VQQCIPU™ Cannabis Indoor Grow Rooms







Cannabis cultivation requires precise humidity at every stage of plant life.

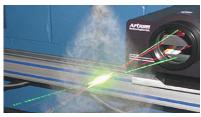
Corrigan's VaporDry[™] produces the precise and reliable dry fog humidity that is needed in cannabis vegetative and flower rooms.

- Largest volume of dry fog from a single nozzle
- Non-wetting vapor provides very high humidity without condensing on plants or surfaces
- Low maintenance alternative to ultrasonic and steam humidification
- Multiple control options
- Remote monitoring capabilities





Controlled Dry Fog Particle Size Distribution



VaporDry™ Particle Size Distribution

Our precision machined technology, along with accurately controlled air and water pressures, allows for droplet sizes as small as 2 microns and consistently well below a 10 micron size water vapor.

Corrigan optimized the parameters needed to consistently produce dry fog by using a 632.8nm HeNe laser diffraction Particle Analyzer. The analyzer measures drop size based on the diffraction pattern of the laser caused by the water vapor passing through the sampling area.

The Result: VaporDry™ produces dry fog particles that rapidly evaporate before saturating or condensing on any surface.

SYSTEM COMPONENTS

VaporDry™ Humidity System

Each system has a capacity of 8.3 lbs/hour and consumes 2.5 CFM at 35 psi. The VaporDry system can be specified to meet the exact requirements

of any application. Quantity determined by room size, desired temperature, desired relative humidity and fresh air turnover.



Control Panel

Controllers come in various configurations and can interface with existing controls. From simple one panel readouts to PLCs with HMI touch screen display and remote

monitoring, control panels are specified to meet any application.

Reverse Osmosis System

Reverse osmosis water filtration systems have a permeate auto-flush cycle extending the life of the membrane. Systems reject 99% dissolved solids and produce up to 36,000 gallons per day.

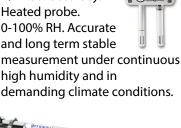


Compressor

Low profile design for installation ease with adjustable water regulator for added humidity control. Fractional horsepower units allow for flexibility with multi-room layout.

Heated **Transmitter**

+/- 1.3% accuracy. Orrigan Heated probe. 0-100% RH. Accurate and long term stable measurement under continuous high humidity and in



CASE STUDY



OVERVIEW:

Indoor cannabis growing requires precise humidity at every stage of plant life. Inside of the grow room, relative humidity must be kept within certain ranges. Insufficient humidity can stunt the growth of the plants and excessive humidity can cause mold issues, resulting in wasted crop if not handled correctly. Corrigan Corporation was asked to provide a solution to maintain desired humidity levels within a grow room and was able to accomplish this using our patented VaporDry technology.

THE CHALLENGE:

A West Coast based cannabis cultivator approached Corrigan Corporation in need of equipment that will successfully keep the relative humidity at exactly 60% inside of their vegetative grow room. With other equipment inside of the room, any condensation build up would create an issue. As a result, the customer was in search of an effective, dry fog solution.

THE APPROACH:

Corrigan was able to calculate the proper humidification load by using the room dimensions, temperature, and desired relative humidity. It was determined that four diffuser boxes, paired with accurately controlled air and water pressures, would be needed to effectively humidify the space.

THE SOLUTION & RESULTS:

By placing a temperature and humidity sensor inside of the room, Corrigan was able to feed data to a programmable controller, activating the system as needed, until the desired set point of 60% relative humidity was reached. While on, the diffuser boxes produced dry fog particles that rapidly evaporated before saturating or condensing on any equipment within the room.

Nationwide Service/Worldwide Sales

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