

Volume

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ExpSun

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How to Expose in the Sun

Step by Step Instructions for Exposing in the Sun

This information booklet assumes that you know how to coat your screen with a light sensitive emulsion, and have already done so.

Equipment List

- Screen
- Positive
- Vacuum Cleaner
- Vacuum Bag
- Sticky Tape
- Outside area
- Safe light area
- Wash out area

I C O N K E Y	
	Hints along the way
	Valuable Information
	Definition
	Idea

A Few Terms

Exposing: Also known as shooting or burning the screen. Basically you are exposing a light sensitive emulsion to a light source (more specifically UV light).


Positive: The image is exactly the same as how the final result will look. Think of photography; what you produce the image from is a negative, the opposite of the image.
In screen printing we use a positive, the image as it should be.

Stencil: Is a template of an image that allows you to replicate the image over and over again. In screen printing this is the screen with the design on it.


Instructions

In a safe light area;


- 1) Get your coated screen and apply the positive (image / artwork) emulsion to emulsion.


 This means that the side of your film (or paper) that the image is printed on sits against the emulsion on the screen

- 2) Tape the positive at two opposite corners to secure it to the screen.


 Do not box the positive in by taping all four corners down. If there is an air bubble trapped in the centre, you must allow it to get out


- 3) Get your vacuum bag and place it on a flat surface, with the blank side facing down.

 For a screen size of 490 x 600 mm you will need an Extra Large bag size


 We recommend using the Original Space Bags. The cheaper versions do not hold the suction.

- 4) Get your screen and place it in the vacuum bag, design side down, so that the side of the vacuum bag with the printed instructions does not interfere with the image.
- 5) Get a piece of dark thin board or dark thick cardboard (we will call this the "backing board") and place it into the screen. Ensure that you cover the back of the image area.

 Covering the back of the image area makes sure that light does not get in behind the screen and expose it from behind


 Do not use a light coloured backing board, this would bounce the light around

- 6) Seal the vacuum bag.


 If you make the frame edge sit under the vacuum valve outlet, this will help get as much air out as possible


- 7) Before you vacuum out the air prepare your area outside:
 - a) Your screen should sit at a 90° angle to where the sun is in the sky.
 - b) Your area needs to be free of shadows cast by trees, buildings etc.
- 8) Vacuum the air out of the bag with a vacuum cleaner and quickly seal the valve.
- 9) Walk your screen out into that area in the sun.

- 10) Place the screen with the image facing 90° towards the sun.
- 11) The time that you leave the screen in the sun will depend on how strong the sun is. This stage is a little bit of trial and error as there are so many variables.

 As a guide - On a bright sunny morning you would expose for less than two minutes, when using a screen with white mesh.

- 12) Once the time is up take your screen back to the safe light area and remove it from the vacuum bag.
- 13) Take your screen into your wash up area, don't run, just move swiftly.
- 14) Wet both sides of the screen, this stops the emulsion from exposing any further.
- 15) Wash out the image, this is now called a STENCIL.

 In most cases if you allow the screen to sit wet for a short while, the emulsion will wash out easier.

 The majority of emulsions wash out easily with room temperature water at around 22°. Check your particular emulsion information sheets.

- 16) Leave the screen to dry.
- 17) Touch your screen up; fill in any imperfections with emulsion.
- 18) Allow to dry in a light area, or even better, the sun.

Exposing Hints & Tips

- If you have an old SLR camera with a light meter take a light reading and record your exposure results, this will give you a guide for the next time.
Example of information to record:
 - Date
 - Emulsion
 - Coats on Print side
 - Coats on Squeegee side
 - Light reading
 - Time left in the sun
 - Results
- Exposing times will vary depending on many things including;
 - What mesh you use (mesh count).
 - The mesh colour; white mesh exposes faster, yellow keeps better detail.
 - The positive you use.
 - The emulsion you use.
 - How many coats of emulsion you have on your screen.
 - The weather, time of day and the time of the year.

- You can expose in overcast days or even a light sprinkle. However the longer you need to expose the screen means the more chance you have of losing suction in the vacuum bag.
You can attach the vacuum to the bag and keep constant suction on it, but use a bit of sense and remember that water and electricity do not mix and can cause serious or fatal injuries.
- Safe light area; unlike photography, you do not have to work in a dark room. As long as you change the colour of the light in a room, to inhibit the UV content, the screen will not expose. Yellow light is the safe light colour; try a filter made up of a few sheets of yellow cellophane.
- Emulsion is not sensitive to light whilst it is wet. Therefore you can coat your screen in normal light and put it in a safe light area until you expose it.
- Another method of exposing at home is to use a mercury vapor lamp (400 watts), a box jig and glass.

Other Publications

Coming soon:

- ✿ How to coat your screen with emulsion.
- ✿ Different types of Stencils.
- ✿ About Positives and what you can use.
- ✿ Choosing your frame and mesh.