

dry facts

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156

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We are fully operational and ready to serve. . .



Our Sales and Service team is there to support all your new and existing requirements both offline and online. Whether through video calls or chat messengers or emails, we are never too far from you . . .

Webinars are being organized on varied application areas catering to the industry needs. If you want any specific application area/ topic to be incorporated, do write to us at bryairmarketing@pahwa.com.

Hope the Interactive webinars are Informative and please do respond if you want us to add your peer /colleagues to the invite list.

We are just a call away and our Airgineers are ready to serve you for your varied requirements like equipment, spare parts, repair & service requests etc. Our Regional offices are operational and the teams are ready to extend local support.

Do not hesitate to reach out and find out for yourself as we assure you that all the necessary best practices are followed at our plants and within all teams. Best safety and hygiene standards are adopted in all we do. Your well-being is of utmost importance to us and hope you and your family are doing well.

Our team morale is high and we look forward to serving you again.

Re. 1. Subscriber's Copy.

Environment control –very critical for Lithium battery production

Lithium battery production is undertaken in very critical and controlled (dry room) environment conditions. Non-maintenance of the desired RH during lithium cell manufacturing (<1%) and battery assembling (<10%) may lead to severe consequences.



Lithium battery application is fast growing across diversified industries like Electronics, Automotive, Electric Vehicles (EV), Energy Storage, Solar, Telecom, Power, Defence, Space/Satellite, Healthcare etc. There is large scale production of lithium batteries and moisture acts as a major deterrent leading to the growth of this industry.

Cause of uncontrolled humidity

Pure Lithium metal is extremely sensitive to even tiny amounts of moisture in the air. Hence, slightest of exposure to moisture leads to reduced performance and reduced product life of Lithium-Ion batteries.

Effects of uncontrolled humidity

Lithium batteries are affected by uncontrolled temperature and humidity. If the lithium battery is exposed to moisture during production, it may lead to impaired quality, thus:

- Reduced product life
- Reduced performance (charging capacity)
- Raises safety concerns including chances of explosion

Bry-Air's Green DryPurge (GDP) patented technology for dehumidifiers ensures optimum performance of dehumidifiers, even at the ultra low dew point, up to (-) 80°C.

Bry-Air is the only total solution provider for Dry Rooms with environment control equipment incorporating patented technology critical for Lithium battery manufacturing.

Bry-Air Green DryPurge (GDP) Dehumidifier for low dew point requirements for Dry Rooms





Air filtration solutions for mission critical facilities... Data centers and server rooms

Data Centers and Server Rooms are the backbone for many a industries. With remote access being a norm for a while now and definitely here to stay, there is huge dependency on the reliability of the smooth functioning of these Data Centers and Server Rooms. They are today very rightly termed as Mission Critical Facilities.

Most industries today are highly dependent on sophisticated Data Centers for managing their massive data and for their day-to-day functioning. With the advent of fast changing technological development in this field it is all the more important to ensure that the Data Centers and Server Rooms do not let us down.

Lot of the critical and highly complex information of the varied sectors like banks, financial institutions, defence, communication, etc. are all at the mercy of the data Centers and their smooth functioning.

Even in smaller organization having limited space, and there would still be a server rack and immense importance is given to the maintenance and upkeep of the same.

Business continuity and consistent communication are dependent on these devices. Hence, for safety and peace of mind, it is highly recommended to go ahead with air filtration solutions to prevent your Data Centers and Server Rooms from corrosive gases and high humidity level.

Facility managers and IT managers are tasked with maximizing the uptime of their critical systems. The situation compels them to maintain robust IT servers and network infrastructure to ensure their uptime and resilience. Any failure or inconsistent communication would result in a loss of critical data and huge productivity loss to the organization.



- Industries/sectors with high reliability on data centers:**
- banking
 - Mobile applications
 - E-commerce or e-retailing
 - Entertainment/video streaming or gaming
 - Government sector and departments
 - Hospitals and laboratories
 - Online education portals
 - Travel portals
 - Media channels & many more

Beat the crisis by empowering Data Centers

To face the unique challenges during lockdown, the mission critical Data Centers must function round the clock. They should be protected at each

level. The first thing to consider about Data Center protection is to ensure clean surrounding environment for its smooth functioning. The environment must be assessed for risk, especially the presence of corrosive gasses and high humidity levels due to temperature fluctuations. Since, the combination of both corrosive gasses and high humidity puts the Data Center at high risk for corrosion.

The infiltration of outdoor particulates and corrosive gaseous contaminants causes CORROSION in Data Centers. When the Data Center facility is located near landfill sites, sewerage/drains, high density traffic process industries, etc., the corrosion problem gets worse. Thus, protect the electronic equipment in Data Centers. The presence of corrosive gases in Data Centers could lead to corrosion in electrical parts of servers of Data Centers and eventually, can results in:

Failure of electronic components

- Circuit failure
- Data loss
- Increased downtime
- Low productivity

To combat the crisis and smooth functioning of Data Center, it is vital for corporates to take following steps:

- Monitor the corrosive environment in real-time using **Atmospheric Corrosivity Monitor (ACM)**.
- Remove gaseous contaminants using **Datacenter Air Purifier (DAP)**. It helps in maintain a healthy and corrosion-free environment in the Data Center.



When *moisture* is Torture

In this column, we share our experience with you regularly in major application areas where usage of dehumidification is both extensive and essential.

Moisture removal solutions for pharmaceutical



Dehumidification or moisture/ humidity control solutions is almost essential across all the various stages and processes of the pharmaceutical industry. From processing, to manufacturing, storage, research, testing, and packaging areas, all require ideal RH conditions to be maintained and hence, dehumidifiers become all the more important.

Since the majority of the pharmaceutical products are highly hygroscopic and tend to suffer physical, enzymatic, microbiological and biochemical deterioration after coming in contact with moisture – the loss of potency during storage influences the efficacy and safety of pharmaceuticals, which are some of the biggest problems faced by the sector.

The ask is to enhance productivity through environment control, efficiency in terms of time, cost, maintaining product quality, and increase in throughput levels, followed by reduced downtime.

At Bry-Air we have designed forward-looking solution that enables the manufacturers increase productivity at a low cost, higher throughput within limited resources, and reach economies of scale. Our range of best-in-class Bry-Air's BrySmart® series (BBS) Desiccant Dehumidifier are capable of delivering upto 48% energy saving, plus an additional 20% through the customized rotor which reduces initial react energy input for equivalent performance of standard dehumidifiers.

Bry-Air BrySmart® series (BBS) with patented technology

NEW



With India as a world leader in some of the key drugs and vaccines in the global pharmaceutical market, the Current Good Manufacturing Practices (CGMPs) regulations picking pace and being enforced by FDA, the pharmaceutical industry is all the more cautious and the focus once again has shifted to manufacturing, processing, and storage of the drugs.

The use of technology, systems and equipment to prevent contamination, ensure safety and hygiene during the various stages of Pharma manufacturing is all the more paramount.

The pharmaceutical industry too is witnessing a major shift led by the current pandemic. One major highlight is the dire need of the COVID-19 rapid test kits and other such critical diagnostic test kits.

To ensure accurate test results and to protect diagnostics kits from degradation, it is imperative to control moisture during manufacturing, testing, storage and packaging of diagnostic kits. Components of diagnostic kits are highly hygroscopic. They react with moisture and get degraded rapidly, unless they are made and packaged in a dry environment.

Bry-Air dehumidifiers are the ideal solution for maintaining the desired Relative Humidity (RH) in the labs where these kits are manufactured and assembled. Another pharma sub segment having huge potential in these trying times, is the nutraceutical and health supplement market. Bry-Air has solutions which help avoid lumping, caking and agglomeration of these powders and ensure they have a longer shelf life and do not suffer any microbiological and biochemical deterioration after coming in contact with moisture.

With the API requirement growing rapidly, it is become all the more critical to ensure GMP practices are abided by and moisture is not let to causes problems like disintegration of tablets, decomposition of formulations, lumping, caking & agglomeration of chemical compounds, uneven coating on tablets, inability to compress tablets, retarded growth in organic cultures and a shorter shelf life to name just a few.

Enter Bry-Air... exit moisture



Moisture control essential for food processing!

Bacteria and other micro-organisms multiply in the presence of moisture and humid air, thus making most food processing companies struggle for moisture/humidity control while processing, storing, drying and packaging. In today's world, the popularity of processed food such as snack food, health food, instant food etc. has increased manifold. The key contributing factor for its popularity is convenience. However, uncontrolled humidity can play a spoil sport in maintaining the taste, flavour and shelf life of these convenience foods. Therefore, it becomes imperative to tackle the moisture menace during each of the stages like product drying, processing, packaging and storage.

Bry-Air Dehumidifier provide the most simple and cost effective solution for humidity control. It speeds up drying process, ensures consistent production, uniform coating, maintain food quality and shelf life. The changing lifestyle and paucity of time too have increased our dependency on the packaged food. There is a demand for increased level of sophistication in processing, packaging, and storage of food.

In processing powder foods, especially health foods like protein supplements, infant food, soup powders, cocoa as well as gelatines, dehydrated soft drink concentrate, instant coffee powders, concentrate fruit, etc., the presence of moisture in the surrounding air can cause lumping and caking of food concentrate. It causes the tiny particles to stick or cluster together, thus inhibiting their free flow in the manufacturing or packaging process.

Many granular or powdered materials are transferred to packaging via high-velocity air streams. This process is commonly referred to as pneumatic conveying or just airveying. Highly hygroscopic materials like sugar, flour, starches, beverage and food powders make humidity control a crucial element of materials handling systems. The transportation of powdered, granulated or flaked material by high-velocity airstreams can significantly be improved by drying the air.

Many food processing and confectionery manufacturers and exporters rely on Bry-Air Dehumidifiers to maintain and achieve high level of product quality in the processing, packaging, and storage areas. Our dehumidifiers have also been successfully functioning during the gum coating process at various facilities across the country and internationally.

Designed to comply with stringent customer requirements like controlled condensation and other moisture related problems such as moisture regain in products, mold/fungus prevention, moisture control in pneumatic conveying operations, spray drying, product drying, coating lines, etc.



The use of our dehumidification systems in cold stores have also shown reduction in the sanitation cycle time, prevention and removal of frost and ice from cold storage/freezer areas and spiral freezers. Thus, Humidity Control ensures the customer is provided with a delightful experience of Taste, Aroma and Freshness.



Food processing companies face many moisture related issues such as longer drying time, frequent downtime of production units, and loss of key characteristics of food product. This in turn leads to inferior product quality and reduced shelf life.



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