

Case Study

## Eliminating Valve Freezing in a Craft Brewery's Outdoor Silos

### The Challenge

Confluence Brewing, a craft brewery located in Des Moines, Iowa, was facing freezing problems in their pneumatic valves and cylinders that control their outdoor silos. The facility operates an Ingersoll Rand R11n 15 HP compressor equipped with a refrigerated air dryer. While the refrigerated dryer was sufficient for indoor operations, cold winter temperatures caused residual moisture in the air lines to freeze once the air exited the building. This led to frozen valves, interrupted production flow, and costly downtime during peak brewing operations. The brewery needed a simple, low-maintenance solution to keep their air lines dry before the air reached the outdoor equipment.



### The Super-Dry Solution

Super-Dry recommended installing a Model D-1 Desiccant Air Dryer approximately 100 feet downstream from the compressor, mounted on the wall just before the air line exits outdoors.

- ✓ Point-of-use installation — captures residual moisture after the refrigerated dryer.
- ✓ Compact and maintenance-friendly — perfect for wall-mounting in utility rooms.
- ✓ Reliable winter protection — ensures only dry, moisture-free air reaches outdoor valves and actuators. This simple addition provided a final drying stage to handle temperature drops that the main refrigerated dryer could not manage.

### Results



**No More Frozen Valves** — Outdoor silo valves and actuators now operate reliably in all weather conditions.



**Improved Production Consistency** — The brewing process remains stable, avoiding unplanned interruptions and downtime.



**Low-Cost, High-Impact Upgrade** — Adding the D-1 provided immediate results without requiring any change to the existing compressor or refrigerated dryer.



**All-Season Reliability** — The brewery now operates confidently through cold Iowa winters, with continuous dry air flow to all outdoor systems.

## Outcome Summary

By installing a Super-Dry D-1 Desiccant Air Dryer downstream of the main air system, Confluence Brewing achieved complete winter protection for their outdoor silos. The upgrade extended the performance of their existing air system, eliminating freezing issues and improving operational reliability during critical production periods.

## Product Highlight

**Compressor Used:** Ingersoll Rand R11n 15 HP

**Existing System:** Refrigerated air dryer

**Added Equipment:** Super-Dry Model D-1 Desiccant Air Dryer (installed 100 ft downstream, before outdoor line)

**Application:** Outdoor silo valve and cylinder protection

**Result:** Dry, freeze-free compressed air during winter months



## Client Description

Confluence Brewing is a Des Moines-based craft brewery known for its dedication to quality, locally crafted beer, and sustainable brewing practices. The brewery's operations combine innovation and craftsmanship, with a strong focus on maintaining reliable, efficient, and consistent production processes year-round.