

## Booth on a Budget!

A spray booth is a luxury most woodworkers want - whether their shop is home-based or located in an out-building. It provides the best environment for applying a “killer” finish but most people find them too expensive to buy. If you are using a spray gun indoors without a spray booth, you are exposing yourself to harmful chemicals, even if you’re spraying only waterborne finishes.

### A spray booth is a necessity!

The spray booth described here may only be used when spraying waterborne or water-based finishes. It will enhance spraying success in a home-based shop for the following reasons:

- It is designed to help contain any overspray and then exhaust it away from the interior of the booth to the outside, through an opening in the back wall of the booth.
- Two inexpensive furnace filters sit in the back wall opening to help capture most of the overspray. A barn-style, 20” (recommended size) fan mounted behind the back wall opening generates a slightly negative pressure area inside the booth and helps direct overspray and odor out of the booth, via a shop-made plastic “tunnel”, to the exterior.
- A light mounted at the top of the back wall aiming downward towards the spray area. This lighting arrangement provides the necessary light to enable the operator to see how effectively things are coming along.
- Standard light and fan control switches are conveniently located on the outside of the back wall. These allow the operator to independently control the fan and lights.
- The booth can be readily folded away when not in use, which helps keep it free of woodworking dust.



### Build List:

This spray booth can be made from readily-available materials:

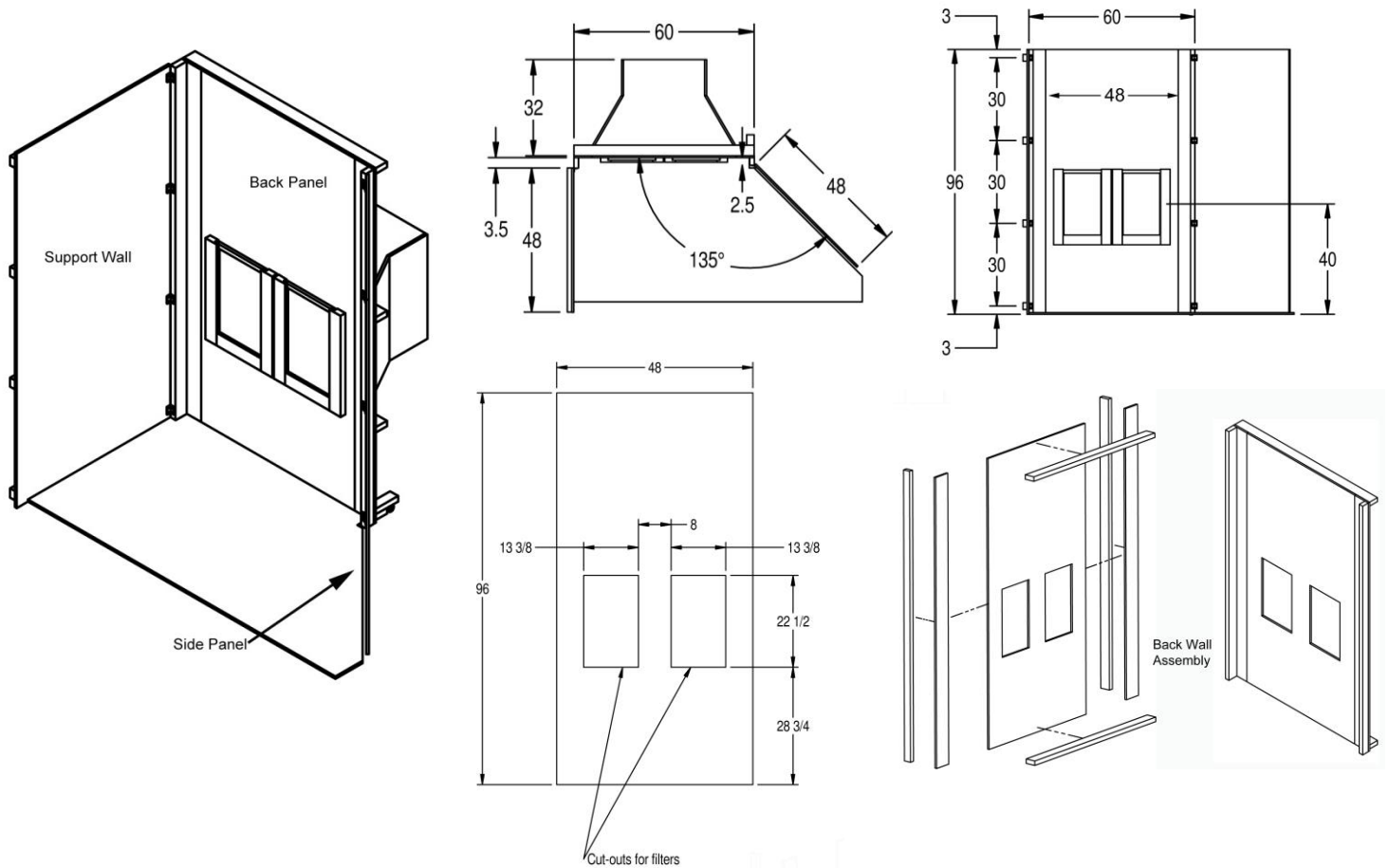
- Four sheets of  $\frac{5}{8}$ " chipboard
- One sheet of  $\frac{1}{4}$ " chipboard (for the stowaway floor)
- Twelve 2x3's 8' long
- Approximately 8 pieces of 1x3 8' long spruce strapping
- Wood screws of various sizes
- Wood glue to reinforce joints
- Note that the 5' wide back wall is formed of one full sheet of 4'x8',  $\frac{5}{8}$ " chipboard, and two pieces of 6" wide  $\frac{5}{8}$ " chipboard (rip them from a separate sheet) that are glued to each side of that main sheet
- White latex paint (optional, but recommended)
- A 20" barn-style, four or five bladed fan with a wire safety screen, back louvers and a metal casing
- Two standard light switches
- One 120 volt plug and electrical wire to connect to the fan, lighting bar and the wall plug
- 12mil clear plastic sheeting, approximately 8'x16' and a roll of red construction tape to form the plastic exhaust tube that goes between the fan box and the window box
- Six standard door hinges, three each for hanging the back wall to the wall
- One heavy-duty 3" wheel swivel caster
- An LED lighting bar (or two inexpensive halogen work lights) mounted to a 4' long 6" wide piece of  $\frac{5}{8}$ " chipboard
- Drill a hole in the two top corners of the mounting chipboard, which enables you to hang the lighting bar on screws you'll leave sticking out about 1" near the top of the back wall once you've opened up the booth
- Two furnace filters, each 16"x 25". You can use inexpensive ones and swap them out when they're full of finish



**Disclaimer:** Due to fire hazards, this booth is designed to be used exclusively for spraying waterborne or water-based finishes only.

The following diagrams below will provide the necessary information to build your very own Spray Booth.

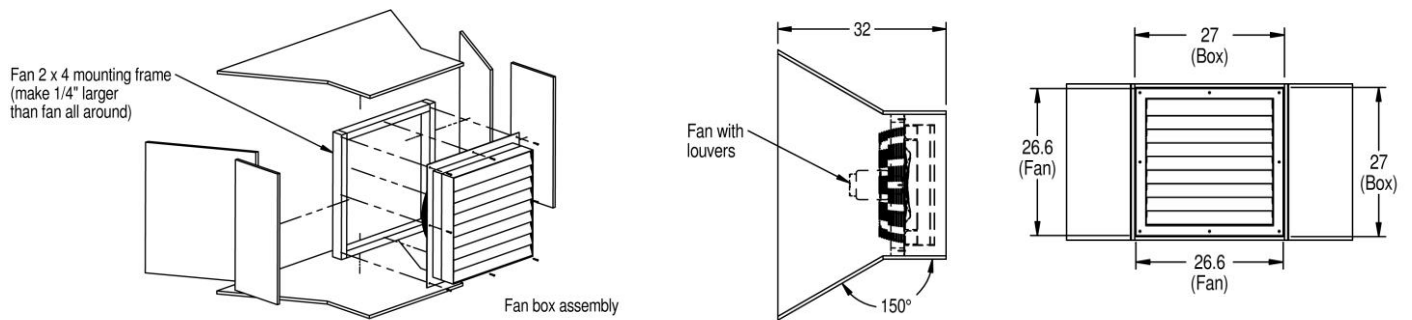
**Spray Booth Construction:**

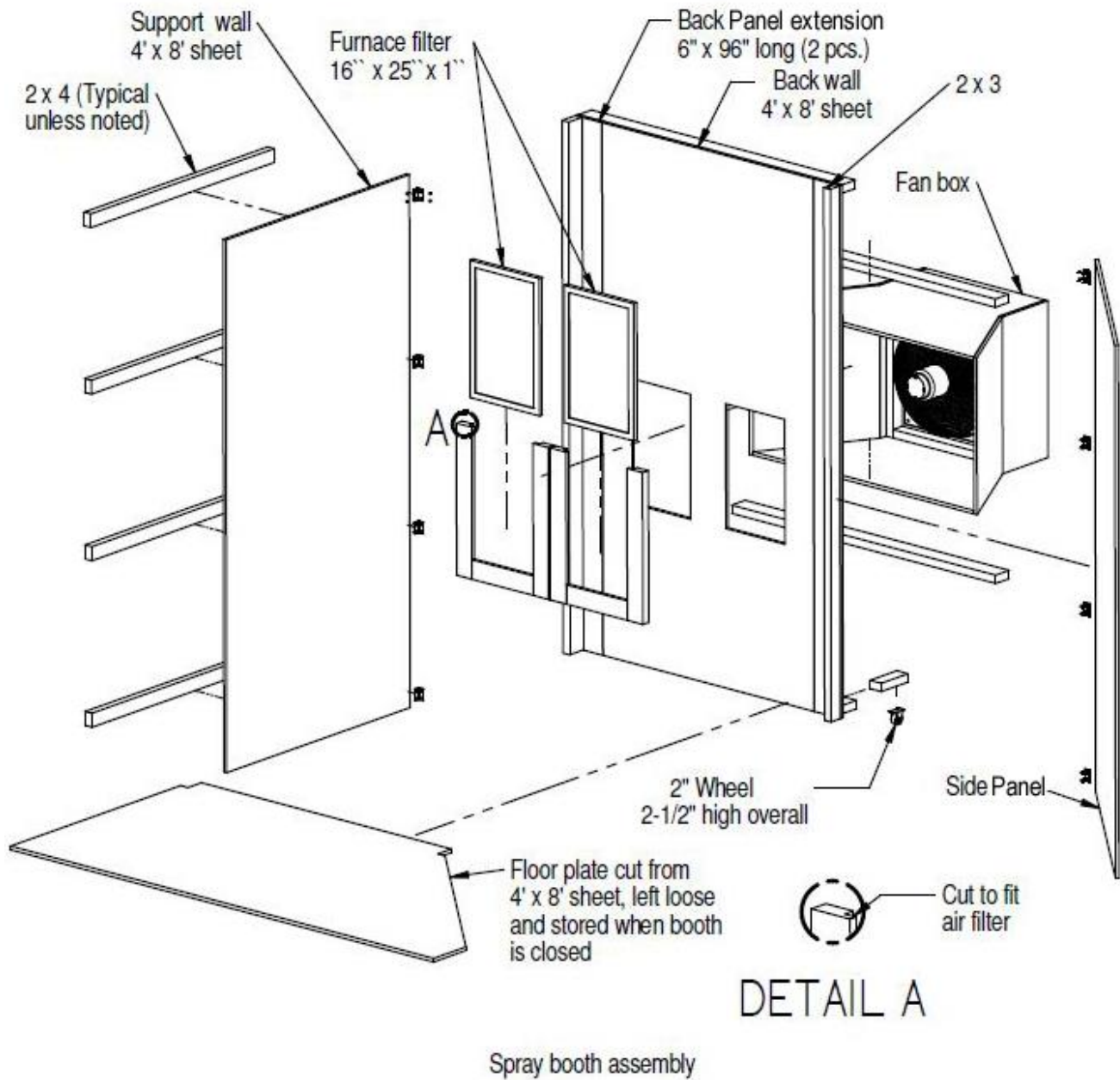


The side panel that abuts the wall is screwed to horizontally-oriented 2x3's which are of course themselves screwed to the wall. This arrangement allows the user to run wiring or air hoses between that panel and the wall if desired.

The back panel is hinged to the wall panel, then the side panel is hinged to the back panel, which enables it to all fold against the wall.

**Fan Box Construction:**





In any workplace lighting is very important. Invest in a structure that can be either permanent or a fitting that can be stowed away easily. It all depends on your needs and how much space you have in your shop for this feature.

### Ready to Spray

Setting up the Spray Booth will take you approximating 5 minutes.

- Unfold the back panel, stopping when it is approximately 90 degrees to the shop wall

## Fuji Spray Article – Booth on a Budget

- Unfold the side panel, stopping when it is about 45 degrees to the back panel
- Lay down the booth floor and adjust the side and back panel if necessary
- Mount the lighting bar
- Plug in the light and fan



### Safety First

Clean Filters are a MUST!

Imagine breathing in tons of dust and overspray every time you are working on a project. This image without filters was included to show the importance of ventilation in the workplace. Good ventilation should not be ignored. Purchase filters and save your lungs!

Also, once you are ready to spray remember to:

- Open the outside window to enable the exhaust to go outside
- Close the window box
- Open another window in the shop to provide replacement air
- Turn on the lights and fan



Spray booth in its stowed position – little space used



### Done for the day!

Project completed! It's time to fold the booth down (approximately 5 minutes):

- Open the window box and close the window

## Fuji Spray Article – Booth on a Budget

- Lift off and stow the lighting bar (Tip – placing the lighting atop the fan box on the outside of the wall and hanging the excess electrical cord on a hanger mounted beside the switches is convenient and easy clean up)
- Stow the booth floor against the shop wall, inside the booth area
- Fold the side panel against the inside of the back panel. The side panel has no casters, so it may have to be lifted up slightly off the floor as it is pushed along
- Roll the back panel flat against the shop wall

You can **easily modify** the design to make it your own or to fit your own spray finishing needs.

Modifications or not, this spray booth will provide a place for you to spray indoors without exposing yourself to harmful chemicals.

We would like to take this opportunity to thank Marty Schlosser of Kingston, Ontario for sharing his Spray Booth design and instructions with Fuji Spray.

If you have any comments or questions regarding this spray booth, please feel free to email Marty at [martys@cogeco.ca](mailto:martys@cogeco.ca)

The information contained in this article does not imply the responsibility of Fuji Industrial Spray Equipment Ltd. Our purpose is to supply information to subscribers, spray finishers and to whoever would be interested in these instructions. However, if errors are brought to our attention it will be our care to correct them.