



CUSTOMER SUCCESS STORY: CAMARADERIE TECHNOLOGY

InSpire's integrated HVACD solutions give Camaraderie Technology a sustainable, efficient model for future growth

Scientific, technology-driven approach optimizes cultivation operations, providing a foundation for consistent, data-driven expansion

BACKGROUND

The team that founded Camaraderie Technology in 2017 brought specialized knowledge and expertise from varied backgrounds to the company. Each of them had the passion and desire to apply their skills and business acumen to become an integral part of the cannabis revolution. The founders were looking to surround themselves with other professionals who could adapt the most advanced approaches to cultivation and plant science from other established industries, putting the best foot forward at all times. The company's three consumer brands currently include Mayflower Farms, Summit Concentrates and Sirona Cultivated. Evident in all three brands is the entire team's commitment to growing and extracting premium cannabis products. Camaraderie Technology also operates DAGDA Fertigation, a line of proprietary automated fertigation systems designed to solve the company's production needs for consistent, reliable and predictable functionality to cut down on labor, gather data and help make data-driven cultivation decisions.

With existing presences in both Colorado and Michigan, Camaraderie Technology has always had an eye toward nationwide growth with a franchise model.

The team knew the most important place to start was to lay down the groundwork for future growth with standard operating procedures and brand consistency. The company sought to build out a test environment where the team could develop cultivation methods and collect metrics to align with Camaraderie's overall goals for innovation and industry leadership. By systemizing operations across all facilities with similar equipment, operating procedures and highly trained staff, Camaraderie worked toward their goal of creating high quality products with consistency throughout the brand family and sales outlets.



CHALLENGES

One of the first hurdles the team had to overcome was addressing the complex HVACD requirements that come along with indoor cultivation operations. Camaraderie understood the financial and spatial commitment involved with purchasing heating, ventilation, air conditioning and dehumidification equipment, and needed to find a partner with similar philosophies to get the design right the first time around.

As big proponents of science, technology, ongoing development and careful testing of new methods and procedures, the team wanted to take an intentional approach to their environmental control that would produce a superior product, consistently and at good margins.

The two-story Mayflower Farms cultivation facility in Colorado is one of Camaraderie's first endeavors into multi-tier, high intensity LED cultivation, which requires an integrated HVACD approach. The cultivation team had previously worked with non-integrated performance, controls and information collection that led to underperformance and missed expectations. The team was seeking to optimize each of the parameters of plant vitality, resulting in a consistent production run year after year – as well as the capability to replicate this model in different regions as the brand continues to grow.

SOLUTIONS

Camaraderie Technology turned to InSpire to design its integrated HVACD solutions, largely due to the shared company philosophies of using science to answer questions, making data-driven decisions and pursuing continuous improvement.



The first step was to build out a test environment using InSpire's integrated HVACD systems for 24/7 VPD control. One of the test's main objectives was to gain access to environmental data and gather metrics to improve standard operating procedures, gain insights into how environmental variables impact phenotypic expression and determine if the approach was successful enough to be replicated across the company and in a franchise environment. The goal was to collect all of the environmental data, including temperature, humidity and CO2, in one place in order to achieve optimum control and create timely action plans.

InSpire's system made this easy, as Mayflower Farms was an early adopter of InSpire's Data Cloud platform to collect, manage and analyze data. With help from the InSpire team, Mayflower Farms was able to better understand their entire facility from room leaks to heat to CO2 and make decisions based on real data and results. InSpire's integrated HVACD units in the multi-tier veg and flower rooms, sub-canopy airflow systems and aspirated sensor boxes provided Mayflower with the tools necessary to optimize phenotypic expression and production efficiency.



If you try to run your HVACD systems without InSpire's integrated approach, it's like trying to fit a square peg in a round hole. InSpire asked the fundamental questions that other engineers and designers did not, and they have the proven results and data to back up their claims. Their integrated systems have made it so we can achieve our ideal conditions without having to spend an arm and a leg to constantly fine tune systems and find people to manage them. They understand all the important parameters of plant science, they are truly invested in our success, and we are confident that we are achieving maximum control with efficient equipment that can handle our full capacity.

DANIEL CRAVEIRO
DIRECTOR OF RESEARCH & DEVELOPMENT
CAMARADERIE TECHNOLOGY



RESULTS

Best-in-class solutions like InSpire's, combined with Camaraderie's forward-thinking operations and ongoing development in science and technology (including many of their own proprietary cultivation systems), is breaking the mold for more traditional operations. By testing, analyzing and optimizing plant cultivation in this way, the company has set itself up for sustained growth that promotes excellence on every front.

└ Married cultivation and engineering expertise with financial constraints to reach key performance indicator goals within a limited capital budget.

└ Found a significant increase in the metric of usable wet plant weight using InSpire's integrated HVACD systems: 33% higher than the company's historic methodology using non-integrated systems.

└ One of the company's strains yielded over 70 grams per square foot of finished, trimmed flower, well above the average benchmark of 55 grams per square foot.

└ Demonstrated that high-efficiency HVACD technology has helped the company achieve production and financial goals and will be used as the standard moving forward to build out a franchise model.

└ Pursuing the Camaraderie Technology philosophy of continuous improvement by applying what has been learned from collected harvest data to refine controls and fine tune operations for future harvests.



Daniel is one of the most talented 'race car drivers' out there, and we have been able to work with him to fine tune how he can best 'drive' his HVACD units for his individual goals. Giving Daniel access to InSpire's HVACD tools has allowed him to apply crop steering techniques like day night DIF and temp transition time to optimize each room of his cultivation facility.

ANDERS PETERSON
INSPIRE TRANSPIRATION SOLUTIONS

