SUPER-DRY
NO MORE WATER.

Case Study

Preventing Air Line Freezing in a Food Packaging Facility

The Challenge

A major Canadian salad packaging facility operating a 15 HP Sullair compressor and a Nano twin-tower regenerative air dryer was still experiencing water and line freezing in its production freezer, where the temperature reaches –28 °F.

Even though the main compressor room had adequate drying and filtration, moisture was re-introduced as the air traveled through long piping runs and cooled rapidly before reaching the freezer.

This led to:

- Ice forming in air lines and valves
- Frozen actuators and control lines
- Unplanned downtime and costly clean-up interruptions

The customer needed a final point-of-use drying solution capable of maintaining reliable, moisture-free air in extreme sub-zero conditions.

The Super-Dry Solution

Super-Dry recommended installing a Model D3 Desiccant Air Dryer directly at the point where the air enters the freezer area.

- Positioned at the end of the air line, the D3 removes residual moisture that the central system cannot capture after temperature drops.
- Compact and low-maintenance, the D3 easily fits near the freezer entrance without additional power or drains.
- Using desiccant drying, it ensures a consistently low dew point, keeping compressed air perfectly dry before entering the freezing environment.

With this setup, the customer achieved continuous operation without air-line freezing.

Results

No More Frozen Air Lines
The D3 dryer eliminated all moisture problems inside the freezer, even at –28 °F.

Improved Packaging Reliability
Production lines now run uninterrupted, ensuring consistent salad packaging quality and uptime.

Reduced Maintenance and Downtime
Technicians no longer need to thaw or replace frozen air lines, reducing labor and production delays.

Stable Air Quality and Dew Point
The system maintains a constant flow of clean, dry air throughout daily production cycles.

Outcome Summary

By installing a Super-Dry D3 dryer at the point of use, this food-processing facility permanently resolved moisture and freezing issues that had persisted despite using a regenerative dryer.
The combination of main drying plus local Super-Dry protection created a robust and reliable solution for extreme low-temperature environments.

Product Highlight

Compressor Used: 15 HP Sullair

Existing System: Nano twin-tower regenerative dryer

Added System: Super-Dry Model D3 Desiccant Air Dryer

Application: Point-of-use air drying for freezer lines (–28 °F)

Result: No freezing, stable production, and dry compressed air at all times

Client Description

A Canadian food-processing company specializing in fresh salad and vegetable packaging for retail and food-service customers. Their operations require precise temperature control and high-purity air to maintain food safety, hygiene, and production efficiency.

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