



SUPERIOR DEHUMIDIFICATION TECHNOLOGY

Control Your Grow Room Environment, Protect Your Investment

PROTECTING YOUR CROP BEGINS WITH PRECISE HUMIDITY CONTROL

Industrial cultivation and vertical farming operations are at their best in precisely controlled indoor environments. The perfect indoor growing climate can be created by:

- Providing the ideal temperature and humidity levels.
- Optimizing the amount and spectral quality of light.
- Delivering the perfect amount of nutrient rich water.
- Controlling carbon dioxide levels for enhanced growth.
- Strategically managing energy usage, costs.

THE ABILITY TO PROPERLY CONTROL YOUR GROWING CLIMATE IS CRITICAL TO THE HEALTH OF YOUR CROP

Your grow operation is an indoor farming and manufacturing process – not a comfort cooling application. The optimal grow environment requires equipment and controls that properly maintain temperature and humidity levels along with the proper air movement within the room. When temperature, humidity and airflow are not properly controlled, moisture may condense on the leaves of your plants. This leads to mold, fungus and mildew that can't be treated safely with chemicals – effectively destroying your entire investment. The solution is selecting equipment that controls temperature, humidity and airflow without wide swings during both the Lights On and Lights Off grow cycles.

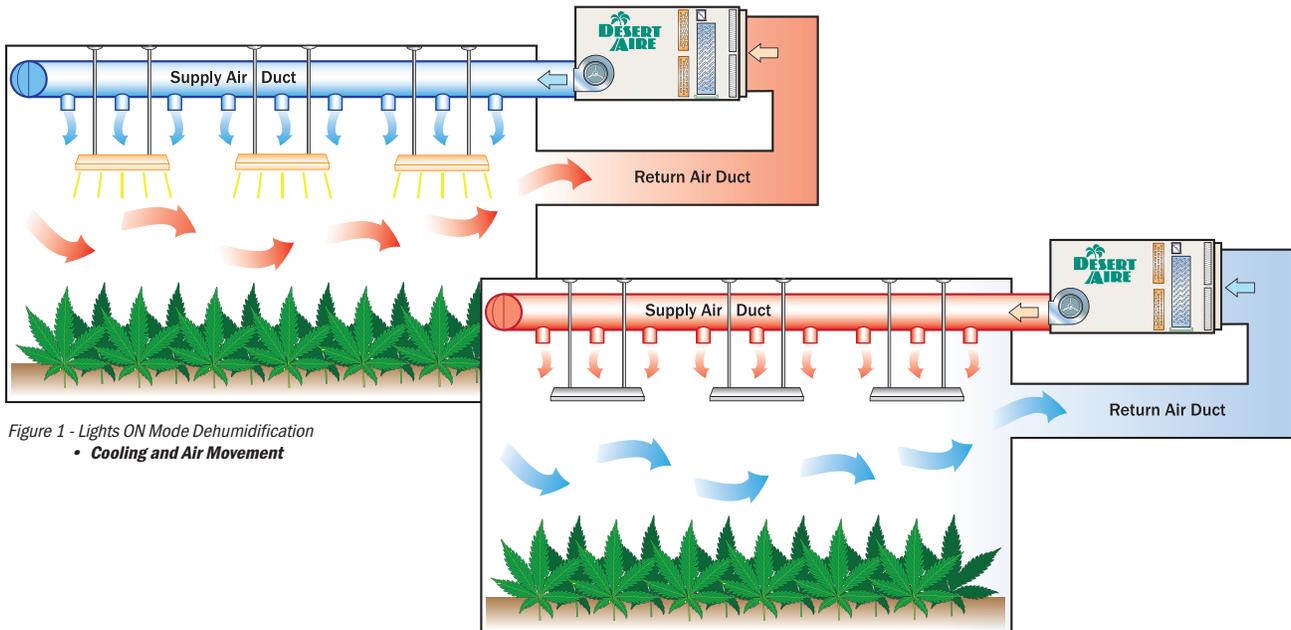


Figure 1 - Lights ON Mode Dehumidification
• Cooling and Air Movement

Figure 2 - Lights OFF Mode Dehumidification
• Heating and Air Movement

OPTIMIZING SOLUTIONS THROUGH SUPERIOR DEHUMIDIFICATION TECHNOLOGY



THE NEED FOR SPECIALTY EQUIPMENT

In typical indoor grow rooms, the temperature and humidity load demands are high relative to the volume of cubic space utilized. Conventional air conditioners are neither designed nor capable of consistently and efficiently controlling such environments. Air conditioners are designed to control temperature with dehumidification as an afterthought. Portable dehumidifiers are also one-dimensional and do not deliver the cross-functional benefits of environmental control.

The proper equipment, with its sensors and controls, must anticipate the impact that temperature has on relative humidity. Without this capability an air conditioner just swings the temperature and relative humidity over a wide range. This is highly inefficient and provides little if any benefit. Desert Aire's sophisticated dehumidification systems add several key features, including the ability to control the discharge temperature, adjust the dehumidification capacity and anticipate the changes that quickly occur in a grow room. Our controller logic provides you with the predictable, stable environment needed to maximize yield, achieve desired results and use energy efficiently.

SETTING THE STANDARD FOR DEHUMIDIFICATION

At Desert Aire, we have a genuine desire to solve indoor air quality problems so that people can live, work and play in clean, healthy and dry environments.

As a recognized leader in the design and manufacture of dehumidification and dedicated outdoor air systems, we utilize advanced technology to successfully address humidity and air quality concerns. We have a reputation for delivering high-quality systems that are durable, reliable and offer significant energy savings. Our customer-focused philosophy means we are committed to providing attentive, excellent service and support that meets customer needs and helps customers become more successful.

SELECTING THE PROPER DEHUMIDIFIER SIZE

At Desert Aire, we take your objectives and these factors into consideration when developing the best dehumidification solution for your needs:

- Quantities, types of grow lights used and the heat generated during Lights On Mode.
- Heat loss of facility during Lights Off Mode.
- The type of nutrient and watering systems.
- How much water is evaporated and transpired from the plants to the space.
- Grow Room Area in cubic feet and ideal equipment location.
- Optimal air distribution and circulation to promote plant vitality.
- The correct temperature and humidity for each phase of growing cycle.
- The special requirements of seedling, drying, curing and packaging areas.
- Impact of external temperature and humidity variations.

Reconciling the interdependence of these factors with their impact on the indoor environment is Desert Aire's specialty. Desert Aire has the knowledge and experience to assist you in defining your precise equipment needs. And we have proven, patented dehumidification designs for delivering successful, sustainable process applications to meet those needs.

You invest too much in your operation to get poor yields or lose your crops due to improper temperature and humidity control. A Desert Aire system ensures that your crops thrive under the very best conditions.

Contact Desert Aire today for a free evaluation of your dehumidification and indoor air quality needs.

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 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

