

# AIRCO Customer Success Story by X Platform



Sustainability and Reliability as keypoint of Nitrogen and Oxygen Production. How AIRCO is approaching the market with the power of data acquisition and visualization.

*"Initially, autonomous nitrogen production was our top priority. But over time, new potentials have emerged based on our technology. [...] In the AIRCO Infinity Touch, we bundle the different protocols and provide them collectively to our customers via OPC UA or MQTT. Only with this open philosophy can we fully meet the requirements of a digital factory, thus saving essential resources"*

**F. Recknagel - Area Sales Manager**  
**AIRCO Systems GmbH**



## Story Overview

**Headquarters:** Frankfurt, Germany

**Sector:** Nitrogen production equipment

**Employees:** 95

**Machinery digitalized:** ~ 150 per year

**Project development year:** 2021

**X Platform:** HMI & IPC + Edge Visualization + SoftPLC + Remote Access & VPN

## Project Summary

X Platform employed to Airco System GmbH case: in response to end-user demands has been developed a cutting-edge system for independent gas production, including Nitrogen and Oxygen. The paramount features of AIRCO's new product line are sustainability and long-term conservation.

## Airco's Challenge: sustainable gas production

**Sustainability is becoming more and more important** in every industry. In particular in those that are categorized as energy consumptive the focus is also more high.

Gas production is one of those. In the past, the added value of nitrogen self-production was focused on cost savings and availability. Currently, it can be observed that pricing still hold a high value, but **the goals of resource conservation and sustainability are increasingly coming into focus in the market.**





Nitrogen storage can be compared as a energy storage, in fact electricity can be produced starting from that specific gas.

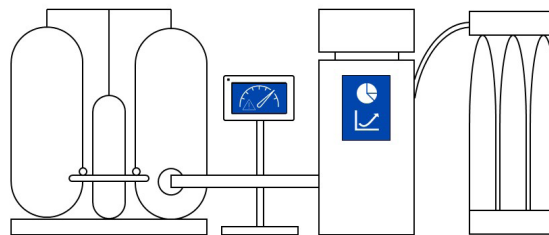
The main goals that the customer is expecting are in two areas:

- Exploring nitrogen plants as **potential energy storage solutions.**
- Utilizing solar and wind energy converted in Nitrogen storage **to reduce fossil fuel consumption.**

# Airco's Solution: Control and Visualization for Sustainability

The new AIRCO production line comprises nitrogen generators, gas storage, and multiple control panels for data visualization. The key areas addressed during development include:

-  Hardware optimization.
-  Digitalization and connectivity of the entire network.
-  Creating a more efficient process to convert green energy into Nitrogen.
-  Offering a scalable solution: necessary to spread machinery everywhere.



## Our Technology: X Platform

Hardware

**HMI eX705 or eX710:** Integrated control panel within the machinery structure for machine operation visualization and control. Thanks to its computing power, it collects data and categorizes them into dashboards. Panel navigation is facilitated by the touchscreen.

**HMI JSmart715:** sleek design for a full IP67 product. Thanks to the Power-over-Ethernet connection the HMI stand alone as a supervisor for the whole production operation.

Software

**Runtime Software JMobile:** license uploaded both on eX700 series and JSmart700 series. Helpful to adapt the machines to a wide range of communication protocols with only one technology.

Applications

**CORVINA VPN:** Safe remote access to machines. Fundamental to introduce remote maintenance.

**SofPLC:** following IEC 61131-3 standard the software installed performs task such as monitoring and controlling the production of Nitrogen.

## X Platform Results



### Electric components reduced

Minimized risk of electric issues.



### Modernized User Experience

Dashboard on the HMI with exceptional visual appeal.



### Seamless Integration

Accepted technological standards like HTML5, SVG, and XML.



Your Objective,  
Your Solution,  
Our Technology

### Keep in Touch!

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