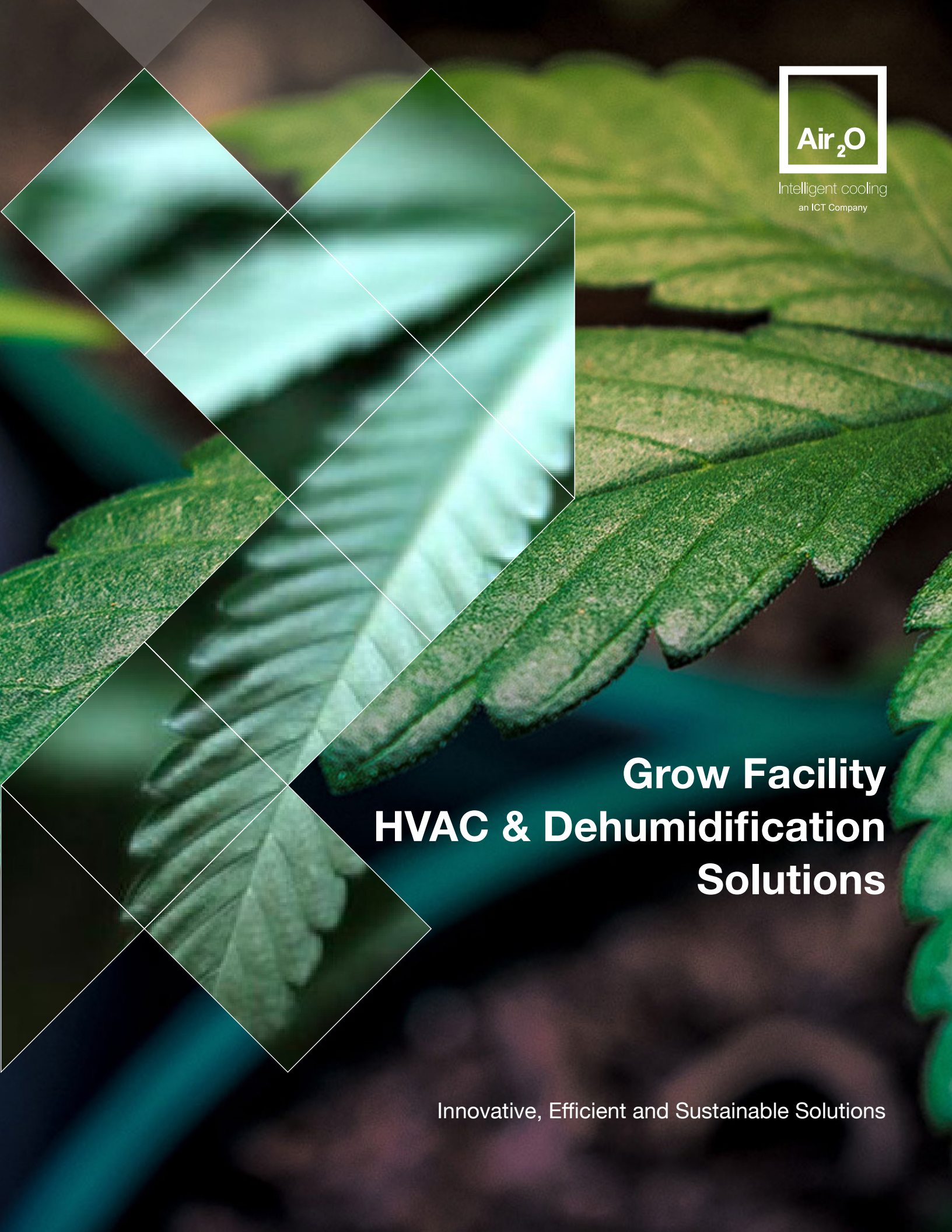


Air$_2$O

Intelligent cooling

an ICT Company

Grow Facility HVAC & Dehumidification Solutions

Innovative, Efficient and Sustainable Solutions

Efficient and Effective Climate Control for Cannabis Cultivation.

Sustainability, Scalability, Profitability

These are key to successful cultivation.
Air_2O Cooling Technologies will help you manage your environment to unlock the full potential of your cannabis operation.

Efficient and Effective Climate Control for Cannabis Cultivation

"Air_2O's team of cultivation specialists provide comprehensive design support to the project engineers."

The Air_2O Cultivation product line offers effective and efficient temperature and humidity control solutions to create the most conducive environment for cannabis cultivation. We utilize technologies such as indirect evaporative "free" cooling, water and air-side economizers for improved efficiencies, refrigerant, chilled water or hybrid DX cooling with heat pipe technology, and HGBP or rotary desiccant dehumidifiers for superior dehumidification.

With our expertise to produce solutions of limitless size, we have the capability to design and produce the most practical and efficient climate control solution for your indoor or greenhouse cultivation project. Air_2O's team of cultivation specialists provide comprehensive design support to clients and the design team.

Utilizing **DEN**, our unique performance predicting software, we can determine which product within our cultivation range line is optimum for your project by performing a detailed performance analysis considering local weather conditions.

Air_2O solutions are flexible, versatile, and capable of a quick and effective response to the phase-changing dynamic environment of cannabis cultivation - while delivering precise temperature & humidity control with up to 50% energy savings.

Air_2O Cultivation Line

Features / Benefits

- Precise Humidity and Temperature Control
- Up to 50% Savings in Energy Consumption
- Extensive Global Expertise and Knowledge
- In-House Design Expertise and Support
- Custom Solutions for Design-Build Applications
- Reliability and Redundancy
- Project Climate Considerations and Local Code Compliance
- Low Maintenance
- Easy Access
- Worldwide Shipping and Deployment

Air_2O Cultivation solutions are instrumental in reducing the cost of the product to below $1 per 1 gram.

Air_2O Grow Cooling Technology Systems.

Air_2O Cultivation Line for Indoor Facilities

Air_2O's cultivation line for indoor facilities employs a number of cooling and dehumidification means to create the most conducive cannabis cultivation environment: an array of fans for superior airflow distribution and redundancy, an indirect evaporative cooling and waterside economizer for improved efficiency, a DX system with adiabatically cooled condenser plus HGBP for superior dehumidification, and an optional CW / HW coils for integration with a chiller / boiler if necessary.

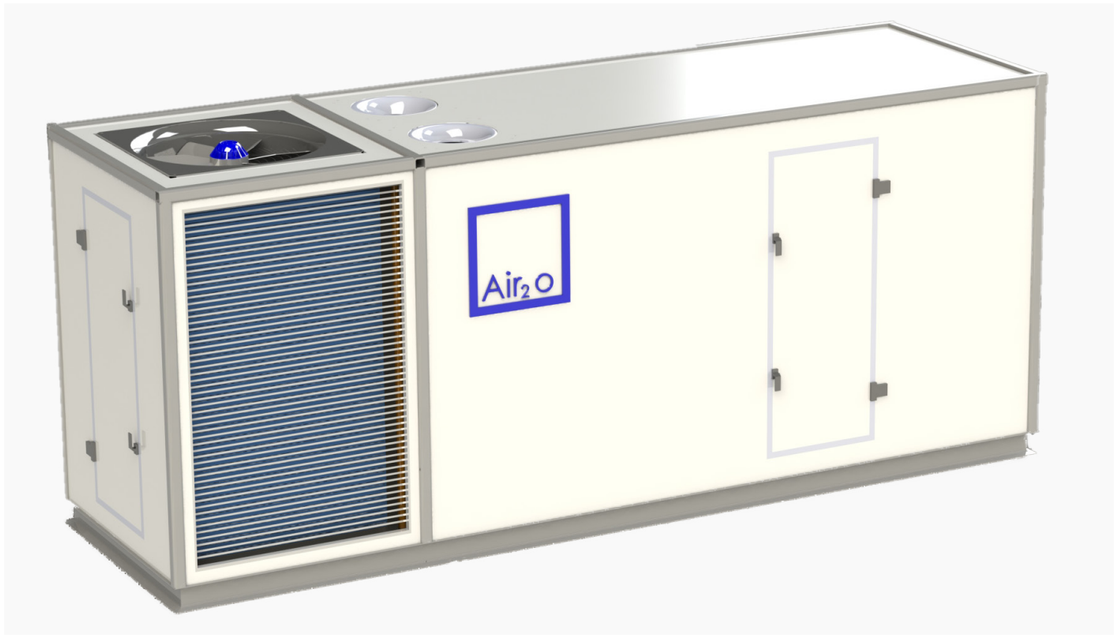
- Precise temperature and humidity control, regardless of the ambient conditions
- Offers up to 50% reduction in energy consumption
- Creates the most conducive cannabis cultivation interior environment
- Custom units to meet any design criteria
- Broad capacity range: 2,500 CFM to 100,000 CFM

Air_2O Grow Cooling Technology Systems.

Air_2O Cultivation Line with Heat Pipe Technology

Dehumidification is arguably the greatest challenge for HVAC systems when it comes to climate control of indoor cultivation facilities. The process of dehumidification by condensation requires lowering the temperature of the processed air, and upon removing the excess moisture, adding the thermal energy back into the system.
To increase the efficiency of this process and reduce the energy consumption, Air_2O utilizes a heat pipe / wrap-around coil system that facilitate “free” energy transfer. This allows for efficient operations with up to 30% reduction in the size of the compressor and low operating energy consumption.
Air_2O Heat Pipe systems are flexible in configuration and they can be designed as packaged units or split systems with air- or water-cooled condensers and a various methods of heat rejection: adiabatic fluid coolers, cooling towers, etc.

- Precise temperature and humidity control, regardless of the ambient conditions
- Offers up to 30% reduction in electrical energy consumption
- Creates the most conducive cannabis cultivation interior environment
- Custom units to meet any design criteria
- Packaged units or split systems; air- or water-cooled condenser
- Broad capacity range: 1,500 CFM to 100,000 CFM

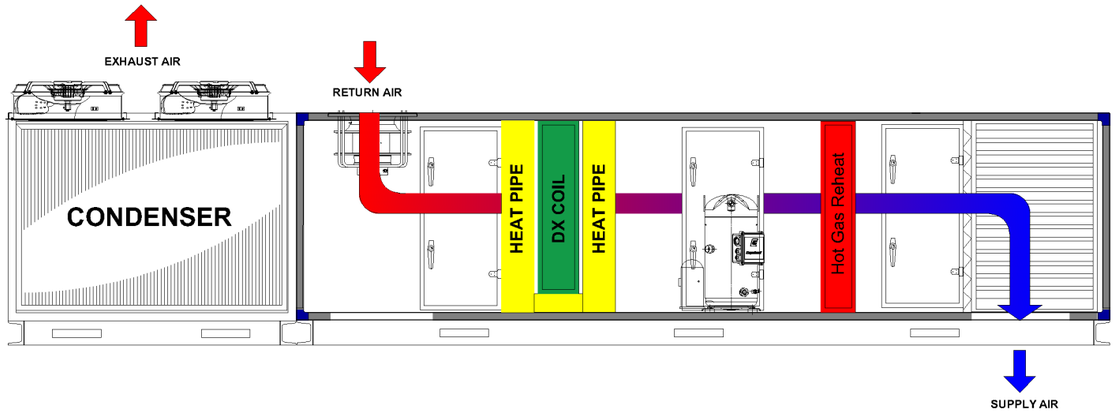


How Air_2O Heat Pipe Technology Works

Heat pipes are the most effective passive method of transferring heat available today. In their simplest form, a heat pipe is a sealed tube containing a phase-change fluid.

Air_2O’s heat pipe technology facilitates a transfer of energy between two parts of a wrap-around coil by pre-cooling the processed air upstream of a DX coil and introducing the same value of thermal energy downstream of the DX coil (in addition to hot gas reheat) in order to increase the temperature of the supply air to the design criteria levels.
This approach allows for reduction of the compressor size by as much as 30%, resulting in lower acquisition cost and reduced energy consumption.

Heat Pipe Operation



Air_2O Grow Cooling Technology Systems.

Air_2O Cultivation Line for Indoor Cultivation with Rotary Desiccant Dehumidifiers (RDD)

Air_2O's cultivation line with rotary desiccant dehumidifiers offers enhanced environment control and efficiency. This solution utilizes a differentiated temperature and humidity control which has been designed specifically to meet the climate control challenges during the advanced flowering stage of 66-70°F and 30-40%RH.

This approach offers additional electrical energy savings, but it requires an input of thermal energy (natural gas, LPP or a cogen system). This solution is economically viable for projects that have limited power supply, high electrical energy cost or a source of waste heat.

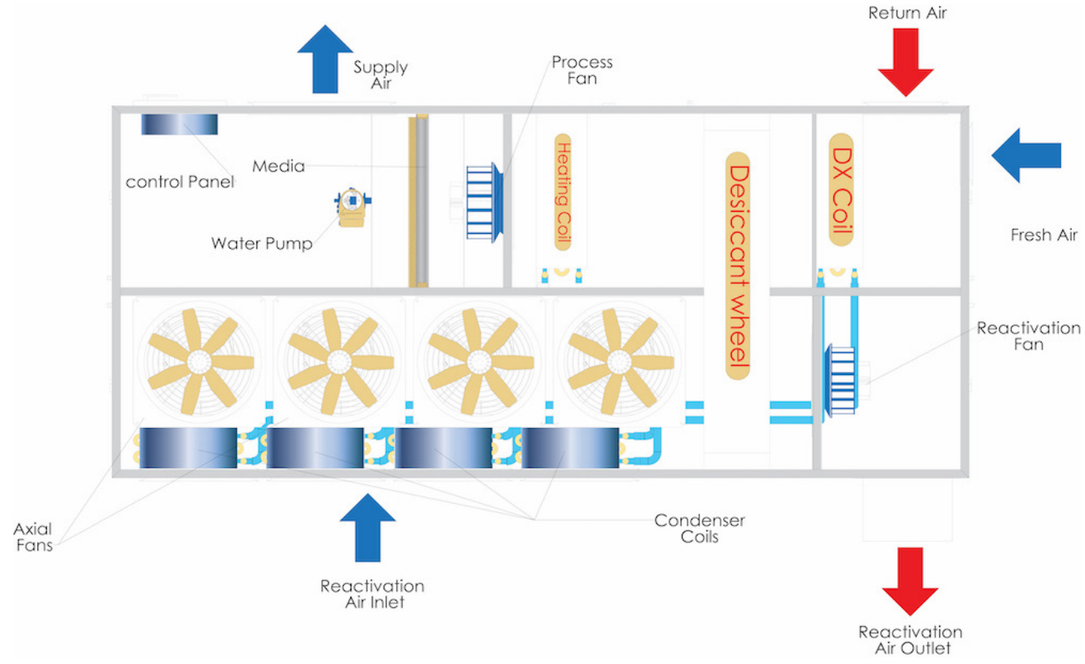
- Precise temperature and humidity control, regardless of the ambient conditions
- Offers up to 50% reduction in electrical energy consumption
- Creates the most conducive cannabis cultivation interior environment
- Custom units to meet any design criteria
- Broad capacity range: 2,500 CFM to 100,000 CFM

How Air_2O Rotary Desiccant Dehumidifiers Work

The Rotary Desiccant Dehumidifier (RDD) line is a desiccant augmented system for enhanced dehumidification with a two-step moisture removal. As the processed air is cooled to its dew point temperature and partially dehumidified with a DX coil, being fully saturated, the air enters the desiccant wheel, where it is further dehumidified beyond the capacity of traditional systems.

As the desiccant wheel absorbs moisture from the processed air, it introduces residual heat of dehumidification and increases the temperature of the supply air to the design criteria. The thermal energy for the desiccant reactivation comes from the condenser's hot gas reheat. It is one of many innovative techniques that Air_2O has implemented in order to lower the acquisition and running costs of the system by over 30%.

Rotary Desiccant Dehumidifier Operation



Air_2O Grow Cooling Technology Systems.

Air_2O Cultivation Line with Dual Heat Pipe Technology (DHP)

Air_2O's cultivation line with dual heat pipe technology is based on a proprietary design that takes advantage of heat pipe technology. This innovative approach utilizes a wrap around coil not only for "free" energy transfer, but it also functions as a winter air-side economizer.

This allows for 30% compressor size reduction and offers additional energy savings in the winter mode. The system is intended for commercial spaces with large airflow volume demands. This particular product model is available only as an outdoor packaged unit.

- Precise temperature and humidity control, regardless of the ambient conditions
- Offers up to 50% reduction in electrical energy consumption
- Creates the most conducive cannabis cultivation interior environment
- Custom units to meet any design criteria
- Broad capacity range: 2,500 CFM to 100,000 CFM

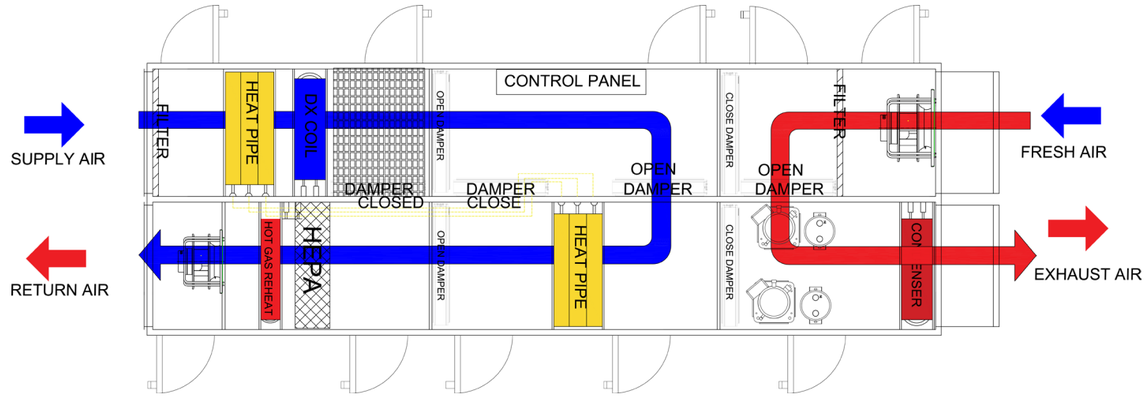
How Air_2O Dual Heat Pipe Technology Works

Air_2O's heat pipe technology offers a number of different benefits. In the summer mode, it facilitates a transfer of energy between two parts of the wrap-around coil by pre-cooling the processed air before a DX coil and introducing the same value of thermal energy downstream of the DX coil to increase the temperature of the supply air to the design criteria (additional thermal energy from condenser's hot gas reheat is available).

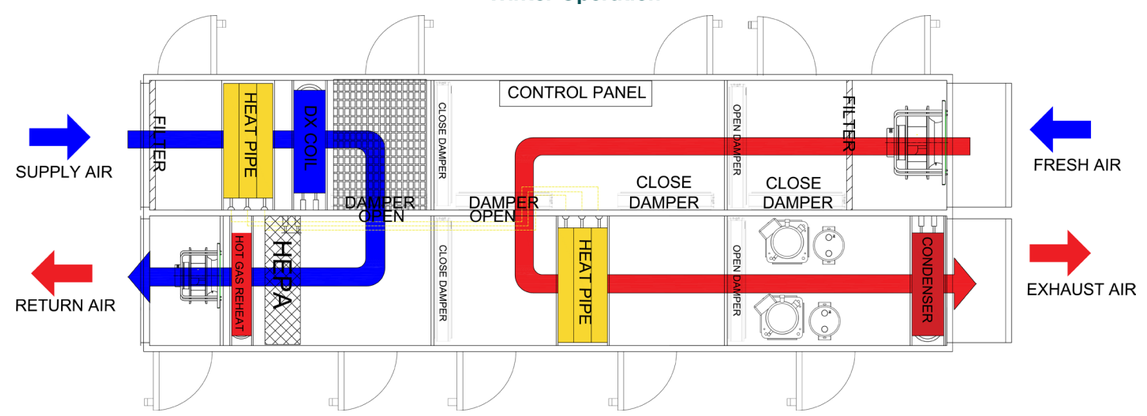
In the winter mode, it works as an economizer when the energy of cold ambient air is transferred from the "hot" section of the heat pipe to the "cold" section, positioned in front of the DX condenser coil. In this mode of operation, the DX system works as a heat pump.

This approach allows for reduction of the compressor size by approximately 30%, resulting in lower acquisition cost and reduced energy consumption.

Summer Operation



Winter Operation



Air_2O Grow Cooling Technology Systems.

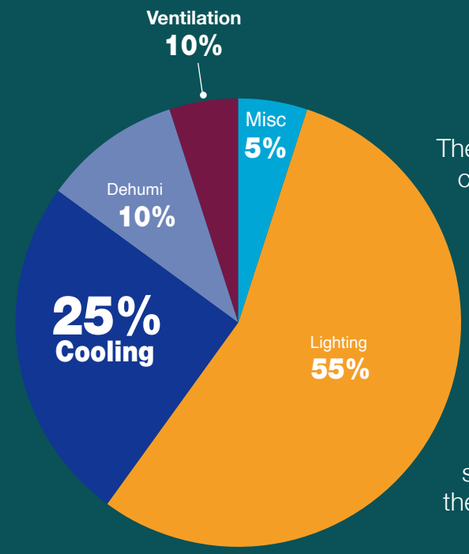
Air_2O Cultivation Line for Sealed Greenhouses

Air_2O's Cultivation Greenhouse line is designed to enhance greenhouse climate control beyond “fan and pad” cooling. It helps grow better quality product and increase the yields by over 25%.
The basic approach to active cooling of greenhouses in hot and arid regions is “fan and pad” cooling with many design-inherent shortcomings that adversely affect the quality and quantity of the crops.
Traditional AC systems generally are not economically viable for greenhouses (except for northern territories). Alternative cold production technologies are often unavailable, ineffective or costly.

- Supply air temperature and humidity control
- Partial air recirculation
- Targeted C_o2 injection
- Floor (under the bench) air distribution
- Positive pressure
- Superior pathogen prevention
- Superior odor mitigation
- Benefited when augmented by high-pressure fog system
- Custom units to meet any design criteria
- Broad capacity range: 2,500 CFM to 100,000 CFM
- ROI < 12 months

Each grow operation is unique, and every facility has different environmental climates as well as different political climates.

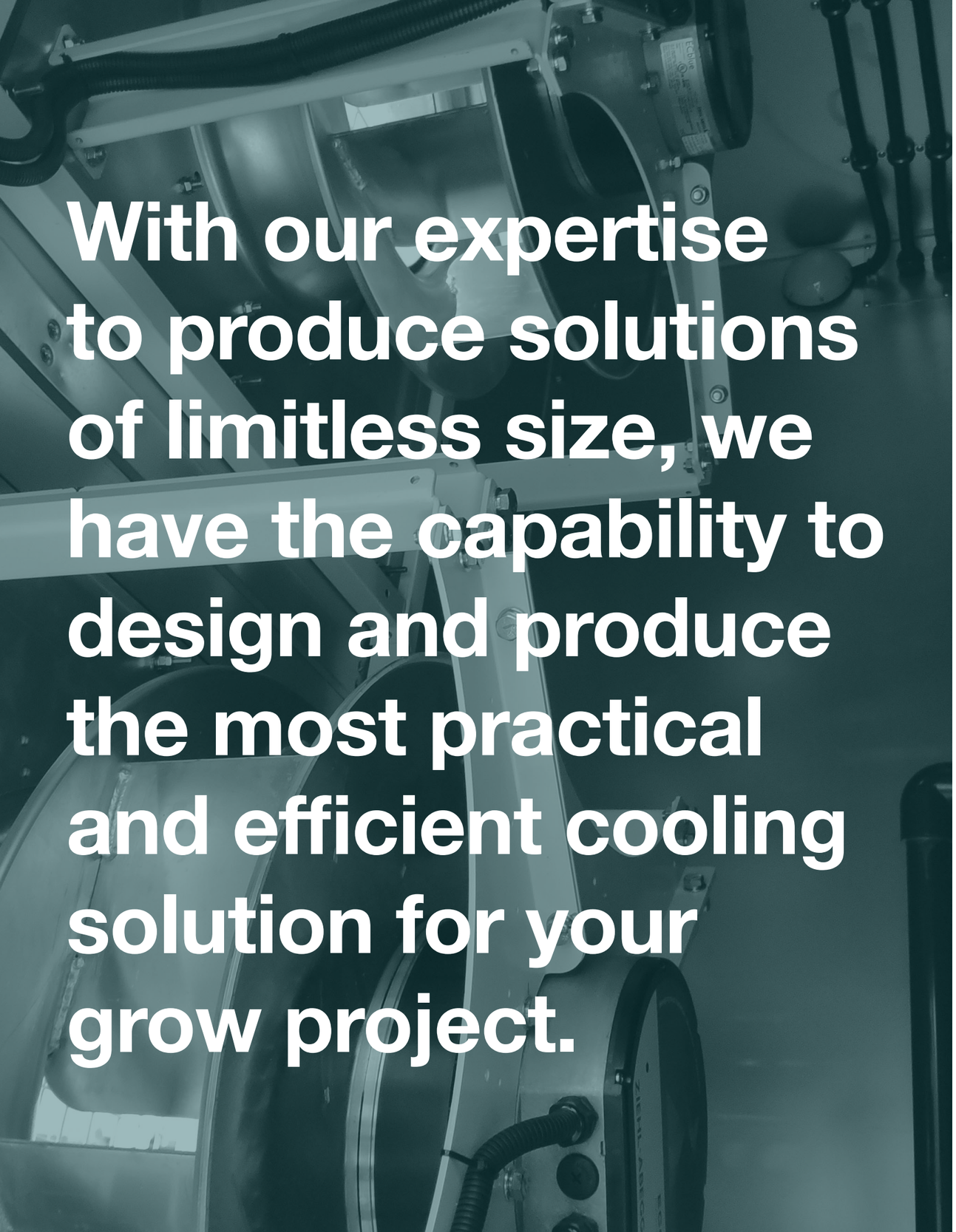
Air_2O can be your business partner to help you navigate all of these obstacles.



There is no single solution in selecting the right climate control system for commercial cannabis cultivation and many factors must be considered: budget, geographical location, energy cost, facility structural constrains, ROI, etc. Selecting an experienced company in cannabis cultivation HVAC is a crucial step in securing the operational success.

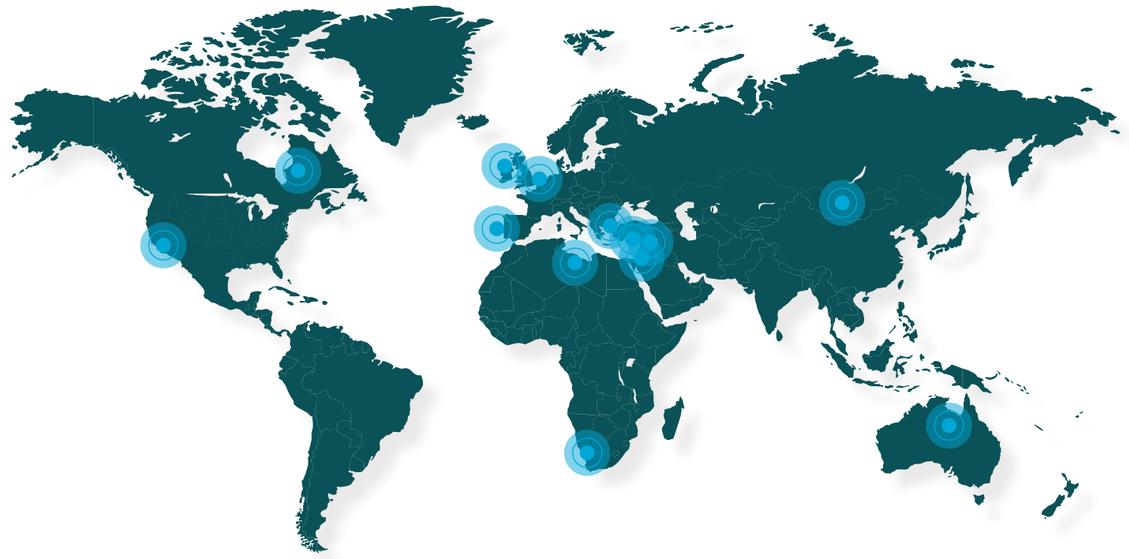
Air_2O Grow Facility and Dehumidification Solutions are the right partner for companies that strive to produce top grade product and reduce their operating expenses.

Figure 1 - Average breakdown of cooling, lighting etc for indoor cannabis grows
Data Source: Energy Trust Of Oregon, Resource Innovation Institute



With our expertise to produce solutions of limitless size, we have the capability to design and produce the most practical and efficient cooling solution for your grow project.

Extensive global reach.



Validated globally our solutions increase profitability and contribute towards sustainable goals. Through our head office in Scottsdale, Arizona and regional offices in Europe and the Middle East, together with our partners around the world we have an extensive global footprint and support capability.

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