



How to Buy a Paint Booth

The primary purpose of a paint booth is to contain hazardous materials like overspray and volatile organic compounds (VOCs), preventing fumes, chemicals, gases and vapors from spreading into the shop or environment outside. In addition to protecting the environment, complying with local regulations and codes, and keeping your employees and facility safe, enclosing the painting process in a booth results in better quality paint jobs that are free of contaminants. And most importantly the safety of the painters and other employees.

So, where should you start when buying a paint booth? The following seven steps will help guide you through the process:

1. Pick The Right Spray Booth Distributor

Although you can do a lot of planning independently, it is helpful to call ***Springer Industrial*** at the beginning of the purchase process, as we will provide guidance to help you determine the size, airflow and features that meet your needs and price point.

Springer Industrial has over **30 years** of is experience in the industry, we work with Vendors that have engineers on staff, validates the performance of their products and works with national safety and environmental organizations.



Springer Industrial is capable of providing local support through either their own staff or vendors. Springer Industrial offers installation, maintenance programs and startup training for your new paint booth.

2. Determine the best size for your future paint booth

Identify the type and size of the products you will work with to make sure there is adequate space and airflow through your future paint booth:

- For industrial and manufacturing applications, the best practice is to identify the largest object that you need to paint, then add a minimum of 2 feet to the height, 6 feet to the width and 6 feet to the depth. As you work out these measurements, be sure to incorporate the dimensions of pallets, racks or carts. If you are painting multiple parts, allow for 3 feet of empty space between each part.



For automotive refinish applications, paint booth sizes tend to be more standardized, with 9-foot heights, 14-foot widths and 24-, 27- or 30-foot lengths. Higher ceilings to accommodate taller vehicles and size customizations are available. However, you'll want to make sure your spray booth stays within the range of ETL-listed sizes to prevent code compliance issues later on.

For aviation applications, *Springer Industrial* recommends that you determine the dimensions of the largest aircraft you need to paint, then add a minimum of 10 feet to all sides of the aircraft for clearance. You will also need to take into account the additional space needed to accommodate scaffolding or personnel lifts. When possible, paint booth walls and ceiling are designed to conform to the shape of the individual aircraft, providing cost savings on the capital equipment as well as operational savings by reducing the amount airflow required in the booth.

3. Understand your process

Different processes and applications will influence the type of paint booth you choose. Liquid applications typically use a dry filter paint booth where an exhaust fan draws paint overspray to a filter bank (in the booth walls or floor pit) and captures it. Powder application processes typically require multiple layers of filtration, ending in either a bag filter or a powder collector, with no need to exhaust the air outside of the building.⁴ Define your space

Not only should you consider the working dimensions inside the booth, the space around the exterior of the booth is also important. Take the following factors into account when deciding on the layout and location of your paint booth:

- How will you be transporting products or parts in and out of the booth (e.g. cart, conveyor, track, etc.)? Is there a clear path into the booth?
- Does the layout of your paint booth (and any additional equipment) make sense for your desired shop flow?
- If an air make-up unit (also known as a heater) will be used, where will it be mounted?
- Are service ladders necessary?
- Where will exhaust ductwork go? Is there enough room between the top of the spray booth and the ceiling of your building for exhaust ductwork, or will it have to exhaust out a wall?

Remember, any complementary products like Paint Mix Rooms, Solvent Recycle Systems and Hazardous Material Storage Buildings will require additional space.

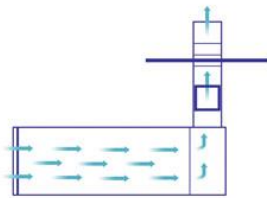


5. Decide on the type of spray booth you need

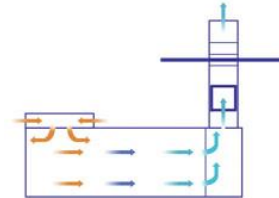
Paint booths range from enclosures small enough to paint a cell phone case to one's large enough to paint a large aircraft. Start by identifying the primary industry you work in. This will help to narrow down the options available to you and help you find spray booths with the features and options that matter most to you.

6. Pick an airflow

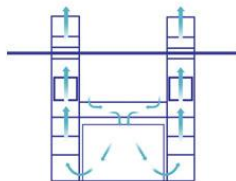
After you have selected the industry and type of booth that fits your application and budget, you can select an airflow style. This may include cross-draft, modified cross-draft, side down-draft or pit down-draft.



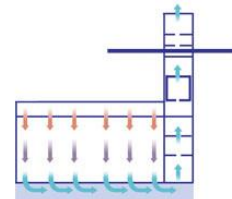
Cross-Draft Air Flow, Non Pressurized



Modified Cross-Draft, Non Pressurized



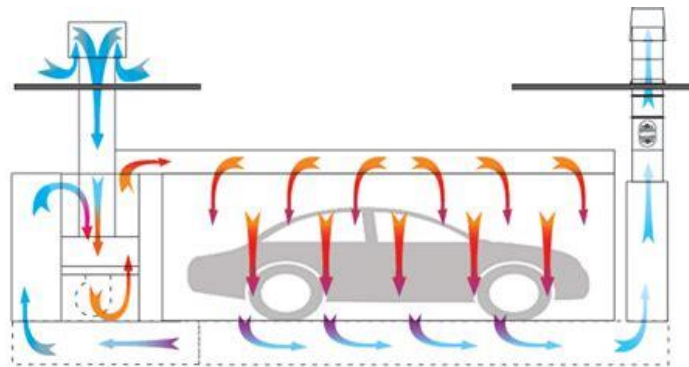
Side Down-Draft, Non Pressurized



Full Pit Down-Draft, Non Pressurized



You will also need to decide whether you need your booth pressurized or heated. The concept behind all types of air flows is to move the air past the product/part being painted in order to remove the Volatile Organic Compounds (VOCs) from the spray booth and to keep the resultant overspray from being deposited on the freshly coated substrate. The pressurized air flow design whether it be a cross-draft, modified cross-draft, side down-draft, or pit down draft, is designed to better control the quality of the air moving through the booth spray area. This can be accomplished by an Ambient Air Intake Fan or Heated Air Make-Up Unit (AMU) that will allow the user to control the temperature in the winter months for comfort and superior quality of the finished product.



To ensure that the product you are finishing gets the best possible finish, look for spray booths that provide laminar airflow, meaning that the spraying chamber is fully engineered to keep all the air moving parallel in the same direction, without turbulence that results in unpredictable spray patterns.

7. Consult local authorities

As you work through the installation process, be sure to consult the local authorities having jurisdiction and expertise in local codes. If you are building a new facility and also installing a paint booth, working with the building inspector up front will help with permitting and make it easier to be aware of any additional safety requirements beyond general booth requirements.



To learn more about the different types of spray booths available, or to get in contact **Springer Industrial, 3164 N. Colorado St., Chandler, AZ 85225, 480-898-3144**

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