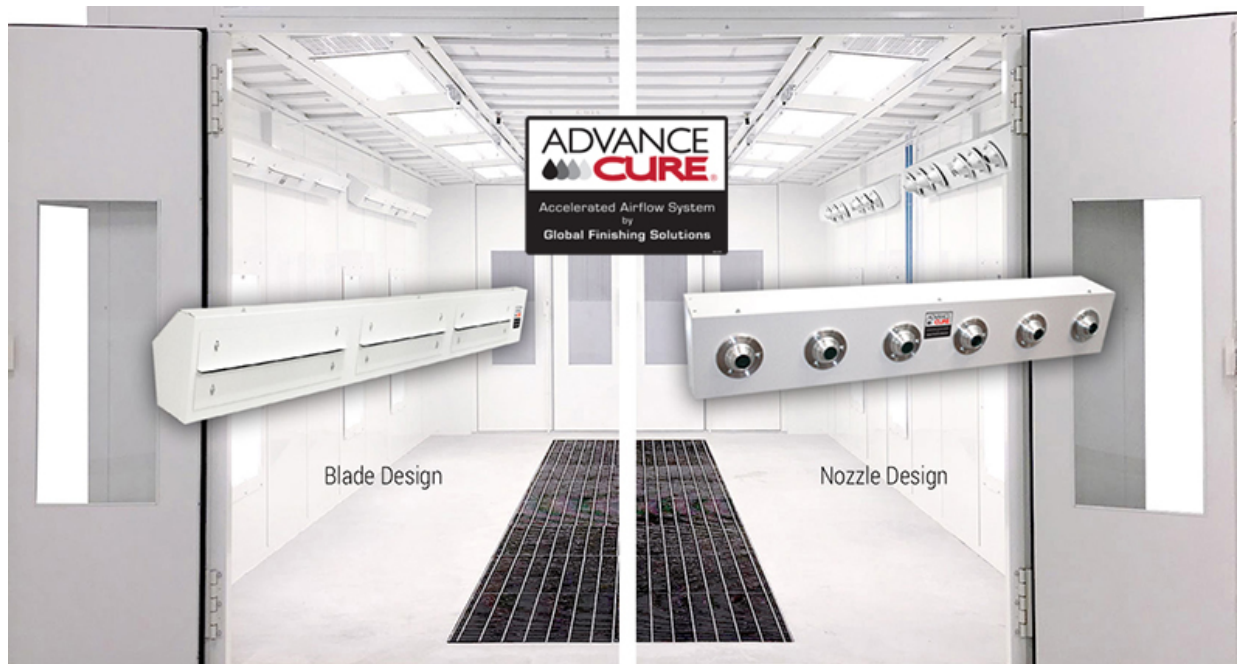




GLOBAL  
FINISHING  
SOLUTIONS



# AdvanceCure<sup>®</sup> Accelerated Airflow Systems

## Owner's Manual

**Document Number:** 239-071 rev 2

Publication date 12/20/2021

*Read and keep this manual for future reference. All personnel operating the equipment described in this manual should review and understand all instructions before use.*

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# Introduction

## About Global Finishing Solutions LLC

### Leading the Industry in Paint Booth and Finishing System Technology

With decades of experience, Global Finishing Solutions is the leading manufacturer of paint booths and finishing systems for many industries, including automotive refinish, aerospace and defense, industrial manufacturing, woodworking, and large equipment. By combining high-quality components, strong relationships with paint manufacturers, and our experienced distribution network, GFS provides the best equipment and support to set your business up for success.

## Contacting Global Finishing Solutions

### General information

- Toll-free: 800-848-8738
- Fax: 715-597-2193
- Email: [info@globalfinishing.com](mailto:info@globalfinishing.com)
- Online: [www.globalfinishing.com](http://www.globalfinishing.com)

### Technical support

- Toll-free: 800-848-8738
- Fax: 715-597-8818
- Email: [techservices@globalfinishing.com](mailto:techservices@globalfinishing.com)

### Parts and filters

- Toll-free: 800-848-8738
- Fax: 888-338-4584
- Email: [parts@globalfinishing.com](mailto:parts@globalfinishing.com)

## Target audience

This document is intended for use by trained, experienced paint booth installers and maintenance technicians. If you have questions about the installation procedure described in this manual, contact GFS as described above.

## Conventions used in this manual

This section describes how information is presented, organized, and referenced within this manual.

### Safety notices

This manual uses the following standards to identify conditions related to safety hazards and equipment damage.

**Table 1. Safety notices**

Symbol	Description
<b>DANGER</b>	Indicates an imminent hazard that will result in death.
<b>WARNING</b>	Indicates a hazard that can result in serious personal injury or death.
<b>CAUTION</b>	Indicates a hazard that can result in personal injury.
<b>NOTICE</b>	Indicates a situation that can result in equipment or property damage, but poses no risk of personal injury.

### Information notices

In addition to the safety notices described above, this manual uses a boldface keyword to identify certain other types of information.

**Table 2. Information notices**

Keyword	Description
<b>NOTE</b>	Denotes general information that provides additional context or guidance.
<b>Important</b>	Denotes information to which you should pay special attention.
<b>Reference</b>	Directs you to related content in a separate document.
<b>Prerequisites</b>	Specifies other tasks that must be completed or conditions that must exist before you perform the current task.
<b>Scope</b>	Describes limitations to the current task or conditions under which the task applies or does not apply to the procedure.

# General safety

Follow all safety guidelines when assembling, operating, or servicing this product.

## **WARNING**

There are inherent hazards associated with the operation and service of this equipment. For your personal safety, observe all safety information. Failure to observe these safety practices can result in personal injury or death.

## **WARNING**

Operation and maintenance of this product must be performed properly by qualified personnel who observe the warnings in all documentation and notes provided with and on the product.

## **WARNING**

Follow all general standards for installation and safety for work on installations. Follow all good practices for the proper use of lifting tackle and equipment. The use of protective equipment such as safety goggles and protective footwear must be considered.

## **WARNING**

All persons who will operate, service, inspect, or otherwise handle this product must read and understand the safe operating practices, safety precautions, and warning messages in this documentation.

## **WARNING**

The roofs of GFS equipment are not designed or intended to be walked upon or to support weight of any kind. As designed and manufactured, equipment roofs do not meet the minimum requirements of a safe walking and/or working surface under OSHA 1910.22. Under no circumstances should the roof be used by maintenance personnel or others for walking, standing, or storage of any kind. When necessary, roof access should be secured through the use of a properly supported platform that satisfies the minimum load requirements specified by ASCE 7 (Minimum Design Loads and Associated Criteria for Buildings and Other Structures) and ASCE 37 (Design Loads on Structures during Construction). Additionally, personnel should always utilize appropriate fall safety protocols when using an elevated platform. Use of the roof in a contrary manner may result in injury and/or death.

## **WARNING**

Comply with OSHA guidelines and with all applicable local electrical, safety, and fire codes and standards.

## **WARNING**

All field wiring provided must comply with local codes or, in the absence of local codes, the National Electrical Code (NFPA 70). Article 516 covers applicable of flammable and combustible materials.

## **WARNING**

Electrical installation should be completed by a qualified electrician. Installation must meet all applicable national, state, and local electrical codes.

## **WARNING**

Ensure that all electrical components are grounded to a central ground.

**WARNING**

Disconnect and lock out the main electrical service before installing, adjusting, or servicing the product.

**WARNING**

Lockout the main gas shutoff valve before maintenance or inspection of the air heater.

**WARNING**

Guards and covers that prevent contact with electrically energized or moving parts are required and must not be removed or left open during operation.

**WARNING**

Welding, cutting, and other spark-producing operations shall not be permitted in or adjacent to a booth until a written permit authorizing such work has been issued. The permit shall be issued by a person in authority following his or her inspection of the area to ensure that precautions have been taken and will be followed until the job is completed.

**WARNING**

Local fire and building codes require fire protection. Check with local inspector authorities for requirements.

**CAUTION**

Read and save these instructions before attempting to assemble, install, operate, or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage. Retain these instructions for future reference.

**CAUTION**

This manual contains statements that relate to worker safety. Read this manual thoroughly and comply as directed. Operate this equipment in accordance with the guidelines set forth in this manual. It is impossible to list all potential hazards of this equipment. Instruct all personnel involved with this equipment in the safe conduct and operation of the system. GFS recommends that only qualified personnel operate and maintain this equipment.

**CAUTION**

Safety signs, panels, and labels that are normally affixed to the product must be replaced immediately if illegible or missing.

**CAUTION**

New or replacement parts that are installed during repair or maintenance must include all safety signs, panels, and labels as specified by the manufacturer. These must be affixed to the new or replacement parts as specified by the manufacturer.

**CAUTION**

Where applicable, use earplugs or take other safety measures for hearing protection.

**NOTICE**

The product must be installed and serviced only by a trained, qualified service technician. Incorrect installation may void the warranty.

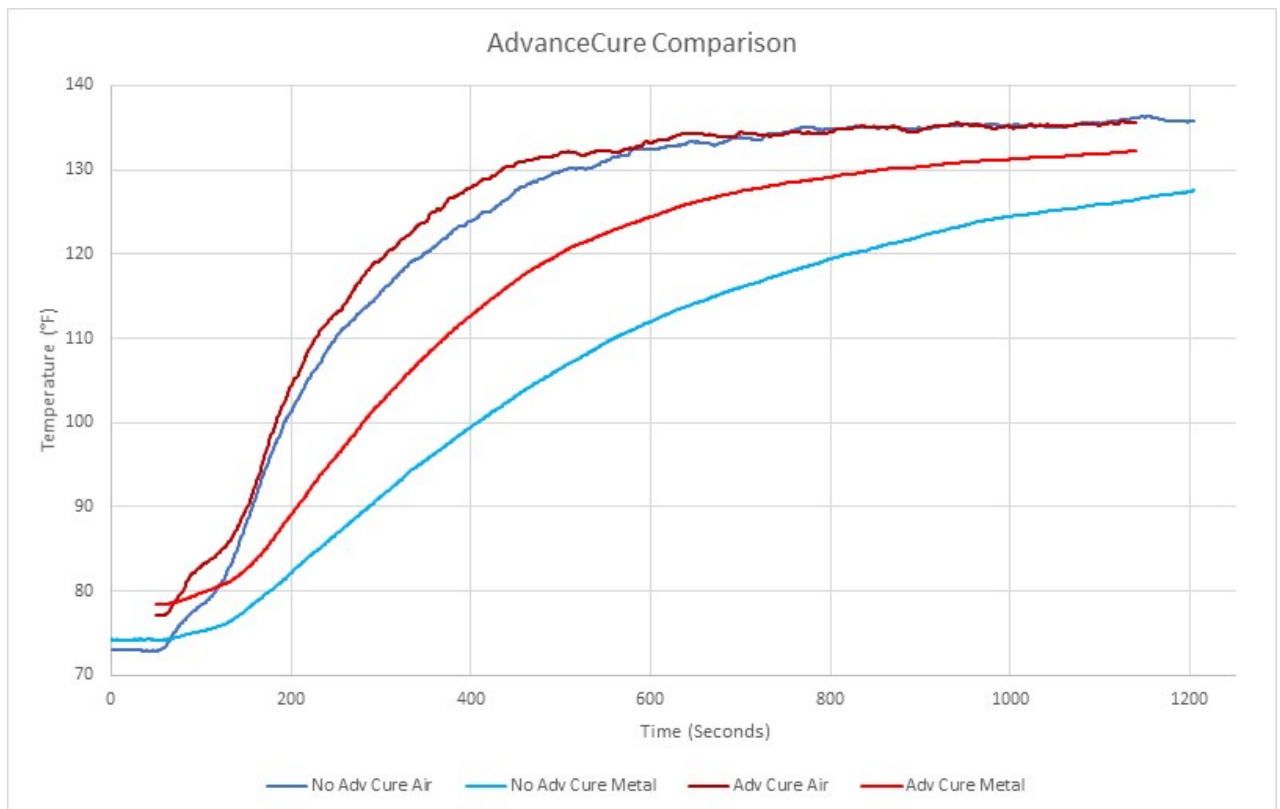
**NOTICE**

If you have questions about the warranty, please contact your distributor prior to contacting GFS.

# AdvanceCure® Systems

AdvanceCure Accelerated Curing Systems deliver high-velocity, turbulent airflow to the painted surface of a vehicle. This turbulent airflow reduces the amount of time required to dry and cure the coating by interrupting the laminar booth airflow over the painted surface.

During Cure mode, the temperature rise of a painted surface inside of a booth with AdvanceCure is approximately 25 percent faster than in a booth without AdvanceCure.



There are two types of AdvanceCure plenums:

- Nozzles (6 feet long)
- AdvanceCure Blades® (10 feet long)





Figure 1. AdvanceCure plenum with nozzles



Figure 2. AdvanceCure plenum with Blade®

# AdvanceCure controls

AdvanceCure Systems can be operated using integrated or standalone controls, depending on the type of control panel that was purchased with the booth.

## LOGIC 4

If your booth has a LOGIC 4 control panel, you can operate the AdvanceCure modules from the booth control panel HMI. Refer to the control panel operator manual for more information.

### NOTE

The "X" icons depicted in the paint booth represent the AdvanceCure modules.

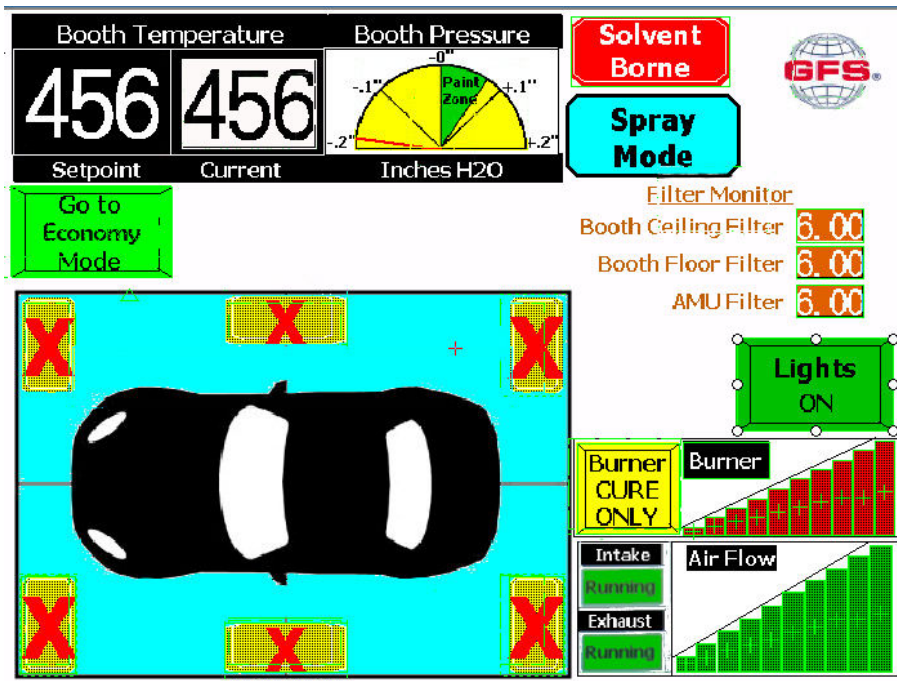


Figure 3. LOGIC 4 HMI with AdvanceCure

## LOGIC 3

If your booth has a LOGIC 3 control panel and you purchased AdvanceCure with the booth, you will be able to operate the AdvanceCure modules from the booth control panel HMI. Refer to the control panel operator manual for more information.

If you have a LOGIC 3 control panel and retrofit an AdvanceCure System into the booth, the AdvanceCure System ships with a standalone AdvanceCure control panel, as shown in Figure 5.

### NOTE

The icons depicted in the corners of the paint booth represent the AdvanceCure modules.

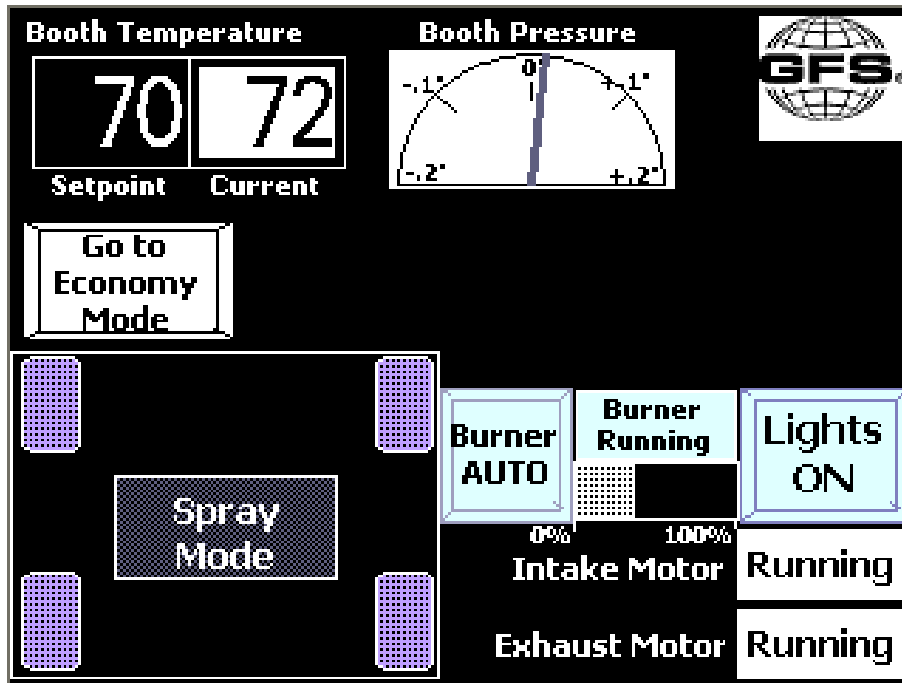


Figure 4. LOGIC 3 HMI with AdvanceCure

## Engage

If your booth has an Engage control panel, AdvanceCure controls are not integrated into the booth control panel HMI. Instead, the equipment ships with a standalone AdvanceCure control panel.



Figure 5. AdvanceCure control panel

# Operation best practices

- Do not walk between an operating AdvanceCure module and the painted surface it is drying.
- *If applicable:* Do not cross air nozzle discharge paths.
- Do not aim the nozzles or Blades at the floor of the booth.
- Only operate the module(s) closest to the painted surface. If only one module needs to operate to dry the painted surface, make sure the other modules are off. This saves energy and eliminates unnecessary turbulence in the booth.
- Make sure the booth is properly balanced.

**NOTE**

Too much positive pressure allows overspray to deposit on the booth walls during Spray mode. This dry overspray may later be dislodged by AdvanceCure's turbulent airflow.

- Do not apply clear coat in quantities that exceed the paint manufacturer's thickness recommendation.

**NOTE**

Failure to follow the paint manufacturer's recommendation may result in micro-popping due to the accelerated curing process.

- If the painted surface is on a vehicle, the vehicle should be centered side-to-side and end-to-end in the paint booth.

**NOTE**

Marking the floor with a center line may aid in vehicle positioning.

- If the painted surface is a vehicle component, it should be placed five feet from the tower. Always position vehicle components so that the painted surface is facing toward the booth walls.

## ***If applicable:* Position the Blades**

Booths equipped with the AdvanceCure Blade are designed to cover the booth work area without the need for adjustments.

**NOTE**

The gap between the aperture angles should be set at 3/16-inch apart.

## If applicable: Position the nozzles

**Scope:** This task applies only to AdvanceCure plenums with nozzles that are mounted beneath the booth's ceiling. To position corner or sidewall AdvanceCure plenums, refer to "Position corner modules" (page 16) and "Position sidewall modules" (page 16), respectively.

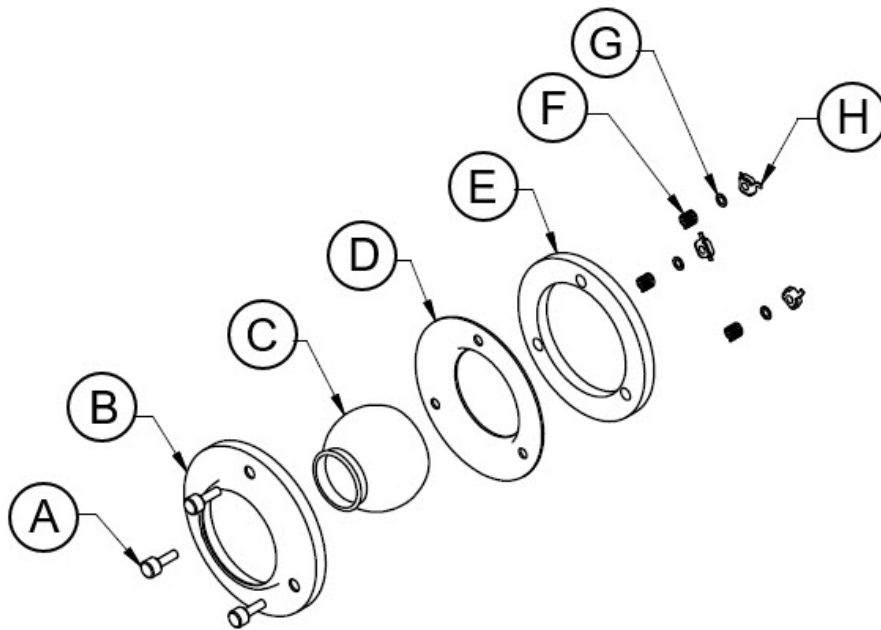
The AdvanceCure nozzles are adjustable and have a unique feature that allows them to be locked in place.

### NOTE

When aiming the nozzles, it is important to remember to evenly cover the entire painted surface with turbulent airflow.

### NOTE

If a nozzle or nozzle component needs to be replaced due to damage, purchase the nozzle assembly kit (GFS part number 1013165).



- A: 6-mm knurled bolt
- B: Front flange
- C: Ball
- D: Back flange
- E: Foam gasket
- F: Spring
- G: Washer
- H: Cage nut inserted into panel hole

**Figure 6. AdvanceCure nozzle assembly**

1. Loosen the three 6-mm knurled bolts and push inward on the ball.

2. Insert the delimitation light holder and laser pen (GFS part number 1010376) into the ball.

**NOTE**

The delimitation light holder kit is included with every AdvanceCure System.

3. While pushing inward on the ball and using the laser line for reference, rotate the nozzle until the desired angle has been achieved.
4. Release the ball.
5. Remove the delimitation light holder.
6. To hold the position, tighten the three 6-mm knurled bolts.

## Position corner modules

When the painted surface is a complete vehicle, follow the recommendations below to position the nozzles in each plenum:

- **Lower Nozzles:** Aim at the corners of valances and bumpers.
- **Middle Nozzles:** Aim at header panel, fenders, and doors.
- **Top Nozzles:** Aim at the center of the hood and roof.

When the painted surface is a vehicle component, begin by aiming the nozzles at the corners of the painted surface. Then point the remaining nozzles at the open areas until complete coverage is achieved.

## Position sidewall modules

When the painted surface is a complete vehicle, follow the recommendations below to position the nozzles in each plenum:

- Use three or four nozzles to cover the vertical surfaces of the vehicle. These nozzles should be aimed near the top of the vertical surfaces so that the turbulent airflow can "wash" down the side of the vehicle.
- Use the two or three of the remaining nozzles to cover the horizontal surfaces of the vehicle. These nozzles should be aimed at the center of the hood and roof.

When the painted surface is a vehicle component, begin by aiming the nozzles at the corners of the painted surface. Then point the remaining nozzles at the open areas until complete coverage is achieved.



# Maintenance schedule

Complete the items below at the recommended intervals. The AdvanceCure modules must not be operational during maintenance.

## WARNING

Before servicing, lockout/tagout the main electrical service to the booth.

## CAUTION

Safety signs, panels, and labels that are normally affixed to the product must be replaced immediately if illegible or missing.

Items to Be Inspected and/or Cleaned	Daily	Weekly	Monthly	As Needed
Turn the paint booth and AdvanceCure on before the vehicle is loaded to purge any particulate from the system.	X			
Wipe down all AdvanceCure nozzles or Blades with either an anti-static cleaner or a tack rag.	X			
Wipe down the AdvanceCure modules and nozzles/Blades with a mild solvent		X		
Replace intake filters to ensure efficient operation.  <b>NOTE</b> Use GFS recommended replacement filters. The GFS intake filter is designed to provide optimal airflow during the life of the filter.			X	
Remove the front tower panel and clean the interior with a mild cleaning compound.				X

# Consumable parts

GFS recommends that you keep the following consumable parts available:

**Table 3. Consumable parts**

Part Number	Description
1010333	Intake Filters 10.875-inch by 16.25-inch
1007996	Intake Filters 10.5-inch by 7.75-inch (corner module, no lights)
1007997	Intake Filters 13-inch by 9.5-inch (corner module, with lights)
1014080	Intake Filters 15.25-inch by 24.25-inch (corner module)
1007999	Intake Filters 17-inch by 7.5-inch by 5.25-inch
1019524	Intake Filters 14.625-inch by 14.626-inch
1018261	Intake Filters 15.5-inch by 36.625-inch
1013165	AdvanceCure Nozzle Assembly

Before ordering replacement parts, make sure you know the following:

- Serial number of your product
- Part number and description of the item you want to order
- Desired quantity of the item
- Purchase Order number or credit card number
- Preferred shipping method (UPS, Federal Express, truck, air, etc.)
- Complete shipping and billing address

#### NOTE

Visit [www.globalfinishing.com/parts-filters](http://www.globalfinishing.com/parts-filters) and the GFS Accessories Catalog for information about AdvanceCure parts and components.