

Instructions for Lithography

1. **Prepare Plate:**

Cut new aluminum plate to size (be aware of the size of the litho scraper bar when cutting plate, one dimension of the plate should be larger than the scraper bar is wide), taking care to keep grained surface clean and grease free (to avoid having to counter-etch the plate). When plate is cut, prepare the edges by marking a three-inch [3"] border with a #2 pencil and coating the border with gum arabic.
2. **Draw:**

Using grease receptive or greasy medium, create art on surface of plate. (Use litho crayons, litho sticks, or litho tusche.)
3. **Attach Plate:**

Tape the plate, using plastic packaging tape, to the Benelux "sub-stone" at the top and bottom of the plate (cover approximately one-half inch of the gummed border) being careful to make sure the plate is centered relative to the scraper bar. Choose a scraper bar that is no wider than the plate (but as close to the width of the image as possible.)
4. **Mark Press Bed:**

At this point your plate has been attached to the Benelux "sub-stone" bed and it is time to mark, on the press bed, where your image is relative to the press bed. Use a piece of colored tape to mark the exact front edge of your image, and another piece of tape to mark the back edge of the image (this is where you will lower and lift the scraper bar to and from the tympan.) The scraper bar must be locked in place on the 3" border, and must end up on the 3" border at the other end of the plate, rather than on the actual image.
5. **First Etch:**

Sprinkle talcum powder over the image on the plate before coating any portion of it with gum [excluding the three-inch border]. Examining the image created, straight gum arabic may be coated onto areas that are light with drawing media to prevent over-etching. The remainder of image may be coated with TAPEM [a mixture of gum arabic, tannic acid, phosphoric acid and, usually, microgum]. Use a soft brush to **quickly** coat the entire surface of the drawn area with the gum etch mixture, and, when completely coated, buff dry with cheesecloth. [keep cheesecloth for this purpose separate from other cheesecloth since it needs to remain soft and pliable for best results; rinse cheesecloth in clear water when finished for the day] When buffed dry, leave for 20 – 30 minutes. [Note: it is best to remain consistent in regard to the length of these etches, and there are two etches in the process of making a lithograph. According to Tom Druecker, it is best to NOT vary the length of the etch, and keeping it constant will produce more consistent results]
6. **LAW – * Lithotine * Asphaltum * Water:**
 - a) Use Lithotine, or mineral spirits, or Isopar-G to wipe out the drawing media, then fan dry.
 - b) Rub down the drawn surface gently with liquid asphaltum and wipe excess off with mineral spirits, and fan dry
 - c) Use water and a sponge to remove the gummed border and the remaining gum etch material from the surface of the plate.
7. **Ink Rolling:**

Switch to clean sponge and clear water to keep surface of plate wet. Using

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lithographic roll-up ink, and **keeping the plate moist with clean water at all times during the ink rollup**, begin to roll the image with ink, keeping track of the number of passes made with the roller. Continue this until the image appears sufficiently inked.

8. Proof the image:

Print the image on newsprint to check the inking quality by examining the darker and lighter areas to see if they are printing adequately.

9. Second Etch:

a) One source of information says to simply re-apply talc, the gum etch, buffing it dry, and repeat the 20 minute etch time. When the twenty minutes are up, simply remove the etch with water and, keeping the plate wet, continue rolling the plate with ink, keeping track of the passes made with the ink roller. Use the ink the edition is to be printed in.

b) A different source says to talc the plate, cover with TAPEM and buff dry and leave for 20-30 minutes. At the end of that time use mineral spirits, lithotine or Isopar-G to clear the roll-up ink from the image, fan dry, and cover with light coat of asphaltum, wipe excess with mineral spirits, lithotine or Isopar-G and fan dry. Then remove gum etch (TAPEM) with sponge, switch to clean sponge and begin ink rollup process using editioning ink.

10. Print:

When the required number of passes with the ink roller have been applied, print the image onto editioning paper.

11. Printing Successive Images:

Continue printing the plate, with ink roll-up and keeping the plate wet between rolls, until the edition is printed. Ink receptivity on the image is cumulative, so fewer successive passes will be needed to achieve identical images as the edition progresses. This is determined by means of inspecting the printed images as they are pulled from the plate and making any needed adjustments.

12. If it is desired to take a break:

...during the printing process, simply apply straight gum arabic [NOT TAPEM etch!] to the plate and proceed with the break. On return, remove the gum with water, begin the ink rollup process and continue printing.

13. If a longer break is needed or desired:

The image can be gummed, the ink removed with mineral spirits, etc, and asphaltum applied and allowed to dry. When ready to print again, apply etch (TAPEM), and buff dry, leave for 20-30 minutes, remove asphaltum with mineral spirits, remove the gum etch with sponge and water, switch to clean sponge and clean water and begin ink rollup process.

At this point it would be prudent to pull one proof to check for identical image and re-etch if necessary; otherwise, continue printing