

Creating a Good Embosser

Most diplomas and many legal documents are authenticated by the application of a raised seal. The process is called embossing and the machine used is an embosser. Embossers are also used to create a raised return address on invitations and personalize books. The embossing can be done directly on the paper if not thick or on a self-adhesive foil wafer. The wafer is peeled off the paper liner and placed on the paper.

The process is easy to understand. An electronic image file is sent to a laser that engraves a positive and negative die. On the positive die the white or un-embossed part of the image is burned away leaving the black part of the image raised. Then the negative die is lasered and the black or raised part is burned away leaving the image as a depression in the die. The black image is slightly wider strokes so there is room for the paper. The two dies are lined up and attached to a die holder, which slips in and out of the embosser body. You can get several dies on die holders and switch to change the image. Thus one embosser can emboss different images by swapping the dies. The dies are interchangeable between embossers that are the same manufacturer and throat. The throat is the maximum distance from the center of the image to the edge of the paper. Seals come in handheld, desk, long reach (2.5 inch), and extended long reach (4.5 inch). (see www.bay-mall.net/stores/diplomas/embosser) Avoid very cheap embossers as some do not have the dies parallel in the embosser and the image is heavy on one side and disappears on the other.

The hand of the embosser is the direction the paper is inserted. If the embosser comes up from the bottom then the hand is bottom. Bottom is the default. You must specify the hand at the time of order and it is not adjustable. If you emboss from the right side with a bottom handed embosser the image will be sideways. If you emboss from the top of the page with a bottom handed embosser the image will be upside down. Foil wafers make the hand irrelevant since they are peeled off the carrier and attached to the document.

Embossers are designed to emboss light text weight papers. A 20-pound text is usable but 28 pound and above can cause problems. The thicker the paper the harder it is to emboss. The negative die needs to be cut deeper and wider to allow for thicker paper and there are severe limits on paper thickness. Paper does not stretch and embossing often causes micro fractures in the embossed image. Foil wafers on the other hand are more elastic so it does not micro fracture like paper.

When embossing directly on paper the image may not show up well on photocopies of the document. There is a 2-inch round solid inkpad that can help here. You hold it by the flip up handle and gently touch the inked surface to the raised embossing causing the raised [portion to turn black.

One secret of getting a good image is in preparing the artwork. The electronic art file should be

either a vector graphic or a 600 dpi tiff file at the finished size (a 2' inch seal @ 600 dpi is 1200 x 1200 pixels) The image should be black and white only (no colors or grays) The most common mistakes in preparing your image file are Mistaking a dark gray for black, too low a resolution, not using an actual vector art file, and failing to outline the fonts. If you use Photoshop, you should save it as a 600 dpi tiff file. Photoshop's .eps is not a true vector graphic and does not work properly. If you use Illustrator or another real vector art program and save it as an .eps, be sure to outline the fonts used first. This makes the font a part of the graphic and not a font referenced on your computer (which may not be on the computer at the factory where the embosser is prepared). I have run into images that were submitted in RGB, CMYK, or grayscale, which looked like black and white but did not work. Select bitmap mode in Photoshop and see what happens to the image. If the black breaks up into a salt and pepper pattern then you are dealing with a shade of gray. Replace the gray with a true black.

The image file should contain bold fonts without fine lines and images with out fine detail. Embossers cannot hold fine detail in the image. Typically an embosser would have text in a circle between an outer and inner circle and a graphic in the center. The pricing of an embosser is based on the reach, die size, and whether customer supplied graphics are used. Many embosser manufacturers have stock graphics that can be use as the center without additional cost and they price those embossers as they would a text only. For example you could have your name in an arc between the inner and out circle on the top and Notary Public on the bottom with the official seal of your state in the middle and it still counts as a text only embosser for pricing. Text can be in an arc at the top and a separate arc at the bottom bout being right side up or in one continuous arc. If the inner and outer circles are solid circles they should be broader to prevent the embosser from cutting through the paper. An alternate procedure is a broken line that resembles rope.

Embossers are available in 1x2 rectangular, 1 5/8, 1/3/4, and 2 inch die sizes. The larger the die the better is embossing paper directly. Another consideration must be considered if foil wafers are used. Most wafer manufacturer measure the size from point tip to point tip through the diameter. If you have a 2-inch seal and a 2-inch image die then the image will go out to the tip of the points on each side. A 1 3/4 or 1 5/8 inch embosser fits better on a 2 inch embosser die 2 inch seal are available in a wide variety including metallic gold, metallic silver, metallic bronze, metallic red, metallic green, and metallic blue. If you need a 2 1/4 or 2 1/2 inch seal you choice are far less and they are harder to find and more expensive.

An alternative to using an embosser is to buy pre-embossed seals. These seals are embossed in a factory so all are perfectly centered and even. You peel them off a roll and apply them to the paper. Besides being perfect and ready to use, they can have background ink in the lowlands making them look far more professional than what you get from your embosser. You can get them in gold, silver or bronze foil in 170 sizes and shapes. You can have them embossed only, embossed with a similar tinted background ink, or with a contracting ink (like dark blue ink on a gold foil) There are 16 stock ink colors available at no additional cost. With a surcharge you can get Pan-

tone ink colors. It is possible to get up to 4 different background inks as long as the inks have a 2 pixel wide embossed area as a dike to keep the ink separate. (see www.bay-mall.net/stores/diplomas/Fossler/Custom.html)

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