installation. See contract or call for more details.





**Results Quick Facts:**

- Energy Saving as much as 30% with AC pre-cooling
- Up to a 40 degrees more cooling power for Dry Cooling Towers
- Up to 20% more efficiency from Gas Turbines
- The fastest ROIs in our industry

**Real Results – Real Savings**

**SMARTMIST™** has worked hard to engineer reliable yet affordable solutions to the many problems inherent with air cooled systems.

Below are just a few of the real results that companies are realizing from the use of SMARTMIST™ systems.

**AC/Refrigeration**



**Company:** International Rubber Products, [www.irpi.com](http://www.irpi.com) (Installed June, 2007)

Light Industrial

**The Problem:** Manufacturing equipment generated a lot of heat adding to the high cooling cost for this 40,000 sq/ft manufacture. Water quality – Hard

**The Solution:** Install a SMARTMIST system on 4 large AC units - using Smart Release Technology to treat the water.

**The Results:** The facilities summer electricity bills (July through October) averaged \$22,608/mo. prior to the installation of their SMARTMIST system. After the SMARTMIST system was installed, the monthly electricity cost dropped to \$18,659 - an average savings of \$3,949 per month. According to the client, significant savings was sustained through the subsequent years and he has realized a 17% reduction in overall electricity costs, equaling over 30% reduction in AC electric costs and his coils are as clean if not cleaner then before the installation.



**Payback:** 3 months!



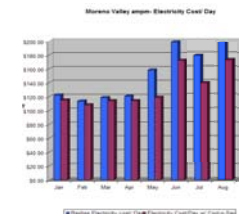
**Company:** Arco AM/PM gas station - Moreno Valley, CA (Installed January, 2009)

Mini Mart / Gas Station (part of the BP group)

**The Problem:** Full glass front, many walk-in coolers that are opened several times per hour, and constant in/out traffic created large cooling costs in the summer months. Water quality – Extremely Hard

**The Solution:** Install a SMARTMIST system on two 10 ton AC units and 2 smaller refrigeration units - using Smart Release Technology to treat the water.

**The Results:** Reduced the 2009 electric costs by an average of about \$400/mo as compared to 2008. Coils are as clean if not cleaner then before the installation (one end of year cleaning required)



**Payback:** 11 months!



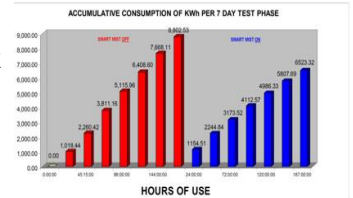
**Company:** Soriana - City Club Store, [www1.soriana.com](http://www1.soriana.com) (initial pilot install April, 2008)

Warehouse store – equivalent to a Sam’s Club

**The Problem:** Several isles of walk in coolers and freezers that are opened several times per day. This created large cooling costs plus they had trouble keeping them at required temperature during the hottest part of the day. Water quality – Hard

**The Solution:** Install a SMARTMIST “Pilot Test” system on one 8 fan refrigeration unit - using Smart Release Technology to treat the water.

**The Results:** Prior to installation, this one refrigeration unit consumed 8,802 kWh per week. When the SMARTMIST system was activated, consumption dropped to 6,523 kWh per week – more than 25% savings. Based on the local rate of \$0.15 per kWh, the client is realizing a NET savings of \$1,435 per month for one unit, giving this unit an ROI of 4 months. Based on this test, we have now been approved to start installation on several more units for Soriana, nation wide.



**Estimated Payback:** 4 months!



**An independent study done by the Tulane University in 2005 concluded that:**

"The implication from these results is that by using a Cool-N-Save™\* even in a climate that endures high humidity, the heat transfer from the refrigerant to the air is substantially increased" (by as much as 170%)

"This effect implies that cooler air will be able to circulate throughout a building and this will decrease the time the condenser unit runs, thus reducing electricity cost to the user."

\*This study was done on the first product Cloudburst made specifically for AC pre-cooling. Call for complete study.

## Dry Cooling Towers & Turbines



**Company:** Enterprise Products Houston <http://www.epplp.com/>

Propane Transfer

**The Problem:** Enterprise Products owns and operates boat loading facilities in Houston, Texas for oil, natural gas and propane. Historically, propane had been loaded onto tankers during the winter to minimize heat expansion and facilitate faster transfer from land to ships. World demand has grown and changed; now ships must be loaded in the summer months too. But, because the dry cooling tower could not keep the propane cool enough during the hot summer days, the transfer rates would stop or be so slow that tankers would start lining up in the harbor.

**The Solution:** Install a 1400 nozzle SMARTMIST pre-cooling system under the dry cooling tower to lower temperatures. The cooling capacity was improved by approximately 30% so that even on the hottest days, the propane transfer rates were as good as the middle of winter.



**Payback:** 1 Day!



**Company:** AHMSA Steel <http://www.ahmsa.com/defaulti.htm>

Steel Production (5<sup>th</sup> largest in the world)

**The Problem:** During the summer months, cooling towers could not keep up with material cooling needs during the steel manufacturing process, so the entire process was slowed up to 30%, costing millions of dollars of production.

**The Solution:** Install 3 - 900 nozzle SMARTMIST pre-cooling systems under the dry cooling towers to lower temperatures.

**The Results:** Cooled the intake air as much as 38 degrees F. Heat transfer rates went up so significantly, that even on the hottest days, steel production was kept at maximum capacity.

**Payback:** 1 1/2 shifts!



**Company:** AHMSA Steel <http://www.ahmsa.com/defaulti.htm>

**Type of business:** Steel Production (5th largest in the world)

**The problem:** The entire plant is powered by an internal gas turbine. The cost to generate the electricity is expensive, especially during the summer heat when the efficiency was reduced by up to 30%.

**The solution:** Install a 300 nozzle SMARTMIST pre-cooling system at the air intake & vent.

**The Result:** This cooled the intake air by up to 36 degrees F., thus condensing it so that the turbines output was boosted back to 100% This related to a significant cost reduction and better life expectancy of the turbine.

**Payback:** 1 month!



**Company:** Standard Oil of Indiana (Refining Operation) - BP AMOCO

Diesel Fuel Transfer

**The Problem:** In the summer months, the cooling towers used to cool diesel fuel were ineffective at lowering fuel temperatures enough to allow water to separate from the fuel and be removed.

**The Solution:** Install a 180 nozzle SMARTMIST pre-cooling system under the dry cooling tower to lower temperatures.

**The Results:** Heat transfer rates went up so significantly, that diesel could be transferred at full speed and water could be removed, even during the peak heat of the summer.

**Payback:** 2 weeks!