

# dry facts

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Leaders in Dehumidification...Worldwide

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Innovation is life

DRI  
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delair  
The Compressed Air Treatment System Company

TDS  
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## Constantly upgrading for better customer engagement

Efforts to engage with our customers and constantly be in touch on their whereabouts and well being has led Bry-Air to constantly innovate and come up with the latest and the best.



Be it, video calls to webinars, getting the industry to come forward and unite in such trying times, from being optimistic yet ensuring safety first, Bry-Air is doing it all for ensuring the well being of its customers.

Bry-Air was one of the front runners in conducting webinars seamlessly and this wouldn't have been possible without your constant support.

We thank you to stand with us, together in this Partnership.

Do let us know any specific topic/application area on which you would like us to conduct a webinar or, else if you are keen in attending our webinars held across various industrial applications, do drop us a note expressing your interest at [bryairmarketing@pahwa.com](mailto:bryairmarketing@pahwa.com) and we will get in touch and send you the invite.

There have been ups and downs but your constant support has led us to overcome miles together.



Fond Memories

*Your memories will be with us forever...*

As you are aware, we lost our very dear Ashok Kumar Prusty, Executive Vice President, Bry-Air during the lockdown but he will always remain in our thoughts and memories. The condolences from you hold significant importance to his family and us, and, we sincerely acknowledge your gratitude. RIP.



# Bry-air corrosion prevention solutions for various industries

In industrial environments, uncontrolled humidity and corrosive gases are the primary causes of corrosion. Condensation of water vapour on metal surfaces and corrosive gases such as ammonia, chlorine, hydrogen oxides, sulphur oxides etc. can result in corrosion of electronic equipment, rusty bolts and corroded parts. Sustained exposure to humid conditions in combination with polluted air increases corrosion rate and can deteriorate costly & sensitive equipment.

At Bry-Air, we understand the importance of corrosion prevention across varied industries. Being the leaders in providing Dehumidification Solutions...Worldwide and having over 55 years of expertise in providing quality air solutions, we have provided corrosion prevention solutions for applications as diversified as Indoor Swimming Pools, Bridges, Aviation to PCB & Semiconductor Assembling.

Collaborating very closely with our diversified customer base and understanding their pain areas, we have learnt and specialized the art of addressing all types of Corrosion borne issues arising due to uncontrolled humidity.

We have in many industries provided solutions for micro-corrosion which in size may sound small but have led to major savings for our Electrical, Instrumentation, Laboratories and Switchgear customer base.

Corrosion remains a disruptive problem that not only leads to production breakdowns, equipment failures and serious safety issues but also increases a company's capital expenditure. It is, therefore, highly crucial to implement corrosion prevention techniques to protect your plant and machinery.

## What are the harmful effects of corrosion on various industrial units?

Rust is one of the most familiar examples of corrosion that causes irreversible damage to low-cost iron metal and affects almost every industry.

### Electronics

Corrosion of electronic equipment can occur due to airborne molecular contaminants and corrosive gases. Corrosive gases attack edge connectors, wire-wrap connections, and other microelectronic components. The damage from corrosion can block electric current and cause overheated systems, which results in equipment failure, costly repairs, production downtime and equipment replacement.

### Turbines

Turbines, like off-shore wind turbines, have to operate in environments full of corrosive airborne moisture. Corrosion that occurs because of this can damage equipment and cause electrical glitches, as well as expensive unscheduled downtime.

### Data Centre, Server Rooms and Control Rooms

Keeping data centres, server rooms and control rooms free of harmful corrosion has become challenging. Even extremely low levels of corrosive gases can result in non-compliance of electronic warranty, low productivity, increased downtime, and complete failure of electronic components.

### Precision Control Systems

Precision control systems include electronic devices, computers and network of automation control equipment that are essential to plant operations like geothermal power plants, petrochemical refineries, and pulp and paper plants.

### Bry-Air Solutions to Prevent Corrosion

Bry-Air has an industry leading position with over 55 years of expertise in manufacturing and selling dehumidifiers across the globe.

### Bry-Air Dehumidifiers and Bry-Air Gas Phase Filtration Systems

enable smooth operation of electronic equipment, turbines, data centres, servers rooms, control rooms, precision control systems, etc. Dehumidification prevents corrosion, mold and mildew growth, and deterioration of equipment. The relative humidity to be maintained for the storage of steel components and machinery should not exceed 40%. Bry-Air Dehumidifiers restrict relative humidity, maintain optimum conditions and give you the proper solution to corrosion problem.

**Bry-Air Gas Phase Filtration Systems** remove contaminants and corrosive gases through the process of adsorption and chemisorption. We have a wide range of propriety chemical media known as BrySorb series. During chemisorption, the chemical media converts harmful gases from the air into harmless materials.

Bry-Air first conducts Air Quality Assessments in a facility to gauge the overall corrosion potential of an environment and provides the ideal solution suited to meet your requirements as well as industry standards.

### Benefits of Bry-Air Dehumidifiers and Gas Phase Filtration Systems:

- Minimal corrosion and high process efficiency
- Reduced maintenance, service and equipment replacement costs
- Greater revenue through consistent production



Certain other industries/ application areas where we have provided dehumidifiers and are effectively functioning:

- **Defence** – Arms and Ammunition Storage
- **Automotives** – Tyre Creel Rooms, Engine Testing Rooms etc.
- **Sewage** – Waste Water Treatment Plants
- **Power Stations, Fertilizer Plants, Sugar Mills, Aviation, Healthcare, Electrical industry and many more.**



# 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 control important for seed drying and storage

To improve seed quality and longevity, proper drying and storage of seeds is of utmost importance. Be it Grain Seeds or Vegetable Seeds, seeds suffer from major retarding effects due to improper drying and storage conditions.

There is loss of viability, discoloration, toxin production and fungal growth in seeds.

Proper drying and storage of seeds limits the subsequent rate of deterioration during long term storage. It ensures the seeds are maintained in good physical and physiological conditions.

Bry-Air dehumidifiers help remove moisture from seeds, retain the desired quality and prevent deterioration.

Seeds are preserved for a variety of reasons like consumption, planting, research and storage in seed banks, thereby making safe storage and conservation of seeds a very important process.



A variety of seeds are commonly stored for consumption or processing in future. The primary concern in such storage is to protect the seed from damage by fire, water, insects and rodents. However, seeds must also be preserved for sowing at a later date or for genetic experiments. When stored for such purposes, the seeds must also be protected from loss in germination potential.

Therefore, proper drying limits the subsequent rate of seed deterioration and helps increase seed viability.

This thereby leads to increased profits

for the seed cultivators, manufacturers and exporters.

### Three important factors that determine the shelf-life of seeds:

- Relative humidity of surrounding air
- Moisture content of seed during storage
- Storage temperature



### The solution

The ideal way to maintain the required conditions for seed storage and preservation is through Desiccant Dehumidification. Bry-Air Dehumidifiers are installed in conjunction with refrigeration equipment for effective humidity control as well as for temperature control, and are being used extensively by leading seed processors worldwide. Bry-Air dehumidifiers have also been effectively used for safe storage of food grains as well as by many seed & food corporations/agencies.

**Enter Bry-Air... exit moisture**





# Humidity control solutions for spices

In such trying times, the world is looking East and that too for many of our age old traditional ingredients and recipes. Suddenly, the so called spicy yet flavorful, aromatic and hot ingredients have become the ardour of the western world. The local spices are in demand and so, are the Indian markets gearing to scale up the huge surge in demand. Spices are majorly dried and grinded into powder for ease of convenience and consumption. Many spices are known for their antimicrobial properties whereas some distinguished by the aroma, flavour and colour they add to your food.



**Spices have a high tendency of absorbing moisture from the surrounding air specifically when the humidity is high.**

This leads to stickiness and inhibits free flow through the packaging machine. The damp powder sticks to the wrapping paper thereby slowing the process and creating hygiene problems.

It also decreases the shelf life of the product thereby reducing profits and impacting brand reputation.

It is very commonly said that – “Spices add spice to your life” and it is this taste and aroma combined with the health and medicinal benefits that the world today is consuming; a large variety of spices and customizing it to blend into their local cuisines. Spices are highly hygroscopic and when dried need to ensure they retain their core product characteristics. If not dried properly, it may lead to fungal growth or even over-drying, thereby, leading to loss of key product characteristics and making the product unfit for further processing.



Spice	RH(%)	Temp.C
Cardamom	30-35%	28°C
Dry Garlic	65-70%	0°C
Dry Onion	50-55%	10-20°C
Cinnamon	40%	15°C
Chillies	18-20%	45-50°C

To retain the flavour, aroma, colour, freshness and to reduce product spoilage, spices have to be dried at low temperature.

**Bry-Air range of Dehumidifiers provide ideal drying solutions at low temperatures and desired RH for a large variety of spices.**



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

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