

PRINT MAKERS OPEN FORUM

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Drawn Image Matrix Options:

- Drawn with Stabilo #8008 or Toner/Tusche mixture, India ink on one side frosted mylar – you MUST check opacity on a light table (or sunny window in a pinch)
- **REGISTRATION IS ESSENTIAL - Add T/Bar**
- Painted with Toner wash (this is pre-mixed in the shop – it is copier toner in a clear acrylic floor polish medium) DO NOT mix the toner into the floor polish yourself. Paint with the mixture – again, you MUST check opacity on a light table (or sunny window in a pinch). You can also experiment with other washes such as india ink.
- Spray paint works for stencil effects – YOU MUST ONLY USE SPRAY PAINT IN THE SPRAY BOOTH.
- You can erase, rework the mylar as much as you want. You can use a combination of pencil and wash – stay within a **10% light to a 90% dark** when working with these mixtures.
- Exposure times will vary according to the light/dark of the drawing. General exposure guides are above the exposure unit. The unit is under the cabinet to the right of the back Processing room door.

Digital Litho Transparency Matrix Options:

How to setup for printing through the computer

for basic graphics (line work, text etc): Remember registration if necessary
120 ppi
print on paper to test
print on media (what you are going to use as a matrix to expose with plate)

for a halftone: Remember registration if necessary
Photoshop →
Image size ____
image resolution 300ppi →
mode: grayscale → adjustments curves, levels etc → ok
mode: bitmap → (input 300) output 300 → dropdown halftone → ok
frequency 20 - 50ppi for halftone look, angle (try 60 – 72), shape ellipse → ok
print on paper to test
print on media (what you are going to use as a matrix to expose with plate)

for continuous tone: Remember registration if necessary

Photoshop →

Image size _____

Image resolution: 800ppi →

mode: grayscale → adjust for brightness, contrast, levels etc → ok

mode: bitmap → (input 800) output 250 – 800 → dropdown diffusion dither

print on paper to test

print on media (what you are going to use as a matrix to expose with plate)

Emerald Green Takach Positive Photo-plates

Positive working plates are pre-sensitized to yield a positive image from a positive transparency. Plate is wrapped in goldenrod and should be kept in this paper or face down. Short moments of room light is of little concern but **DO NOT ALLOW SUNLIGHT TO STRIKE THE PLATE.**

TRANSPARENCY

Any type (photographic or hand drawn) can be used.

Hand drawn transparencies, i.e. opaque pencil (Stabilo 8046, Stabilo 8008,) toner-acrylic washes, and other light blocking materials are made on one-sided frosted mylar (drafting film) which will pick up a similar drawing surface as a ball-grained plate.

Continuous tone photographic sources must be converted to a bitmapped dot. This breakdown of continuous tone grays is essential – the variation in the dots will give the illusion of continuous tones. PMOF has the ability to make digital films on an Epson 3800, maximum film size 17 x 22" (image 15 x 22")

EXPOSURE

The exposure unit is under the cabinet in the Processing room directly behind the spray booth. Remove the front to the cabinet. The vacuum frame rolls out and remains on the floor.

Clean glass. Avoid razor scrapers as scratches will become part of the plate. After exposure, clean off any transferred image from glass as it is easier to do when the marks are fresh.

Open the frame, place the plate green side up on the red plastic. Make sure none of the red plastic mat is over the rubber suction frame. With the plate face up in the center of the vacuum table, place your transparency face down in proper position on the plate (face up transfers drawing materials to the glass and leaves a space for the light to get past the image to give a poor exposure).

Close and latch the glass cover and switch vacuum pump ON. Wait 20-30 seconds until the vacuum gauge moves to 20+psi. Roll the exposure unit back under the cabinet.

Exposure time varies with drawing materials use, film thickness, and even manufacturers' batch irregularities. The lights are on the underside of the top of the cabinet. The switch is red, to the top right. Exposure will be anywhere from 2 minutes to 4 minutes. Consult instructor and/or do a step test.

DEVELOPMENT

NOTE: plate developer contains lye and in the concentrated form should be handled with caution. Gloves!

Developer is pre-mixed for use. It is stored on the on the plastic lid, on the floor to the left of the spray booth. It reads Takach plate developer.

Bring in plate from exposure unit and place it in the tray to the left of the sink. Pour a small amount of developer in the tray, enough to cover it well. Rock the tray gently for anywhere from 3 to 10 minutes. You can see the image developing, watch for clear light non image areas, borders, and whites. Be careful not to over develop or you will lose all the soft, pale grays. If more developer is needed, add off to side of plate, not directly on.

The developer can be used more than once. If there is no one else in line to use, then discard developer into sink and rinse thoroughly. Sponge up any developer on the table.

PROCESSING

When developing is complete, rinse plate at plate sink, use paper towels to dislodge any remaining emulsion, drain excess water off of plate and dry at plate. In the press room, rub the plate down with a cheesecloth usig FPC developer.

(OR optional: once plate is dry, talc and etch with 100% TAPEM and buff down. At this point the plate may be stored or printed. When starting to print, use FPC to clean the plate)

PRINTING

At a vented surface, coat plate in 2" puddle of FPC, massage plate, and buff down with a rag. Dampen at the press and print.

Printing disasters may be remedied with FPC (see closing plate) – a cleaned plate will go through all the proofing stages again.

Do not leave plate to dry. (optional: If you must step away, talc and gum your plate)

CLOSING THE PLATE

If plate is in black in and in a good rolled up state, talc and gum the plate for storage or

If plate is in color or filled in with black ink, dampen plate and slowly use FPC with a rag in stages to dilute and then to completely remove ink and preserve the plate. Buff down any excess FPC.

More on Exposing and Processing the Litho plate

PLEASE NOTE:

These positive working plates are positive working, precoated with emulsion. This means it must stay OUT of light. When exposing, the “room light” of the exposure area is ok. The plates are called positive working/subtractive room light plates. That means they work from a positive (your drawing or a positive image, not a negative) in a subtractive manner (meaning the developer is **removing** the emulsion). The longer the exposure, the more light will pass through the positive and the lighter the plate will appear. This is important to remember and may seem “counter-intuitive” to some who have worked in darkroom settings, or with photo screenprinting.

After exposing, the plates must again be kept OUT of light until ready to print. This is because light weakens the emulsion. If you are accustomed to silkscreen, take note as screen exposure is the opposite.

Buy plate from bookstore - cut to size on the metal shear as we did with ball grain, round edges

Printing a photo litho plate:

- Compostion roller only, thin film of ink – these plates can be deceptively difficult to print. They require finesse. Printing a few ballgrain plates gives you a handle on printing these plates well.
- Ink is formulated the same as any color ink as demonstrated for ballgrain plates. Setswell is not a standard modifier for these plates except in the case of large flats. and rolled out, wet plate with sponges. Requires a very thin water film.
- FCP- use to clean off ink. Massage to mix with ink, can mix with water. Used rags are disposed of in red cans.
- IF there is any scumming, FPC, then 100% TAPEM can be used to resolve the areas involved. You can also try Acetone (nail polish remover)
- Color can be changed by using Cleaner/Preserver (FPC) on a rag. Used rags are disposed of in red cans.
- REMEMBER with plates that it is best to print after rolling with ink, (not sponging with water). Print dry.
- When printing is complete, clean plate with Cleaner/Preserver and store out of light.
- Second color – this is where registration is essential. Run each print of the first color through the press after printing using newsprint to “strip” the color – this avoids “bronzing” and also keeps prior image from offsetting on next plate (which would cause printing hell)

If you are thinking you might want to add a second (third, fourth) plate, print your plate on clear acetate as a last print – dust the acetate with talc or “dragon’s blood” under a vent and save for possible use later. This is useful any color litho process.