TRAK INTERNATIONAL
Green Energy Resources

MEDICAL CANNABIS FACILITY SOLUTIONS

At TRAK International® we design dependable, custom and rapidly installed hydronic HVAC systems in new or retrofit medical cannabis production and processing facilities. With over 25 years of design and construction experience, we provide a comprehensive approach to cooling, dehumidification, waste heat utilization and automation.

On-site combined heat and power (CHP) cogeneration can reduce electrical costs and provide high temperature hot water for process and HVAC needs. The CHP can enable off-grid operation, maintaining growing conditions and preserving your crop investments during power failures.

Our cleantech solutions provide increased yields while lowering operating costs and your carbon footprint. We conveniently provide a modular and custom complete mechanical and energy solution that expands with you.

Cash from Operations

Increased Quality Yield

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Reduced Operating Costs

TRAK's system with ongoing monitoring and maintenance will immediately deliver optimal growing and production conditions that enhance your profits and increase the future value of your business.

DESIGN-BUILD ENGINEERING & CONSTRUCTION MANAGEMENT
Turnkey Custom Build or Upgrade Your Facility

MODULAR HEAT PUMPS
Expand Your Efficient Cooling, Dehumidification and Heating Capacities as You Grow

REDUCED RISK
Good Manufacturing Practices for Assured Production and Contamination Control

COMBINED HEAT & POWER
Reliable On-Site Power Production, Lowers Electricity Cost, Supplies High-Grade Heat and CO_2

GEOEXCHANGE & "FREE" COOLING
Provides Natural Efficient Heat Exchange

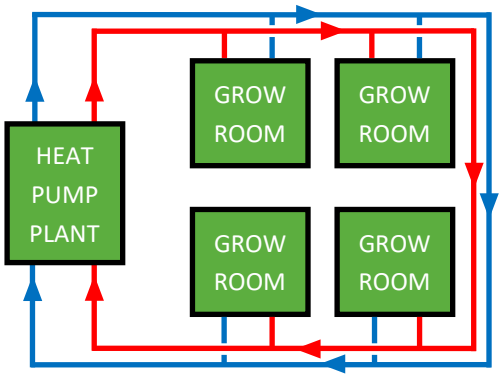
CUSTOM CONTROLS
Energy Management Control System Automates Your Facility

ONGOING MONITORING & PREVENTATIVE MAINTENANCE
Watch Your Facility 24/7 to Ensure Systems are Compliant and Efficient

MODULAR HEAT PUMPS

Heat is drawn out of the grow rooms through low temperature cooling and dehumidification processes by hydronic air handlers and modular TRAK Heat Pumps located outside of the grow rooms. The heat by-product from cooling is efficiently used for dehumidification reheat, other heating, or is stored to minimize heat waste.

The Heat Pumps are designed for easy access and can be serviced by standard refrigeration technicians.



COMBINED HEAT AND POWER INTEGRATION

If best suited, most or all of the facility's electricity load remaining after efficiency upgrades can be produced on-site by a natural gas Combined Heat and Power (CHP) cogeneration plant. The CHP plant generates electricity in parallel with the grid, and provides all or part of the heat and power needs during grid power failures.

UP TO 87% EFFICIENCY

Heat from the CHP adds to the heat collected by the Heat Pumps. This energy is used to heat make-up air, dehumidification reheat, process heat, office HVAC, make-up water tempering, domestic hot water, or snow melt. The high temperature heat from the CHP can be paired to drive desiccant dehumidifiers or absorption chillers. A by-product of generation is CO_2 which can be supplied to grow rooms for plant growth. The CHP and Heat Pumps work hand in hand to cost efficiently assure power and ideal facility conditions.

GEOEXCHANGE

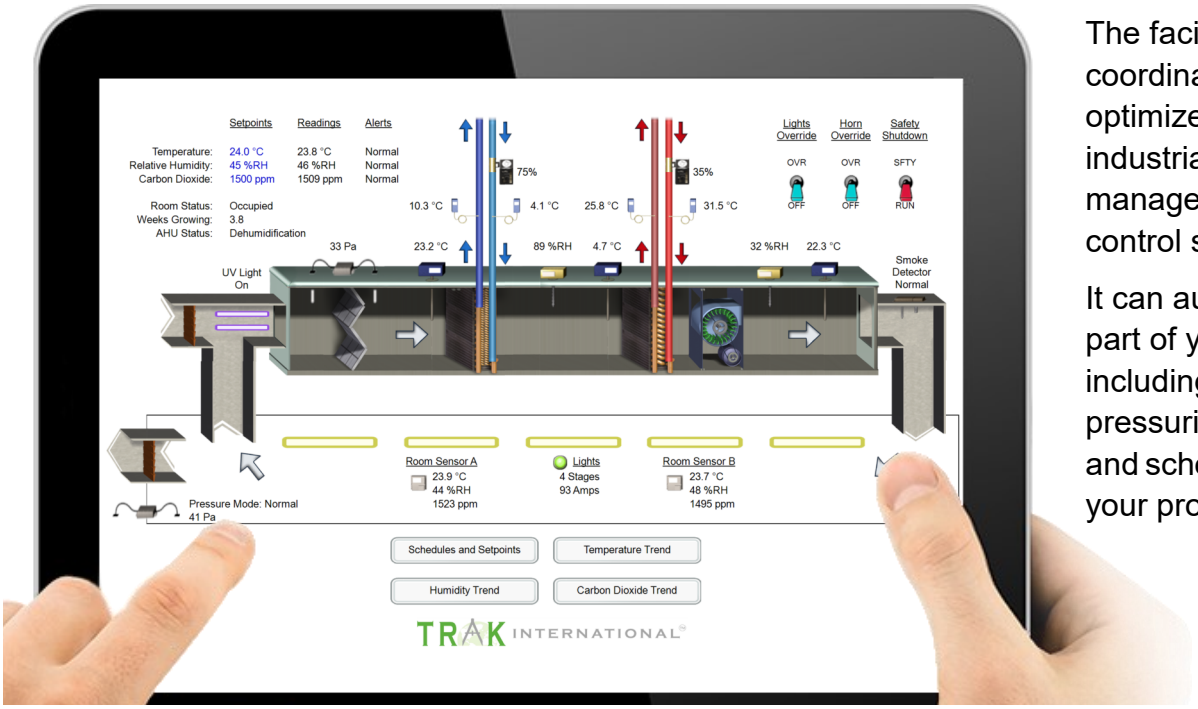
Vertical boreholes of the GeoExchange field go down to depths of 500 ft (~150 m).

In warm weather the cool ground temperature enhances the efficiency of the Heat Pumps, helping to level the energy load and reducing required cooling plant provision costs. Surplus heat is rejected to the ground.

HEAT REJECTION AND FREE COOLING

Surplus heat can also be rejected at a water conserving dual purpose Dry Cooler. During winter, the Dry Cooler(s) are also used for “free” cooling, displacing Heat Pump compressor work.

TRAK ENERGY MANAGEMENT CONTROL SYSTEM



The facility operation is coordinated and optimized by an industrial-quality energy management and control system.

It can automate each part of your grow room, including HVAC, lights, pressurization, CO_2, and scheduling to meet your production needs.

CONTACT INFORMATION

If you think we may be of assistance, our Professional Engineers and specialists would be pleased to meet with you.

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