

CASE STUDY AGRICULTURAL GROW FACILITY



JOHNSON
AIR-ROTATION® HVAC SYSTEMS

COLORADO MEDICINAL / RECREATIONAL MARIJUANA GROW FACILITY

APPLICATION:
90,000 SQ. FT. GROW FACILITY

MARKET:
COLORADO

SYSTEM STYLE AND QUANTITY:
1,200 tons of cooling

DESIGN

- A cost effective HVAC solution was needed to convert an existing warehouse into a Colorado medical/ recreational marijuana cultivation facility.
- Cooling provisions to handle 3,500 (1000w) grow lamps, 3.5 megawatts of lighting energy.
- Humidity control throughout facility for optimal growing conditions.
- Existing warehouse could not handle additional roof loading for equipment.
- 12,000 MBH of heat gain in the space.

SOLUTION

- Johnson Air-Rotation HVAC Systems provided a ductless, grade-mounted, retrofit solution that was much more cost effective and significantly more energy efficient than conventional systems. Johnson provided a "performance guarantee" to maintain building conditions (temp + RH) to within a few degrees and % RH from desired set point(s).
- Johnson's solution included 1,200 tons of cooling.
- Electric re-heat included for humidity control.
- The system included provisions for 20% outside air via mixing box.

RESULTS

- Significant system cost reduction - eliminated all ductwork and structural provisions.
- 350 HP removed from the airside motor requirements - tremendous operational savings.
- Extremely even temperature and humidity profile throughout the entire space.
- Additionally the customer received a system with a product life of 2 to 3 times that of the conventional HVAC system alternative.



Manufactured
in the USA



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