



Evaporative Cooler
(Residential/Industrial)



Factory Floor



Offices



Power Plant



Paint Shop



Warehouses



Green Houses



Poultry

“Cool Large Areas ECONOMICALLY™”

DRI™ ECCCOOL®

Evaporative Cooling Pads
(ECPs)

**RoHS
compliant**



Cooling with **EGGCOOL**® Evaporative Cooling Pads

How does **EGGCOOL**® cool ?

EcoCool Evaporative Cooling Pad uses the simple principle of Cooling by evaporation i.e. passing hot fresh air through the wet and cool surface to bring temperatures down.

The EcoCool Evaporative Cooling Pads are saturated with water, sprayed onto it through prefixed channels. Fresh Air, which is warm or hot, is blown (with the help of a fan) through the wet EcoCool Pad. The water evaporates when it comes in contact with the warm/hot air, thus cooling as well as humidifying the air entering the area.... shop floor and industrial premises, Green house, hatchery.... Ecofriendly and economic, EcoCool provides the ideal media to keep temperature low in industrial, commercial and residential areas, poultry farms, hatcheries, livestock areas, green houses and other agricultural areas.

EGGCOOL® Evaporative Cooling Pads

Features & Benefits

- **Cellulose Base** : Engineered from cross sectional, specially treated fluted media capable of absorbing and retaining water to provide maximum cooling efficiency.
- **Rigid Structure** : The specially engineered fluted structure of EcoCool prevents sagging and resists clogging.
- **Energy Efficient** : Allows higher cooling with lower air volume; pads are over 80% efficient.
- **Longer Life** : EcoCool is synthesized with specialized anti-rot chemicals.
- **Effective Cooling** : Lowers temperatures at minimal energy cost.
- **Lowest Maintenance** : EcoCool has a unique structure that minimizes buildup of dust and other dirt on it.
- **More Effective** : EcoCool can handle treble the air velocity over the same area, compared to any other type of pads. EcoCool enjoys a higher efficiency due to specialised treatment.
- Plus EcoCool can be customized for special applications and is compatible with all air handling and conditioning systems.
- **Retrofits easily.**

How does Evaporative Cooling work?

Saturation effectiveness ranging from 50 to 98% can be achieved depending upon air velocity and depth of pad

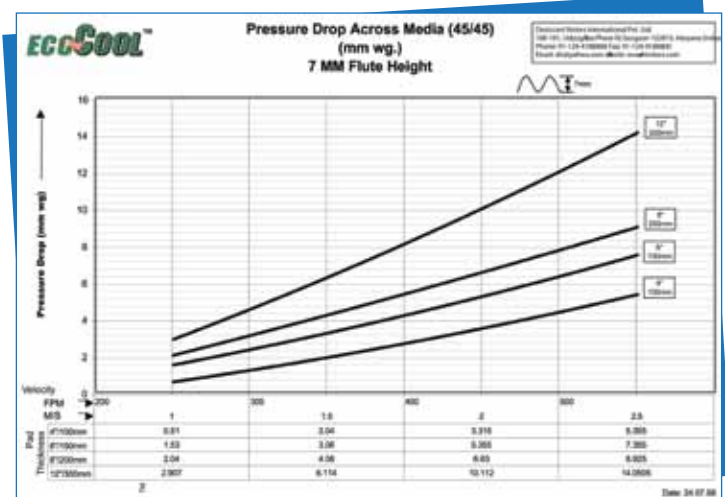
Hot Air

Unique structure minimizes buildup of dust & other dirt

Air flows horizontally while the re-circulating water flows vertically through the pad

Adiabatic

Pressure Drop of Media



Evaporative Cooling Pads (ECPs)

Evaporative Cooling works ?

Water



Cross Corrugated cellulose media treated with anti-rot, rigidifying and wetting resins



Cool Air

Media cross corrugated to maximize the mixing of air & water and eliminated water carryover

Ring structure prevents sagging and clogging

Evaporative Cooling

ECC-COOL is ideal for

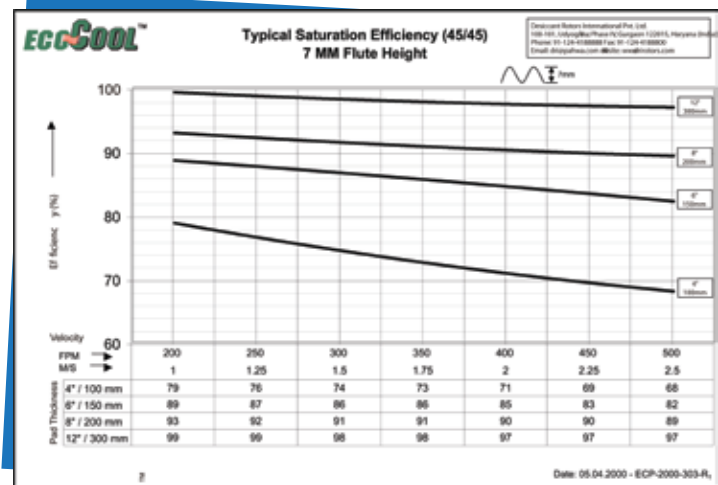
Human Comfort

- Office Complexes
- Manufacturing Facilities
- Canteen and Banquet Halls
- Gymnasiums and Sports Complexes
- Warehouses

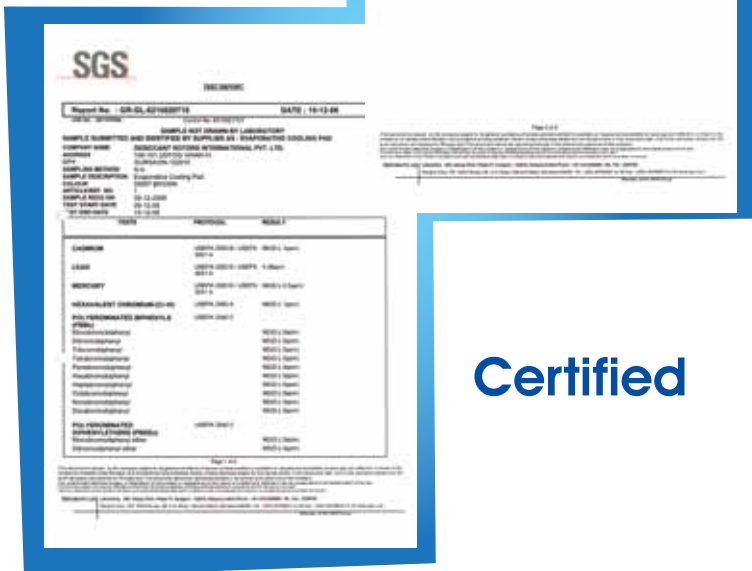
Process / Application Need

- Textile Humidification
- Poultry
- Green House
- Vegetables and Fruit Storage
- Gas Turbine Inlet Air Cooling
- Paint Shop
- Generator Rooms
- Air Handling Units

Typical Saturation Efficiency



RoHS



Certified

Help Your Poultry Farm Produce Golden Eggs

Why Evaporative Cooling?

Thermal conditions, air quality, lighting, noise and crowding are important in designing structure for animals. Thermal environment influences heat dissipation by animals. Air quality, noise, ion concentrations, and crowding can affect the health and/or productivity of animals.

Animal performance (growth, egg or milk production, wool growth, and reproduction) and their conversion of feed to useful products are closely tied to the thermal environment.

The optimal thermal environment-in terms of an effective temperature that integrates the effects of dry-bulb temperature, humidity, air movement, and radiation - is less important to the designer than the range of conditions that provides acceptable animal performance, efficiency, well-being, and economic return for a given species. Research has found that the zone of nominal losses corresponds to the welfare plateau (i.e. welfare is enhanced by maintaining environmental conditions within the zone of nominal losses). Milk and egg production by mature animals also shows an optimal thermal environment zone, or zone of nominal losses.

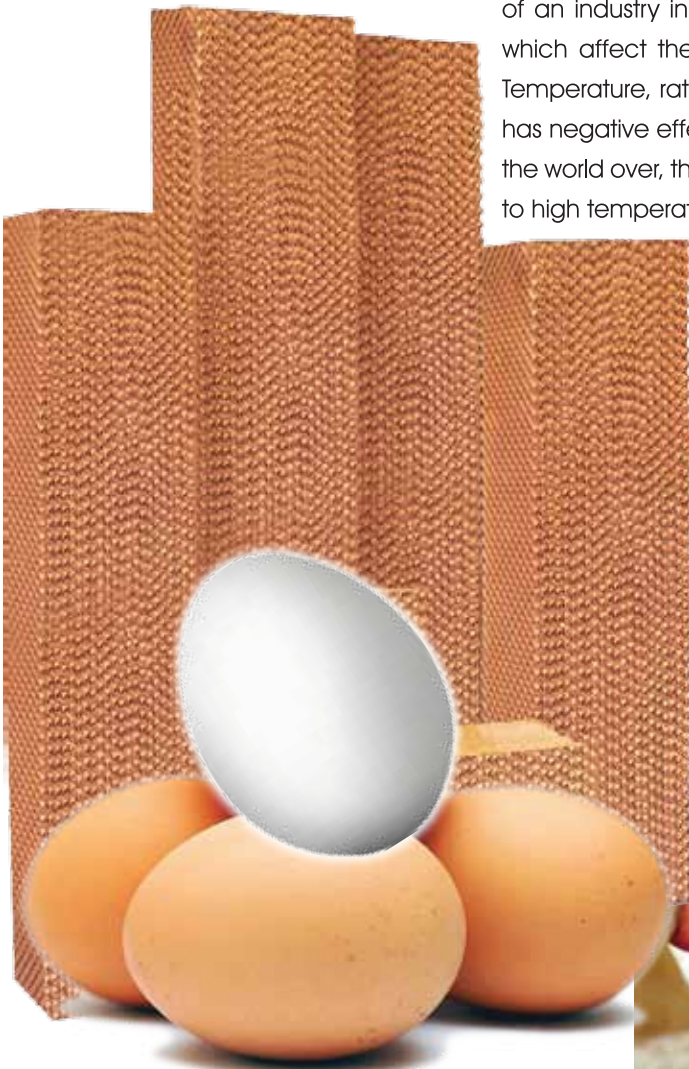
Importance of maintaining comfortable environment in a hatchery/poultry farm :

Poultry, dairy and other related livestock/breeding farming have assumed the status of an industry in terms of both technology and competitiveness. Thus, all factors, which affect the production economy, need careful monitoring and controlling. Temperature, rather high temperature, has been found to be a major factor which has negative effect on poultry and dairy yields. In tropical and subtropical climates the world over, the production rate of poultry and dairy has been found to suffer due to high temperatures

Recommended design conditions :

It is important to control conditions, to between 19-26°C(66-79°F) and 60 to 75% RH, in poultry and dairy breeding / rearing areas. Temperature over 25°C (77°F) have been generally found to be harmful. Thus, cooling in summers becomes imperative, as apart from the natural heat of the summer sun, heat from the birds and animals add up to the heat load.

Ambient conditions, size and construction of building are the key factors in designing a suitable evaporative cooling system for the poultry farm.



Make Your Green Houses More Profitable

Why Evaporative Cooling ?

Thermal environment influences chemical process rates in plants. Thermal conditions, air quality, noise and crowding can affect the productivity of plants.

Most agronomically important plant crops are produced outdoors in favourable climates and seasons. Greenhouses and other indoor facilities are used for the out of seasons production of horticulture crops for the both commercial sales and research purposes, and for producing food, floriculture and other crops in conditions that permit the highest quality by buffering the crops from the unpredictability of weather. The industry that produces crops in greenhouses may be termed controlled environment agriculture (CEA).

Mechanical ventilation evaporative cooling, centralised heating systems, movable insulation, dioxide enrichment, and supplemental lighting have extended the use of greenhouse to year round cropping in a relatively large scale.

The horticulture industry can be segmented into two industries (floral and fauna) and hydroponics. These industries are heading for a big boom over the entire world.

Need of environmental control in a green house

Solar radiation and transpiration of plants are two main elements, which add to the heat load from the sun in a green house to create an unwanted climate, which is harmful for plants . Cooling of green house is necessary when outside temperature goes beyond 24°C (75°F) and also when cool crops are to be grown. Temperature inside a greenhouse with open ventilator can be as high as 11°C (52°F) higher than the outside ambient temperature. The detrimental effects of high temperature are typified by loss of stem strength, reducing of flower size, delay of flowering and even bud abortion. Cooling can be done through Fan and pad System, Fog Evaporative System, Fan Tube Ventilation, Opening of vents, shading in and/or outside of the greenhouse and/or painting of the glazing materials. Now-a-days fan and pad cooling system is most popular around the world for greenhouse cooling. Evaporative cooling has been found to be the best solution to keep temperatures low in green houses. Of course, evaporative cooling in green houses is optimised by use of EcoCool Cooling/Humidifying pads.

Benefits with EcoCool Pads

DRI EcoCool Pads provide the ideal media to keep temperatures low in Green Houses and other agricultural areas. They use the simple principle of Evaporative Cooling i.e, passing fresh air through the wet surface to bring temperatures down.

- ❖ Protection of plants from precipitation, excess solar radiation and temperature extremes, etc.
- ❖ Off-season nursery can be raised.
- ❖ Crops can be grown throughout the year.
- ❖ Crops are of very good quality and give good yield.
- ❖ Ideal for Hydroponic Green Houses
- ❖ Creates ideal environment for growing nursery plants, specialty crops, floriculture and seed farming





Evaporative Cooling Pads (ECPs)

12 Reasons why they are your best buy



Eco-Friendly

Eco-cool Evaporative Cooling Pads are made of a special grade cellulose paper and are engineered from specially treated cross-sectional fluted media, capable of absorbing and retaining water to provide the maximum cooling efficiency.



Structural Strength

The Eco-cool Evaporative Cooling Pads are treated with stiffening and rot-resisting agents for structural strength. Its structural strength allows it to stand alone without any support thus, saving on the cost of support material. The specially engineered fluted structure of the pads prevents sapping and resists clogging.



Efficiency over 80%

Cross corrugated and resin treated media allows better wettability and more effective cooling even at lower air volume.



Durable

Eco-cool Evaporative Cooling Pads boast of a specially engineered rigid structure with anti-rot chemicals to prevent sagging, resist clogging and retard the growth of bacteria, assuring long life.



No Edge Build-up

Eco-cool Evaporative Cooling Pads have smooth/fine edges, which help to lessen building of dust particles thus enhancing the life span of the pads. Eco-cool Pads are easy to maintain, can be washed and scrubbed easily because of their smooth finish.



Gluing

The cross sections of the Eco-cool Evaporative Cooling Pads are glued on with special glue. The glue does not deteriorate even after staying in contact with water for years. When pulled apart the paper will get torn near the glued point rather than separate/peel apart easily.



100% Customised

Eco-cool Evaporative Cooling Pads are provided on specific cut to size basis against specific requirement.



Economical

Eco-cool Evaporative Cooling Pads have very low running cost, hence more profits.



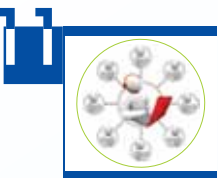
Exported World Over

With their superior quality, Eco-cool Evaporative Cooling Pads are the preferred choice of OEMs in Australia, West Asia, USA... .



Compatible

Retrofits easily and is compatible with all air handling systems.



Technical Support

Customised solution for every application.



ISO 9001:2015 Certification

Conform to maintain the quality

For orders & details please contact :

DRI™ DESICCANT ROTORS INTERNATIONAL Pvt. Ltd.
100-101, Udyog Vihar, Phase-IV, Gurgaon - 122015, INDIA
Phone : +91-124-4188888, Fax : +91-124-4188800
E-Mail : drimarketing@pahwa.com,
Web : www.drirotors.com

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Innovation is life