



AdvanceCure

Accelerated Airflow System



- > Ultimate Compatibility
- > Increased Productivity
- > Reduced Energy Consumption
- > Improved Finish Quality
- > Maximized Profitability

AdvanceCure

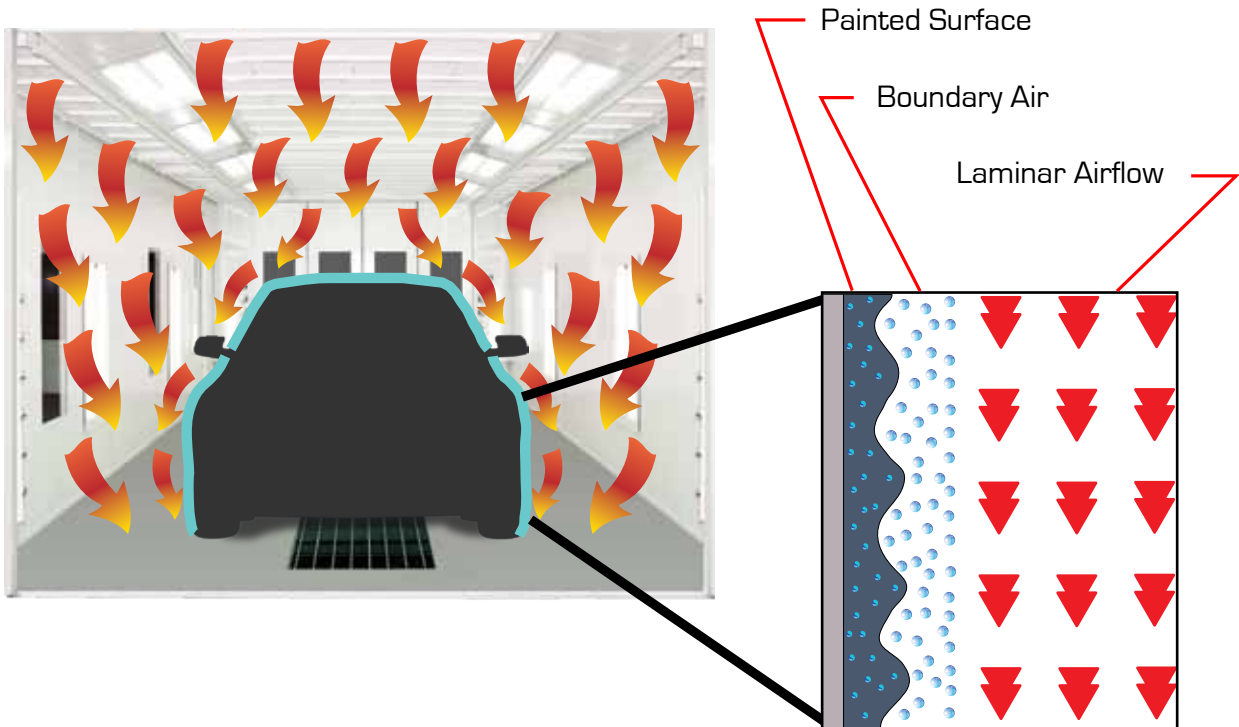
How the AdvanceCure System works:

Downdraft airflow is generally accepted as the best type of airflow for a paint booth, and generally speaking this is correct. It does an excellent job of controlling overspray and contamination, and provides a safe, clean environment in which to paint. However, there is one limitation that downdraft airflow just cannot avoid. This limitation is the creation of 'laminar air' and 'boundary air'. Laminar air is created as air passes in one direction over a solid object in a paint booth. Boundary air is a low-pressure layer of slow moving air immediately below the laminar air and above the surface of the vehicle.

When looked at under a microscope, even the most perfect paint jobs are not entirely smooth. They have tiny bumps, dips, and ridges that are imperceptible to the naked eye. These tiny imperfections slow down the air enough to create a layer of slow-moving air referred to as the 'boundary air'. During the paint drying process, this boundary air becomes saturated with water molecules from the paint, and limits the speed of evaporation that can take place. It is this boundary air that prevents the airflow from drawing water molecules out of the wet paint.

In order to achieve the fastest drying times possible, this boundary air must be disrupted and dispersed. This disruption is accomplished by creating turbulent airflow on the surface of the vehicle, which is what AdvanceCure does. It breaks up the slow-moving boundary air and rapidly speeds up the drying process.

With AdvanceCure turned off . . .



You can see that with AdvanceCure turned off, the traditional top-to-bottom downdraft airflow causes a boundary layer of slow-moving air to form on the surface. Vapors and fumes linger on the painted surfaces as a result. This prevents the underlying coating from being exposed to the moving air, and results in curing times that are longer than necessary. This also prevents the coating from curing in the most effective manner, resulting in a less-than-optimum finish quality.

Definition: Controlled Turbulent Airflow

Controlled Turbulence? Seems like a contradiction, doesn't it? However, when it comes to airflow, this is exactly what you want to achieve in your waterborne paint booth.

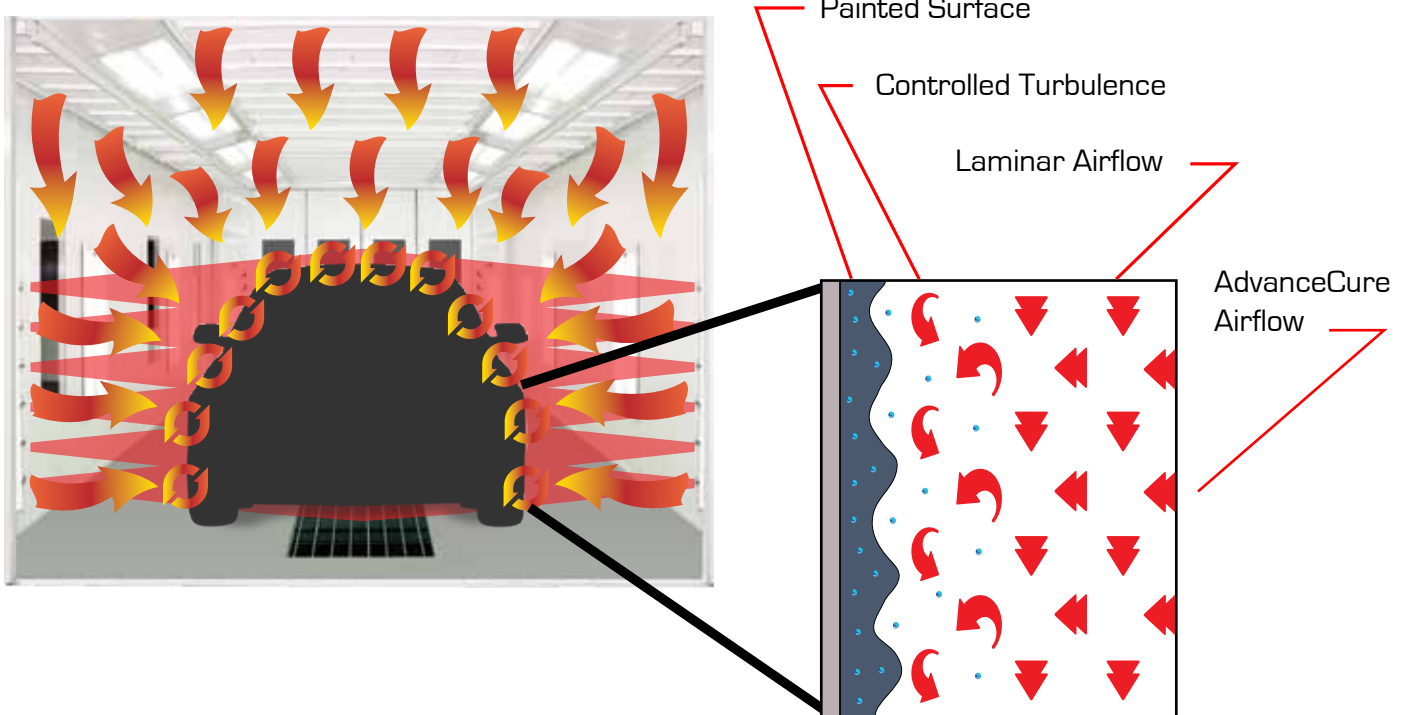
Controlled turbulent airflow is essentially the fusion of two different airflow concepts:

Controlled Airflow - Intentionally directed, focused airflow

Turbulent Airflow - Rapidly moving, multi-directional airflow

AdvanceCure interacts with the downdraft airflow in order to produce controlled turbulent airflow on all the surfaces of the vehicle. This effectively turns the paint booth in to a convection oven, and drastically reduces drying times.

And now, AdvanceCure turned ON!



The result of AdvanceCure's powerful airflow is plain to see. The boundary layer is broken and the illustrative smoke is dispersed much more quickly. This rapid airflow allows the heated moving air to reach the painted surfaces, raise the skin temperature and draw the vapors and fumes out of the coating at a much faster rate. This minimizes the time required for flash-off and curing, and results in optimum curing for the best quality finish.

AdvanceCure

Drastically reduced drying times

GFS developed the AdvanceCure Accelerated Airflow System to help body shops be more productive, more efficient, and more profitable. GFS' AdvanceCure accomplishes these tasks by greatly reducing the amount of time needed to cure or dry any type of coating, be it waterborne or solvent-based. The key to AdvanceCure's amazing results is the convection-type airflow it creates. This type of airflow dramatically improves the heat transfer from the air to the painted panels, and provides much more even heat distribution over the entire vehicle. By reducing the amount of time required for each paint job, GFS' AdvanceCure helps put more jobs through your shop in the same amount of time, uses less energy per job, and actually improves the final finish quality!



It's no secret that warm air rises. Even in a downdraft paint booth, the air near the ceiling will be warmer than the air near the floor. As a result, the vehicle surface temperature will also vary from the top to bottom, often times by up to 15° or more. By introducing controlled turbulent airflow, AdvanceCure helps distribute the heat much more evenly. By doing this, AdvanceCure eliminates this 'layering' of heat within the booth, and greatly improves the consistency of the heat rise of the painted panels. This in turn helps the coated surfaces cure much more effectively in much less time.

For example, to achieve a surface temperature of 140° over the entire surface of the vehicle in a typical downdraft booth, it can take up to 20 minutes! With AdvanceCure, the time to bring the entire vehicle up to temperature can be reduced to about 8 minutes. That's less than half the time!

On the above left, we can see how during downdraft airflow the air at the top of the cabin is warmer than the air near the bottom. On the above right, you can see that by turning on AdvanceCure, the air becomes 'mixed up', and the heat is distributed evenly over the entire vehicle.

How much time can you save?

The time you save is entirely dependent on the type of coating you are using, and GFS' AdvanceCure has shown that you can expect dramatic results with all types of coatings, including waterborne and solvent-based variants.

Here are the results observed while testing AdvanceCure with paint products and clear coat products from 5 different major coating manufacturers!

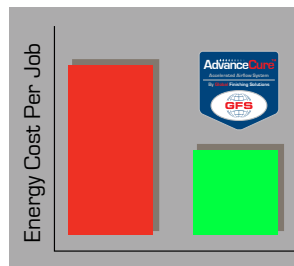
Flash-Off: up to **80%** reduction!

Curing: up to **60%** reduction!

On average, save **56%** of your time for all types of coatings!

Energy savings, too? Absolutely!

Because AdvanceCure technology saves you so much in time, you end up operating your booth for less time on each job. This means your overhead costs per job have just been cut, too! And, since energy costs are rising every day, the less energy you use, the more money you save. That means more dollars in your pocket every year.



Up to **50%** in additional savings on energy and fuel!

AdvanceCure

AdvanceCure - The original system, and still the best. Here's why:

GFS spends so much time and effort in research and development that we rival some NASA programs! The reason is that we know when your productivity and profitability are on the line, you can't spare a single second of lost production or any increase in costs if you want to stay competitive. This is why we've developed the most feature-packed, most effective waterborne drying systems available. With multiple designs and configuration options, you can be sure that AdvanceCure will provide the results that you need for your shop, no matter what.

Some examples of AdvanceCure Installations:



Downdraft booth with four sidewall towers



Downdraft booth with four horizontal retrofit towers

Downdraft booth with corner tower and vertical retrofit tower



Drive-thru prep station with four horizontal retrofit towers

External view of horizontal retrofit tower remote motors



AdvanceCure

Key Features of the AdvanceCure System:

Contaminant-free airflow, the easy way.

By drawing pre-filtered air directly from the interior of the paint booth, AdvanceCure simplifies the air supply process and ensures that the air is already at the proper temperature without the need for any additional heating. AdvanceCure's integrated intake filters provide extra protection against any random contaminants that may work their way into your booth.

More light is always a bonus!

GFS AdvanceCure Corner Towers offer the added bonus of an optional integrated 3-tube high-efficiency light fixture. This extra light helps illuminate the ends of the vehicle, and helps eliminate shadows.

Ready . . . Aim . . .

With AdvanceCure's multiple independently adjustable nozzles on each tower, there's no area of the booth that the airflow can't reach. Simply direct the nozzles at problem areas, or at regular intervals around the booth, and AdvanceCure will take care of the rest. The optional laser aiming device (at right) makes pinpointing specific areas of the painted surface a cinch. Plus, AdvanceCure's nozzles are made from a durable aluminum alloy for easy cleaning.



It doesn't get any easier than this.

Want one tower on, but not the others? How about two on and two off? With GFS' AdvanceCure, you can use any combination you want. Our unique control system gives you complete control over each individual tower, making it just as effective for spot-painting a single panel as it is for painting the entire vehicle. (4-tower panel shown, 6-tower control panel available)



On and off without ever leaving the booth.

With the optional AdvanceCure internal activation switch unobtrusively installed inside your booth, you can easily activate your AdvanceCure system with the press of a button, without ever needing to open the cabin doors! This simple device can provide major time-savings for the painter on each and every job.



AdvanceCure

AdvanceCure Towers:

GFS' AdvanceCure comes in multiple designs to fit all types of spray booths. You can mix-and-match any combination of towers to fit your exact booth in order to achieve the maximum results!

Corner with Light:



This is the tower that is standard issue with GFS' Ultra Plus 1 paint booth. This is the tower that has it all, in one self-contained unit!

- > Corner mounted
- > 6 nozzles
- > Intake filter
- > 1/2 HP motor
- > 3-tube light

Corner:



Completely self-contained, this tower is easy to install and fits a wide variety of paint booth designs.

- > Corner mounted
- > 6 nozzles
- > Intake filter
- > 1/2 HP motor

Sidewall:



For longer booths, or designs where corner installation is not possible, the Sidewall tower is the perfect solution.

- > Sidewall mounted
- > 6 nozzles
- > Intake filter
- > 1/2 HP motor

**Is your booth hard to fit? Want to install towers in your prep station or CTOF?
GFS has the solution: AdvanceCure Retrofit Towers!**

Vertical Corner Retrofit:



Dual-Row Corner Retrofit:



Horizontal Retrofit:



GFS low-profile retrofit designs are perfect for paint booths that are not compatible with the original AdvanceCure designs. These AdvanceCure towers can be placed virtually anywhere, including inside prep stations, and utilize a remotely located motor and intake filter to provide universal compatibility.

- All Retrofit towers feature:
- > 6 nozzles
 - > Remote intake filter
 - > 1hp remote motor



• Remote Motor



THE WORLD LEADERS IN PAINT BOOTH TECHNOLOGY



Contact your GFS sales representative for details of required installation and electrical wiring. The equipment location of the installation should be reviewed and approved by local authorities having jurisdiction. All designs, specifications and components are subject to change at the manufacturer's sole discretion at any time without notice. Data published herein is informational in nature and shall not be construed to warrant suitability of the unit for any particular purpose as performance may vary with the conditions encountered.

Global Finishing Solutions • 877-658-7900 • autorefinishsales@globalfinishing.com

WWW.GLOBALFINISHING.COM