

SO YOU WANNA SCREENPRINT

*An Introduction for Beginners
Basics & Two Color Prints*

OVERVIEW & PURPOSE

A screenprint is made using a stencil process in which an image or design is superimposed on a very fine mesh screen. Once the image is on the screen, ink is squeegeed onto the printing surface through the area of the screen that is not covered by the stencil. Screenprinting allows the same image to be printed multiple times on varying substrates.

MATERIALS NEEDED

Stencil Supplies: paint pens, clear film, printed
Screen
Photo Emulsion
Dark Room(screen drying)
Exposure Unit
Water Source(washout)
Fan
Spatulas
Waterbased Acrylic Ink

Squeegee(1" wider than image)
Clams and Print Board
Screen Prop
Power Washer(cleanup)
Emulsion Remover
Scrub Brushes
Simple Green and Haze Remover
2" tape(blockout or painters)
Rags

STENCILS

Screens are incapable of producing a continuous tone image, they function on a binary system: either the mesh is open, allowing ink to pass through, or the mesh is closed, blocking ink. Halftones can be used, alongside other mark making techniques, to approximate a continuous tone in a screenprint.

1. **Hand-drawn** with opaque drawing materials on a clear film(tracing, vellum, translucent mylar)
2. **Digitally created** and printed in black on transparencies (Double each design printed with laser printers)
3. **Combine** both digital and analog stencil making methods for more diverse prints

PHOTO EMULSION & SCREENS

Photo Emulsion is light sensitive
Coat both sides of screen with scoop coater
Think: thin, smooth, consistent
Dry Horizontally in light-safe room
Allow 24 hours to dry

Screen mesh varies from 40-400
Mesh count indicates threads per square inch
110-230 is a standard range
110-196: block text/large spot color/thick ink
200-230: more detail/halftones/thinner ink

BURN & WASHOUT

1. Tape stencil to paper side of screen, seen as printed (no reversal flip)
2. Place screen paper side down in exposure unit, suction and expose
3. Exposure Time varies, depending on emulsion, mesh count & image
4. Areas blocked by stencil remains soft while exposed areas are hardened
5. Hit both sides of screen with water to stop exposure process
6. Wash out remaining soft emulsion until screen matches stencil

PRINTING

1. Clamp in screen and tape uncoated perimeter around screen frame
2. Using a spatula, spread ink above or below stencil (avoid putting ink directly onto stencil)
3. Depending on the image, squeegees should be held at an angle close to 45 degrees
4. **Flood:** Pull ink with you, using half pressure, deposit ink into open mesh areas.
The screen should always be propped up during the Flood
5. Load paper
6. **Pull:** similar to the flood, but screen is lowered and no ink is pulled, using full pressure
7. Lift screen, examine print and compare to stencil
Squeegees and flood techniques may be changed to resolve printing issues on press

TWO COLOR PRINTING

COLOR SEPARATION & SCREEN PREP

1. Each additional color of a print requires a separate stencil and sometimes a separate screen (depending on image and screen size)
2. The order of colors on press, as well as trap lines are important to remember when separating colors (typically light colors and/or small areas of ink are printed first)
3. Measure location of first stencil on screen before burning. Burning other color layers at the same orientation will provide easier registration on press. (simple t-square or registration board will work)
4. Print first color and set aside to dry
5. Once dry, align registration for second color

REGISTRATION

1. **Mylar Method:** Tape an extra sheet of mylar underneath screen onto print board. Pull a print on the mylar. Align paper underneath mylar to desired orientation. Mark corners of paper with tape and remove mylar.
easy to set-up, not recommended for tight registration
2. **Hole-punch Method:** Punch three holes in all paper used to print. Align test sheet underneath printed mylar and tape down to print board. Place keys in each hole punched and tape down to print board. Remove mylar and test sheet and replace with print ready, hole punched sheet.
better for tight registration, details matter in set-up, larger paper required to allow holes
3. **Crosshair Method:** Include digitally created crosshair on 2-4 sides of stencil design before burning screen. Align each crosshair to the next color crosshair. Tape out crosshairs from paper side of screen once colors are registered
allows very tight registration, best if used on suction table, larger paper required

RESOURCES

Plaza Artist Materials | plazaart.com | 927 W. Grace St RVA 23220 | 804-359-5900

Victory Factory | victoryfactory.com | 1-800-255-5335

Ryonet | screenprinting.com

Permaset | permaset.com

Speedball | speedballart.com

LINKS

www.howtoscreenprint.com/blog/

www.learnhowtoscreenprint.com