

WAXLINE

INSTRUCTION BOOKLET



HOW TO MAKE AND USE A SILK SCREEN
WITH WAXLINE

Silk Screening

From an art or craft store you will need a really good flat-edged squeegee. Spend the extra money; it is worth it. Usually these squeegees are too large and you will need to saw it to a smaller, more manageable size.

Get several yards of #12 nylon silkscreen fabric. To develop the actual design, use the Hunt's silk-screen photo emulsifier and developer; it is sold as a kit with complete instructions. These are vital.

To draw the design, you will need clear acetate and a good #30 and #50(or your selection) drawing pen, which use India ink. Unfortunately, a felt tip pen will not work. The light that you use when developing the image will go through felt tip pen ink.

Lay the acetate over the line drawing and use masking tape to attach the two together. Then, with great care, ink over the lines of the original drawing. You will later have to lift the edges to check whether there are any holes in the inked line. Fill those in. You want a completely opaque line, which will develop into a precise line on the silk screen.

Then you will need a frame to stretch your nylon. You can buy one at an art store or you can make your own. For a 4" tile design, make at least a 7" frame. You need enough room inside the frame for the squeegee to move about without being too cramped. Using inexpensive stripping lumber (which you must choose with great care to get the straightest pieces available), use a miter saw to cut the corners. Attach the four pieces with metal right angles you buy in the hardware store. These angles have four screws to attach with.

You will want to squeeze some wood glue onto the two pieces being joined before you screw on the angles.

When everything is dry, lay the No. 12 nylon fabric on the floor. Put the completed frame in a corner on top of it and cut the piece about 2" larger on each side than the frame itself.

Then take the time to iron the fabric underneath, twice to give it a folded edge, which won't rip, as easily as a single layer, then staple it to the frame. Check the size of the fabric against the frame as you iron, to make sure that the fabric will fit onto the frame, but not overlap the edges. It should extend to the edges of the frame, but not beyond.

When that is complete, begin stretching the fabric over the frame and stapling it down. Begin with an opposing staple on each side. You want to pull the fabric tight before you staple it down but also want to avoid pulling it to tight as to avoid ripping the fabric. The screen can actually be a bit loose and still work very well.

The next step is to wash the fabric thoroughly with soap and warm water. You need to wash any of the sizing out so the developer will take. Then dry the frame.

To keep the edges of the frame easy to clean when you are finished screening the design, you will need to mask the edges and the top to cover the stapling. You really should do this now. Use wide masking tape and plenty of it. Put the tape along the inside edges and fold them square in the corners. Depending on how large your design will be, you can extend the tape in another overlapped row beyond what you have done along the edges. If you don't take the time to mask the edges, the line mixture most

likely will seep under the edges of the material and you won't be able to clean it along the edges.

Now follow the instructions that are in the Hunt's kit and develop your screen. Briefly, the process involves mixing the developer with the emulsifier. Then spread it onto the nylon and let it dry in a dark place. To expose the screen use a simple light bulb hanging from a cord with a disposable aluminum pan as a reflector. Lay the completed dried frame on a black background and quickly place the acetate line drawing in the center. Cover the acetate with a piece of 1/4" glass which will be used as a weight to keep the acetate flat and in place. Pennies are placed in each corner so you can check the development time. Turn on your light (or follow the directions for exposing in sunlight), and wait the designated amount of time. Then wash the developer out from the unexposed lines- use a small brush or a strong water sprayer to get the developer out. If it doesn't work, you can clean the fabric with Clorox.

PREPARING HINGES FOR THE SILK SCREEN FRAME

To use the screen you have made, you will need to build a board (approximately a two foot square) to attach screen hinges to. Hinges such as these should be available at an art store. They screw onto the board and have screw down clamps on a hinge to clamp the screen frame tightly. Any good art store can give you what you need. The hinges should be available as a pair.

Attach the hinges to the top of the board with screws. Put them close enough to hold 6" frame. The hinges will hold the frame securely, enabling you to raise and lower the screen to check the coverage of the mixture without losing the screen positioning.

To hold the tile in place, get a large metal right angle. You can use masking tape to hold this in place onto the bottom board as a reference to the tile: because the positioning of the tile in relation to the screen is going to change from screen to screen.

First, position the tile on the board. Then position the frame into the hinges above the tile so that the fabric touches the top of the tile. This operation requires delicate handling so that you won't move the tile once it is correctly positioned. It will take a few tries of raising and lowering the frame and maybe repositioning it in the hinges or the tile on the board.

When you are sure of the correct placement, carefully raise the frame to the up position and slide the metal angle around the tile. Then, holding your hand on top of the angle, carefully and generously apply masking tape to hold it in place. You will need to tape both ends of the angle to keep it from moving. This position is very critical to the final outcome of your tile.

If you are using handmade tiles, we suggest that you try each tile you want to screen for alignment. Not all the tiles will work with the same positioning because of irregularities. Sort out as many tiles as will work with your first setting. When you have finished screening those tiles, it will be necessary to clean the screen completely and reposition it for the remaining tiles. This can seem a tedious job, but it is the only way to get the design on so it is centered on the tile.

OUTLINING THE PROCESS

1. Ink your design onto acetate.
2. Make or purchase a silk-screen frame.
3. Stretch the nylon fabric over the frame.
4. Spread the frame with the developer/emulsifier mixture and dry in a dark room.
5. Prepare a light source following Hunt's instructions.
6. Lay the inked acetate over the dried fabric, weighting it down with heavy glass.
7. Expose the design the appropriate length of time.
8. Wash the screen to remove the unexposed areas.
9. Prepare a board with frame hinges.
10. Position the frame and tiles for correct calibration.
11. Squeegee the WAXLINE onto the tile.

You can glaze the silk-screened tiles at any time after screening them, as long as they are protected from getting dust on them. The dust can diminish the resist quality of the WAXLINE.