



INDUSTRIAL LIQUID COATING SYSTEMS



**BUY AMERICAN
COMPLIANT**

AFC FINISHING SYSTEMS

Industrial Liquid Coating Systems

Spray booths, air make-up units, and prep stations.

Built for truck, RV and bus manufacturers, aerospace, NASA, rail, furniture manufacturers, and the United States military.

One manufacturer builds the booth, designs the airflow in it, and supports both.

Two ways to move the air

CROSSFLOW BOOTHS



Large industrial booth with floor track.

AFC manufactures its own control panels and heated air make-up units.

ESTABLISHED
1967

COATINGS
High solids
and waterborne

CODES
Standard components and
accessories for special
state or local
code requirements

MANUFACTURED IN
Weiser, Idaho

LIGHTING
Class I, Division 2 inside
service lights, in both
fluorescent and LED

FILTERS
Filtered intake; paint
arrestors at the exhaust

Booth airflow pulls overspray and contaminants away from the painter, the material, and the part. That is what makes the booth a safer place to work and a cleaner place to paint.

Sized to the Work

Standard models run from open front booths to truck and aircraft booths. All booths are built to the customer's needs.

18 Gauge Interlocking Flange Panels

The truck booth and the paint mixing room use 18 gauge galvanized steel panels with interlocking flanges. Booths ship with blueprints, hardware, and assembly instructions.

Airflow Decides the Booth

The style of paint booth is determined by how you want the air to flow: across the booth from one end to the other, or from the top down.

Interlocks and Gauges

Door limit switches, an air valve, and a manometer that shows filter loading are standard on the truck booth.

Standard or Reversed Airflow

A standard crossflow booth draws filtered air in through the doors and exhausts it at the rear wall. A reversed crossflow booth turns that around: the intake is on the end away from the doors, and the exhaust is at the door end. The end of the booth with the doors is traditionally the dirtiest and is where most outside air leaks in, so placing the exhaust there pulls that contamination out before it can cross the part. The result is a cleaner booth and a better paint job.

DOWNDRAFT BOOTHS

A downdraft booth is its own design

A downdraft booth is a different design from a crossflow booth: air enters through the top and exhausts at the bottom for a premium paint job.

Side Downdraft

The most economical type of downdraft booth: the booth sits on your slab with no floor modification needed. Filtered air enters the booth from the ceiling and exits through filtered exhaust boxes that run the length of the booth at the bottom of the walls. AFC's side downdraft uses longer exhaust boxes than the competition's.

Pit Downdraft

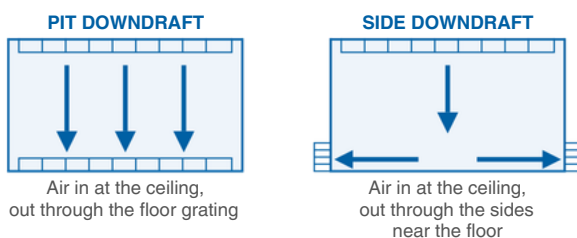
Air flows from the ceiling through the floor, entering through filters. The booth sits over a pit: the air passes down through the floor grating, through the filters under the grating, and is exhausted from the pit. This is one of the cleanest paint booths available.

Choosing Between Them

The pit downdraft is the higher end booth, and its pit adds to the installation cost.

Product Doors

Product door options: drive through, bi-fold, double bi-fold, and roll up.



Schematics, not to scale.



AFC booth and ductwork on the shop floor.



Painter lift and light fixtures inside a booth.

AIR MAKE-UP UNITS

Replace the air the booth pulls out

Direct fired air make-up units replace the air the booth exhausts, pressurize the booth, and hold spray temperature.

Systems can be designed for 100 percent fresh air or 80/20 recirculation (80 percent of the booth air recirculated and 20 percent fresh air), depending on the customer's application and preferences.

Low NOx Systems

AFC builds low NOx air make-up systems for low NOx jurisdictions, and has done so for years. Low NOx burners are designed to reduce nitrogen oxide emissions.

Humidity Control and Steam Generation Options

Controlling humidity helps paint cure evenly by preventing excess moisture from slowing drying or causing defects like bubbling, cracking, or poor adhesion.

Direct Fired Heating

The burner fires directly into the incoming air, which gives high efficiency and a rapid temperature rise in the booth.

Burner Ratings and Controls

AFC offers several burner capacities, rated in BTU per hour. The capacity a system needs depends on how much air it moves and on the temperature rise required. A two stage burner holds the booth temperature steady; a full modulation burner controls it more precisely.

Heated Booths

A heated booth runs in stages: paint, flash off, cure, and cool down, with the times and temperatures set for the coating in use, and the control panel sequences the air make-up and exhaust through them. The burner brings the booth to temperature and holds it there.



AFC air make-up unit beside a spray booth.



Burner and gas train on an air make-up unit.



Control panel beside the booth door.

BURNER CONTROL

Two stage or full modulation

GAS

Natural gas, 7 to 14 inches water column supply pressure

ELECTRICAL

208, 230, or 460 VAC, 60 Hz, three phase, the fresh air units' supply fan motor

PREP AND MIXING

Everything around the booth, from AFC

Dust Control in the Work Space

Work stations control dust at the source, and prep benches are the lower cost alternative for prepping, sanding, and limited spraying.

Paint Mixing Room

AFC's standard paint mixing room gives a place to store, mix, and match paint, with color corrected lighting for matching. Custom sizes and double walls are available; the standard room's size and fittings are in the table on page 6.

Drying Enclosures

A drying enclosure takes finished work out of the booth, so the booth keeps spraying.

Bench Booths and Exhaust Chambers

Open face bench booths carry tube-axial fans with non-sparking blades. Exhaust chambers and benches ventilate the work space around them.

Blast Booths

Blast booths are built under the Airblast AFC joint venture, airblastafc.com.



Rail car inside an AFC booth.



AFC paint mixing room.



AFC work station with curtains and floor grating.



AFC prep bench.

Work Station Airflow

Air is drawn down past the work, carrying dust and debris away from the operator's face. In cold weather the exhaust damper closes and the air recirculates through an overhead plenum and supply filters, so heated shop air is not lost; in warm weather the air is exhausted outside.

ENERGY EFFICIENCY

The fans slow down when spraying stops

A booth does not need full airflow when spraying stops. After a preset time from the release of the spray gun trigger, the booth drops into econo mode and the fans slow down, saving money through reduced electrical bills.

New Booths and Booths in Service

Every booth is able to be equipped with the econo mode. It applies to the exhaust fans and the air make-up fans alike.

Airflow in Econo Mode

Econo mode runs the booth at 65 percent of normal airflow, which greatly reduces energy consumption.

Automatic Operation

The airflow is adjusted automatically, with no operator intervention required, and the system has no dampers to maintain.

SPECIFICATIONS

Group	Item	Value (sizes wide × high × long)
BOOTHS	Aircraft booths	Extra large booths for painting aircraft.
	Painter lifts	Lifts that go inside the booth, as pictured on the cover and page 3.
CONSTRUCTION	Doors	Filter doors and solid doors in 18 gauge galvanized steel, welded in box type construction to eliminate torsion; three or more hinges on each door for gasket compression at the jamb; a locking device at top and bottom that assures a complete seal; a removable tie bar threshold that seals them from inside, with no rubber flaps.
FANS AND CONTROLS	Exhaust fans	Tube-axial, non-sparking blades, open drip proof motors for 208, 230, or 460 VAC.
	Control panel	A PLC in the control panel and variable frequency drives on the motors, optional on every AFC industrial booth; Power Shield energy efficiency mode as an option; touch screens, data logging, and remote troubleshooting are offered.
MIXING ROOM	Paint mixing room	8'0" × 8'0" × 12'0" standard; a 12 inch tube-axial fan on a ½ HP motor, four light fixtures, a personnel door with a fused link vent louver, 6' of exhaust stack.
COMPLIANCE	Code and listings	Built to the National Board of Fire Underwriters standards for coating equipment as recommended by NFPA 33, OSHA, and EPA; components are NEMA rated, UL approved, and ETL listed.
AIR MAKE-UP	Units and systems	Burner, gas and electrical valves, fresh air and recirculation systems, and the heated booth cycle: page 4.
SUPPORT	Service	Telephone support, onsite service, parts and filters, manuals and troubleshooting: page 7.

Specifications in hand? The next step is a liquid coating project review: call (800) 331-7744, and page 8 lists what to bring.

SERVICE

After the system is installed

AFC booths are built as simple systems, and most local heating and air conditioning contractors can troubleshoot them.

Installation and Operator Training

AFC works with the customer through design, manufacturing, and installation, and trains the operators once the installation is complete. The installation and training scope is set for each project.

Parts and Filters

AFC's parts and filters store, afcfinishing.com, carries paint booth parts and filters for AFC equipment and for other makes.

Manuals and Troubleshooting

Operations and maintenance manuals are at afc-ca.com/company/resources, and the troubleshooting guide is at afc-ca.com/company/faqs.

Support for the Life of the Booth

AFC provides free telephone support on all its paint spray booths and booth equipment for their life, new or used, weekdays from 8 to 5 Mountain time. Onsite service is available throughout the United States.

Scheduled maintenance visits and service agreements are available.

Warranty Assistance

For warranty assistance, contact AFC at (800) 331-7744 or sales@afc-ca.com.



Spray booths on a production floor.



A-10 military aircraft inside a lit enclosure.

THE PROJECT PATH

1 Project review 2 Design 3 Manufacturing 4 Installation 5 Operator training 6 Telephone support



**BUY AMERICAN
COMPLIANT**

Blast, paint, and powder, from one provider: **AFC.**

AFC obtains mill certificates for its steel as a matter of course.

AFC Finishing Systems

1409 Sunnyside Road, Weiser, ID 83672

(800) 331-7744

afc-ca.com

sales@afc-ca.com

Warranty. Equipment AFC manufactures is warranted for one year from the date of shipment against defects in material and workmanship, repaired or replaced at AFC's option. Purchased components such as fans and motors carry their manufacturers' warranties.

LIQUID COATING PROJECT

**Call (800) 331-7744 to start a
liquid coating project review**

Bring the working envelope, production target, coating process, material flow, available utilities, and floor plan. AFC sizes the booth and the air make-up around them.

Email sales@afc-ca.com, or scan the code for AFC's paint solutions page.



afc-ca.com/paint-solutions