

Adiabatic Cooling System Working Principles

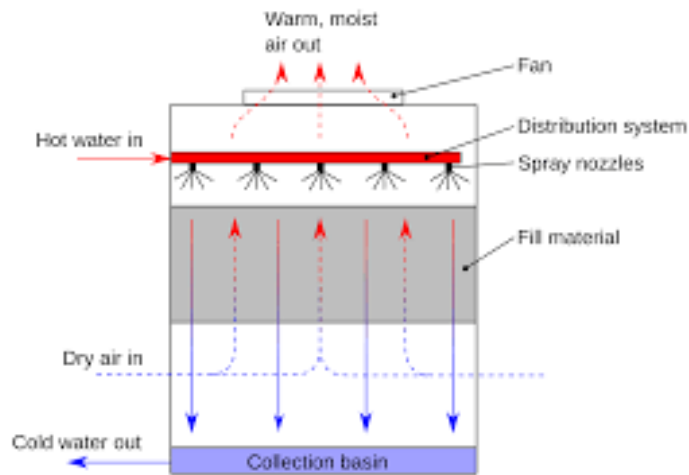
Adiabatic Process

It is the way toward lessening heat vitality with the assistance of regular characteristic techniques like sprinkling of water to keep up the temperature. It is extremely conventional approach at first utilized by Roman, Australian, Chinese and Persian Societies. The idea comes into picture from the evaporative aerating and cooling frameworks at homes where water is added to a cushion or housetop through which air is squeezed into diminish the temperature. In view of which we will acquire bring down temperature at the info which will lessen the vitality costs changing over the air to the required temperature. This guideline is utilized as a part of Maniks [Adiabatic Cooling System](#) framework which is known as Econet.

Adiabatic Water Spray System-Econet

Maniks has composed an Econet framework particularly for the utilization in the nurseries of nurseries or the ranches to shield the plants from abundance of daylight. It is one of the vitality sparing item from Maniks which chips away at the procedure of adiabatic cooling. It utilizes water sprinkler for temperature control with the assistance of sensor and PLC based controller.

The water splashes are associated in arrangement to give adiabatic cooling to the approaching air stream it is been started by means of surrounding sensor or through refrigeration head weight abrogate. As the temperature surpasses past its restrains the Adiabatic Cooling System controller starts water shower to diminish the general temperature for the condenser which will at last lessens the consolidating strain to spare the vitality required to keep up the framework temperature at the season of high encompassing periods.



<http://www.maniks.com/manufacturer/adiabatic-cooling-system-2/>

Temperature Controller

The temperature controller of the Adiabatic Cooling System (econet) framework is working with volt free contributions with inner supersede terminals. It is a modified savvy PLC based controller which can be balanced by the administrator to pre set the estimations of wanted temperature. Water is sprinkled intermittently on the work or net to bring down the temperature. Splash rate and length are balanced by the controller to suit the encompassing conditions which causes negligible water utilization.

The temperature set point of confinement and irregular shower is started when the terminal of the controller is connected. This office can be utilized to give head weight or manual remote supersede adaptability

Advantages

The adiabatic econet framework gives best temperature control following favorable circumstances

- Temperature control is completed without human connections
- Conserves more vitality when contrasted with traditional frameworks
- Very financial and easy to use gadget
- Automotive temperature control of nurseries is conceivable by adiabatic cooling system without human collaboration.

- Econet has been fitted to units worldwide where its authorized water sprinkle development has ran with various associations to decrease their essentialness control with unimportant undertakings. The structure once fitted is basically bolstered free.
- Econet utilizes the well established adiabatic cooling standard and a 'surrounding controller' to lessen the temperature of air before it is drawn into the warmth dismissal curl of a ventilation system, decreasing the temperature at contribution to bring down vitality costs.
- [Maniks](#) Adiabatic Cooling System offers you the best adiabatic pre-cooling framework. With power costs on the ascent, interest in an Econet System will have a snappy payback period—short of what one cooling season.
- Water utilization is limited as the splash is irregular and just enacted when required, thus it expends up to 79% less water than some other wet framework. With no supply and a huge bead estimate, there is no substance treatment required and no wellbeing dangers.
- It can be recreated to make any size and state of ventilating and refrigeration unit, (smaller than usual split, air-cooled chiller, housetop unit) without influencing guarantee.
- Highly practical, the framework is anything but difficult to introduce, and is sold as a pack to suit the application.

Uses of Econet

In light of simplicity of establishment and programmed control on temperature Maniks Adiabatic Cooling System Econet is utilized as a part of assortment of utilizations some of them are recorded underneath

- AC condensers and dry cooling applications
- Air molding applications
- Refrigeration frameworks
- Greenhouses

For more details: <http://maniks.com/>