

Dairy Industry

Climate Control and Spray Drying



Not everything is resilient to environmental fluctuations. Sometimes for your company to succeed, you need to master your indoor environment.

Master your indoors



Unchecked and unmaintained moisture in the air causes serious issues to the quality of powdered compounds.

Common Industry Problems

Reduced Shelf Life

Moisture can cause the dairy powder to degrade and spoil, affecting the quality and reducing shelf life

Loss of Production

Moisture and humidity can make hygroscopic powders difficult to produce. Moisture can also cause the powder to develop off-flavours and odours, which can make it unpalatable.

Caking or Clumping

Powder absorbs moisture from the air, causing the powder particles to stick together and form lumps. This can make the powder difficult to handle and may lead to clogging in processing equipment.

Costly Downtime

Often extra time and money is required to unclog machinery as well as constant readjustment of process settings due to humidity changes.

Safety Concerns

Moisture can promote the growth of bacteria and other microorganisms, which can lead to food safety issues if not properly controlled.

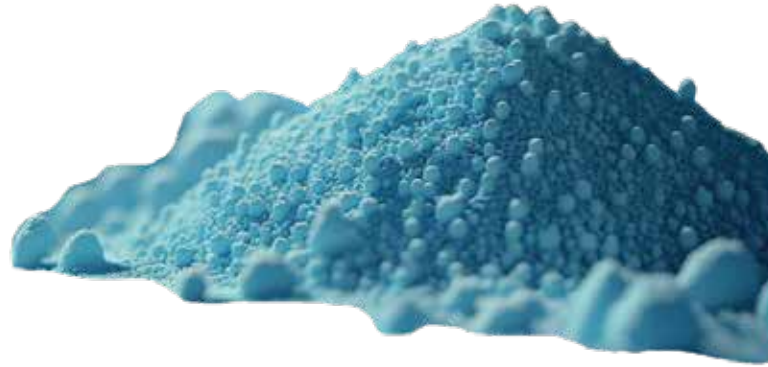
Hygroscopic compounds absorb excess moisture, making the compounds become sticky which builds up inside the conveying lines.

It can be difficult to transport hygroscopic products into silos and hoppers using a conventional mechanical system.

Product is not consistently dry

Environment product is transported to is not completely dry

Powder particles size is inconsistent



To mitigate these issues, dairy powder producers must carefully monitor and control the temperature and humidity levels in their production and storage environments, use appropriate packaging materials, and employ effective moisture control strategies, such as drying the powder to a specified moisture content before packaging



Dealing with changing weather conditions, including humidity and heat, provides serious challenges in maintaining consistent quality.

Consistent dry conditions are the optimal climate for spray drying, handling and storage. So how do you keep this weather type maintained throughout the year even in tropical climates or in regions where high humidity is a concern?

The best way to overcome these challenges is to use dehumidification technology for drying a liquid product. Humiscope's high-performance dehumidifiers offer a set-and-forget, stress-free solutions.





Desiccant dehumidifiers are the optimal choice and most efficient solution to control humidity and moisture in your production and storage environments.

Desiccant Dehumidifiers

Desiccant dehumidifiers physically remove moisture from the incoming air. The dry air is in direct contact with the product during the process - so it is no longer affected by the weather.

By installing desiccant dehumidifiers in key areas of your facility, you can easily maintain low humidity levels, reducing the risk of caking, spoilage, off-flavours, and safety concerns.

Silos

Furthermore, the same dehumidified air used for conveying can be delivered into the silo or hopper and will not cause the ingredients inside to solidify.

Reduced Energy Costs

Desiccant dehumidifiers can also help to reduce energy costs by improving the efficiency of drying processes.

Pre-drying the air using a dehumidification system allows for stable inlet conditions, enabling consistent quality and increased performance in the spray drying process. It means that your products are transported in a dry environment.





Humiscope are leaders in
dehumidification technology.
We custom design
desiccant dehumidifiers
to the precise specifications
required for your specific
application.

Master your indoors

With over 35 years' experience in controlling indoor environments, it's safe to say we know our stuff.

Humiscope dehumidifiers can be manufactured to include pneumatic conveying systems which move dry materials in bulk better than conventional mechanical systems.

Talk to us to see how we can help you achieve consistent, issue-free conveying with no unscheduled production stops.

Consistent product quality

Decrease safety concerns

Avoid product becoming sticky

Lower power consumption

Avoid clogging or caking in machinery

Uniform particle size and shape

Reduce machinery down time

Products transported dry



We understand the critical nature of our clients' processes and solve indoor climate challenges in ways our competitors cannot.

Desiccant Dehumidification systems have become the best option for dairy product processing because they are superior at assisting in moving sticky, lightweight and hygroscopic powders. They are the most effective solution to control humidity and moisture levels in your production and storage environments, and in helping maintain the quality and safety of products.

When selecting a desiccant dehumidifier, you should consider factors such as the capacity of the unit, the type of desiccant material used, and the level of automation and control available. You should also ensure that the dehumidifiers are properly installed and maintained to ensure optimal performance and longevity.





Who we are

We are a group of engineers, technicians and draftsmen dedicated to our clients and committed to providing energy efficient indoor environment systems; from simple applications to specially engineered solutions.

Our products

Desiccant Dehumidifiers

work by passing air through a rotating desiccant wheel to extract moisture from the air. They achieve relative humidity levels below 35% and have proven themselves to reduce both operating costs and energy consumption.

Refrigerant Dehumidifiers

work best in spaces where the temperature is at 20°C and above and humidity levels of 50% and above. They work on the humidity of the room and run when the humidity is above its set point.

Humidifiers

add moisture to the air. Humidity has a significant influence on the rooms climate and thus has a great influence on the well-being of people or on the stability of industrial processes that take place in the room

'We are very happy with the outcome. Drying times were reduced by 50%. Essentially we created our own climate' ~ Peter Schulte, Managing Director, Schultes Meat (Drying Room)

01

Dedicated

We are dedicated to our clients and providing the best solution possible.

02

Supportive

We exist to support our clients, their business and each other

03

Integrity

We build and maintain trust with our clients by being honest, consistent and not compromising on our values

'We chose Humiscope because they had a great understanding of our requirements which led to a tailor made option suited to our process and available budget.'

~ Dallas Garratt, GM ~ Cap-XX Australia (Low Dew Point Room)



Who we are

We hold ourselves to the highest professional standard. Our clients tell us time and again how easy we are to work with & that we have exceptional communication.

Our services



Design and Installation

We are experts in designing, building and installing state-of-the-art climate control systems from simple applications to specially engineered solutions.



Rentals

Whether the application is a temporary project or being able to test the technology before investing, renting is a risk-free option.



Service & Maintenance

With over 35 years' experience we are able to service any brand dehumidifier regardless of make or model. We can identify where improvements can be made.

'I just want to say a big thank you for your efforts and help in getting the rental dehumidifier to Narrabri, especially given the flood situation. ~ Neil Rattray, Supervisor, BSA (Rental Dehumidifier)

We service the following brands:

With over 35 years experience in Dehumidification technology, its safe to say we know our stuff. We offer service and maintenance of any brand industrial and commercial dehumidifier, regardless of make or model.



'Katherine was terrific! Nothing was too much trouble, and she couldn't have been more helpful. ~ Peter Schulte Managing Director, Schulte's Meat (Drying Room)

Call us – obligation
free – and we can
talk through your
specific concerns
and suggest some
solutions that would
work best for you!

Humiscope

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