Bry-Air
ISO 9001

dry facts
...from BRY-AIR

JUL -AUG -SEP '98 VOL.8 NO.3

Bry-Air

upgrades its facilities . . .

. . . adds state-of-the-art CNC turret punch and press brake and powder coating facility to give its products *"Int'l"* finish

To meet the increased demand of standard products from its expanding markets in the Indian subcontinent, S. E. Asia, China, Middle East, S. Africa and Australia, many standardised product lines have been shifted to the new expanded facility in Plant - III.

Bry-Air Asia's production facilities have been further upgraded after the inauguration and commissioning of the New CNC and Powder Coating shop on July 23, 1998.

This has upgraded considerably the " finish " of the Bry-Air products.

The foundation stone of the new Plant - III was laid on April 10, 1996 by Governor Voinovich of Ohio State, U.S.A.

Mr. Paul Griesse, President, Bry -Air Inc., U.S.A., commemorated the completion of Phase I of Plant - III on Dec. 3, 1997.

Williamson Magor installs 29 Bry-Air Dehumidifiers in its tea gardens

Williamson Magor, a leading tea producer owning over 53 tea gardens, in Assam and Darjeeling, has installed 29 nos. Bry-Air Compact Dehumidifiers engineered for keeping tea fresh.

Bry-Air Dehumidifiers find a wide usage in almost all areas of tea processing . . . withering, fermentation, sorting (with Delair Compressed Air Dryers), storage, blending and packing.

Over a hundred Bry-Air dehumidifiers are working in all major tea gardens, processing plants and warehouses.

*Dry air from Bry-Air keeps tea " **garden fresh** " !!*

THINGS TO DO

VISIT OUR BOOTHS AT

- **PLASTIVISION '98**
  4-8 DEC MUMBAI
- **PHARMA EXPO '98 / IPC**
  10-14 DEC MUMBAI
- **ACREX '99**
  7-10 JAN CHENNAI
- **AHR '99**
  25-27 JAN CHICAGO
- **ISH '99**
  23-27 MAR FRANKFURT

Cadila opts for fresh air with ECO FRESH™ in its tableting area

Cadilla is in the process of installing 11 nos. Treated Fresh Air units incorporating Eco-Fresh Heat Wheels to " treat " fresh air in its tableting and other formulation areas.

Tableting and formulation areas of pharma plants need large quantities of " conditioned " fresh air to be brought in for ventilation as well as process needs.

This fresh air needs to be conditioned to maintain comfort levels of temperature and humidity in the area. Conditioning such large volumes of air entails very high energy cost.

Eco-Fresh Treated Fresh Air (TFA) Units incorporating heat wheels precondition the fresh air . . .

- By using energy from the exhaust air, thus bringing the energy needs down considerably.
- For acceptable IAQ, humidity and temperature control, energy conservation / efficiency and in the process reducing the space envelope.
- It has two separate airflow which ensures that the exhaust and supply air stream is totally separate and there is no cross contamination or leakage.

Keeping moulds in shape during storage

Moulds, of all types, made of wax, wood, refractory, metal . . . need to be stored, at times for a fairly long time.

While in storage, they often lose "shape", get corroded and are damaged due to moisture or humidity in the storage area. Thus damaged, they are practically useless.

Moulds can be protected and assured of long life if stored in a dehumidified area. Bry-Air has many dehumidifiers protecting moulds in storage in various companies manufacturing many types of products.

Bry-Air Plastic Dryers for Mercedes Benz

TATA Automotives supply accessories and components to Mercedes Benz in India. As prevalent world over, these components are made of high quality engineering plastics. Plastics resins used for such precise and tough applications need proper drying and handling prior to and during processing.

TATA is in the process of installing Bry-Air Plastics Auxiliary products in its plant where it manufactures components for Benz.

WHEN MOISTURE IS TORTURE !

In this column we will share with you regularly our experience on major application areas where usage of dehumidification is both extensive and essential.

Lithium Batteries Production
Dehumidification - an important criteria

Lithium batteries production

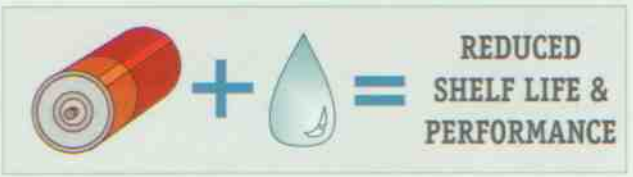
High technology often entails working under very precisely controlled environmental conditions.

Lithium or high energy batteries are a classic example of a product where production is not possible in the absence of efficient dehumidification.

Dehumidification, or moisture control, has proven itself to be an important factor in the control of the environment so as to produce higher quality products in greater volume.

The need for dryness

- Lithium is highly hygroscopic by nature.
- Its affinity for water and its instability in the presence of water makes the production of lithium batteries impossible without efficient moisture control.
- Its reaction with even small amounts of water vapour can reduce its shelf life and performance.
- Hence, moisture control to very dry levels becomes a critical requirement in the manufacturing or assembly process.



Moisture control in Lithium battery rooms

Two key variables have to be established, while designing the system.

1. Moisture load in space.

The total moisture in space constitutes of the following :

- Moisture ingress due to permeation.
- Contribution to moisture load by the workers themselves.
- Door and other openings.

2. Control of moisture level in the space.

- The sizing of the equipment and hence the cost not only depends on the amount of moisture to be removed from the air but also how dry the air is to begin with.
- It has been clearly established that the drier the air, the better is the product quality.
- Generally the moisture level varies between –40°F dewpoint to –15°F dewpoint.
- This is partly dependent on the expected time of exposure of the lithium to the atmosphere.

Desiccant dehumidification can maintain dewpoints to very low levels, such as -40°F, consistently. However, the manufacturing areas of the batteries house man and machines, and a suitable working environment needs to be created for them.

Dehumidifier design needs

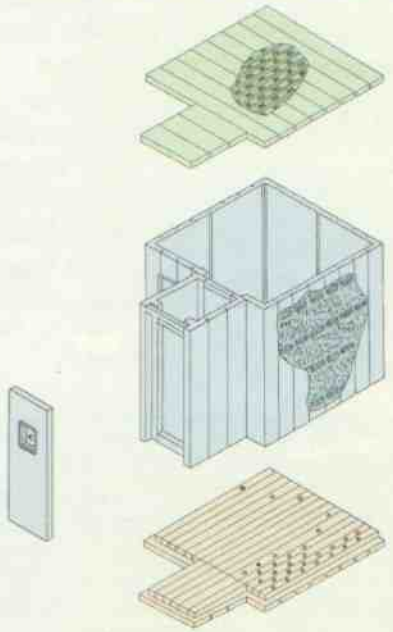
- Design conditions are stringent.
- Room temperature should be 80°F and (-) 20 - 30°F dewpoint (1 - 2 GR / lb).
- Room temperature needs to be kept relatively warm to provide comfort for the workers.
- Air changes in the room should be between 50 - 75 air changes per hour with minimal fresh air introduced for positive room pressurisation and ventilation for workers.

Bry-Air Solution

The Bry-Air system is designed to typically control moisture level in lithium processing areas at or below a dewpoint of –20°F, or moisture content of 1.8 grains of water vapour per pound of dry air.

Since many years, Bry-Air has been involved in supplying dehumidification equipment of the manufacturers of lithium batteries for their production in dry rooms.

TYPICAL EXAMPLE :
VAPOUR SEALED DEHUMIDIFIED ROOM



NEW EASTECH
INTERNATIONAL CORPORATION

Bry-Air Rep. in Philippines

New Eastech's association with Bry-Air is over 8 years. Under the able management of its President, Ms. Maria Teresa J. Soliman, and VP and General Manager, Mr. Franke G. Englis, New Eastech has effectively developed the Philippines market for Bry-Air dehumidifiers and Eco-Fresh heat wheels.

Pharmaceuticals, Electronics, Food . . . anywhere where humidity is a problem, New Eastech has a Bry-Air dehumidifier providing solution !

And there is a Eco-Fresh Heat Wheel helping to maintain Indoor Air Quality (IAQ) and save energy in almost all office towers.

Take a look at some of the jobs handled by New Eastech




Company	Application
EL Laboratories Inc.	Pharmaceutical
Abbott Laboratories Inc.	Pharmaceutical
Cambridge Electronics	Electronics
Repbulic Asahi Glass Corporation	Safety Glass
Harman Foods Phils, Inc.	Food
Philippines Broadcasting Station	Storage
Procter & Gamble Phils, Inc.	Candy Mixing Room
East West Seed Co.	Seed Storage
Citibank Towers	Office Tower
Philamlife Towers	Office Tower
GT-International Towers	Office Tower

COSCO

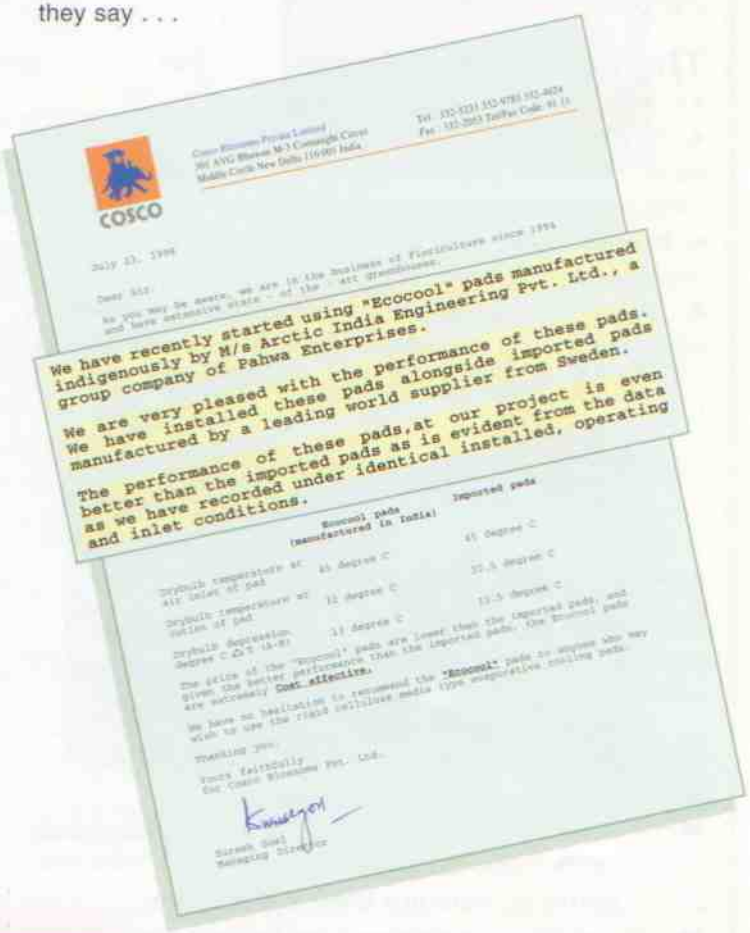
EcoCool™ cools Green-house at COSCO

Cosco is one of the largest exporters of roses in N. India.

The roses grown in 7 large state-of-the-art, computer controlled greenhouses, are exported mostly to Europe.

The greenhouses are kept cool in summer using a fan and pad arrangement.

This season Cosco tried out " Eco-Cool " pads and this is what they say . . .


COSCO

We have recently started using "Ecocool" pads manufactured indigenously by M/s Arctic India Engineering Pvt. Ltd., a group company of Pahwa Enterprises.

We are very pleased with the performance of these pads. We have installed these pads alongside imported pads manufactured by a leading world supplier from Sweden.

The performance of these pads,at our project is even better than the imported pads as is evident from the data as we have recorded under identical installed, operating and inlet conditions.

Ecocool pads (manufactured in India) | Imported pads

Drybulb temperature at air inlet of pad: 41 degree C | 41 degree C

Drybulb temperature at outlet of pad: 31 degree C | 33.5 degree C

Drybulb depression: 10 degree C | 13.5 degree C

The price of the "Ecocool" pads are lower than the imported pads, and are extremely Cost effective.

We have no hesitation to recommend the "Ecocool" pads to anyone who may wish to use the rigid cellulose media type evaporative cooling pads.

Thanking you,

Yours faithfully
For Cosco Biomass Pvt. Ltd.

Suresh Goel
Managing Director

Bry-Air

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