

Bry-Air

dryfacts

...from BRY-AIR



JULY-AUG.-SEPT. '2000

VOL.10 No.3

e-ENABLING SOLUTIONS TO YOUR

Humidity/Moisture problems . .

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and find out all you wanted to know about dehumidification and plastics auxiliaries.

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www.bryair.com.my
for information on Bry-Air in Malaysia


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for information on Bry-Air in China

Event UPDATE

Paper presentation on "Indoor Air Quality using Energy Recovery Devices in Air Conditioning



Systems" by Umang Sharma, Bry-Air Malaysia at Institute of Engineers, Petaling Jaya, Malaysia.

Paper presentation on "Plastics Related Technology"

..Effects of the uncontrolled moisture in the resin material by K.Sivaram,



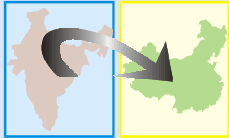
Bry-Air Malaysia at Puspatri (Johor Skill Development Centre), Johor, Malaysia.

Coming up

- **Kisan '2000** – (15-19th Nov.'2000) Pune, India
- **China Pharma** – (27-30th Nov.'2000) Beijing, China
- **52nd IPC** – (1-3rd Dec.' 2000) Hyderabad, India
- **Wire & Cable Expo.' 2001** – (18-21st Jan.' 2001) Mumbai, India
- **AHR' 2001** – (29-31st Jan.' 2001) Atlanta, U.S.A
- **Comfex' 2001** – (6-8th Feb.' 2001) Calcutta, India
- **China Refrigeration' 2001** – (11-13th April' 2001) Beijing, China

Year 2000

has seen some
great orders
being received by
our offices in
Malaysia, Thailand,
China and in India

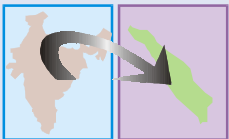


CHINA

Pulead Tecnology Industry Company Ltd. (PU. Peking University, the biggest and most prestigious University in China) is a Lithium Battery Manufacturing Company set up with the technical and design support of Beijing University. For its Lithium Battery project it has ordered 2 No's MVB Desiccant Dehumidifiers.

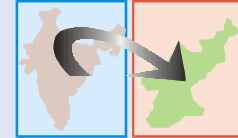
Mcquay orders 10 Nos. Ecofresh Heat Recovery Wheels for the OBE Shopping Complex in Wuxi and Shanghai

The Ecofresh wheels will maintain IAQ and save energy at the OBI Shopping Centers.



MALAYSIA

Eagle Aircraft (M) Sdn. Bhd., Manufactures of small, 2 to 4 seater light aircrafts opted for a Bry-Air Fluted Vertical Bed Desiccant Dehumidifier (FVB 5000) for their lamination room.

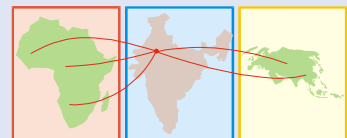


KOREA

Hanjan Heavy industry (Korean Air lines Group) and Dai Ryoong Company Ltd. A specialized paint company in LILSAN, a sub-vendor of HyunDai Heavy Industry Company Limited have ordered Yoo Han Dehumidifiers using Ecodyr Desiccant Rotors for sand blasting. YooHan Plant Co., Korea, one of the largest manufacturers of Dehumidifiers in Korea, now uses only Ecodyr Desiccant Rotors in their dehumidifiers.



Mr. Hyo-Yong Kim,
President
YooHan Plant Co. Ltd.



INDIA

United Pharmaeticals, Amman, Jordan is installing 2 Nos. MVB 125 E (12500 cfm or 21240 cmh) Desiccant Dehumidifiers and 4 No's. Heat Recovery Wheels (Models HRW-3200 and HRW-3000) for 100% Fresh Air Application in their Antibiotic Manufacturing Area.

The list is ever increasing. We have picked up a few interesting orders to share varied nature of the applications with you.

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

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Welcome to

Bry-Air ... for Dry Air

1 in dehumidification ... worldwide

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Click at **APPLICATIONS** at www.bryair.com

(In this page we have been covering applications and usage of dehumidifiers for more than 20 years.)

Now, you can click at **APPLICATIONS** at www.bryair.com for

- An overview of application areas where dehumidification is critical and essential
- Have questions on your **FFPs**-Frequently Faced (moisture) Problems answered
- Also, find out the optimum

humidity condition required to be maintained in your **Production / Processing / Drying/ Storage and Packaging areas.**

The recommendations are based on over four decades of collective environmental control applications experience.

Case studies of over 100 dehumidification applications available online at www.bryair.com

Defence

Moisture silently damages defence equipment, impairing it's reliability and delays availability in an emergency.



Dehumidification is widely used by the defence for preservation of equipment and storage of active status material.

Electronics/ Electricals

Moisture causes corrosion of PCBs, transistor failure, reduced longevity of components, non-uniform growth of crystals, resulting in high rejection rate and failure of finished equipment. PCBs, ICs and other microcircuits are also sensitive to microscopic corrosion. Corrosion on circuit surface increases electrical resistance and decreases capacitance, resulting in breakdown and failure of equipment.



Fertilizer

Fertilizer being highly hygroscopic absorbs moisture from the surrounding air during storage and bagging area leading to caking, lumping and loss in physical, nutrient and chemical properties.



Film

Due to the effect of moisture film can be damaged irretrievably during processing and Storage.



Food

Moisture regain not only alters the appearance of food product but they also generally become soggy, rubbery and less appetizing. It also causes powdery foods to stick together and to the processing machines and organic corrosion in breweries and distilleries. Dry air is must during production, storage and packaging of biscuits, wafers, candies and chocolate and many other food products.



Pharmaceutical

Moisture/Humidity causes organic corrosion of materials, Injurious activity of microorganisms, impaired product accuracy, decomposition of formulation amongstst many others.



... More at www.bryair.com

BRYGRAM

APPLICATION : Biscuit / Cookie Storage

FFPs FREQUENTLY FACED PROBLEMS:
Biscuits/ Cookies being highly hygroscopic gain moisture during storage before being packed and thus become soggy, rubbery and loose their crispness, appeal and taste. This also reduces the shelf life of the product is considerably.

GENERAL RECOMMENDATIONS:
Relative humidity in the storage area (Temporary storage prior to packaging) should be maintained at 30 to 35% at 28°C (82°F) to overcome the problem of moisture pickup or moisture regain.

OUR SOLUTION

The Process
The biscuit conveyor moving out of the baking oven carries biscuits at a high temperature. The biscuits are cooled to ambient temperature on extended conveyor before these are packed. Normally in most of the cases packing rate is lower than the biscuit plants production rate. Therefore the unpacked biscuits have to be shifted to a temporary store.

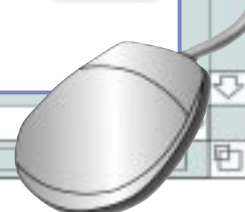
Between the time when the biscuits are cooled to ambient temperature and unpacked biscuits are again taken out for packing, the biscuits are exposed to high humidity, as a result of which moisture is picked up or retained by the biscuits.

Therefore it becomes essential that the humidity in the store room (also termed HOT ROOM) be controlled to a level so that the quality of the biscuits is not spoiled. It has been found that if relative humidity inside the temporary store is maintained at 30 to 35% at ambient temperature, the problem of moisture pick-up or regain is overcome. Hosharp Foods, manufacturer of Britannia's "Tiger" brand of biscuit wafers approached Bry-Air to solve the problem of moisture regain of biscuits during storage.

Bry-Air Recommendation:
It was recommended that relative humidity inside the temporary store should be maintained at 30 to 35% at ambient temperature, to overcome the problem of moisture regain.

REFERENCES... SOME

- Ampee Industries Pvt. Ltd
- Ampro Biscuits
- Baskewal
- Britannia Industries Ltd.
- Dalmia Biscuits
- Delta Foods
- Kwality Biscuits
- Real Foods
- Super Snacks
- Tashi Commercial Corporation



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for an overview of our group and business philosophy

▶ www.airgineers.com

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and for
more specific
support in India . .

▶ www.arcticindia.com

for all your air drying, product drying,
environment control as well as plastic
auxiliary needs.....

Arctic India Sales has been providing customized solutions to humidity/moisture problems to the Indian Industry for over 20 years.

It also provides the plastics industry the A to Z of Plastic Auxiliaries.

▶▶ www.delairindia.com

for all your compressed Air Drying needs

ISO 9001 certified, Delair India specializes in design, engineering and manufacturing of Compressed Air Dryers and allied products. Delair refrigeration dryers and adsorption type heatless dryers are well known for their world class quality and reliability and this has made Delair India, market leaders in Compressed Air Drying.

▶▶ www.drirotors.com

for Enthalpy and Desiccant rotors
and Evaporative Cooling Pads

Rotors manufactured by Desiccant Rotors International (DRI), a division of Arctic India Engineering (AIE), is the favoured choice of OEMs in North America. Heat Wheels, Treated Fresh Air Units and Energy Recovery Ventilators manufactured by AIE are exported out of India to SE Asia, China CIS countries, Indian subcontinent, Australia & New Zealand, Middle East and Africa.

AIE is also one of the three manufacturers of evaporative cooling pads in the world.

▶▶ www.drikr.co.kr

DRI, Korea, representative office
of Desiccant Rotors International

▶▶ www.tds-asia.com

for Dry Air on Rent

Technical Drying Services offers round the clock service for " Water Damage Restoration and provides **dehumidifiers on rent** to solve your temporary drying needs..

▶▶ www.arcticindiaintl.com

for Buffalo Horn and Bone Handicraft

Arctic India International is one of the reputed manufacturer and exporter of high quality Indian Buffalo Horn and Bone Handicrafts. Arctic India International is catering to the needs of various customers in America, Europe & South Africa.

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