Make your own Embossed Business Cards using Acid Etching

by **bofthem** on August 29, 2007

Table of Contents

intro: Make your own Embossed Business Cards using Acid Etching

Etch. Press. Print. Want to learn how to emboss paper for your own business cards? Create your own pattern on the computer, and etch it into a brass plate.

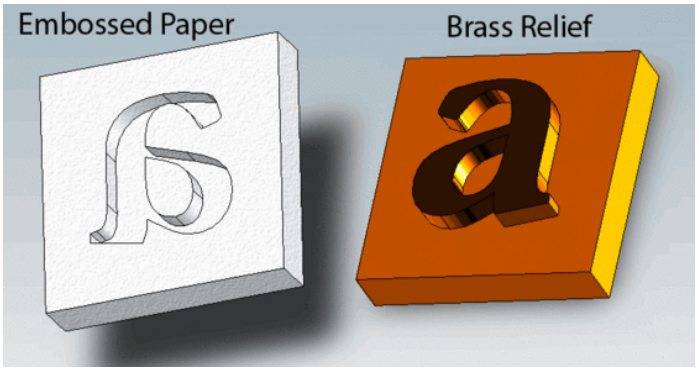
I've wanted to make my own embossed business cards since I was handed a really incredible one at a fancy restaurant. I tried several methods of achieving the effect (photoemulsion, electrolytic etching) but ended up having the most success with a pretty simple and straightforward acid etch method similar to the one used in home printed circuit boards. I still have to work out a few kinks (such as flattening the paper after the emboss without distortion, or reorganizing the method to print before embossing) but I hope you can take something useful from my experiments, and apply it to your own projects.

step 1: Planning

All in all, to repeat my process you'd need:
Access to a laser-jet printer
Ferric Chloride (available here)
An Iron (with all the water emptied, please)
A meticulously clean brass plate (big enough to cover the space you want etched with room for more)
Heavy, thick paper. Card stock will do nicely, but heavy rag paper from art supply stores works well, too.
A clamping jig to align your sheets each time you use it. I used plywood with brass elbows and PTEG plastic sheet (to keep the paper nice and flat against the clamping jig), but it's up to your expertise.
6 or more C-clamps.
Shiny laser jet paper.
A plastic bus bin, or other wide plastic container for the acid etch.
A spray bottle.

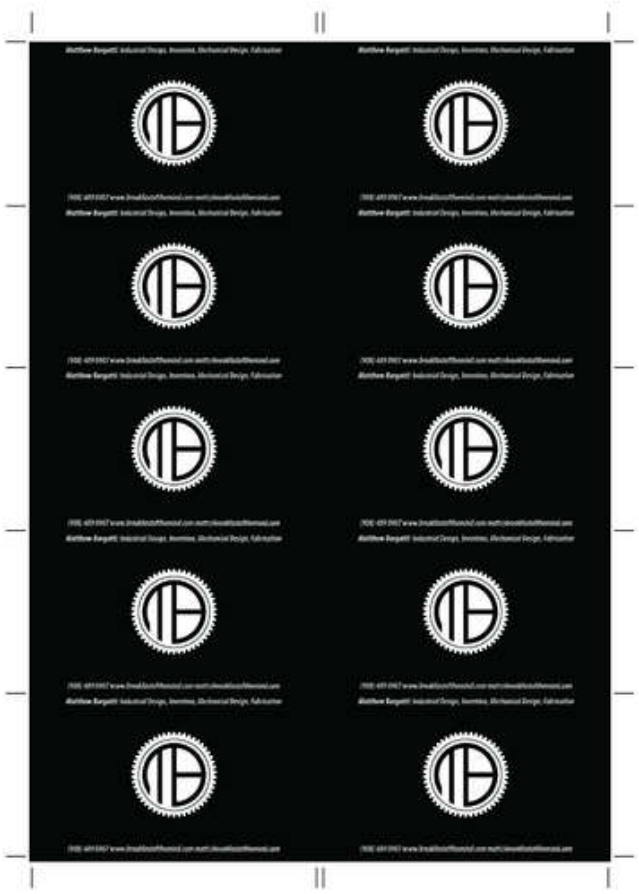
My concept was to emboss a sheet of paper, and then run it through a printer to color the page. I'd then cut the cards out. On review I'd have changed some things, but got some cool results, regardless.

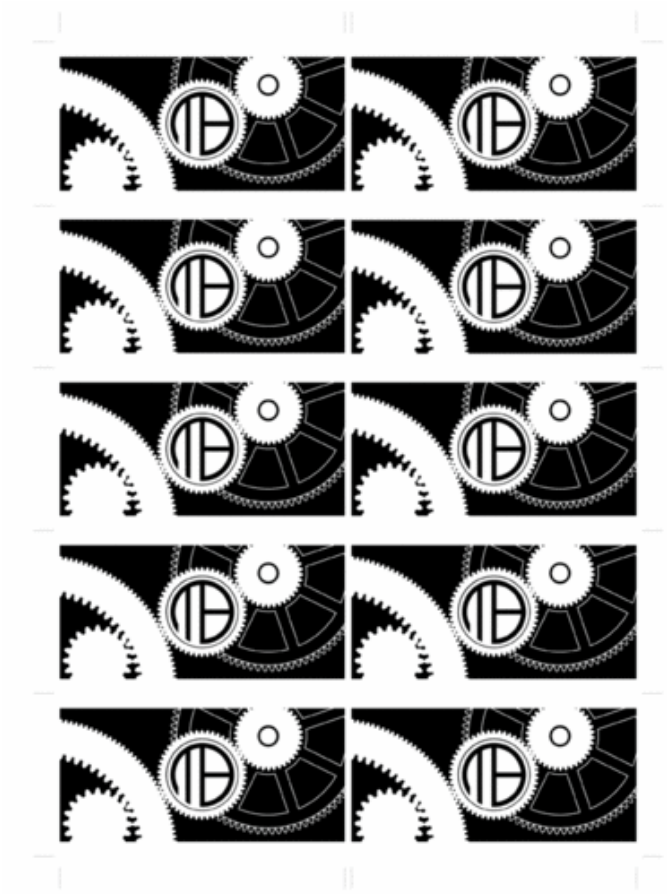
Begin by designing the pattern that you want embossed in the sheet. Remember that what is embossed onto the card is the mirror image of what is etched on the plate. So if your pattern reads properly on the brass, it will be backwards on the card. The same applies to the relief. If your logo is raised on the brass, it will be inset in your card. Design it in sharp black and white. If you want gradated patterns, consider going with a halftone pattern.



step 2: Arrange your etch design and your printed design

I used Photoshop to design and align my patterns. Of of the easier aspects of this process is that you don't have to design the etch design in mirror for everything to align properly. The reason is: when you iron the pattern onto the brass plate, it becomes mirrored by default, but I'll get to that, soon. I felt it was simplest to go with a pattern that was as big as a sheet of paper. That meant that I could print everything out in a standard printer. This also meant that my clamping jig, and brass plate would both measure 8.5"x11".

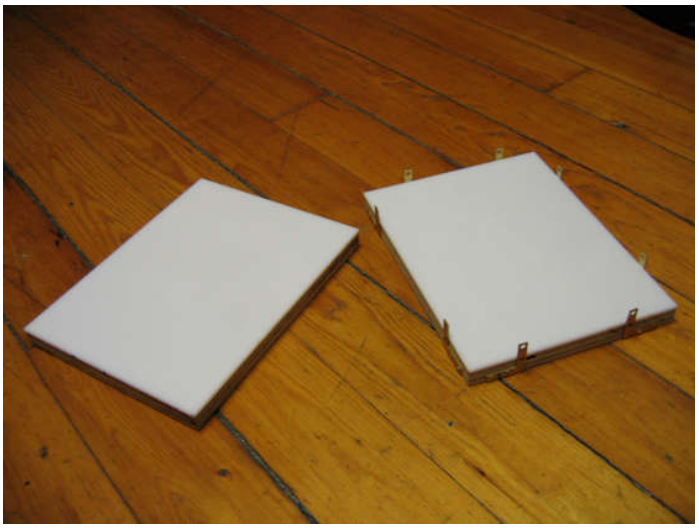




step 3: Getting jiggy with it.

When I made this, I had access to a really spectacular wood shop. If you happen to have a really nice table saw at home, you can make this jig without a problem, but otherwise, I'd suggest that ou skip the clamping jig, and just continue this tutorial with a pair of thick plywood sheets, and an additional brass plate, knowing that to align the brass plates and the paper sheet, you'll need to tape them together for each print you make.

I started with a sheet of .5" plywood, and a .25" sheet of PTEG. I roughed up one side of the plastic, and stuck it to the plywood with contact cement. After the glue set, I trimmed the board into two 8.5"x11" panels (the plastic sheets are there to provide a nice, flat surface to press the paper against, the wood is there to even out the pressure of the clamps, and provide integrity against warping). Then I added brass brackets along the sides to hold everything in alignment.



step 4: Laser jets.

Once your are satisfied with your images, print the pattern on to a sheet of glossy laserjet paper. Print in black ink only, in the highest quality, and in the highest density you can. Make several prints, and make sure to inspect them to see that the printer spooled properly, and they aren't skewed on the page.

step 5: I am iron man.

The next part will be familiar to you if you've ever printed a circuit board. After your plate is cleaned to shiny perfection, and you've inspected your printout, it's time to adhere them together with prodigious heat. Tape the corners of the page to your brass sheet to hold it while you iron. Take special care on this step, you only have the one chance to iron this on right. Find a heat proof spot to work, such as a wooden work bench, or the concrete steps on your back porch, or an old wooden cutting board. Plug in the iron and get it ripping hot. Start pressing the iron down on the page, starting in the center, and working out. I took about five minutes to do this page, leaving the iron on one spot while pressing down, and then moving to the edges. What's happening is that the ink melts, and adheres to the board under the heat of the iron. When the paper is soaked, the paper lifts away, and the ink remains.

For another look at this method, take a look at dear Mr. VonSlatt's webpage.

step 6: Soaking.

Now that the page is properly stuck to the brass, you should let it cool. The paper will probably bubble up a little from the sheet shrinking. Take this opportunity to inspect it, and iron over any places that didn't quite stick right. The raised areas will give you a good idea of what parts didn't stick so well.

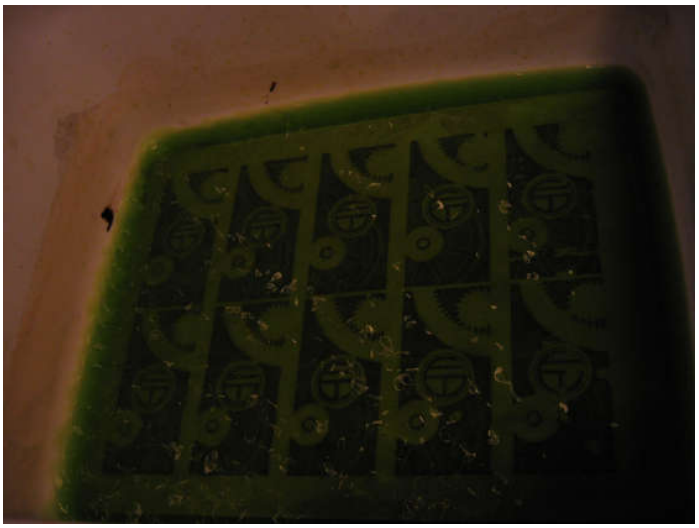
After this is all done, get a sheet pan with high sides, your plastic bus tub, or another container that will hold both the plate, and enough hot water to cover. Put the plate in the pan, and cover it with hot (but not boiling) water. Let this sit and steep for a few minutes, until it cools down enough for you to put your hand in. Begin gingerly peeling the paper off of the plate. It will come off in scraps and layers. Keep at it until it's just a film. Then, gently rub at the remainder with your finger. You don't need to get off every speck, so don't get anal about it. If you try to get it Lysol commercial clean, you'll just end up scratching the ink.

step 7: Acid Jazz.

Once the plate has dried, it's ready for its Harvey Dent facial. This is where you really need the plastic bus tub. It should just be a little wider than your plate. I prepared my acid solution as per the directions, and set it, and the plate to soak in the tub overnight. I highly recommend that you go out to a hardware store, or home depot to find one. Do not use a metal pan.

I happened to have broken a desktop fan that day, and it was missing a blade. I strapped the whole rig down to a miniature ironing board, and it acted like a vibrating lab table (I felt this improved the speed of the etch by moving reacted material off of the plate, exposing the brass beneath, but it did end up toppling over once, so I scrapped the idea after a few hours). I would apply the concept only in an area with an easy to clean floor.

After a 12 hour soak, I found that the plate had etched about .05". This is noticeable to the touch, but if I were to do it again, I probably would have stopped after a full 24 hours.

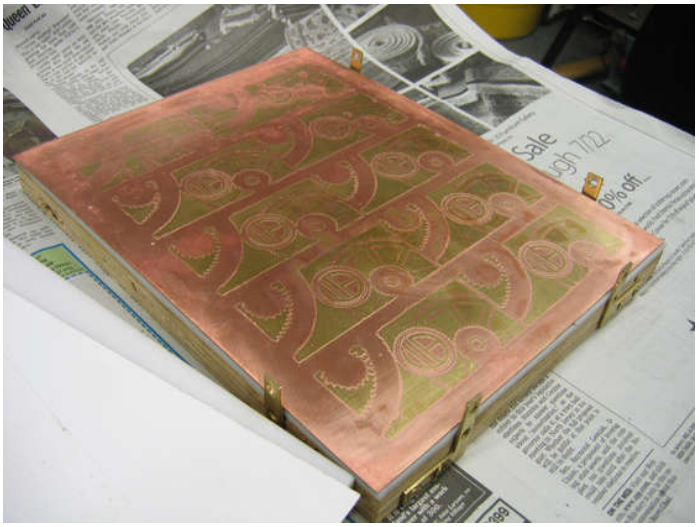


step 8: Pressure pushing down on me. Pressing down on you no man ask for.

A quick scrub with a Brillo pad will get off the remaining copper scum and ink from your plate. Muriatic acid (diluted hydrochloric acid) does a very good job of cleaning metals. If your plate starts getting a bit green, and the verdigris stains your paper, just give it a thorough wipe with the acid solution. You can pick the stuff up at Home Depot, near the pool supplies.

Now, all that's left to do is assemble the parts, and clamp. Here's where I think I should have gone differently. I was told by a printmaker that embossed patterns hold better if they are done while the paper is damp. So, I spritzed the pages before clamping them. However, this seemed to warp the pages. After some more experiments, I decided to hang the wetting, and just print one dry, and it seemed to come out fine, and without distortion, but didn't have time to do more tests. My original plan was to emboss the paper, and then run it through a printer. The distorted pages failed to spool properly, and therefore were misprinted. In the future, I think I'll try printing the images first, and then embossing them.

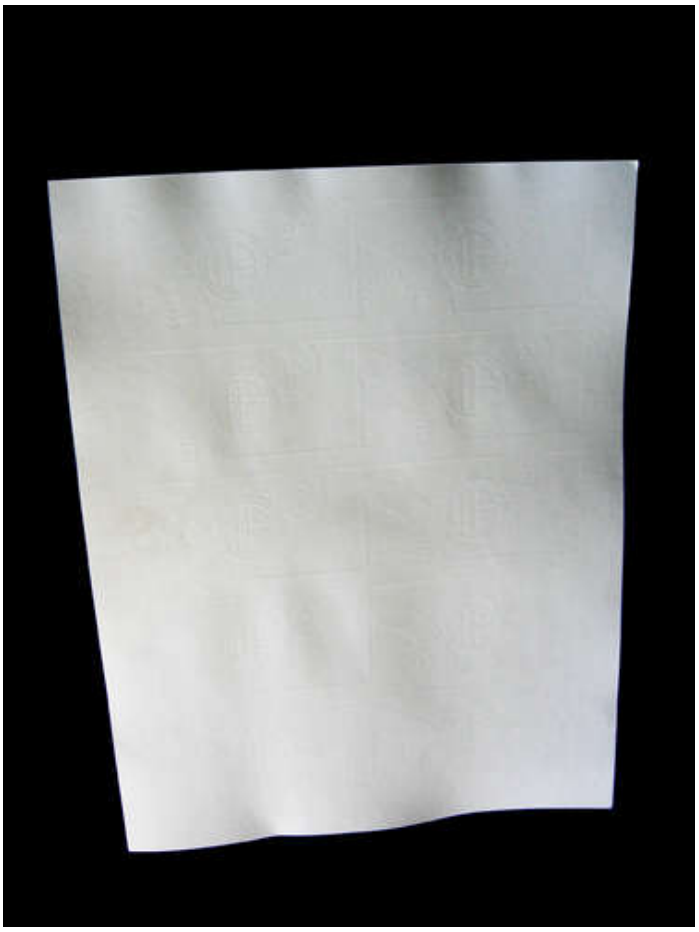
I clamped the pages for a half hour each, with several sheets of paper behind them to help squeeze the pattern into the page.



step 9: Fin.

There you have it. I know, you would have liked to see a pretty, finished card. But, sorry to say, I haven't quite been able to perfect it. I'm hoping that when I get settled, and have some more time to play with it, I can work out the rest of the kinks. I hope you've enjoyed reading this Instructable, and that it helps you to a big heaping bowl of awesome somewhere on down the line. Thank you.

Things to try for next time:
Experimentation with ideal etch time (12 hour etch at standard dilution wasn't enough depth)
Printing before embossing/embossing dry



Related Instructables

Comments

50 comments **Add Comment** **view all 61 comments**

1up says: Nov 12, 2008. 9:17 PM **REPLY**
Could you etch aluminum with this procedure?

solidification says: Feb 12, 2009. 10:07 AM **REPLY**
Al etches well with concentrated HF or NaOH. (Concentrated HF works the best, but is pretty difficult to obtain without a license. The glass etching kits in hobby stores might work over a long enough period of time)

tacamaral says: Jan 24, 2009. 10:52 AM **REPLY**

If you can, get a bookbinder's press. Or borrow one from a friend (nah, take your work there - those things are very heavy. I had one that weighed about 100 kg - no kidding). You can use the same jig you made (very well made) but put it in the press, screw it really hard and leave it for a few minutes (5 minutes or so), and get another sheet in. Because the press usually has only one big screw and it's made to put a very great amount of pressure with little effort on your part, you'd get a lot of printed/embossed sheets pretty quickly.
There are lots of plans for building a press on the internet, and you can also buy one (but they tend to not being cheap).

Great Instructable. :)

33.3revolutions says: Nov 24, 2008. 9:06 PM **REPLY**

If the depth of the etching were more, could you not apply ink directly onto your brass plates? Then the ink would transfer to the paper, and it would line up perfectly with the embossment. Thinking of trying this out myself.

---

acidkid says: Nov 2, 2008. 12:05 PM **REPLY**

Add hydrogen peroxide to the HCL..

Carlos Marmo says: Oct 30, 2008. 3:20 PM **REPLY**

Wonderful work!
Much Style!
Congratulations!

Offstream says: Oct 20, 2008. 2:15 PM **REPLY**

The vibrations would help the etching. When etching a plate (Ive etched with copper and nitric acid rather than ferric chloride and brass) printmakers will use occasionally lift the plate out of the acid, or use a feather to stir it, in order to disperce any bubbles and detritus that form. Bubbles that form will stop acid from etching into the parts of the plate that the bubble is touching.
.....just a note.

---

sujancho says: Jul 8, 2008. 12:02 AM **REPLY**

Adding on to Carlsburg comment, more specifically you can get a couple sheets of blotting paper your local art store, put the soaked paper between them and use a rolling pin to squeeze out the excess water. After you're done printing, you put the printed sheet between either more (dry) blotting paper or several (several) sheets of dry clean newsprint, and put it between a pair of heavy boards, and weight it down with some books. Let that dry for a few days and your print will be nice and flat. Since blotting paper is so thick and cushiony you don't have to worry too much about the embossing going flat.

AWESOME Instructable by the way, exactly what I was looking for :)

Dungeonbrownies says: Jul 3, 2008. 4:11 PM **REPLY**

though this came out looking pretty nice, though not so deeply embossed, I think that once laser cutters get cheaper, you could probably fabricate something nice with this design, you know? Cuz thatd be kickass.

Phiri says: Nov 25, 2007. 2:01 PM **REPLY**

Will the image transfer technique work for other metals such as zinc or aluminium?

bofthem says: Nov 25, 2007. 3:39 PM **REPLY**

The procedure of ironing the ink on to the image will work, as the inkjet print just acts like an adhesive when it heats up. But as far as the rest of the process, I'm completely unsure. You will probably have to find a different acid to etch a metal like zinc, and when you do, you will have to take into consideration the fact that the iron in the ink may not act as a resist in that case.

I encourage you to experiment, though. I got to this process by a lot of trial and error.

soapy says: Jun 5, 2008. 4:29 PM **REPLY**

Zinc or aluminium as a bit dangerous to add acid to. Aluminium is very, very reactive once the oxide coating is stripped away. Of course, your acid is unlikely to do this, so nothing at all will happen, if you are lucky. If you aren't you might get a fire. Zinc reacts rapidly with hot water. So adding acid to it is probably also a bad idea.

---

kudzookrazy says: Apr 11, 2008. 7:32 PM **REPLY**

You might try a 100% SULPHITE art copy paper, without the fibers, you may have less trouble, wetting, pressing, and the sulphite sucks up the ink like a wet vac on crack. Legion paper makes it in 200 gsm, whatever that means.

gschoppe says: May 29, 2008. 9:51 AM **REPLY**

200 gsm is 200 g/m^2 or 200 grams per square meter. Its a more
standardized way of measuring weight than pounds, as the amount of paper being measured by the pound scale is different for different types of paper.

As weight is effected by thickness, finish, density, and amount of fillers, it is surprisingly difficult to use as a single judge of a paper. I prefer to give multiple numbers if possible, such as:

Brightness: normally a number between 92 and 102 that refers to the amount of optical brighteners and "clay" in the paper.
Thickness: normally given in mils, 10mil -12 mil is the standard business card weight range... 8-10 mil is inkjet card paper 12 mil is thermographic card stock (Nice!!)
Weight: preferably in g/m^2

However, if you really want to get to know your paper, go to the mill, grab some headstock, run it through a Canadian Standard Freeness Tester (there will be one in the lab), and do a test burn to check "clay" content. Then, stop by the Machine Tender's booth to check dryer temperature and pressure. Finally, ask the Machine Tender how recently they changed their felt, and how many splices they ran the night before. Then, and only then, do you *JUST FEEL THE DANG STUFF FOR YOURSELF*.

Unfortunately, even with ALL the numbers, with most paper, you need to just try it out... ask if they have samples at the store, or if they use it in the print shop (for one stop office supply stores like Staples). if you are looking to cut the page, ask if you can cut a sample to size. an 8.5"x11" sheet of card stock feels VERY different than a 3.5"x2" business card made from it.

By the way, I use *a lot* of paper ;)

gschoppe says: May 29, 2008. 9:59 AM **REPLY**

I also forgot to mention whether its short fiber or long fiber, cotton content, pre and post consumer content, texture, watermarking, and uniformity.

Higher cotton means heavier sheets are more flexible, but also more durable

Unfortunately for the environment, high quality and recycled papers are, for the most part, mutually exclusive. Buy 100% recycled copy paper, but please print your resume on "virgin" paper.

For watermarked sheets, check if the mark is random or uniform in placement. random is more common, but can look off-putting.

on a last note, never buy Staples brand paper if you need a quality presentable result... the quality control is terrible, you will get foreign particles in the sheets, and their listings for brightness are just plain wrong... Hammermills' 92 brightness is whiter than Staples' 97 brightness. I believe the same holds true for most store brands, like office max.

mondoweb says: May 27, 2008. 8:01 PM **REPLY**

I am thinking of embossing printed cards individually. There is a specialized embossing press at the local craft supply store. I may make the plate to fit this press. Your work in time vs etched depth is very helpful. Thanks

---

Merakesh says: Apr 1, 2008. 4:08 PM **REPLY**

For zinc or aluminum, or for metal on paper for that matter, try electroplating it.
http://www.caswellplating.com/kits/index.html Sells kits for this.

joknrok says: Dec 15, 2007. 4:04 PM **REPLY**

What if you made a positive of the design on another plate with the edges of the design shrunken a tad so the two plates would fit together, the positive image going into the recesses of the negative image. That would sandwich the paper between it forcing the impression more sharply.
Also, is the step 4 process only possible for laser jet? or will inkjet ink work for the image transfer too?
Thanks for a well worked instructable.

smokehill says: Nov 11, 2007. 12:14 AM **REPLY**

One thing you might want to keep an eye out for, if you do much of this, is an old-fashioned book press. It spins down quickly and gives very even pressure. Book presses turn up at flea markets and low-end antique marts now and then. I kept watch for a few months for one, and finally picked up a marvelous one down in your area, Charlottesville, 20 years ago, for about 50 bucks, and it included a whole box of old bookbinder's embossing tools, etc.

With a bit of fiddling, you can use a book press for a lot of different crafts and woodworking projects. Think of it as a large woodworker's vise, just sideways.

Carlsburg says: Sep 6, 2007. 12:23 AM **REPLY**

The paper needs to be dipped completely into a tub of water for about a minute, take the paper out and blot all excess water with a more absorbent paper do this untill there is no shine from the water on the page, ie the paper has a matte finish, then put through the press. Bathing the paper means that there is an even amount of absorption and therefore will dry evenly preventing warping. If that still doesn't work try recessing the embossing plate into the press so the page has no overhang to pull and warp the page.

HollyMeeker says: Aug 31, 2007. 4:08 PM **REPLY**

bofthem,
Google the wizard embossing tool and you'll find the best tool out there to emboss your paper. You can also find it at joann.com and search for the wizard. No more clamping and wetting of paper! Scrapbookers have been using this tool for years.

bofthem says: Sep 1, 2007. 6:03 AM **REPLY**

well... they are $150, and then the stencils you use to emboss (meaning you can't make your own image from scratch) cost another hundred per set. It just doesn't seem like a reasonable tool for someone who wants to play with their own embossing, though it is a very effective tool in its own right.

The materials I used for this project ended up costing me about $25. I did do some scrounging for scrap, and borrowing, but I don't think I could even come close to totaling as much as the wizard by itself had I bought everything I used.

fontgoddess says: Sep 1, 2007. 7:46 AM **REPLY**

One scrapbooking embossing tool you may be interested in is an embossing stylus. I found one that's like a gigantic tipped ballpoint pen without any ink. They're especially good for fixing or enhancing small details that didn't quite come through with your main embossing process.

The thing I find really exciting about that Wizard embossing tool is the fact that it's a tiny printing press (and quite cheap when compared to small presses aimed at artists). Intaglio and monoprint in my kitchen, printmaking while on vacation, it's so exciting!

However, pressure applied is pressure applied for embossing. The clamp system you set up is more than fine for your purpose (and for pressing plants too). No need for overkill.

bofthem says:

If you want fanciness and versatility in one cheap package, you could even go with a hydraulic press. They're remarkably inexpensive for what they smooshing the sheets via hydraulic press in mind.

http://www.northerntool.com/webapp/wcs/stores/servlet/NTESearch?No=42&D=press&Ntt=press&Ntk=All&Dx=mode%20matchallpartial&storeId=6

sumguysr says: Sep 1, 2007. 5:58 PM **REPLY**

you could probably apply more even heat if you place a metal plate on top of the transfer paper and heat it with a hot air gun. It wouldn't be hard to align the plates if they were 8.5 by 11, then they could just be put in the jig and be aligned.

fontgoddess says: Aug 31, 2007. 3:19 PM **REPLY**

Paper will emboss better if it's wet, but it has to be truly, thoroughly wet. When dampened paper warps, often a major factor is the fibers drying unevenly, so they shrink at different rates. If you wet typing paper, this is really easy to see: the paper curls from the fibers expanding on the wet side.

In the print shops I've been in, we have a large pan of water that we let out paper sit in for 10 minutes or more before we print it (at least for intaglio processes). When we take the paper out of the water, we place it between thick pieces of un-sized paper called blotters. Then we go over it with a rolling pin a couple of times. Once that's done, it's ready to be put on the plate and run through the press.

Another thing that may help your embossing is backing the paper with thick felt. On a printing press there are several layers of felt blankets, plus a few layers to absorb sizing and to keep the blankets clean and ink-free. If you can find a print shop, they may let you take part of a damaged or worn blanket (they're crazy expensive, but you don't need a perfect new one or a big press-sized piece).

One last thing, you're using sexy cotton or linen paper with long fibers and minimal sizing, right? Not something you bought at the local office supply warehouse? Bristol paper, card stock, or anything designed to be run through an office printer usually has lots of sizing in it, so ink sits more nicely on it, but the fibers also won't stretch and shift like you want them to for embossing. Hit the local art supply shop and get some Arches or another paper recommended for intaglio printmaking processes. Mmmm. So pretty. And, once cut down, this paper will work nicely in less fussy copy machines, laser printers, and ink jet printers (problems come from the paper's thickness disagreeing with less tolerant electronic printing devices). If the ink you want the printed design in isn't water-soluable, try printing the design first and then embossing.

Wow, I got wordy here. Hopefully this all makes sense.

bofthem says: Sep 1, 2007. 6:07 AM **REPLY**

Brilliant. You've opened up a world of possibilities, honestly. I'm really eager to try wetting the paper perfectly evenly.

Unfortunately, I bought my paper for this project when I first had the idea for embossed cards, and ended up using it for some charcoal drawings on a whim before actually getting to work on the etching... kind of foolish in retrospect. By the time I finished, I'd moved and couldn't find a good local paper place, so had to do with office max cardstock.

fontgoddess says: Sep 1, 2007. 8:01 AM **REPLY**

Have you looked in the resume paper section of the office supply store? They may have cotton cardstock . . . regular cardstock will work (as you've proven admirably) but details like warping are especially frustrating with cardstock/bristol type paper. Plus, these are the types of paper that scrapbookers use (although they usually work dry, so the embossing is less dramatic and more flimsy) so they must not completely suck. They are also fantastic papers for relief printing.

My favorite printmaking papers, Arches Cover and Rives BFK, can also be easily ordered online and are standard stock for decent art stores. They *may* even carry them at the big craft/hobby chains.

TrnsltLife says: Aug 31, 2007. 10:55 PM **REPLY**

I see all these tutorials for etching brass sheets.

Where can you get brass sheets?

bofthem says: Sep 1, 2007. 6:26 AM **REPLY**

there are a lot of online sources (like mcmaster carr) for buying metals, but the local hobby shop, or more "corner store" kind of hardware store should carry some kind of brass sheet. I know that the one near me at school did, as well as the school store (but it was an art school, feh.) I would also try asking businesses around you that carry industry-specific supplies. I was surprised when a glass tool supplier by my home carried brass sheets, but there you have it.

If you just want to etch for fun, you might try finding a brass dinner plate at salvation army, and etching a cool picture into it.

smurfsahoy says: Aug 30, 2007. 1:41 AM **REPLY**

I've tried this soooo many times to make brass custom keyboard keys. Every time, I get something that looks just like what you have up there, with the little wrinkles in areas without much ink, and the ink sticks perfectly well.

The problem is that when I take off the paper, the pattern, though dark, and nicely printed onto the brass, is really warped in shape and distorted due to the wrinkles that formed.

Did you by any chance try any business card patterns that weren't so fully black colored? If so, did it work as well? Other people? I am very confused why this never works.

bofthem says: Aug 30, 2007. 1:54 AM **REPLY**

There doesn't seem to be much you can do to prevent the warping caused by the iron heat. But I would suggest that if you're working with isolated details, like keyboard keys, you break up the image into smaller chunks. If you cut up the pattern, it has a better chance of distorting along the edges while keeping the majority of the image true. It seems that printing 8.5"x11" in one chunk is stretching the limits of what you can do on a brass sheet without a more sophisticated setup. I tried this a few times, before, and smaller images, or smaller pieces of paper seem to make the difference.

Would you mind mailing me about the keyboard key project you've been trying? I think I might be able to give you some help.

staggerwing88 says: Aug 31, 2007. 5:07 PM **REPLY**

Your instructable showed up like magic and at the right time! I've worn out my google looking for a cost-effective etching service- -results never scratched the surface. I just purchased 6 feet of brass stock, echtant and am ready to tool up and go for it . Feeling positive, staggerwing88

bofthem says: Sep 1, 2007. 5:51 AM **REPLY**

Best of luck! Please mail me if you need help. Tutorials have an infuriating way of getting one excited for a new project, and then do all sorts of nasty things once one has gotten into their grey panel van.

ll0ll says: Aug 31, 2007. 2:32 AM **REPLY**

In the UK we have stuff called "Dylon Image Maker" which "transfers images onto fabric in 3 easy stages"
Basically, you photocopy an image and paint this stuff onto the paper basiccally it dissolves the paper, leaving the photocopyed image in place.
I wonder if its worth trying this on brass? Saves having to use an iron, which could solve the problem of the warping?

(Search ebay for this stuff)

As far as I know it doesnt work with printer ink, only photocopys so that might mean it won't be any good in this situation, but I thought it might help you guys.

Tinker83 says: Aug 30, 2007. 10:17 PM **REPLY**

couldnt you use something similar to a waffle press to lay down even pressure and heating when you put your pattern to the plate?

bofthem says: Sep 1, 2007. 5:55 AM **REPLY**

that would probably not be able to provide enough pressure. If I'm pressing with most of my weight on an iron that takes up one fourth of the plate, I and three friends will have to sit on a waffle press to get the same results. Something like a hot roller, like the ones found in copy machines, though, would be a great thing .

redleader36 says: Aug 31, 2007. 9:31 AM **REPLY**

I don't know if the results are near as good, but i used to do simple embossing using a dot matrix printer. Just remove the ink cartridge and print!

Patrik says: Aug 30, 2007. 2:32 AM **REPLY**

Very nice!

Two additional suggestions: (1) You could try putting a second plate with the inverse image on the other side of the paper, for extra depth. (2) I would imagine that the end result will depend on the amount of pressure you apply in step 8 - if your rig is sturdy enough, maybe you could back your car onto it, and let it sit under one of the tires overnight?

Just some crazy ideas...

bofthem says: Aug 30, 2007. 3:29 AM **REPLY**

It would be a real monster to align the two plates, but I'm sure there's a way. I didn't feel it was necessary, as the extra pages behind the one being printed squeeze the first sheet into the embossing plate with a lot of force (kind of like the rubber panels you put over top of a blank, if you've ever done copper presses.)

Oddly, I tried the car thing, thinking I could run over the panels, or have the car stand on them. I highly discourage doing this. While backing over the plates, they literally shot out from under the tire. It was like slipping on a stack of magazines... just... fwoosh. You would need to brace the jig against the ground, somehow. I just don't think it's worth it. I don't believe that I could have achieved a better result with more clamping pressure, given that my page seemed to be as deeply relieved as the plate. I think that the solution is definitely a stronger relief in the etch.

gallamine says: Aug 31, 2007. 8:05 AM **REPLY**

you could jack up one tire and slowly let it down on the plates.

wikkit says: Aug 30, 2007. 9:00 PM **REPLY**

Vacuum bagging the paper and plates would be better than clamping it or parking on it. 15psi over 8.5"x11" is about 1400 pounds of perfectly evenly distributed force.

A normal plastic bag would work fine, and you can get an inexpensive vacuum device that screws on to a faucet. A valve and a bit of tubing, and you're golden.

xrissy says: Aug 31, 2007. 7:49 AM **REPLY**

This is really great. Can you add a pic of hte finished (printed) result? Just to satisfy my curiosity. Great job!

zohair says: Aug 29, 2007. 9:16 PM **REPLY**

A good way to remove paper from hard places (like via holes on PCBs), is to use a hard pencil eraser. You'll lose most of the eraser, but it'll save your fingers and your time.

Abscondio says: Aug 31, 2007. 3:57 AM **REPLY**

You don't have to use a laser printer! Copier toner is just as resistant. The method I use involves printing a good quality image and then photocopying it onto a transparency. Place wax paper over it when ready to iron and go to town!

After 6-10 minutes, stop and let cool completely (I like to keep a couple of cast iron skillets in the freezer to speed things up). Peel slowly. You can fill in any bald spots with Sharpie.

Unlike the paper, this doesn't wrinkle. In fact, the heat makes the transparency shrink a little and tigten around the metal if there's overlap...

zohair says: Aug 31, 2007. 6:35 AM **REPLY**

Hmmm. Thats a good idea. I guess the transparency wouldnt really be that hard to peel off.

jarg says: Aug 31, 2007. 6:29 AM **REPLY**

WHY NOT JUST BUY SOME LIGHT SENSITIV RESIST,PAINT IT ON LET DRY IN THE DARK ,EXPOSE TO A FLOURESCENT LAMP FOR ABOUT A HALF TO 1 HOUR THROUGH APAPER NEG.FROM THE COMPUTER PRINTER,WASH IT OUT WITH WARM WATER LET DRU...THEN ETCH WITH FERRIC CHLORIDE,RADIO SHACK USED TO CARRY BOTH CHEMICALS OR kODAK

bbqpope says: Aug 30, 2007. 7:15 PM **REPLY**

Cool, I have used a similar technique to make images for the purpose of printing on an etching press. In most cases a printmaker will make embossing their last step, which means you need to print first and then emboss the paper. We usually use a press but the jig seems to work. The trick is making the print register to the embossment. Good luck! I used the laser toner process along with aquatint to make an etching plate, it's cheaper than photo processes. Also, I used zinc, etching plates. Oh one more thing..... skip the crazy toner removal, and just use acetone.

stpetecoyote says: Aug 30, 2007. 10:06 AM **REPLY**

Very nice, would be a simple way to just and the embossed relief image to stationary without having to worry about the images aligning exactly. Definitely going to try this one out! Thanks

smurfsahoy says: Aug 30, 2007. 1:44 AM **REPLY**

I guess a question more to the point is, when you say "spot checking," how did you go back over those spot checking areas with bubbles without having the paper go back down somewhere different than where it started in the process, due to having distorted into a bubble and lifted up first?

view all 61 comments