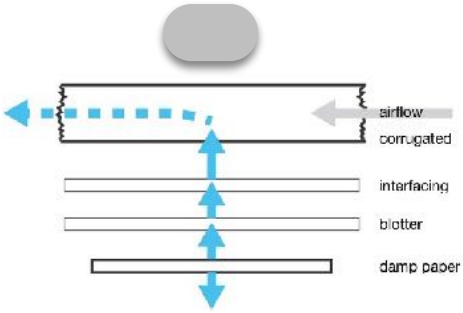
RIXLABnotes

Drybox
DIY for artists & papermakers



The drybox is an ingenious solution for flattening sheets of paper that are warped or "cockled" because of irregular shrinking during air drying. Papermakers use it to dry freshly formed sheets which are much wetter than even watercolor gets. It consists of a stack of sandwiched materials that wick the water away from the paper while providing both constant ventilation and restraint so the paper cannot curl up.

1 Find the best fit between the size of available materials and the sizes you commonly need to flatten. Cut all materials to the same dimension to make a neat stack and be aware of the direction of the corrugations that fit the fan. Here are links for some resources:

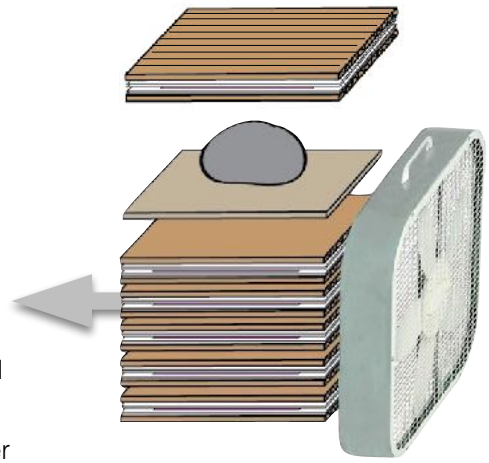
blotter paper (cotton linters sheets)
Carriage House Paper and Talas

Pellon sew-in interfacing, **not** iron on
interfacing or stabilizer

corrugated cardboard
Staples (there are different sizes…)

20" box fan or similar at hardware or big box stores.

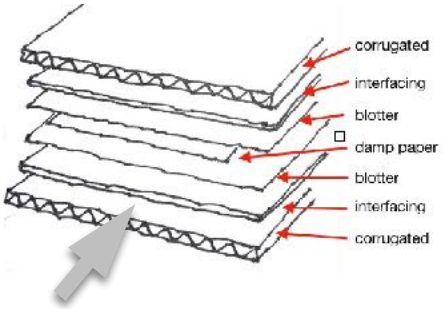
2 Relax the fiber of your paper by misting front and back to insure the paper is evenly dampened, but avoid soaking any more than necessary, which only takes longer to dry. You can see the paper relax; allow that before you start the drying.



In its simplest form, the drybox is just the stack of the sandwiched media and a box fan… and it works. You can feel air movement through the layers. You can improve its efficiency by wrapping the sides of the fan and stack with plastic to channel the airflow or you can make a more compact unit by building a box around it and putting it on wheels.

This is the latest of several dryboxes I have made. It has a variable speed commercial exhaust fan pulling the air rather than pushing it through the stack, which is housed in a snug fitting box on casters. Commercially made dryboxes range from $700 to $5000 and are aimed at institutions like schools. Most artists make their own simpler versions for $100 or less.

Each sandwich consists of 2 blotter sheets (cotton linters), 2 sheets of sew-in interfacing or stabilizer material, 2 sheets of corrugated cardboard with the flutes of the corrugations aligned the same way so air can be blown through them, a top board with weight such as bricks and a 20" box fan.



3 Assemble each sandwich as shown in the diagram: damp paper in the middle, blotter paper either side of that, interfacing outside of that, and corrugated cardboard sheets either side of the whole thing, with the flutes running in the same direction. Each sandwich is one layer of the stack; use as many sandwiches as needed. Add the weight to the whole stack evenly to keep it all flat as it dries. Set a 20" box fan directly against a side with open flutes to blow air through the corrugations the whole width and height of the stack.

Drying time depends on how damp the paper is, perhaps 4 hours or overnight, but not more than 24 hours usually. Shrinkage and warping occurs in the last 10% of drying so it's important not to pull the sheets too early.

Notes: The interfacing prevents the damp linters from impressing the flute corrugation pattern onto the drying paper. Make sure the interfacing or stabilizer is non-fusible, that is, sew-in not iron on, so it has no adhesive layer to inhibit passage of moisture. Helen Hiebert has good instructions in her book **The Papermaker's Companion** and you can find pictures of various designs online by Googling papermakers' drybox.