

FRESH FACTS

IAQ News from 

16

Other
PAHWA™
Group Companies

Bry-Air®

delair™

TDS™

PURIFLAIR™

Eventful !



had an eventful year with many milestone achievements and a lot happening on global front.

DRI showcased and shared its extensive product range and application knowledge with its customers at various International Exhibitions.



Mostra, March 2012, Italy



ACREX, Feb. 2012, India



AHR EXPO, Jan. 2012, Chicago



Big 5, Nov. 2011, Dubai



HVACR Philippines, Nov. 2011, Philippines



GBCSA, Oct. 2011, South Africa



IGBC, Oct. 2011, India



FEBREVA, Sept. 2011, Brazil



China Refrigeration, April 2011, China

Towards Fresher & Healthier 'In'vironment

**Guests
Need
Clean
Indoor
Air**

Good IAQ (Indoor Air Quality) - A key Concern to the hospitality industry.

The quality of indoor environment has an impact not only on guest comfort, and their perception of quality but also in productivity loss. This productivity includes sales, repeat customers, staff efficiency, and lost wages. Research has shown that by improving the indoor air quality to the level of ASHRAE Standard 62 in hospitality facilities, there is payback of approximately an year. Air conditioning, air quality and their management are of key concern to the Hospitality Industry. With energy costs skyrocketing, it is generally seen that these factors alone contribute to approximately 15% - 20% of the total cost of running a hotel. For HVAC professionals in the hospitality industry, there is a big dilemma to champion best practices for IAQ in both new building design as well as renovation of existing facilities.

**Fresh Air
intake with
reduced
Energy Costs**

Providing fresh air for the hotel occupants presents a tough challenge.

UNIQUE Indoor Air Quality Challenges

HIGH density of people :

In most hospitality facilities there are a large number of people in a relatively small area. There are issues with odors, noise, and transmittal of colds, flu and other transmittable diseases.

BEYOND design conditions:

Due to frequent fluctuations, occupancy rates mostly turn higher than design ventilation rates. This results in poor dilution or removal of pollutants in the space. This is especially true for bars, conference rooms, casinos, and hotel guest rooms.

CONTACT changes:

The typical hospitality user will be in contact with different people and visitors each day. This provides a greater opportunity for transmittal of flu and cold viruses, with increased absenteeism of employees and resistance of the paying customer of repeated business.

HIGHER opportunity for moisture:

With the prevalent use of packaged units and the high people density, there are more plumbing fixtures and heating, ventilating, air-conditioning (HVAC) units). This can lead to moisture management problems.

POLLUTANT generating activities:

Cooking, smoking, off-gassing of materials, and spaces open to outdoors (birds and insects) provide for a greater pollutant generation rate which can tax the systems and result in poor Indoor Air Quality (IAQ).

HIGHER number of HVAC units :

A greater use of smaller units increase the higher probability of indoor air quality degradation through the need for more exhaust fans and a higher potential for pressure imbalance.

The SOLUTION to Pollution is DILUTION !

Heating, Ventilating & Air Conditioning (HVAC) Systems HVAC systems should be designed to meet the needs of a specific building. The parameter to consider would be its design, use, and occupant activities.

The HVAC system is designed to filter the air, heat or cool as necessary, and control relative humidity during the cooling season.

Today, almost, all leading hotels all over the world, are using energy recovery devices (Energy Recovery Wheels) a standard design approach for the large quantity of fresh air required to be handled by the A/C system in the hotel.



Energy recovery in treating fresh air in the Hospitality Industry with the aid of energy recovery wheel makes it possible to

- Conserve Energy
- Enhance Health and Hygiene

The new generation of DRI Treated Fresh Air Units incorporating *EcoFresh* Energy Recovery Wheel successfully address the market needs of the hospitality and have integrated the task of providing indoor air quality with efficient use of energy. TFAs are typically used for treating/preconditioning ventilation air i.e. fresh air as well as for achieving acceptable IAQ, Humidity control, Energy conservation/efficiency, and in the process reducing the building envelope.

Recommended Fresh Air in	Per person
Smoking Lounges	60 CFM
Public Rest Rooms	50 CFM
Bars / Cocktails	30 CFM
Beauty Saloons	30 CFM
Restaurants	25 CFM
Conference Rooms	20 CFM
Reception Area	15 CFM
Auditoriums	15 CFM

As per ASHRAE Standard 62*

DRI energy efficient Fresh Air HVAC Systems at :



Parx Casino, North America



Mercure Hotel, Brazil



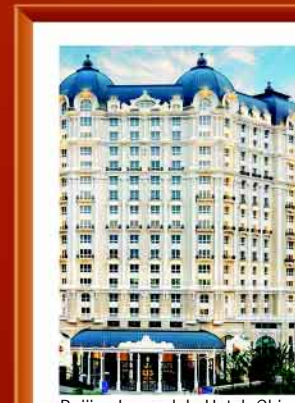
Hotel Arabian Courtyard, Dubai



Hotel Le-Meridien, Abu Dhabi



Shenyang Ibis Hotel, China



Beijing Legendale Hotel, China



Westin Hotel, Malaysia

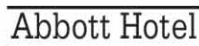


Marriott Courtyard, India

Thank You

for Trusting DRI™

Your Business Partner for Green Air-Conditioning



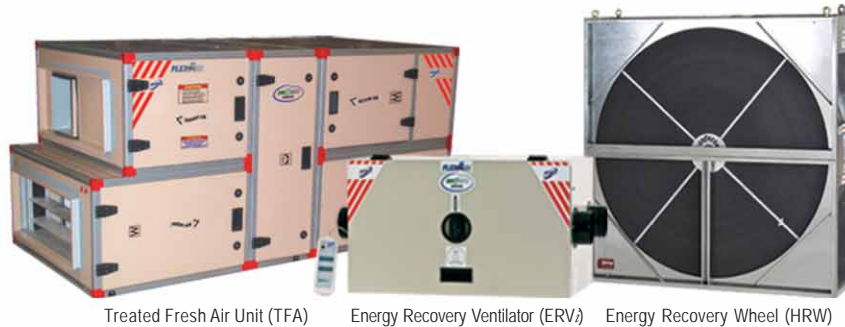
DRI Green Building Products help to maintain Indoor Air Quality (IAQ) requirements and recover energy from exhaust air, resulting in considerable reduction in installed tonnage and utility bills.

They also assist in enhancing Indoor Air Quality (IAQ),

maintaining desired temperature and humidity and increasing productivity.

Substantial Green Building LEED Points for :

- Energy Saving
- Improved IEQ
- Innovative New Technology



Treated Fresh Air Unit (TFA)

Energy Recovery Ventilator (ERV)

Energy Recovery Wheel (HRW)

*The Logos used here, are reproduced for printing purposes, and may not be exact replicas.

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