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### **Below are some key items in determining what you need in a Paint Booth**

There are 5 main types or styles of Paint Booths for liquid paint applications Cross Flow, Side Down Draft, Semi Down Draft, Full Down Draft and Open Face Industrial Booth. (pictured below) All serve the same purpose to clear the air and remove overspray from the inside of the booth. They are available in many different sizes and custom sizes.

They all contain intake & exhaust filters. Intake filters clean the air coming into the booth and the exhaust filters filter the air leaving the booth.

Some paint booths have there own heated or non-heated air replacement unit making them a positive pressure booth. A paint booth that has positive pressure keeps unwanted dirt and debris from entering the booth through weck caulk joints or door seals.

Without such a system in place you have what's called "negative pressure booth" which pulls in shop air usually through filtered doors commonly known as a Cross Draft Paint Booth. This is the most popular and economical booth models available.

But due to the CFM's and air changes per minute required by code in a paint booth the negative pressure spray booth system can be very expensive to operate. As the booth takes all the hot or cold air in your shop and exhausts it out through the booth consequently resulting in much higher energy costs to maintain a comfortable shop environment. It will also make doors hard to open due to the negative pressure.

When shopping for a Booth here are a few things to consider:

What will you be painting?

This will help determine the type and size of booth for you and your shop.

When it comes to the size of the Booth you will need to know the inside and outside dimensions. Keep in mind a Side Downdraft Booth is typically 2 feet wider on the outside than any other Booth because of the side exhaust chambers.

What is the building height?

Depending on the type of Booth you select heights can range from 9' high on the outside to 20' high on a standard truck Booth. Measure and make sure you have enough clearance.



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Location?

If you need help with layout and design to pick the best spot for production flow we can help. We offer professional CAD Drawings so you can see how the Paint Booth will fit your shop.

Lighting?

Make sure you have enough lights in your Booth. A standard automotive Booth should contain at least 10-12 lights. Some manufactures put less lights to lower the cost of the booth. Also, if you are installing against a wall or another booth make sure you ask for inside access light fixtures. This will allow you to change the bulbs from inside the paint booth rather than outside.

Do you need a heated make-up air unit?

In most cases "yes"! Depending on your location replacement air is a building code requirement. Because with out one your building will be under a constant negative pressure when the paint booth is on.

An air make-up unit replaces the air the exhaust fan takes out. Therefore, creating a positive pressure environment in the booth and resulting in a cleaner paint job. They can be natural gas or propane and be mounted inside or out. They are available in vertical units which stand along side of the booth or horizontal which can be mounted above the booth or on the roof. They have a set of filters to clean the air before it is heated and sent into the booth. This scenario provides the best environment for the operator and typically produces the best paint job.

Safety features?

Does your local code require door switches or an air safety valve?

Be sure to ask!

Permits?

Make sure the vendor you choose offers help and a permit package to aid in getting your booth installed.

A spray booth is large investment for you and your shop. Make sure you are comfortable with the vendor you choose. Make sure you ask plenty of questions.



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If you are painting cars, trucks and industrial equipment, a paint booth is essential for a professional finish. Paint spray booths are multi-purpose work areas that collect airborne residue and filter air during the coating process.

Booths have two main functions. The first is gathering “overspray” during the application process—which is the paint or coating that gets into the air. Containing overspray stops chemicals from permeating your shop or escaping into the atmosphere.

A paint booth’s second main function is filtering incoming air to remove dust and other floating particles. Filtered air is important for creating glass-like finishes and inhibits contamination of your shop’s air quality.

Spray booths provide more than just consistent production quality. Paint and coating sprays are flammable and hazardous to breathe, so confining these chemicals to a limited area is crucial. The only way to ensure proper containment is a booth. Keeping your work space ventilated is integral to your employees’ safety, and a spray booth can maintain proper air flow with precision.

There are many applications for spray booths in the automotive and manufacturing industry. The basic variations depend on if you want an open or closed booth to filter incoming and outgoing air or only exhausted air. The equipment you are painting and the space you are working within are the major factors that will determine what kind of booth to install.

Part of the booth design is the air flow. Whatever degree of air filtration and type of air composition you want, there is an air makeup unit for your operation. It all comes down to controlling the air flow both in and out of the booth with the correct pressure, temperature and timing. Proper air flow consistently keeps dust and dirt out so you can maintain perfect finished results and low energy costs.

The **air quality** in your workspace will define whether you need an open or closed booth and what type of airflow you need. For example, furniture makers and other woodworking applications tend to produce a great deal of sawdust that can ruin finishes. Thus, most require paint booths that are positive pressure so the booth does not pull in any contaminants from the shop. However, if you have a dedicated room for spraying that is separated from activities that produce dust or debris, you may be able to get a less expensive open-sided booth.

Automotive painting requires a very clean working environment because the smallest pieces of dust can in the finish could result in lots of time wasted in wet sanding and buffing the vehicle to remove the dirt. Industrial equipment may be more tolerant of imperfections.

### **Sizing your spray paint booth**

There are two sets of dimensions to consider when preparing to buy a spray paint booth: internal and external.

**Internal** dimensions are based very simply on the largest part or product you need to paint. Measure the width, length, and height of the item, then add at least three feet on each side to



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give your workers space to move around. If you use an automated spraying system, you may need to allow even more space for the machinery to operate. This will give you the minimum dimensions you need inside your spray booth.

The **external dimensions** are limited by the room where your booth will be housed. Typically, spray booths are placed within existing buildings, so they have to fit between existing walls and support columns, and below overhead obstacles. Measure the available space to determine the maximum external dimensions you can accommodate.

In general, paint booths are sold by internal dimensions as that's usually the most important measurement. Standard booths are offered in two-foot internal increments but can be customized to fit your needs.

Once you know what size booth you need and the type of airflow you want, you'll have to consider several other options, including air make-up units, lighting, and safety features.

### **Heated Air make-up units**

Adding a spray booth inside your plant or shop can wreak havoc with your HVAC systems. Consider that small booths can have a negative airflow of 10-12 thousand CFM's, while larger booths can reach 50,000 CFM or more. All that air is being pulled into the booth and vented to the outside, and it must come from somewhere. Which is why we suggest heated replacement air make-up. It will also provide a positive pressure booth which will provide a cleaner painting environment.

Without an air make-up unit, that air is being drawn from the rest of your building and office. As the pressure inside starts to drop, outside air will be sucked in through every tiny gap and crack in the walls to replace it. If you're heating or cooling your building, the difference in temperature will result your gas and electric costs to increase substantially. It will also result in doors that are hard to open due to the negative pressure created by the exhaust fan

An air make-up unit solves this problem by providing a clean direct source of air for the booth. The air make-up unit pulls in outside air through a dedicated vent, heats it if necessary, and supplies the resulting air directly to the intake filter.

Air make-up units add quite a bit to the initial purchase price of a spray booth – frequently more than the booth itself. However, to avoid serious air quality problems and uneven heating or cooling, they can be worth the expense. Whatever type of finish you are applying will be greatly improved

### **Lighting**

Adequate lighting is essential to many spray booth applications. Most booths come with several banks of special explosion-proof lighting. Make sure the location and number of lights is appropriate for your work, on many booths you can easily install additional lights on your own.



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Also, consider access to the lights when choosing a location for your booth. In most cases, lights are accessed from outside the booth. You can also order inside access light to avoid this problem. So, when putting the structure against a wall you can still change burned-out bulbs.

## Safety features

Operators of spray paint booths are required to comply with a several federal, state, and local regulations to protect both employees and the environment. These rules vary quite a bit, but the most important aspect to remember is that your local regulations trump any others. Many states will require an ETL listing on the booth and also may require a wet stamp from an engineer which can be expensive ranging from \$750.00-\$2,000.00. So be sure to ask your supplier the right questions. If you need help please give our booth specialists a call at 1-800-637-4027.

Because of this, meeting with your local fire marshal or building inspector is the most important step in compliance. The vendor you choose should be able to provide general guidelines and as much help as possible. Local authorities generally have the final word on what type of installation, safety equipment, and operating procedures are required.

The safety features you may need include a fire suppression system, either dry chemical or water-based, depending on the substances being used in your application. There may be specific airflow requirements based on the type of spraying you do and the size of the booth. And you'll have to comply with standard regulations concerning electrical wiring and fire exits.

## Here is a list of some options:

- **Insulation:** Double wall insulated booths offer a cleaner and neater appearance on the exterior of the booth. There are no exposed nuts and bolts nor is there any where for dust to collect.
- **Variable Frequency Drive:** Allows the operator full control of the Paint Booth balance and speed of the exhaust fan.
- **Powder coat finish.** White powder coating helps improve overall brightness in the booth and protects the steel.
- **Doors.** Choose from drive-through, bi-fold, roll up, standard walk-through, or other types of entry doors to match your needs.
- **90/10 Recirculation:** This option allows you to recalculate 90% of the heat during the bake cycle to allow for the best possible energy savings for you and your shop.
- **Basement:** A basement is available in place of a pit being dug in your shop floor. This option allows you to still have a full downdraft booth in a rented or leased building without having to dig up the existing floor and concrete.

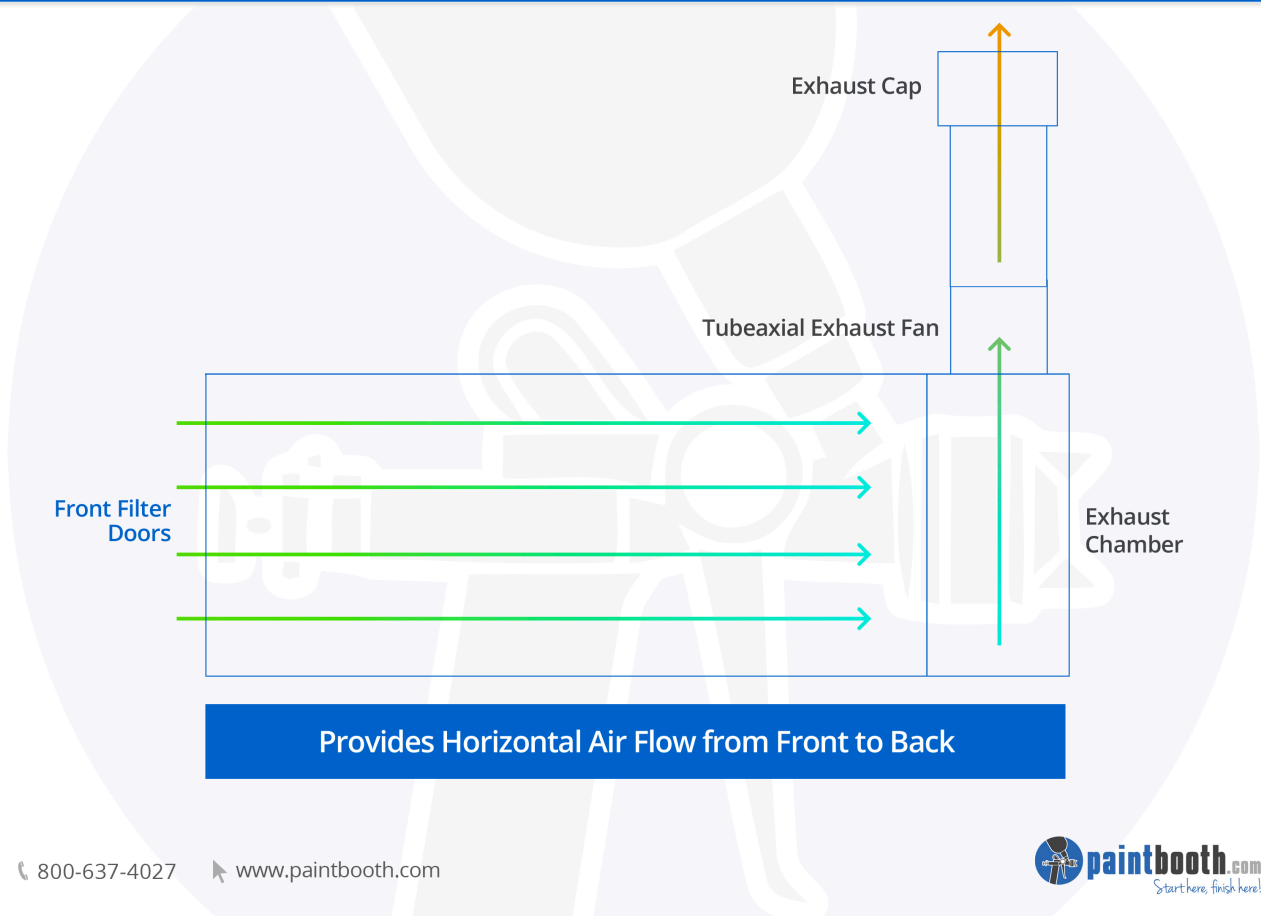
These are just a few examples of the available options for you and you Paint booth needs please fill out the **FREE QUOTE REQUEST FORM OR CALL A PAINT BOOTH SPECIALIST NOW 1-800-637-4027** [\(LINK TO REQUEST FORM\)](#)



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## CROSS DRAFT AUTOMOTIVE SPRAY BOOTH



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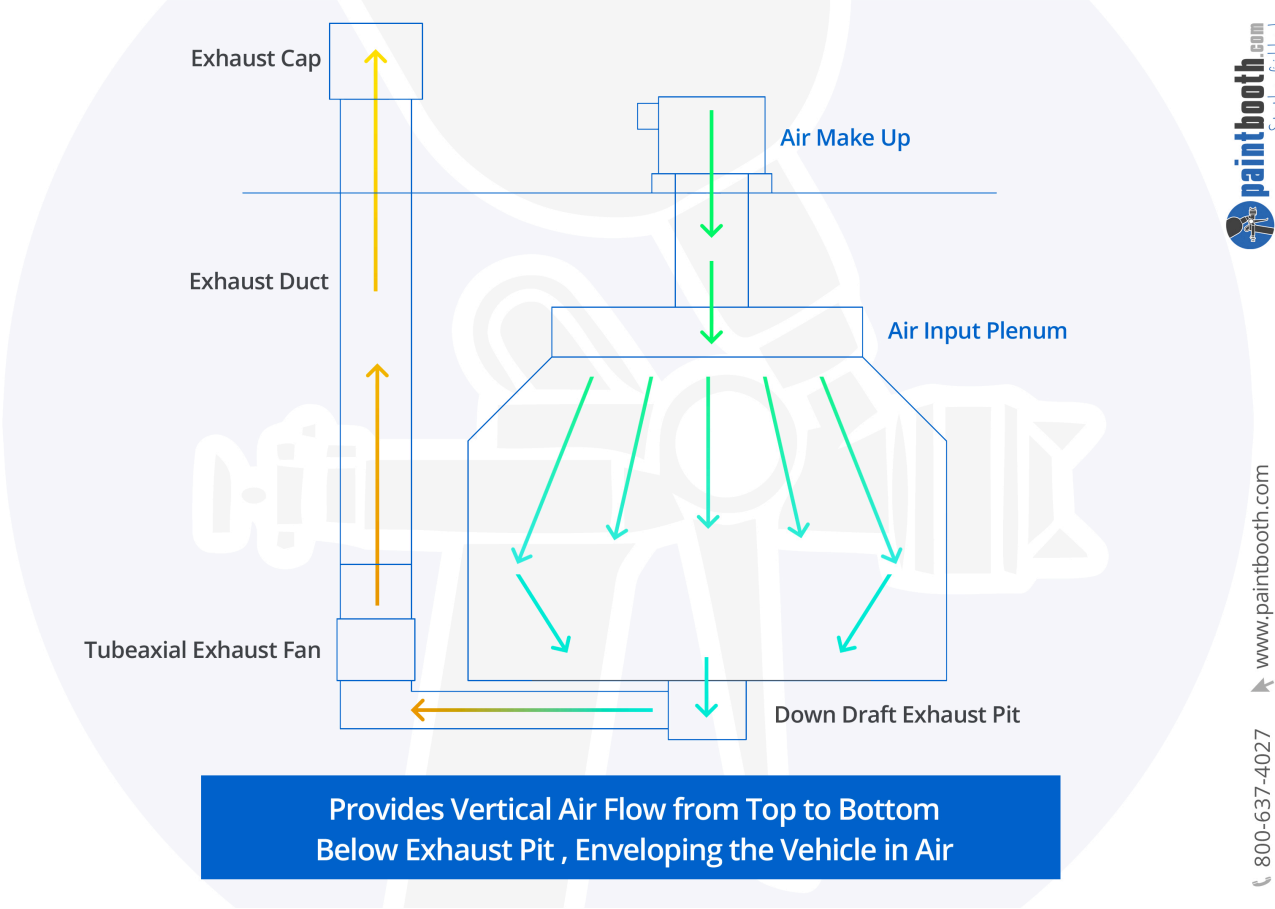




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## DOWN DRAFT AUTOMOTIVE SPRAY BOOTH



Provides Vertical Air Flow from Top to Bottom Below Exhaust Pit , Enveloping the Vehicle in Air

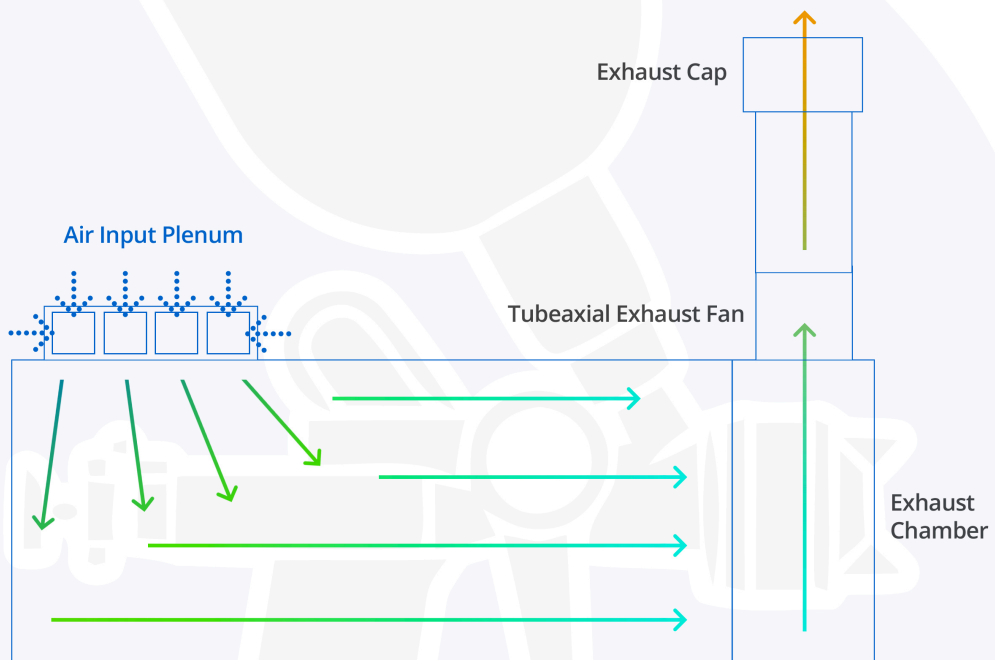




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## SEMI DOWN DRAFT AUTOMOTIVE SPRAY BOOTH



**Provides Vertical & Horizontal Air Flow Front to Back**

800-637-4027

[www.paintbooth.com](http://www.paintbooth.com)



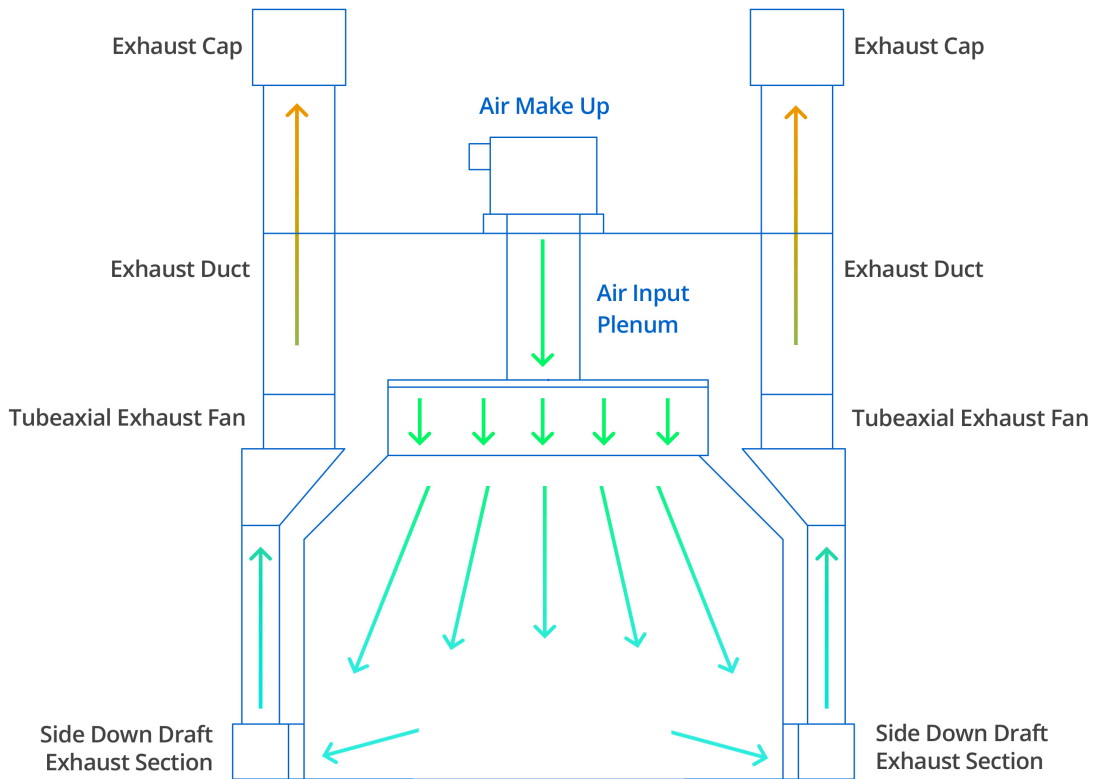




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## SIDE DOWN DRAFT AUTOMOTIVE SPRAY BOOTH



Provides Vertical Air Flow from Top to Bottom  
Side chambers, Enveloping the Vehicle in Air



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