

dry facts

JAN-FEB-MARCH 2023

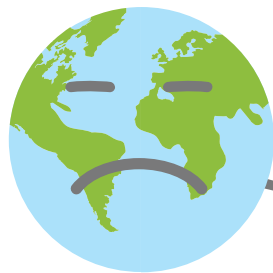
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Dehumidification - A Must for the Food Industry

Global volume of food waste is estimated at 1.6 billion tonnes of "primary product equivalents."



Total food waste for the edible part of this amount to 1.3 billion tonnes.



Source:
Food and
Agriculture
Organization
of
United Nations

Food waste is a matter of concern, especially with the world population continuing to grow and expected to reach 8.6 billion in 2030. Imagine the food waste our world would see in this span, especially caused by improper production and storage.

One of the most effective ways to curb a significant portion of this waste is by maintaining optimal humidity levels in food manufacturing units.

How Dehumidifiers Can Help?

- Moisture removal from the processing, storage, and packaging areas
- Help maintain crispness, taste, and flavour
- Ensure high production efficiency
- Improve product quality
- Help retain freshness
- Prevent moisture regain during storage
- Improve hygiene standards
- Improve air quality by lowering the moisture content



Areas of Application in the Food Industry

- Snack Food
- Sweets/Confectionery
- Health Food/Dietary Supplements
- Ready-to-Eat Food
- Powder Food

Bry-Air Dehumidification Solutions for the Food Industry

Bry-Air is a leading manufacturer of customised dehumidification systems for a wide range of industries, including food. These dehumidifiers work by removing moisture from the air, which helps prevent mould growth, bacterial contamination, and other problems that can compromise food safety and quality. One of the key benefits of these systems is that they operate effectively at lower temperature and humidity levels than other types of dehumidifiers.

This makes them particularly useful in environments where refrigeration or other cooling systems are used, as these can often create high humidity levels that can lead to condensation and other moisture-related problems. Today, leading food manufacturers globally are using Bry-Air Dehumidifiers to control moisture menace and elevate their product quality & taste, and brand experience & reputation.



Leading sweets and snacks manufacturer of India, Om Sweets installed Bry-Air Dehumidifiers at their plant to retain the product taste & quality, and reduce food wastage.



Gas Phase Filtration in Chemicals and Petrochemicals industry

Corrosive gases have adverse effects in the chemicals and petrochemicals industry. Breakdowns in areas like Sulphur Recovery Unit (SRU), Diesel Hydrotreater (DHD) Reactors, Variable Compression Ratio (VCR), Outage Management System (OMS) Control Rooms, etc., are mostly a result of a highly corrosive environment. These can further disrupt the operations leading to:



Leakage

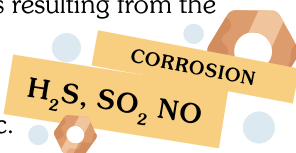


Production loss



Unplanned shutdowns

Deploying effective mechanisms, such as Gas Phase Filtration can circumvent the issues resulting from the formation of extremely corrosive gases such as, hydrogen sulphide, sulphur dioxide, nitrogen oxide, etc.



Combat Corrosion Using Bry-Air's EcoScrub Gas Phase Filtration (GPF) System

GPF systems from Bry-Air offer the best way to effectively remove airborne contaminants from the atmosphere of critical systems, including the chemicals and petrochemicals industry. These systems were created with a number of factors in mind, such as presence and concentration of contaminants, ventilation, space availability, etc.

Almost all toxic contaminants can be effectively removed by using the Bry-Air EcoScrub GPF system, backed by a vast variety of chemical media and macro-porous chemical filters.



According to the International Zinc Association, India loses a whopping 5-7% of its GDP every year due to corrosion.



The EcoScrub Gas Phase Filtration System (GPF) from Bry-Air removes gaseous pollutants from the air by using specialised filter media and chemical substances. Here's a look into them:

- **Honeycomb Matrix Technology (DRISORB Series):**
UL certified, Bry-Air's Honeycomb Chemical Filters play an important role in facilitating the chemisorption process that holds a significant amount of chemical media during filtration.
- **Granular Media (BRYSORB Series):**
Bry-Air offers a wide range of patented chemical media to remove gas phase contaminants. In order to neutralise almost all corrosive contaminants, such as Hydrogen Sulphide (H_2S), Sulphur Dioxide (SO_2), Methane (CH_4), Ammonia (NH_3), Carbon Monoxide (CO), and Nitrogen Oxides (NO_x), BrySorb offers a wide range of activated carbon and activated alumina combinations infused with proprietary chemicals.



When MOISTURE is Torture

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

Dehumidification solves many critical problems of the tea industry

The quality of tea is determined by its aroma, colour, and flavour. Being hygroscopic in nature, tea leaves quickly absorb moisture from the atmosphere during the process of withering, drying, sorting, gapping, blending, and packaging. This results in loss of flavour, colour, and distortion of tea.

India is the second largest global tea producer. However, even the leading tea producers often fail to provide the right conditions for quality tea production. Staying consistent and ensuring a profitable production environment requires them to leverage effective moisture control mechanisms.

Need right conditions
aroma,
colour &
flavour



Bry-Air Solution

Desiccant Dehumidifiers from Bry-Air provide quick and cost-effective solutions for controlling humidity in the processing, storage, and packaging areas. Regardless of the surrounding environment, it can keep RH at a consistent level of as little as 1% or even lower. This not only solves moisture-related problems during processing but also helps to retain the quality of the products and extend shelf life.

Impact of moisture in tea processing:

Withering

- Uneven withering in tea leaves
- Softens tea leaves and makes them less usable for further processing
- Discoloration of tea leaves
- Loss of flavour



Sorting

- Regains moisture
- Adds additional gapping process
- Degrades tea quality
- Loses bloom
- Reduces liquoring quality



Blending and Packaging

- Regains moisture
- Shortens shelf life
- Loses aroma



How Bry-Air Helped a Leading Tea Producer and Exporter Avoid Huge Loss?

McLeod Russel India Ltd., a leading tea producer and exporter worldwide, evaded moisture menace using Bry-Air Desiccant Dehumidifiers. We installed a compact dehumidifier to maintain the controlled environment of 30-40% RH, which resulted in high-quality retention of tea, no loss of bloom, high return on investment, and elimination of the gapping process.



Enter Bry-Air... exit moisture



Bry-Air is committed to promoting corporate social responsibility (CSR) initiatives across diverse fields. Our three pillars - Vision, Environment, and Education strives us to create a sustainable and responsible business that positively impacts society and the environment while promoting education and development.

Here's a quick snapshot of some of the activities we've recently conducted:



Inauguration of the 8th Community Water Centre at Pahari village, Gurugram



Eye Camp at Bhiduki, Palwal, Haryana on 9th March, 2023 with 334 OPD visits. The camp was concluded with 49 cataract surgeries followed by distribution of 251 spectacles, and medicines.

Completion of the 2nd phase of DRI Goat Distribution under a sustainable livelihood program for women of Dadhikar village, Alwar



Organised Sports Day for the Bry-Air and DRI Pathshala students at Bajghera, Gurugram



Inauguration of the 4th Check Dam at Dadhikar village, Alwar on 3rd March, 2023 which will provide a source of water to the villagers and help farmers in crop cultivation.



BRY-AIR (Asia) Pvt. Ltd.

Corporate Office:
21C, Sector-18, Gurugram 122015
Phone: +91 124-4091111
E-mail: bryairmarketing@pawha.com

Registered Office:
20, Rajpur Road, Delhi 110054
Phone: +91-11-23906666
E-mail: enquiry@pawha.com
Web: www.bryair.com

CIN: U74210DL1981PTC012456

BRY-AIR (MALAYSIA)
Phone: +60-3-89256622
E-mail: bryair@bryair.com.my
Website: www.bryair.com.my

BRY-AIR (USA)
Phone: +1-740-965-2974
E-mail: bryair1@bryair.com
Website: www.bry-air.com

BRY-AIR (UAE)
Phone: +971-6-5574622
E-mail: support@bryair.ae
Website: www.bryair.com/uae

BRY-AIR (CHINA)
Phone: +86-21-34126537
E-mail: info@bryair.com.cn
Website: www.bryair.com.cn

BRY-AIR (INDONESIA)
Phone: +62-21-83709388
E-mail: indomark@bryair.com.my
Website: www.bryair.com.my/indonesia

BRY-AIR (BRAZIL)
Phone: +55-41-36982222
E-mail: contato@bryair.com.br
Website: www.bryair.com.br

BRY-AIR (VIETNAM)
Phone: +84-8-39956498
E-mail: vietmarketing@bryair.com.my
Website: www.bryair.com.my/vietnam

BRY-AIR (PHILIPPINES)
Phone: +63-2-8078436
E-mail: marketing@bryair.com.ph
Website: www.bryair.com/philippines

BRY-AIR (PROKON)
Phone: +41-91-6830971
E-mail: info@pro-kon.ch
Website: www.bryairprokon.com

BRY-AIR (NIGERIA)
Phone: +234-8097276772
E-mail: bryairnigeria@pawha.com
Website: www.bryair.com/nigeria

BRY-AIR (BANGLADESH)
Phone: +880-1819409100
E-mail: bryairbangladesh@pawha.com
Website: www.bryair.com/bangladesh

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