



[www.driamerica.com](http://www.driamerica.com)

# World's Most energy efficient

Desiccant Rotors & Cassettes

**ECODRY**<sup>®</sup>

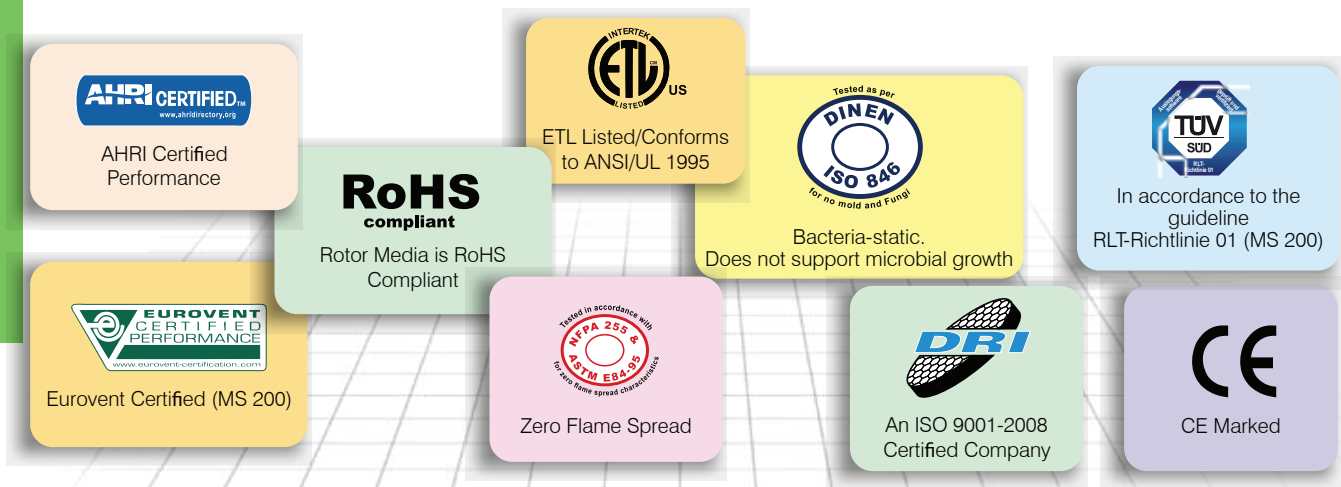
Total Energy Recovery Wheels

**ECOFRESH**<sup>®</sup>



THINK AFRESH...

# Worldwide Recognition



**Desiccant Rotors International (DRI)** is a fast growing HVAC&R company with a global footprint providing solutions for energy recovery and desiccant dehumidification. With over 200 man years of R&D in fluted media technologies, know how of desiccants, one of the best test labs in the world in the respective fields and state of the art manufacturing plants, DRI is actively supporting its customers in North America. The DRI Plants are geared for quick response, fast delivery and have substantial capacity to meet large orders.

## State - of - the - art Manufacturing Facilities



### World's largest installation base

- ✓ **DRI** has the world's largest installation base of 3Å Molecular Sieve Coated Wheels.
- ✓ # 1 in performance ... worldwide
- ✓ Largest global producer of Enthalpy Wheels
- ✓ The first choice of engineers /consultants ... worldwide

### DRI has its Airineers spread out world over

- USA • Brazil • Europe • Australia • S.Africa • UAE • Japan • India • China • Korea • Malaysia • Philippines • Thailand

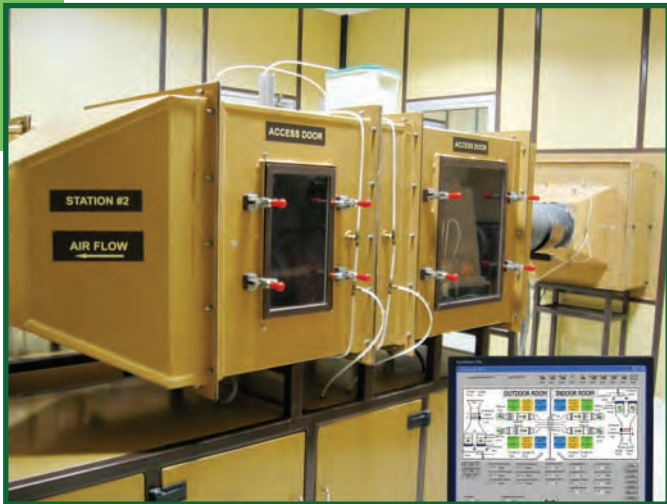
## Worldwide Green Building Memberships





# Research and Development

World-class test facilities for performance evaluation of  
Enthalpy Wheels And Desiccant Wheels



DRI Ecofresh Lab has a World Class Energy Recovery testing facility for performance evaluation of Energy Wheels, in association with Intertek Testing Services, Cortland (Intertek Association with AHRI for the AHRI 1060 Programme)



DRI Ecodry Lab helps to test and produce rotors capable of delivering dew point for applications in Pharmaceuticals, Food, Commercial Fresh Air System etc. and extremely low dew point for specialized applications like Lithium Battery Rooms & Plastic Dryers.

ALL WHEELS RECOVER ENERGY  
SOME DO IT BETTER.....

## MS 270 & 200 SERIES



### ◆ High Selectivity :

**EcoFresh** Energy Wheels MS 270 & MS 200 series use **Molecular Sieve 3Å (EcoSorb 300)** desiccant coated on aluminum substrate. This results in high latent recovery and control on cross contamination.

### ◆ Aluminium Substrate :

The aluminium substrate eliminates any fire risks and results in high sensible recovery and high structural strength.

### ◆ In-built purge sector eliminates cross contamination :

Purge section provides strict separation of air flows, preventing carryover of bacteria, dust and pollutants from exhaust air to supply air.

Purge section and sealing system limit cross contamination to 0.04% of the exhaust air concentration by volume.

### ◆ Non-Contact Labyrinth Seal :

- No wear and tear
- Effective sealing
- Long life
- Brush seal for wheels upto 2200 mm.

### ◆ Structural Rigidity, Hardened Edges & Innovative Manufacturing Design :

- State-of-the-art winding technology and adhesives give **EcoFresh** rotors high structural strength.
- Wheel edges hardened as standard to suit **marine coastal application needs**.

### ◆ Highly Polished Surface :

Vertical run-out less than 1 mm per 1000 mm resulting in extremely low leakage across the central divider seals.

### ◆ Robust Spoke Structure.

### ◆ Highest Recovery Efficiency Ratio (RER) in the industry

### ◆ Industry's Highest Recovery/Performance :

- High Desiccant loading / coating.
- Equal sensible and latent recovery, thus, comparatively higher total enthalpy recovery.
- Higher performance, low pressure drops.
- Laminar airflow due to thin aluminium substrate and uniform desiccant coating.
- Superior airflow characteristics.

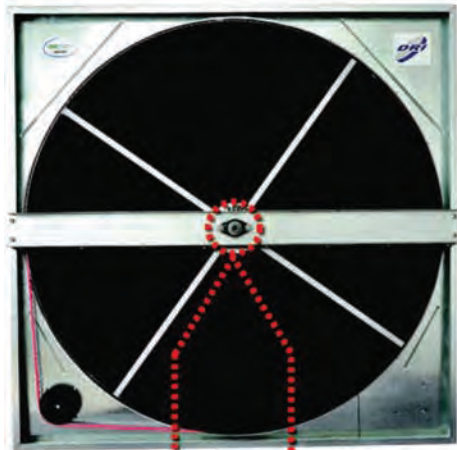
### ◆ Wide Range & Additional Options :

- Total energy recovery (Enthalpy) and AHRI certified Sensible Wheels.
- Customized Flute height and Rotors depth options.
- Cassette as well as Rotor options.
- Standard and Customized options.
- 500 mm to 5000 mm (dia.)
- Easy retrofit options.

### ◆ Segmented and Non-Segmented Options

### ◆ Controls Package Available

# Think Afresh . . . with



External Bearing



ECM Motor



Power Twist Belt



Grooved Rim

## The DRI controls package (for Energy Recovery Wheels) include the following components & features :

**(a)** Temperature and humidity sensors on all four sides of the rotor.

High temperature measurement accuracy .

Minimum Relative Humidity measurement accuracy should be +/- 2% RH

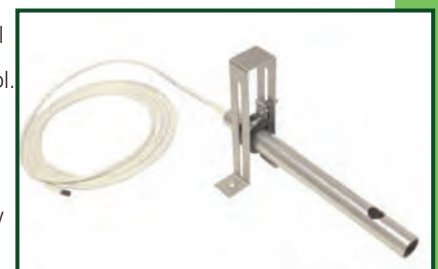
**(b)** Bead-in-glass thermistor air flow sensors on the supply and return side of the rotor.

Minimum Airflow measurement accuracy to be +/- 4% from reading. Factory set correlation of Airflow sensors with wheels to provide accurate measurement.

**(c)** Inductive proximity wheel rotation detector. In case of no enthalpy wheel rotation detected a local / remote alarm/notification ability shall be available.

**(d)** Direct digital controller with an integral display to show real time total recovery effectiveness (as per ASHRAE 84-2008 / AHRI 1060) in addition to supply and return air flow in CFM, alarm status, setpoint adjustments and current mode of operation. Direct digital controller shall communicate with the BMS system through either BacNet or Modbus communication protocol. Direct digital controller preprogrammed with auto summer/economizer changeover based on dew-point sensing with adjustable setpoints using a variable speed drive.

A programmable alarm feature for local and remote alarm / notification when outside air flow falls below or exceeds preset limit to maintain building pressurization design conditions.



# Passive

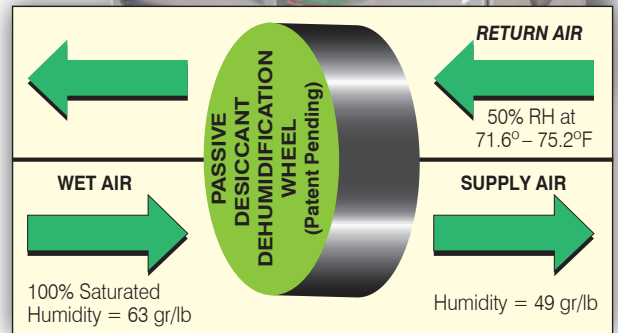
Desiccant Dehumidification

# Wheel

(Patent pending)

## Regenerates desiccant without additional energy usage

The unique G3MA "Passive" Desiccant Dehumidification Wheel (patent pending) has the ability to be regenerated with the 50% RH room return air. The Passive Desiccant Dehumidification Wheel is ideal for low dew point fresh air supply.



**ECODRY®**  
WORLD'S MOST ENERGY EFFICIENT  
DESICCANT ROTORS AND CASSETTES



### Ask for the BEST

- High Moisture Removal Capacity
- Non-flammable and Non-toxic
- Fully water washable
- Desiccant synthesized in inorganic substrate
- pH neutral
- Special rotors for low dew point jobs such as Lithium Battery and Plastics applications
- RoHS Certified
- Large installation base through OEMs in Europe, Korea, USA, China and Japan

# SOME PRESTIGIOUS BUILDINGS WITH GREEN PRODUCTS...WORLD-WIDE

Maine Healthcare, Scarborough, USA



The City, Brazil



University of Kentucky Medical Center, USA



Bu Cheon Sopoong, Korea



Columbus Regional Hospital, USA



Al Murooj Complex, UAE



Parx Casino, Bensalem, USA



Fam Square, Korea



Victoria Church, Brazil



Salvador North Shopping, Brazil



Sheraton Abu Dhabi Hotel & Resort, UAE



World Trade Center, UAE



# Creating Ripples in the Air Treatment



*at the heart of it all.*



## **DESICCANT ROTORS INTERNATIONAL INC.**

Visit us at:  
[www.driamerica.com](http://www.driamerica.com)

### **America:**

P.O. Box 342,  
Cloverdale, VA 24077 USA  
Phone : +(540) 266-7643  
Fax : +1-703-890-9465  
E-Mail : [cwaddell@driamerica.com](mailto:cwaddell@driamerica.com)  
Website : [www.driamerica.com](http://www.driamerica.com)

### **Europe:**

Demmersweg 6, 7495 RS Ambt  
Delden, Netherlands  
Phone : +31 (0) 547-273807  
Fax : +31 (0) 547-273815  
E-Mail : [d.glerum@hetnet.nl](mailto:d.glerum@hetnet.nl)  
Website : [www.drirotors.com](http://www.drirotors.com)

### **Asia**

PO. 120672,  
SAIF-Zone, Sharjah, UAE  
Phone : +971-6-5578148  
Fax : +971-6-5578149  
E-Mail : [enquire@dri.ae](mailto:enquire@dri.ae)  
Website : [www.drirotors.com](http://www.drirotors.com)

Plot No.100-101, Udyog Vihar  
Phase.IV, Gurgaon 122015  
Phone : (0124) 4188888  
Fax : (0124) 4188800  
E-Mail : [driplant@pahwa.com](mailto:driplant@pahwa.com)  
Web : [www.drirotors.com](http://www.drirotors.com)

202 2F D.H Bldg., 174-2 Songpa-dong,  
Songpa-gu, Seoul, Korea  
Phone : +82-2-4140629  
Fax : +82-2-4140639  
E-Mail : [drikorea@hanmail.net](mailto:drikorea@hanmail.net)  
Website : [www.drikorea.co.kr](http://www.drikorea.co.kr)

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