

# ONE COLOR SCREEN PROCESS PRINTING

## Steps needed to complete the project

1. Make several thumbnail sketches of your ideas. Use the clip art books available for ideas, they are filled with clipart that have been saved to CD in many different formats(tiff, eps, pict, & others). Most can easily be placed into your page layout software. Hand drawn line copy artwork can also be placed on your design layout as long as the artwork is scanned as line images (B&W).
2. Use your design layout software (Pagemaker) to generate your final design. Layout your letter size(8 1/2" x 11") page using 1/4"(.25) margins. Place the elements on your page using the place command found in the file menu. Textblocks may be used for generating text or text can be imported into the layout from other sources such as text manipulating programs like TypeStyler or Photoshop. Make a print (photo-ready copy) using the black + white laser printer. Select chooser . Then choose PS printer and select the LaserWriter 16/600 as the default printer.
3. Shooting the line copy positive:
  1. Place the photo-ready copy face up in the copy board of horizontal process camera, make sure the sensitivity strip is not on any image but it must be visible on the film.
  2. Make sure chemicals in processing sink are ready for use.
    - \***Tray 1 Developer (Litho A+B)**; to make new developer mix 6oz. of **A** (concentrate) and 24oz. of water in the graduated cylinder and pour the mixture into the first tray then mix 6oz. of **B** (concentrate) with 24oz. of water in the graduated cylinder and also pour this into the first tray. This is known as the working solution and will have a shelf life of about 4 hours.
    - \***Tray 2 Stop bath**; Fill the second tray with 60oz water and then slowly add 1 capful of indicator stop bath. Stir with tongs until mixed. Be sure to wear the proper safety equipment: gloves, apron and eye protection.
    - \***Tray 3 Fixer**; To make new solution, use 10 oz fixer (concentrate) and mix with 40oz water. *Never throw old fixer down drain. Place in used fixer container for proper disposal.. This is very important to environment*

3. Load 10" x 12" duplicating film (second drawer) on the film board with the light (emulsion) side up. Turn the switch for the filmboard vacuum on. *You may first wish to check alignment of photo ready copy using the ground glass.*
4. Close the film board.
5. Set the exposure for 90.0 seconds.
6. Press the button "S" to start the exposure.
7. Lower the film board and turn the vacuum switch off.
8. Handling only by the corners carefully remove the film, remember the film will scratch easily.
9. Slide the film into the first tray (developer) using one continuous motion then gently rock the tray back and forth to keep moving the developer over the entire sheet of film - continue agitating until you see the sensitivity strip darken to a solid black step 12 (approximately 2 -3 minutes).
10. Using tongs remove the film and hold above the tray, let the developer drip for 3 seconds back into tray 1.
11. Slide the film into the second tray (stop bath) and agitate for 10 seconds. Remove the film using the tongs and hold above the tray, let the stop bath drip for 3 seconds back into the second tray.
12. Slide film into the third tray (fixer) for a minimum of 10 minutes; agitate the film 10 seconds every minute. Remove the film using the tongs and hold above the tray, let the fixer drip for 10 seconds back into the second tray.
13. Remove the film and place into the wash tray. Leave the film under running water for 10 minutes.
14. Place the rinsed film into either dryer - see direction on each machine.
15. Place film in your folder or other safe storage area.
4. Opaque - Using a small paintbrush and a bottle of opaque liquid, paint small amounts to cover any pinholes and other defects that may be on your film. If you get some opaque where you do not want it wash with a paper towel that has been lightly dampened with water. Have it checked by the teacher.
5. Preparing the screen frame – first cover a frame with polyester fabric using the tight stretch method. Make sure the fabric tension is firm.

6. Wet the screen in the plate-developing sink. Rough and degrease the screen fabric using Ulano #23. Scrub with the screen brush; leave on for five minutes then rinse. Let dry.
7. Make sure there is room in the screen drying cabinet before coating the dry screen. Using the proper size scoop coater, pour the pre-synthesized emulsion into the coater. Coat both sides of the screen fabric by lifting the coater up the surfaces of the fabric and tilting the top of the coater away but keeping the bottom against the screen. Keep the emulsion thin; a build up coat can be added before exposure if needed. Immediately cover the container of emulsion when not in use. Light will ruin the emulsion if care is not taken to keep excessive light away.
8. Place frame in drying cabinet with the backside of the frame facing up until dry, approximately 30 minutes.
9. Place positive right reading on the glass surface of the screen imaging system. Place the frame centered over the design and check for alignment.
10. Lower the soft blanket over the frame and lock the latches. Turn the vacuum on and make sure all the air is removed making sure a good contact is made between the film and the emulsion.
11. Set the timer for 170 light units and expose.
12. Turn the vacuum off, wait for the air to enter and release the blanket area before lifting the top.
13. Take the exposed stencil to the washout sink. Flush out the unexposed areas using the fine sprayer. Completely rinse both sides of the stencil including the corners.
14. Place the frame in a well-lighted area for final drying. Light will harden the emulsion and make it waterproof. Keep the stencil lying flat so water or emulsion does not run back into any of the open areas.
15. After the screen is totally dry pinholes can be filled using emulsion and a fine paintbrush.
16. Mask using masking tape the open areas to keep unwanted ink from leaking through the non-image areas. Do not get the tape too close to the image as the squeegee will ride on top of the tape and a fuzzy edged print will result.
17. Place the stencil in the baseboard or T-shirt press and set up for printing.

18. Use newspaper to build up the baseboard so there is a good contact between the paper and the stencil. Tape the newspaper to the base and mark the alignment of the paper so the image is printed in the center of the paper.
19. Print the project. Hold the squeegee at 60 degrees to the screen surface. Pull the ink across the image to produce the print. One pass is usually enough to make a great sharp print.
20. Clean up any unused ink and place back into the can if it is still in good shape. Use the proper solvent to wash the ink from the screen. Use paper towels to dry after cleaning.
21. Display your project as shown by teacher
22. Turn in the finished project for your grade.