

Air Circulation & Distribution System for Indoor Growers

CanopyFlo is a state-of-the-art airflow technology system growers use to provide optimal growing conditions to promote plant health and vigor. Growers often struggle to control environmental conditions in and around the plant canopy. Plant spacing and pruning techniques are just a few of the variables that create microclimates which promote disease and poor growing conditions. Our signature duct system circulates and distributes air in and around the canopy to eliminate microclimates and create uniform growing environments with precise air velocity, temperature, humidity, and CO2 levels.



The CanopyFlo system integrates high performance modulating fans within an engineered plenum to increase air circulation and distribution through the canopy. Our patent-pending systems are modular and can be deployed in single-tier or multi-tier applications to provide top-down, bottom-up, dual flow, and full air exchange.

Unlimited Configurability

Draw in conditioned air and then deliver it with precision and uniformity, exactly where you need it, via the most configurable air circulation and distribution system on the market.

System Performance

By optimizing HVAC efficiency through the correct air circulation strategy, our clients have seen a decrease in utility costs by 30%.

Increase Crop Health

Reduce radiant heat from the lighting grid and eliminate micro-climates with each new grow cycle - free of mold, mildew, and viruses

KEY FEATURES

Universal Integration - Not only can the supply fan be configured in four different ways, but the entire fan and plenum combination can adapt to multiple air circulation strategies - top-down, bottom-up, dual flow, and full air exchange.

Space Efficiency - Using an ultra-slim vertical design, our unique air circulation and distribution fans operate with minimal obstruction into an aisle - only inches - allowing the plants to grow to their fullest potential.

High Performance Fan - State-of-the-art fans designed and tooled to deliver up to 2,400-cfm of fresh, clean air to the crop every 15 seconds, increasing even distribution of air through the canopy.

Precision Airflow - Deliver precise velocity across the leaf surface and create uniform airflow through the entire canopy via an optimized, flexible, antibacterial air duct design.

Elevated Plant Health - Eliminate micro-climates and pockets of humidity around the plant leaf without impacting plant surface temperatures and vapor pressure deficit (VPD). **refer to attached case study** <https://gpnmag.com/article/the-boundary-layer-and-its-importance/#:~:text=The%20boundary%20layer%20is%20a,the%20leaf%20to%20the%20environment>

Radiant Heat Reduction - Upper exhaust system removes transpiration and heat from light fixtures while reducing radiant heat, allowing for more homogenous plant surface temperatures.

Air Purification - With the addition of our bipolar ionizers, plant environments can be completely sanitized, thus eliminating mold, powdery mildew, and other harmful pathogens in the air stream.

Full Air Exchange - Tight aisle spacing in combination with air obstructions and dense canopies do not allow for proper airflow. CanopyFlo's inter-canopy air circulation and distribution configuration allows for full air exchange that is ideal for all room applications.

Quick FAQs

What is the reach of a CanopyFlo unit?

CanopyFlo models can reach 55' length tables and 90' length tables. Please ask us for a custom quote based on your facility and grow rooms.

Does CanopyFlo have to be the only air system in the grow room? Can I have another solution as well?

CanopyFlo can be used as the only air circulation solution, but optimal performance and results will depend on the right mechanical design.

How does CanopyFlo reduce mold and mildew?

As clean, sanitized air is sent through the canopy from below, the stagnant air microclimates acting as breeding grounds for mold, mildew, and virus growth are broken up.

What type of indoor growing horticulture can CanopyFlo be used for?

CanopyFlo's technology can be used for any indoor agriculture and horticulture that is grown on single- and multi-tier racks.

What are the benefits of a configurable system?

CanopyFlo's fans are designed to be customizable and configurable to any rack and growing system, regardless of dimension. This is because we know that all manufactured racks and systems are built differently, but that doesn't mean that the plants shouldn't be taken care of the same way. Whether the fans are upright, turned horizontally, or turned 180 degrees upside down, the CanopyFlo fans maintain the same precise airflow delivery.

Feedback from clients:

"The CanopyFlo system is the magic. It allows us to take in air and push it through the canopy, where it is then pulled out from the top."

Jason McKnight Owner/Operator, Green Label RX

"The CanopyFlo system has completely eliminated the microclimates in our environment, improving plant health and overall production. We are thrilled with how simple the system was to integrate into our rooms and how effective it has been to maintain. Our plants are healthier than they have been, which has added to our bottom line as an organization."

David Holmes Founder & CEO, Clade9

"We have noticed a huge decrease in our microclimate effect in our multi-story cultivation rooms. We have also noticed a decrease in any disease and inner canopy die back."

Brent Barnes Vice President of Breeding and Cultivation, Co-Founder of Claybourne Co.