

Introducing

Bry-Air®

DryPurge™

for Dry Rooms

providing unparalleled advantage in  
**Li Battery Manufacturing**

Ultra low  
(lowest dewpoint)  
of -90°C



Bry-Air® has a patent pending for an advanced very low dewpoint system suitable for Lithium Battery production Dry Rooms



A giant leap into the Future

## Lithium Battery Production Clean Room

with **DryPurge** from **Bry-Air**

### Need for Dry Air in Li battery production clean rooms

Pure lithium metal is extremely sensitive to water, and even tiny amounts of water vapor in the air in the manufacturing areas will significantly affect the quality of the batteries produced. When water vapor in the air contacts lithium metal, a chemical reaction occurs that forms lithium hydroxide and hydrogen gas.

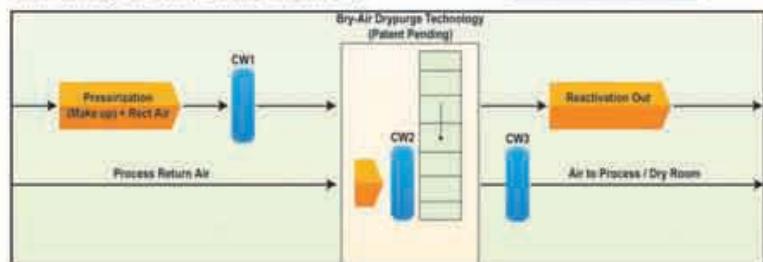
The reaction is exothermic, and lithium metal becomes hot. Water Vapour is further responsible for

#### Reduced Charging Capacity

The lithium hydroxide on the metal surface decreases the capacity of the battery. In addition, any moisture that is sealed inside the battery will react after the battery is completed.

#### Reduced Shelf Life

The hydrogen gas generated will cause the battery to swell, further reducing the battery capacity and useful life.



#### Reduced Safety and Production Issues

In extreme cases the hydrogen gas can cause the battery to rupture, creating a safety hazard. To avoid these problems, the production rooms are designed and built to be extremely vapor-tight and the rooms are typically maintained at -40°C dew point humidity, which is a moisture content of 0.08 grams water vapor per kilogram of air. To maintain this humidity level, the air is typically delivered to the production rooms with a moisture content of 0.01 grams water vapor per kilogram of air.

#### With DryPurge you are assured of:

- Energy economics
- Service support
- Experience
- Reliability
- Cutting edge technology

**Bry-Air**  
**High Performance (BHP)**



**DryPurge™**  
Tailored exclusively for Lithium Battery Manufacturing !

#### DryPurge Advantage (Patent Pending)

- A new configuration for designing DP (DryPurge) ... patent pending.
- A cutting edge honeycomb matrix BHP (Bry-Air High Performance) series tailored for ranges specific from -60°C dewpoint to lower than -70°C dewpoint applications, with minimum energy requirement.
- The Bry-Air Matrix has the substantial advantage of being PH neutral, resistant to chemicals and gases like Hydrogen Fluoride, a typical gas generated during production of Li battery.

#### Some of our prestigious clients

- O.712 Design Institute
- Bamo Battery
- Beijing Pulead Li Batt
- Beijing University
- Beijing Dangsheng
- BYD
- Pulead Battery
- Tianlu Battery
- XinHu Battery
- Defence R & D Laboratory (DRDL)
- Dyna Plastic Sdn Bhd
- Electronics Corp. of India Ltd. (ECIL)
- E-One Molti Energy
- Flexi Power Sdn BHD
- Honeywell Inc.
- Indian Institute of Technology, Kharagpur



We are never too far from you !



Meeting your humidity requirements since 1964

Bry-Air has been in the business of desiccant dehumidification since 1964. Bry-Air invented the rotary silica gel dehumidifier. Our prime focus has always been on Research and Innovation is our watchword. We have spent over 500 "man-years" of research in the field of high performing desiccants for the industry.

Our Honeycomb type Dehumidification Systems are tougher with cutting edge technology developed after years of painstaking R&D. All this makes us indisputably the most reliable ally for most Li Battery manufacturing and other similar exacting applications.

Leading Lithium Battery manufacturers opt only for



E-one Moli-Tait, Taiwan

BYD – Shenzhen, China

Wuhan 712, China

Zunyi Meiling



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

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