Call: 800.395.9405 • Email: info@mcd.net • Visit: mcd.net
2547 Progress Road • Madison, WI 53716

Embossing

Embossing is the process of raising an image and creating a three-dimensional look on a flat two-dimensional sheet of paper. To accomplish this the press exerts enough pressure so that counter die attached to the platen forces the stock into a relief die mounted on the toggle base, thus creating an image on the stock. Although it is possible to perform this with a cold die, the operation is usually carried out with a heated die using temperature controlled heating plates.

Emboss can upgrade and build on almost any design; letterhead, brochure, cover, pocket folder, etc. People are drawn to the raised surface – it invites touch and highlights areas to read. In some designs embossing is used as an alternative to printing which can be a very cost efficient.

Paper textures can also play an interesting role in embossing. Sometimes a textured paper is chosen, and the effect of the embossing is to smooth out the paper where it might be least expected. Other times, we'll recommend a textured die for an intriguing effect on a smooth piece of paper.

Dies for embossing may either be flat or sculptured. Flat dies are used to give an image depth. Sculptured dies are preferred when you want to display five varying levels of depth for an added effect.

Creating a die is a one-time expense, and given the effect of the technique, a surprisingly modest one. We use only quality brass dies (not true if raised flat single level) to ensure quality production for your investment.

Sheet Size **Embossing Area**	**Minimum 3" x 4 ½"**	**Maximum 36 ¼" x 49 ½"**

Dies

Lead times for die manufacturing vary with complexity, and can take from three to five working days to produce a die. Our quotes assume normal turnaround and normal costs. If your job is time sensitive, please call to discuss lead time for your particular die and any potential additional costs.

Required for Die Making:

- → AI files in **.**PDF and/or **.**EPS format
- → Call to discuss die depth (design, type and thickness of stock are factors)
- → For multi-level or sculptured – indicate what areas are to have what, possible to create different layers in your Illustrator file for each embossing layer (if possible or we will use our judgment to determine levels)*

Tooling

As of January 1, 2021, MCD will store all customers' tooling for 6 years of no activity. At that time, tooling will be purged.

Quality Control

Required for set up and quality control:

- → Ruled up press sheet with gripper and side guide indicated and embossing position noted*
- → Sample of finished piece* (if re-run)
- → Include additional sheets for waste and make ready
- → Press check recommended
- → For critical register jobs, printer must hold good register.
- → Gripper margin of ½"

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Recommendations for Successful Results

→ Avoid light weight, heavily coated or varnished papers
→ Avoid placing small elements, such as type, too close together
→ Allow for adequate ink drying time for embossing

Paper selections for embossing

Best - Heavier, long fibered cover weight sheets

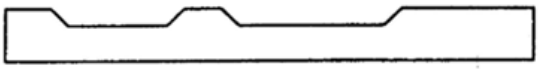
Avoid - Lightweight, heavy coated or varnished papers, which crack easily when embossed.

Notes: *Depth and degree of bevel is determined by choice of stock. Textured stocks become smooth when embossed. The burnished effect is achieved by adding more heat on press during the embossing to alter the paper color and/or to create striking effects.*

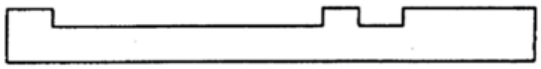
** Please mark each item with your job number and your company name.*

Depth Chart

This image displays the different types of embossing. Notice as the degree of bevel increases, as depth increases.

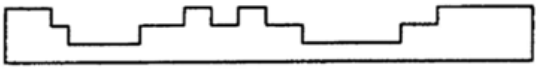


BEVEL EDGE DIE, a hand tooled brass die with the image edge at a precise bevel usually 30° to 50°.



SINGLE LEVEL DIE, an embossing die machine cut to only one level.

SCULPTURED DIE, a hand tooled brass die containing many levels at varying depths.



MULTI-LEVEL DIE, a brass die containing several distinct levels that are machine cut.

Various Possibilities for Embossing

Blind Emboss: Embossing without register to ink, foil, varnish, die cut etc.

Single-Level Emboss: Raising the image area to one single level flat.

Sculptured Emboss: Hand tooled process made from a photograph or drawing with various levels of depth to make the image appear realistic and give it dimension.

Multi-Level Emboss: The embossed impression may consist of two or more levels of depth.

Printed Emboss: Embossed area registers with printed image. Customer should determine whether bevel should stay inside or outside the print image.

Deboss: Areas recess, or go down, rather than raising up as the single level emboss does.