Direct-Fired Booth Heating Systems

Fresh Make-Up Air for Spray Safety & Quality
Heated Curing Air for Bake Speed & Economy

Spray&Bake

Pure and Simple Solutions
Direct-Fired Booth Heating Systems provide precise ventilation and temperature control for both custom-finishing operations as well as dedicated paint booth or spray booth applications.

AbsolutAire® Spray & Bake systems are among the best. In the Spray Mode, they deliver fresh make-up air for high-volume, low-temperature ventilation that enhances operator safety and finish quality. In the Bake Mode, they deliver heated curing air for high-temperature ventilation that speeds finish drying and increases booth productivity.

Committed to Complete Customer Satisfaction, AbsolutAire offers a range of system choices, as well as selected options such as cooling and humidity control, for custom-matching Spray & Bake performance with specialized booth-operating requirements.

Spray Mode
During the finish spraying cycle, an AbsolutAire direct-fired system typically provides 100% outside air (OA) that is tempered to between 60° and 90°F and supplied in constant high volumes for maximum booth ventilation.

Bake Mode
During the finish baking cycle, an AbsolutAire direct-fired system typically provides either reduced-volume 100% outside air (OA) or a higher-volume 80/20 blend of recirculated air (RA) and outside air (OA) that is heated to between 80° and 200°F and supplied to reduce finish drying and curing times.

AbsolutAire Advantages
- Superior Spray & Bake Performance
- Make-Up Air Capacities for Booth Ventilation up to 50,000 CFM
- Heating Capacities for Finish Curing Temperatures up to 200°F
- Energy-Efficient, Economical Operation
- Precise Digital Control Sequences
- Maximum Application Versatility
- Constant High or Reduced Airflow Volumes
- Fueled with Natural or LP Gas
- Options for Cooling, Humidity Control, Multiple-Stage Filtering, and More
- Custom-Matched to Booth Requirements
- Low-Cost System Installation
- Indoors or Out, Upright or Horizontal
- Fully Assembled, Pre-Piped and Wired

Exceptional Technical Support
- ETL-Certified to ANSI Design Standards
- Exclusive Parts & Labor Limited Warranty
High-Performance Spray & Bake Finishing Solutions

AbsolutAire direct-fired Spray & Bake finishing solutions provide outstanding results in all types of spray booths, including downdraft, semi-downdraft, and crossdraft. System and product configurations are designed and built to exact application requirements for precise booth conditioning needs.

Standard Units

These Spray & Bake systems are most economical and versatile for spray booth applications with low-to-moderate finish-curing temperatures (80° to 140°F). Uniform airflow across the burner ensures maximum fuel efficiency, while “draw-through” ventilation with a forward-curved centrifugal fan ensures precise air-delivery volume.

High-Temperature Units

These Spray & Bake systems are robust, especially equipped for spray booth applications with moderate-to-high finish curing temperatures (up to 200°F). A modulating airflow burner and backward-inclined airfoil fan save energy, while a direct-drive fan motor without belts or bearings inside the cabinet increases reliability.

R-E-P Units

These Spray & Bake systems are designed for spray booth applications with a common recirculation-and-exhaust plenum. In the spray mode, the exhaust fan runs at full capacity. In the bake mode, 80% of booth air is recirculated while the exhaust volume is reduced to 20%. Booth curing temperatures can be maintained with less fuel, and the lower exhaust fan speeds require less electricity. The exhaust fan variable-speed drive (VFD) is controlled by a manual potentiometer or booth-pressure switch.

NOTE: R-E-P Units are configured with a basic operating system of either a standard or high-temperature Spray & Bake model.

Burner Boxes

Direct-fired burner and gas-train assemblies are designed for easy installation into booth ventilation systems that require heating for either make-up air or finish-curing air. These are piped and wired for user install, or the burner can be mounted in a sleeve with its profile properly sized for efficiency and safety.
Advantage: AbsolutAire

Innovation and advanced technology shape AbsolutAire’s direct-fired booth heating systems. These high-performance solutions for meeting today’s finishing challenges deliver complete customer satisfaction.

Pure & Simple: AbsolutAire Spray & Bake systems offer The Best Available Value with impressive competitive advantages.

Superior Performance

Performance starts with capability. And, AbsolutAire Spray & Bake models are most capable for both custom-finishing operations as well as paint or spray booths of all types and sizes. They offer:

▲ Make-up air capacities from 6,000 to 50,000 CFM for meeting ventilating needs with either constant high or reduced airflow volumes.
▲ Heating capacities for matching spray-cycle temperatures from 60°F to 90°F, and bake-cycle temperatures from 80°F to 200°F.
▲ An almost 100% efficient, modulating airflow burner and, on some models, an economical airfoil fan that requires less horsepower.
▲ A 30:1 burner turndown capability and a low-maintenance cast-aluminum manifold with non-clogging, stainless steel mixing plates.
▲ A selection of digital-control packages for precise system-operation sequences, including spray, purge, bake, and cool down.

Maximum Versatility

One size doesn’t fit all, so AbsolutAire Spray & Bake models provide uncommon design flexibility for meeting today’s varied finishing needs. Some of the versatility includes:

▲ Economical efficiency using either natural gas or liquid propane.
▲ Precisely matched booth-ventilation and finish-curing fan speeds with Variable Frequency Drives (VFD’s).
▲ System designs with either constant 100% outside air (OA) or blends of booth recirculated air (RA) and outside air (OA).
▲ Impressive options for cooling, humidity control, filtering fresh and recirculated air, and much more.
▲ Custom-matching system capacities, capabilities, and controls to specialized operations or cutting-edge booth designs.

Digital-control options include a spray-only package, spray-and-bake standard controller, specialty controller with photohelic gauge, or a touch-screen PLC-type system control.

Cleanable or replaceable filters for incoming fresh air or recirculated conditioned air are readily accessible for service.
Low-Cost Installation

Time is money, and AbsolutAire Spray & Bake models are built for quick and easy installation and seamless integration into all types of finishing operations and booth applications. They feature:

- Upright and horizontal system designs, which can be installed indoors or out to easily meet facility and floor-plan needs.
- Unitized construction with airflow and control strategies that minimize ductwork runs and specialized mechanicals.
- Ready-to-install assemblies that are pre-wired and piped, and require only minimal adjustments for static pressure drops.
- Single-point connections for electricity and gas that simplify unit installation and speed startup.

Exceptional Support

Providing the Best Available Value in direct-fired solutions for finishing excellence means exceeding expectations. And, AbsolutAire Spray & Bake models do exactly that. Each is:

- Competitively priced and efficiently built with only the best UL, CSA, or AGA listed components.
- Factory-tested for safe and reliable operation to meet NFPA codes and standards.
- Intertek ETL-certified to ANSI design standards for occupied spray mode; CSA standards for constant and variable outside air models; and UL listings for unoccupied bake mode.
- Simple to service with an external power disconnect switch and easy access to all operating components.
- Backed by an exclusive two-year parts and 90-day labor limited warranty; among the best in the industry.
Model Performance & Selection

Standard Units (AA-Series)
Economy and versatility are key features of these Spray & Bake units, based on AbsolutAire’s AA-Series with “draw-through” ventilation. Operating capabilities include:

- **Spray @ 60° to 90°F** (100% outside air, constant high volume.)
- **Bake @ 80° to 140°F** (Reduced-volume 100% OA or higher-volume RA/OA blend.)
- **Booth @ 100° to 140°F** (A Return-Air or High-Temperature unit may be required to achieve a booth temperature of 140°F)

**Key Features**

- Modulating Burner with 30:1 Turndown Capability Allows Precise Temperature Control.
- Forward-Curved Centrifugal Fan with Heat-Shielded VFD-Motor Ensures Precise Ventilation Control.
- Digital Controller Automates Spray & Bake Operating Sequences.
- Multiple Choices for Supply-Air Discharge and Recirculated-Air Return Simplify Installation.

**Available Options**

- Booth Pressure Guage or Damper Potentiometer Control Airflow Volumes.
- Chilled-Water and DX Coils and Evaporative Media Deliver Cooling and Humidity-Control Capabilities.
- Exhaust Fan Motor Starters and Interlocks Allow Complete Booth System Integration.
- Insulated Cabinets with Double-Wall Construction Provide Quiet Operation and Reduce Heat Loss.

### Standard Spray & Bake Models

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<thead>
<tr>
<th>Capacities</th>
<th>Dimensions, Inches</th>
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<td>CFM</td>
<td>MBH</td>
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**NOTES:**

- AA-Series models for “Spray & Bake” applications; others are available.
- Motor sizes for a specific CFM capacity will vary with application static pressures.
- MBH Capacities are dependent on unit configurations and type of fuel used.
- Dimensions are approximate and can change with installation requirements.
High-Temperature Units (R-Series)

Robust and especially equipped for high curing temperatures, these Spray & Bake units are based on AbsolutAire’s R-Series and feature an energy-saving airfoil fan and externally mounted, direct-drive motor. Operating capabilities include:

▲ Spray @ 60° to 90°F (100% outside air, constant high volume.)
▲ Bake @ 80° to 200°F (Reduced-volume 100% OA or higher-volume RA/OA blend.)
▲ Booth @ 140° to 180°F (A R-E-P system, with common recirculation and exhaust plenum base, can reduce operating costs and deliver higher booth temperatures.)

Key Features

▲ Pre-Mix Solid-State Burners (30:1 Turndown) Feature Low Emissions and Almost 100% Fuel Efficiency.
▲ Backward-Inclined Airfoil Plenum Fan Requires up to 40% Less Brake Horsepower for Specified Ventilation.
▲ Externally Mounted, Direct-Drive Motor Ensures Reliability Without Belts or Bearings in the Air Stream.
▲ Double-Wall Floors, Structural-Steel Framing, and Thermal Insulation Provide Quiet Durability.

Available Options

▲ Multiple Filtering, Cooling, and Humidity-Control Choices Tailor Systems to Specific Finishing Needs.
▲ Plenum Bases for Upright Models Provide Common Recirculation and Exhaust Capabilities.

### Standard Spray & Bake Models

<table>
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<tr>
<th>Capacities</th>
<th>Models</th>
<th>Dimensions, Inches</th>
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NOTES:

² R-Series models for “Spray & Bake” applications; others are available.
³ Motor sizes for a specific CFM capacity will vary with application static pressures.
⁴ MBH Capacities are dependent on unit configurations and type of fuel used.
⁵ R400 models feature tubular framing with standing-seam, double-wall construction.
⁶ Dimensions are approximate and can change with installation requirements.
Other

*Pure and Simple Solutions:*

- S-Series Air-Handling Systems
- R-Series Direct-Fired Heating & Ventilating
- AA-Series Direct-Fired Heating & Ventilating
- V-Series Direct-Fired Make-Up Air Value
- CH-, DH- & APD-Series Space Heaters
- Coil & Evaporative Cooling Systems