



CFD MODELLING

Optimization with no uncertainty.

- ✓ Precision climate and airflow
- ✓ Anticipate and eliminate growing challenges
- ✓ Visualize the design

We design modern, innovative, and sophisticated facilities. To put these designs to the test our CFD team ensures the technology we use allows for the highest possible crop yield, while utilizing the resources as efficiently as possible. A CFD model includes the facility geometry, the system mesh, boundary conditions, the solver, and the post-processing. These steps provide for the generation of a visual CFD model of your facility.

Our CFD modeling anticipates and eliminates challenges during growing before the first plants are even put into production.

CFD modeling is based on complex principles of fluid mechanics. It is a powerful tool, and a specialty within our team, that allows us to calculate and understand the interaction of multiple variables that create the climate within a greenhouse. To do this we break the greenhouse into millions of tiny sections to calculate each one of their interactions, so we understand every detail of what happens during growing within your facility. Whether it is heat transfer loss via radiation or condensation during the night cycle, our CFD modeling anticipates and eliminates challenges during growing before the first plants are even put into production.

CFD modeling is based on complex principles of fluid mechanics. It is a powerful tool, and a specialty within our team, that allows us to calculate and understand the interaction of multiple variables that create the climate within a greenhouse. To do this we break the greenhouse into millions of tiny sections to calculate each one of their interactions, so we understand every detail of what happens during growing within your facility. Whether it is heat transfer loss via radiation or condensation during the night cycle, our CFD modeling anticipates and eliminates challenges during growing before the first plants are even put into production.

DELIVERABLES

- 2D/3D CFD Modelling of any space with Airflow
- Airflow properties
 - Stagnation zones
 - Turbulence fields throughout the grow space
 - Energy dissipation rates
 - Kinetic energy movement in all directions
- Flow stream lines
- Temperature and pressure variances throughout the space
- HVAC Optimization
 - Exhaust and return placement
 - Slurf design

