



AIR HANDLING SOLUTIONS FOR

# **GROW ROOMS**

FOR NEARLY 40 YEARS

# PARTNERING FOR PERFORMANCE

Innovent designs air handling solutions, in partnership with owners and engineers, that meet the rigorous and specific requirements of critical and complex environments.

Innovent capabilities align particularly well with grow room applications, which often require:

- Design flexibility to adapt to production or site constraints
- Independent, responsive, and precise temperature and humidity control
- Adaptability to changing conditions throughout plant growth cycles
- Ability to meet strict indoor air quality and filtration requirements

# INNOVENT DELIVERS SOLUTIONS THAT ENABLE OWNERS AND GROWERS TO:

- IMPROVE YIELD
- REDUCE RISK
- DECREASE COST OF OWNERSHIP



# **CONTROLLED TO** IMPROVE YIELD

Optimizing plant yield in a grow room requires an air handling solution that can adapt and respond quickly and accurately to a wide range of conditions, such as:

- Lights-on or lights-off operation
- Temperature and humidity requirements:
  - that change weekly, daily, or hourly
  - that vary by plant type or strain

#### SOPHISTICATED, RESPONSIVE CONTROL

Innovent's capability to independently monitor and control temperature and humidity enables:

- The ability to maintain a vapor pressure deficit (VPD) that supports ideal growing conditions
- Precise humidity control when space temperatures change during transition periods, such as from lights-on to lightsoff operation. If not controlled separately, humidity can move quickly out of optimal range when temperatures change.

Innovent's air handling control capabilities optimize indoor environments for high-yield growing.

### **ENGINEERED TO**

# REDUCE RISK

Innovent supports a biologically secure plant growing environment by:

- Preventing mold and mildew growth with precise temperature and humidity control
- Protecting against airborne contaminants with multiple filter types and UV lights
- Ensuring continuous air handling operation with redundant refrigeration circuits and fans
- Remote monitoring, alarm notification, trend logging, control points verification, and full access to the controller via BACnet, LonTalk, or the on-board web-enabled user interface

### **INSTALLATION FLEXIBILITY**

Innovent equipment can be designed for installation in almost any location, with indoor, outdoor, vertical, and horizontal mounting configurations.



An indoor unit, configured vertically, saves floor space



Six grow room air handlers mounted outdoors



#### **DESIGNED TO**

# DECREASE COST OF OWNERSHIP

Innovent grow room air handling systems cost less to install and operate than other systems.

#### LOWER INSTALLED SYSTEM COSTS ARE ACHIEVED THROUGH:

- Integral energy recovery that reduces required mechanical cooling capacity by 30%, which reduces cooling equipment first costs
- A system designed to fit within building and utility constraints. Indoor, outdoor, vertical, or horizontal mounting minimize equipment footprint to maximize growing space. Multiple cooling, heating, dehumidification, and power options ensure compatibility with existing services.
- A single-source integrated solution adaptable to all plant growing phases; no auxiliary dehumidification units are required

### LOWER OPERATING COSTS ARE ACHIEVED THROUGH:

- High-efficiency components, optimized control, energy recovery, and condensate recovery
- Quality-constructed units that are built to provide decades of reliable operation
- Maintenance-friendly design that features easily-opened hinged access doors, and adequate interior space for cleaning, maintaining, or replacing components

#### **ENERGY RECOVERY SAVES TWO WAYS**

Lower installed system costs: Energy recovery reduces the mechanical cooling load and, therefore, the required capacity of the cooling equipment.

Lower operating costs: Energy recovery increases system efficiency.

Innovent's ability to perfectly match an energy recovery solution to an application decreases total cost of ownership and sets Innovent apart from competitors.

Innovent has the industry's most diverse energy recovery portfolio, and is known for creatively configuring components to optimize efficiency and performance.







### **CONTACT US TO**

# LEARN MORE

### **VISIT INNOVENT!**

- Discuss your application with our experts. Benefit from their decades of experience designing air handling solutions for critical environments.
- Take a tour of the Minneapolis Innovent factory. See units under construction.
- Visit our product display center. Get a close view of our equipment. Operate a working unit controller.

#### ASK US FOR COMPARATIVE OPERATING COSTS AND PAYBACK

We can model your application to compare operating costs of an Innovent system to other HVAC systems.

# WEBSITE AND EMAIL

- Visit <u>innoventair.com/grow-rooms</u> for our most current information about grow room solutions.
- Email us at grow@innoventair.com



BUILT TO ORDER

BUILT FOR EFFICIENCY

BUILT TO LAST

#### INNOVENT

AIR HANDLING EQUIPMENT

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