Spacesaver

Case Study:

Optimizing Limited Cultivation Area in a Medical Cannabis Facility

Galenas LLC | Akron, Ohio

Storage Solved®

A Commitment to Health

As the only certified organic medical cannabis grower in Ohio, Galenas LLC is committed to patient health and environmental sustainability. "Our goal is to minimize our carbon footprint while also creating the best possible environment for the plants," said Galenas founder and CEO Geoffrey Korff. "We're doing everything we can to make sure that we're drawing from the grid as little as possible while also providing the absolute optimal growing environment."

That commitment is manifested in an award-winning cultivation facility in Akron. The firm grows cannabis in compost-based living soil, which is rich in nutrients and microbial activity.

The facility also features an advanced water reclamation system along with high-efficiency LED lights and sophisticated environmental controls.

It all adds up to a clean and consistent product that's as sustainably produced as possible.

A Limiting License

When Korff and architect Jeremy Schlicher began conceptualizing the facility's design, their thoughts were focused on a simple fact: the state-issued cultivation license limited the grow area to 3,000 sqft. "The challenge in this state is to maximize the utility of the space," Korff said. "Using the square footage allotment that we had in the most efficient way possible was a top priority."

The solution was two-fold: first, Korff wanted to use mobile benching to optimize the grow rooms' square footage. Then he wanted to go vertical to maximize the volume. Growing on multiple tiers of mobile benching would allow the facility to quadruple its canopy area.

"What's good for the plants is what's good for our customers."

Geoffrey Korff, Galenas Founder & CEO

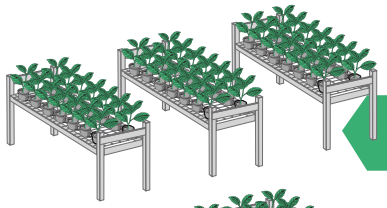
The facility's license limited the grow area's footprint to 3,000 square feet.

4X the Grow Area in Each Room

When compared to stationary 4x8 tables, Spacesaver's GROW Mobile System quadrupled the grow area in the facility's 3,000 square feet of cultivation space.

CHALLENGE

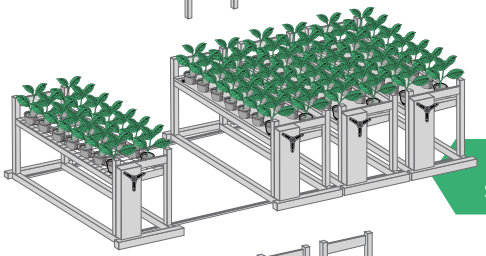
Standard Tables
Waste Space



Only 18 tables with aisles could fit in each room.

576
SQFT OF CANOPY

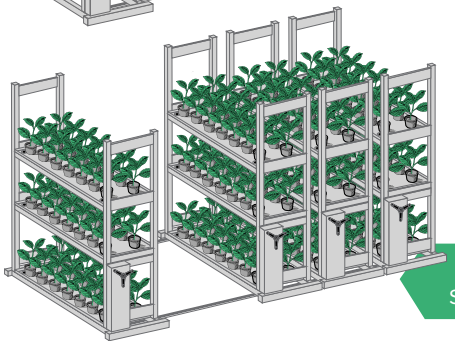
Mobile Tables
Waste Vertical
Space



By compacting the aisles 24 tables could fit in each room.

768
SQFT OF CANOPY

GROW Mobile System
Maximizes Yield



By maximizing the vertical space, a total of 72 tables could now fit in each room.

SOLUTION

2,304
SQFT OF CANOPY

"The Spacesaver system allows us to maximize our growing capacity. It also allows us to custom tailor the growing space so that every cell we have, every four by eight bench, is exactly identical, with the same environment."

Geoffrey Korff, Galenas Founder & CEO

A Robust System for Limited Space

Weight was a major consideration when selecting the best mobile racking system for the Galenas facility. The planning team needed to consider the weight of multiple tiers of soil-filled pots, as well as the weight of lighting, irrigation, and ventilation systems.

"Our footprint is absolutely maximized. We're using our space as efficiently as possible."

Geoffrey Korff, Galenas Founder & CEO

The Spacesaver Solution

After talking with multiple vertical racking vendors, the design team opted to design the facility with Spacesaver's GROW Mobile Systems in each of its two grow rooms. Each system consists of 20-foot-tall widespan shelving mounted on 50-foot-long ActivRAC® Mobilized Storage System carriages that move on rails to eliminate wasted aisle space. Three tiers of racking support LED lights, ventilation systems, and irrigation systems in addition to plants and soil-filled pots.

After the design was finalized, the team embarked on a complex construction process. Due to the Spacesaver systems' size, components had to be delivered and stored inside the cultivation area before the facility was actually built.

"Having Spacesaver involved early on helped the general contractor work the racking into the construction process," Schlicher said. "In addition to having the rails installed in the floor when the concrete was poured, we also needed to store components inside the space before it was constructed. Tiering the delivery of materials was very important."

50-FOOT-LONG
ActivRAC™ 7M Carriages

- System bears 7,000 pounds per carriage section
- Mechanical-assist handles allow staff to move thousands of pounds with minimal effort

20-FOOT-TALL
RaptorRAC™ Widespan Shelving

- Welded uprights support three tiers of growing area
- Modified diagonal bracing ensures stability while also allowing easy access to plants, lighting, and other systems

The GROW system saves space by eliminating empty aisles, and it also creates a more comfortable work environment. These particular systems were designed to provide a 91-inch-wide aisle or several narrower aisles. When staff need to care for plants, they turn mechanical-assist handles to open one or more aisles, and they use a lift to access upper tiers.

Trusted Partners

The local Spacesaver consultant was a valued participant throughout the entire process, starting with early design conversations and continuing through product installation, staff training, and long-term maintenance. "The Spacesaver team was helpful in developing more budget friendly alternatives without losing primary function, like manual operation versus electronic, for instance," Schlicher said. "Then there was a lot of back and forth, sending floorplans, getting technical details from them and talking with the structural engineer."

As with any complex project, Spacesaver's participation in the early planning stages helped the design and construction processes run more smoothly. "Choosing your partners is really critical to the design and build of these operations," Korff said. "Having Spacesaver on board made the process much simpler. They were far and away one of the best vendors we chose to work with."

"Spacesaver gives us the opportunity to produce as much quality product as we can."

Geoffrey Korff, Galenas Founder & CEO

Winner, 2019 Best of Design
Award for Green Building
The Architect's Newspaper

GROW your yields and GROW your profits.

For almost 50 years, Spacesaver's innovative high-density shelving and racking systems have been optimizing space for businesses, universities, and other prestigious clients. We've installed more than 300,00 systems world-wide and we hold more than 200 patents in space-saving technology.

The GROW Mobile System reinforces Spacesaver's reputation for safe, durable solutions that are custom designed to fully optimize space in cannabis cultivation facilities. By refining our industry-leading ActivRAC® Mobilized Storage System and RaptorRAC™ Widespan Shelving to meet the needs of indoor growers, we've created a system that offers robust performance under heavy loads and in harsh indoor environments. It's all backed up with personalized service from local experts, along with our in-house engineering and project management teams.

With distributors in major cities throughout North America, we have knowledgeable space planning consultants and factory-certified service crews near you. Contact us to get started.

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Spacesaver®

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