

South Asia's **LARGEST** manufacturer of highly efficient & reliable Cooling Pads



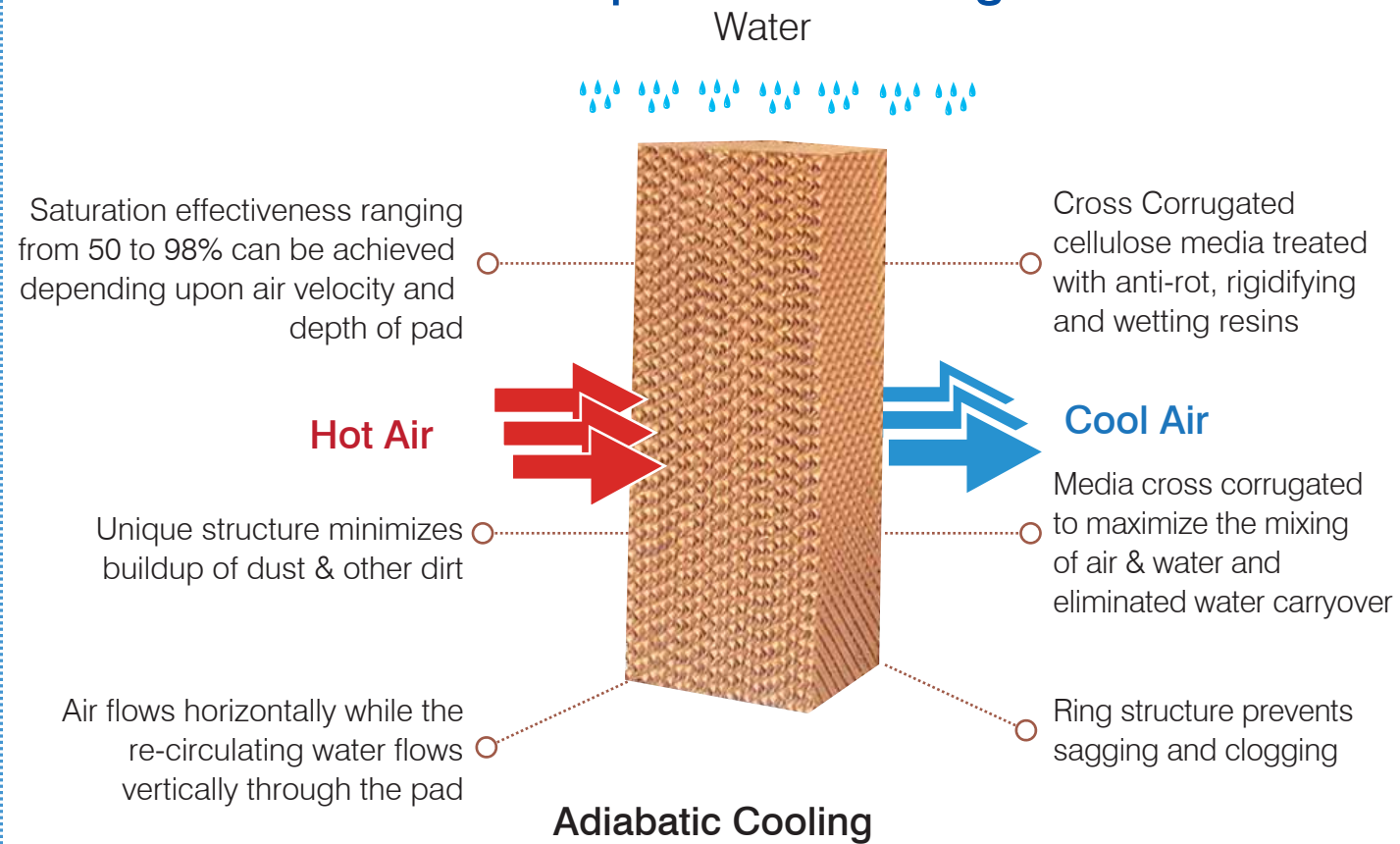
DRI™ ECCCOOL®

Evaporative Cooling Pads
(ECPs)

- 5mm & 7mm flute available
- Different flute angle combination available
- Any size & depth available
- Customization for every requirement

Cooling with **ECO-COOL** Evaporative Cooling Pads (ECPs)

How does Evaporative Cooling works ?



How does **ECO-COOL** 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.



RoHS Certified



ECO-COOL 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 resist 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.
- **Compatible:** EcoCool can be customized for special applications and is compatible with all air handling and conditioning systems.
- **Retrofits easily.**

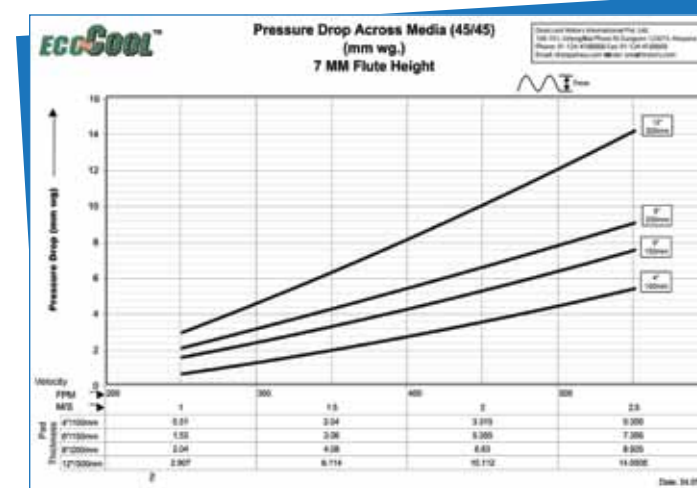
ECO-COOL is ideal for:

Human Comfort

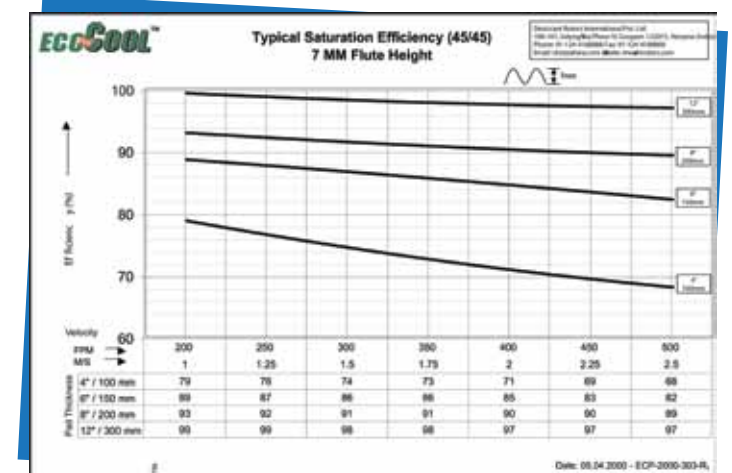
- Office Complexes
- Manufacturing Facilities
- Canteen and Banquet Halls
- Gymnasiums and Sports Complexes
- Warehouses

Process / Application Need

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



Pressure Drop of Media



Typical Saturation Efficiency

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 optional 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.



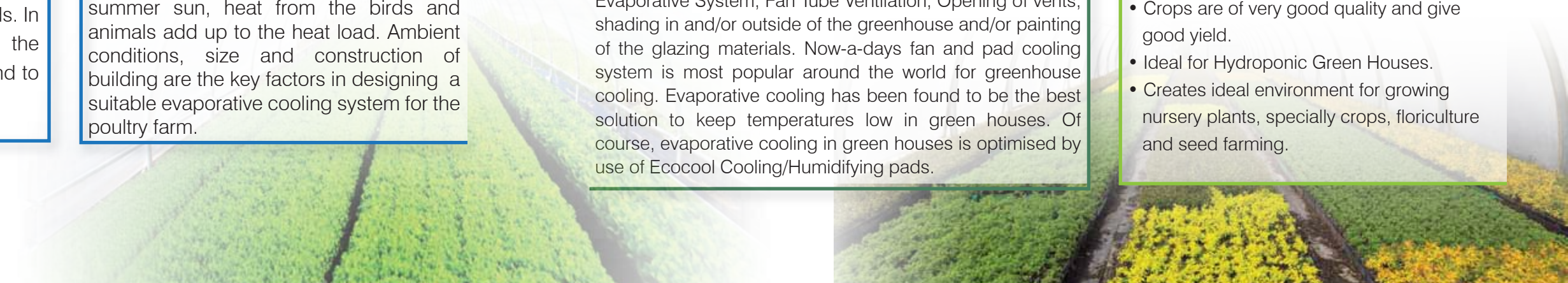
Need of environmental control in a green house

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, specially crops, floriculture and seed farming.



Give your Coolers a winning edge

with



Evaporative Cooling Pads

an Ideal Choice



+ RESIDENTIAL / INDUSTRIAL AIR COOLER



Performance Chart

City	Outside Design Conditions (Summer)			Condition of air leaving the media at 80% saturating efficiency	
	DBT°F	WBT°F	RH%	DBT°F	WBT°F
Delhi	110	75	20	82	75
Hyderabad	106	78	28	84	78
Jaipur	110	75	20	82	75
Mumbai	95	83	60	85	83
Pune	104	76	28	82	76
Bangalore	96	78	45	82	78

* 80% Evaporative Cooling efficiency (saturation efficiency) is achieved only with a minimum of 8" (200mm) thick pad.

Air Coolers for Direct cooling are an extension to the traditional fan pad systems. They provide large scale powerful cooling in factories, indoor spaces, rooms and outdoor areas. Such systems are used as a cost efficient cooling solution in Dry Climate Region.

Application Areas

Human Comfort



Industrial & Residential Cooler



Manufacturing Facilities



Restaurants



Auto Industry

Process and Application Need



Poultry



Textile Humidification



Greenhouse



Vegetable and Fruit Storage



RoHS
compliant

EcoCool[®] Evaporative Cooling Pads (ECPs)

12 Reasons why **EcoCool**[®] is your best buy



Structural Strength:

The **EcoCool** 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.



High Efficiency:

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



Durable:

EcoCool 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:

EcoCool have smooth/fine edges, which help to lessen building of dust particles thus enhancing the life span of the pads. It is easy to maintained, wash & scrub.



Gluing:

The cross sections of the **EcoCool** are glued on with special glue. The glue does not determinate even after staying in contact with water for years.



Customised:

EcoCool Pads can be tailor made to suit your specific requirements.



Economical:

EcoCool Pads have very low running cost, hence more profits.



Exported World Over:

With their superior quality, **EcoCool** are the preferred choice of OEMs in Australia, West Asia, USA... .



Certified:

RoHS Compliant



Technical Support:

To provide customised solution for every application.



Quality:

ISO 9001:2015 Certification
Conform to maintain the quality



Made with pride in India

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