

# FRESH FACTS

IAQ News from 

14

Other  
**PAHWA™**  
Group Companies

**Bry-Air®**

**delair™**

**TDS™**

**PURIFLAIR™**

## Going Green . . . with



### Yet another 'innovation' by **Bry-Air®**

**Bry-Air sets new benchmarks in Gas Phase Filtration with "Honeycomb Matrix Technology".**

This patent pending technology from Bry-Air stable replicates the natural advantage of the Honeycomb matrix. It provides greater surface area for adsorption and chemisorption of electronic corrosion causing gases like Hydrogen Sulphide, Sulphur Dioxide, Bromine and Oxides of Nitrogen & Chlorine, etc., which are either generated within the data centers and control rooms or are sucked in from the environment outside. Either way, these are a nuisance because these eat into the vitals of the electronic machinery causing electronic malfunction, server failure, etc.

Today, electronic malfunction and the related downtime costs are the chief concerns of both IT enabled services/ KPOs, BPOs, Telecom, News and Media Networks and Computerized Process Industries like Paper and Pulp, Refineries, Petrochemicals, etc. By installing this proprietary technology in Data Centers, Distributed Control System (DCS), NOCS, Switch Rooms and Motor Control Centers, it is possible to cut costs, increase efficiency and life expectancy of equipment and decrease energy usage.

This is the 9<sup>th</sup> Patent from the stable of the Bry-Air Group and is one of the five patents filed by the group in the last 2 years.

### Meet us at

**GREEN CONSTRUCT**  
17-19 Aug. 2011, Philippines

**FEBRAVA**  
17<sup>th</sup> International Refrigeration, Air Conditioning, Ventilation, Heating and Air Treatment Fair  
20-23 Sept. 2011, Brazil

**GREENBUILD**  
INTERNATIONAL CONFERENCE AND EXPO  
4-6 Oct. 2011, Canada

**Green Building Congress 2011**  
21-23 Oct. 2011, India

**GREEN BUILDING COUNCIL SA**  
CONVENTION & EXHIBITION  
26-28 OCT 2011

26-28 Oct. 2011, South Africa

**HVAC/R PHILIPPINES**  
9-12 Nov. 2011, Philippines

**Aclima**  
8-10 Nov. 2011, Israel

**THE BIG** International Building & Construction Show  
21-24 Nov. 2011, Dubai

**AHREXPO**  
23-25 Jan. 2012, Chicago

**ACREX INDIA 2012**  
SUSTAINABLE GROWTH FOR THE COOLING INDUSTRY  
23-25 Feb. 2012, India

**mce**  
27-30 March 2012, Italy

### Nominations Invited for the

# 7<sup>th</sup>

**Bry-Air®**

## Awards for Excellence in HVAC&R

2011-2012

For more information log on to  
[www.bryairawards.com](http://www.bryairawards.com)  
Deadline October 31st, 2011





# TFAs offer a safe and healthy IEQ

## at India's & SE Asia's First Modern Net Zero Energy Building – Eco Commercial Building (ECB)



DRI . . . Desiccant Rotors International helped BAYER TECHNOLOGY SERVICES, Greater Noida in developing the first **Modern Net Zero Energy Building** in India and South East Asia – the

**Eco Commercial Building (ECB)**. The Project has several “firsts” to its credit and brings India into select league of countries that can boast of “Net Zero Energy Building”.

The project will achieve the LEED India Platinum rating owing to its 42% savings in primary energy utilization, 100% solar and thus emission free on-site energy generation through the use of a 76 Kw photovoltaic systems, 24 hour autonomous operation of the building-independent of the electrical grid through the use of a battery back-up, zero heating energy requirement etc.

DRI Treated Fresh Air (TFA) Unit with **EcoFresh** Inside, exhausts stale, contaminated, conditioned room air and exchanges it with fresh outdoor air, recovering upto 75% energy from exhaust air through a next generation EcoFresh enthalpy rotor.

### The **ECO-FRESH™** Energy Wheel

The energy wheel pre-conditions fresh outside air before it is introduced to a building. The system can easily be tapped into an existing ventilation system. A portion of the air that would normally be re-circulated through the system is exhausted through the wheel and fresh air is introduced into the building in its place. Operating in virtually any climate zone, a single desiccant wheel operated with just a small motor to rotate the wheel can deliver fresh air on a year round basis that is generally within 3-7°C and 10% RH of inside conditions, regardless of what outside conditions are (without any type of mechanical cooling or heating). The cost to provide high levels of fresh air ventilation becomes minimal compared to the normal heating/cooling requirements of the building.

DRI has installed 3 units of Treated Fresh Air Units (TFAs) to ensure :

- Considerable reduction in installed tonnage
- Reduction in utility bills for entire life cycle
- Enhanced Indoor Environmental Quality (IEQ) and Productivity
- Reduced health risks



### Project Facts

**Project Name :** Eco Commercial Building (ECB), Greater Noida

**Product Supplied : Indoor Units :** 2 Units of DRI Treated Fresh Air Units model Flexair-S-190 with Sensible Wheel 1100 (200), total fresh air supply - 5355 cmh (3150 cfm)

Flexair-S-240 with Sensible Wheel 1180 (200), total fresh air supply - 7225 cmh (4250 cfm)

**Outdoor Units :** 1 unit of model Flexair-S-100 with ERW-700 (270), total fresh air supply - 2176 cmh (1280 cfm)

**Project Contractors :** Shobha Developers

**Project Consultant :** Spectral Services

### About

DRI is a fast growing HVAC&R company with a global footprint providing a complete line of desiccant based products and systems for Energy Recovery, Indoor Air Quality (IAQ), Fresh Air Treatment, Evaporative Cooling, Humidification, RH Control and Green Buildings.

DRI has a worldwide network of sales offices all over India, USA, Brazil, Europe, UAE, Turkey, Africa, China, Malaysia, Philippines, Japan, Korea and Australia.



**Working towards a greener future**





# your Green Building Partner



## Malaysia Energy Centre

Malaysia Energy Centre is a pilot project and a demonstrator to mark another milestone towards greater promotion and adoption of sustainable building concept in the Malaysian building sector.

DRI has installed **EcoFresh** Energy Recovery Wheels (ERW) at the Building which recover total energy (sensible as well as latent) to meet all the requirements of Indoor Air Quality (IAQ), humidity control and energy savings.

Incorporation of **EcoFresh** Energy Recovery Wheels (ERW) into the air-conditioning system means more outdoor air at lower energy cost.



### Benefits of **ECO-FRESH™** Energy Recovery Wheel . . . Beyond Payback

- ⊙ Pre-conditions incoming fresh air.
- ⊙ Easily integrated/retrofitted into new/existing ventilation systems.
- ⊙ Delivers fresh air throughout the year at conditions very near inside conditions.
- ⊙ Helps to meet ventilation standard without raising energy cost.
- ⊙ Maintains humidity conditions at no additional cost.
- ⊙ Allows reduction in system capacity by 30% to 65%.



## Kuala Lumpur Convention Centre

DRI is proud of its association with Kuala Lumpur Convention Centre Project. This landmark project provides a unique integrated precinct that can cater to needs of international and local convention and exhibition centre delegates making it one of the most important urban spaces in the world.



### Project Facts

3,000-seat Plenary Hall, 500-seat Theatre, 9,710 square metres (104, 480 square feet) of exhibition space, Conference Hall, Grand Ballroom, Banquet Hall and 20 meeting rooms.

### Supporting Facilities

VIP suites, media room, business centre, bridal suites, prayer rooms, medical room, AV production rooms, concierge and luggage rooms.

DRI "Green" Products help to recover waste energy from exhaust air and use the same to precondition the fresh air thereby saving energy and enhancing IAQ. They have played a major role in many projects for achieving sustainable Green Building status with LEED and other energy certifications.

# Cool Large Area **ECONOMICALLY**



10 Models : 6800 CMH (4000 CFM) to  
170000 CMH (100000 CFM)



## Benefits

- 100% Fresh Air
- Improved Indoor Air Quality (IAQ)
- Windows & doors can be left open
- Ensures full ventilation – exhausts odors and stale air
- Low purchase & installation cost
- Lower operating cost (approx. 1/10 of the Air-Conditioning cost)
- Higher Productivity
- Lower Absenteeism

**Applications :** • Offices • Workshops • Cold Storages • Shop Floors • Green House • Poultry • Shopping Mall • Textile Processing  
• Manufacturing Facilities & Generator Unit Rooms.



Banquet Hall



Shopping Mall



Office



Paper Mill

## 6<sup>th</sup> **Bry-Air** Awards

The 6<sup>th</sup> Bry-Air Awards for Excellence generated an overwhelming response not only from the HVAC&R fraternity but from the general public as well. The Subroto Park Auditorium, Delhi was choc-a-full-with hardly a breathing space. There were 1000 plus guests in attendance including the HVAC & R stars- Ms. Lynn G. Bellenger, Mr. Marc MacCracken, Chair among others. The glittering evening was made more memorable with the Minister of State for Science and Technology and the Guest of Honour, Dr. Ashwini Kumar declaring 2010-2020 as the decade of innovation. In his speech, the Minister said that innovation is a means for creating sustainable and cost effective solutions for people. He declared the opening of 14 national innovation universities to capture the innovative spirit.



Honourable Minister, **Dr. Ashwini Kumar** interacting with Ms. Lynn Bellenger, President ASHRAE and Mr. Deepak Pahwa



**Mr. Mark MacCracken**, Chair, USGBC speaking about USGBC mission of "Transforming the way we build"



**Ms. Lynn Bellenger** President ASHRAE sharing her vision of "Modeling a sustainable world"



**Ms. Maija Virta** CEO, GBC Finland speaking about "Developing more sustainable ways of operating"

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A **PAHWA** ENTERPRISE



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