

# MOST ENERGY EFFICIENT

# Low Dew Point Dehumidifiers



- Unique Sandwich Panel Design**  
Only double panel vapour tight construction available globally
- Incorporating High Performance EcoDry Rotor**  
Manufactured in-house by DRI
- Leak Tight Frame**  
SMACNA class 6 leakage testing certified
- Aesthetically Designed**  
SS welded frame with sandwich panel

 **Global patented technology held for the heart of Dry Rooms**



What is the ideal environment needed for

# Li-BATTERY PRODUCTION

Lithium battery cell production is undertaken in a very critical and controlled (dry room) environment conditions

Non maintenance of the desire RH during Li-ion cell manufacturing (<1%) and battery assembling (<10%) may lead to consequences such as:

- Degradation in power storage characteristics of lithium
- Reduced performance and battery life
- Explosion in batteries in extreme cases



**We understand the core technology and know how to implement it**

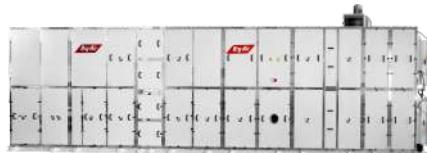
We pride ourselves in developing, owning, and applying our own technology

We are the only total environment control solution provider critical for lithium battery manufacturing



## EcoDry Rotor

- ▶ Our patented Honeycomb Desiccant Rotors are pH neutral & inert to gases such as Hydrogen Fluoride (HF) generated during the production of Li-batteries
- ▶ Largest & Own Rotor manufacturing, no dependence on any overseas supplier
- ▶ >50 OEMs globally, and nearly 7 of the top 10 leading manufacturers have been sourcing the rotors from them



## Low Dew Point Dehumidifier

- ▶ Patented technology for the most energy efficient <1% RH low dew point jobs; no post cooling coil requirement
- ▶ Customised engineered systems having highest CFM/sq. ft. floor area thereby saving huge real estate costs; robust & durable, >20 years life
- ▶ Having capability of shipping fully integrated & tested single piece dehumidifier units



## Compact Dry Rooms

- ▶ Vapour tight construction for Zero leak
- ▶ Anti-static floor
- ▶ Insulated modular PUF prefab panels (fire retardant)
- ▶ PPGI or stainless steel interior and exterior sheet protection for panel
- ▶ Ante/Air lock room
- ▶ Lighting (400 lux level)
- ▶ Duct work with proper insulation
- ▶ PLC based control, dew point sensor



We have our own patented technology for high performance rotor development, which positions us uniquely to deliver the best solution for Low Dew Point Dehumidification needs.



We can give single or double rotor GDP/LDP units basis customer needs.



# Bry-Air's Low Dew Point Dehumidifier

## ADVANTAGE

### Most Energy Efficient Solution

**Our technology reduces energy consumption by 30%~60%**

- Highest dry air CMH delivered per kW of energy input
- Lowest energy consumption for reactivation+cooling, time-proven patented technology **GDP** & Super **LDP**
- In-House high performance rotors manufactured by DRI

### Strong Manufacturing Capability

- Largest dedicated manufacturing facility in the world for special Li-ion cell manufacturing dehumidifiers (DHUs)
- World class testing centre for low dew point configurations
- **Shortest Lead Times:** modular approach manufacturing and packaging leading to efficiency in supply chain; capability to deliver multiple 30,000 CMH units in only 3 months
- Current capacity of 300 DHUs per year, can ship 25 units per month; expansion underway to increase capacity by 3 times

### Dedicated EcoDry R&D lab for Low Dew Point



Test loop for Low Dew Point

#### World-Class test facilities for performance evaluation of Desiccant Wheels

DRI EcoDry labs helps to test and produce rotors capable of delivering extremely Low Dew Point for specialized application like Lithium Battery Rooms

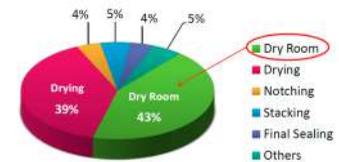
### Patented Technology

142 patent(s) applications filed globally and 90 granted/allowed already including USA, China, Mexico, Japan, South Africa, South Korea, Canada, Europe, Australia ...



DryPurge® is proprietary technology of Bry-Air and is patent protected in several jurisdictions. Details are available at [www.pahwa.com](http://www.pahwa.com)

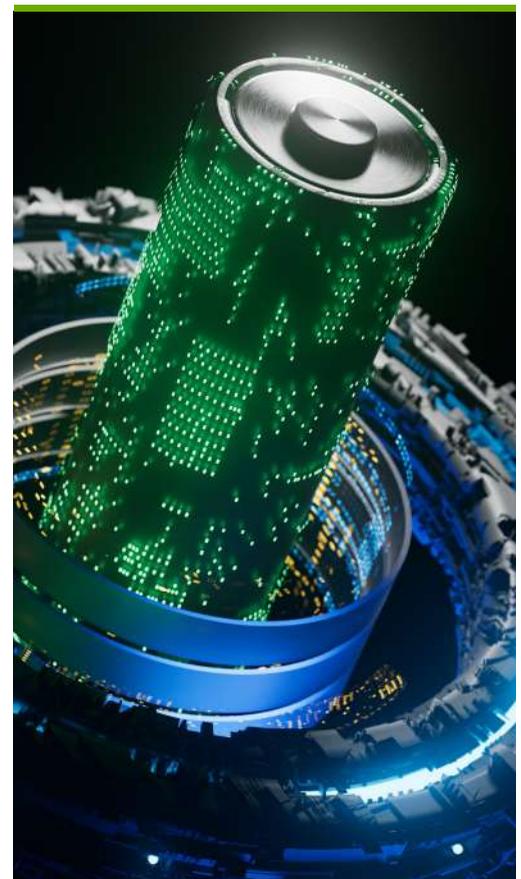
#### Energy Consumption in Li-Cell Mfg.



Dehumidifiers + Refrigeration use 45-60% of total energy/kW for cell manufacturing



Covered Area: 2,60,000 sq. ft. (24,154 Sq. m.) with the expansion underway



Some of our esteemed

# GLOBAL CUSTOMERS

## Giga Factory and LDP Jobs



- Beijing University Pulead
- Zunyi Meiling Power
- Shanghai 812 Ri
- Shenzhen Tianwang
- Electron Wuhan 712 Di Byd
- Zhongdao Power
- Molihaiba Power
- GM
- BYD
- Guoxuan Bamo Tianjinbyd
- Bamo Chengdu
- Jiangsu Weifen Power Industry
- Jiewei New Energy Technology

and many more

## EcoDry Desiccant Rotors

the "HEART" of regular and Low Dew Point Desiccant Equipments



and many more

# Dehumidifiers and Dry Rooms

# INSTALLATIONS



## Dehumidifiers Installations



USA



USA



Europe



India



USA



Germany

# Dehumidifiers and Dry Rooms

# INSTALLATIONS

## Dehumidifiers Installations



USA



India



## Dehumidifier units at manufacturing facility



USA



USA



## Dry Rooms Installations



India



India



India



China



India



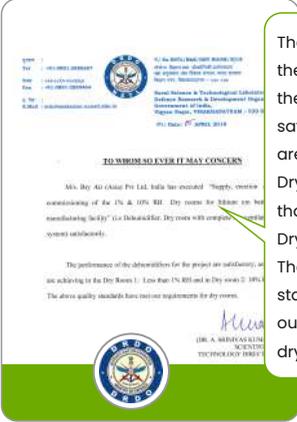
India

and many more

# STRONG

## Global Customer Experience

### Testimonials



The performance of the dehumidifiers for the project are satisfactory, as we are achieving in the Dry Room 1: Less than 1% RH and in Dry room 2: 10% RH. The above quality standards have met our requirements for dry rooms.



For this, the heart (technology/rotor) was supplied by Bry air Asia and their group company DRI (Desiccant Rotors International). We as the follow-up division of A.4.1 inside weistechnik and the ultimate automotive customer in Germany are very satisfied with the performance since the last six years.



we have recognized that the the build is robust and uses quality components throughout. In our internal comparisons we have confirmed that Bry Air's units deliver significant energy savings versus direct competitors. In operation the Bry Air units are showing strong performance and are exceeding the design parameters.



Bry-Air commissioned one of the first Dry Room to Schlumberger in year 2010



### We are never too far from you

- 

**9**  
R&D Labs
- 

**13**  
Manufacturing Facilities
- 

**1500+**  
Employees
- 

**80+**  
Countries, Countless installation worldwide
- 

**60**  
Countries have our Representatives



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