

# STABLE PRODUCTION CONDITIONS ALPHA AND OMEGA IN PHARMACEUTICALS

COTES

EXPERTS IN HUMIDITY MANAGEMENT

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**OUTPUT AND TURNOVER UP BY ABOUT 50%**

USING LARGELY THE SAME EQUIPMENT

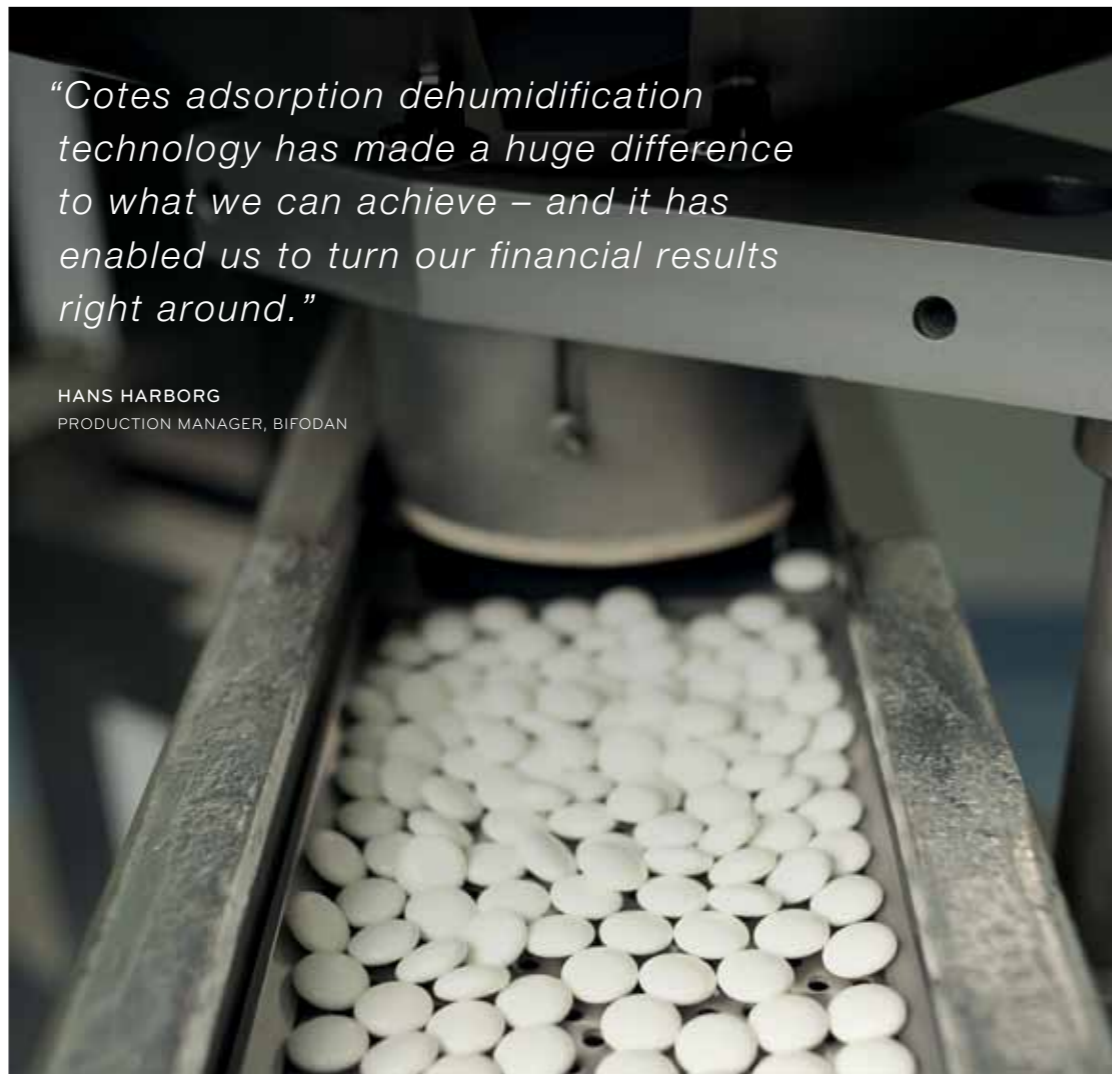


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*“Cotes adsorption dehumidification technology has made a huge difference to what we can achieve – and it has enabled us to turn our financial results right around.”*

HANS HARBORG  
PRODUCTION MANAGER, BIFODAN



# STABLE PRODUCTION CONDITIONS ALPHA AND OMEGA IN PHARMACEUTICALS

Adsorption dehumidification technology turns production conditions around

## CONDITIONS COUNT IN PHARMACEUTICALS

The Danish company Bifodan A/S is a leading European provider of innovative probiotic solutions to the pharmaceutical and dietary supplement industries.

Customers here operate with stringent quality management procedures, so Bifodan needs to make sure of consistent product quality all year round and regardless of weather conditions outside. One of the key focus areas for Bifodan is the levels of moisture present in areas where moisture-sensitive ingredients are mixed and products are packaged.

## THE CUSTOMER'S PROBLEM

Bifodan was encountering widespread production difficulties because uncontrolled humidity was making moisture-sensitive powders clump together and block key machinery and processes.

This was resulting in:

- > lots of unscheduled stoppages
  - > high maintenance costs
  - > downtime that was seriously limiting output and eating into profit margins
  - > undesirable bacterial activity that was affecting customer satisfaction, and harming the company's reputation.
- According to Bifodan production manager Hans Harborg, "... these problems were putting the commercial future of our company in jeopardy."

## THE COTES SOLUTION

### Adsorption dehumidification and cooling

Cotes experts installed a modern humidity management system based on a combination of adsorption dehumidification and cooling, making it possible to adjust humidity to the low level Bifodan required

– 3.3 g/kg. The air flows into the Bifodan production and packaging facilities can now be heated to provide the required specifications of 22°C temperature and 20% relative humidity, using only a minimum of energy inputs.

## HOW THE CUSTOMER BENEFITED

### Living up to customer requirements

The adsorption dehumidification set-up that Cotes supplied has made it easy for Bifodan to comply with the quality standards and packing specifications that the company's customers insist upon.

Regardless of seasonal changes or differing weather conditions, Bifodan is now able to:

- > maintain full control over levels of humidity in key production and packaging areas
- > ensure end-to-end consistency and manage product quality effectively
- > maximise production uptime
- > significantly reduce maintenance costs.

### New perspectives for the future

This kind of well-managed stability in manufacturing conditions has had significant ramifications for the company's market position. Bifodan is now even able to use its exceptional humidity management capabilities as an active sales argument that puts the company one step ahead of its rivals in a fiercely competitive market.

Bifodan reports that:

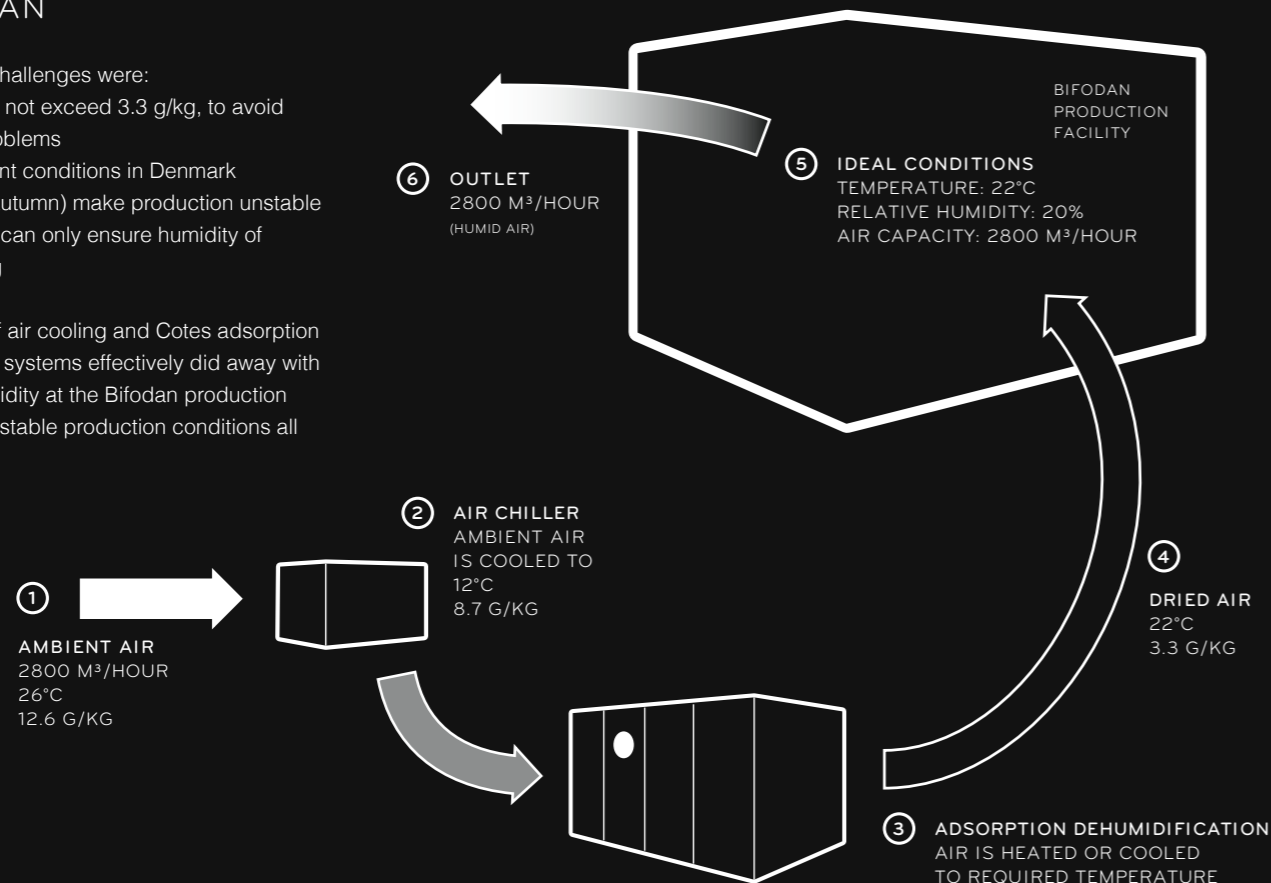
- > fewer production glitches mean the company is now able to operate with round-the-clock shifts
- > both output and turnover have risen by about 50%, using largely the same equipment and production set-up
- > production planning has become much easier
- > customer delivery schedules have become significantly more reliable.

## CONTROLLING HUMIDITY AT BIFODAN

Bifodan's main challenges were:

- > Humidity must not exceed 3.3 g/kg, to avoid production problems
- > Difficult ambient conditions in Denmark (12.6 g/kg in autumn) make production unstable
- > Cooling alone can only ensure humidity of approx. 5 g/kg

A combination of air cooling and Cotes adsorption dehumidification systems effectively did away with undesirable humidity at the Bifodan production facility, ensuring stable production conditions all year round.



TALK TO US ABOUT WHAT'S POSSIBLE

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