

Grow Room Environmental Control

Engineering Challenge

The ventilation system for this grow room consisted of three fabric ducts that ran underneath the tables that hold the plants, along with return vents in the ceiling. The CFD flow model included the heat sources of the lights and outside walls, as well as the added humidity from the plants.



Climate-controlled grow rooms

Azore Solution

The CFD results for the initial ventilation system design indicated that one end of the room was warmer than the other. The ability to virtually change any parameter (from flow rate to duct location to plant layout) individually or in combination, provides an efficient means of optimizing the air flow throughout the entire facility. The result of this analysis is a more consistent product.

