



## Foil Stamping

Foil stamping is applying foil with the use of heat and pressure to various substrates, such as paper and plastic.

Foil stamping can be either flat stamped (in which the foil adheres flat on the sheet), or foil/embossed (combines the raising or embossing of an image with the addition of a foil). In some cases, this is also called hot stamping, which is the application of foil with the use of heat.

Unlike embossing, foil stamping compresses the paper fibers, covering it with any variety of foils. These foils can be metallic, opaque, patterned, tinted or pearlized in nature. Smooth papers are best for reflecting the qualities of foil. Avoid heavily inked or heavily coated sheets which are not porous enough for the foil to adhere properly. Plastic coatings and varnishes can prevent good foil transfer to the paper, causing blisters. Wax-free formulation of inks and varnishes are recommended for foil stamping. With the use of any coatings, tests should be made prior to the production run.

If more than one foil is required on a design, specific sequences may be necessary in the press application. The artwork must be prepared accordingly for proper coverage and bleeding, just as in printing. If you have any questions about designing the piece in preparation for finishing, please ask us at the beginning of your project so that we can help you prepare the file accordingly.

<b>Sheet Size</b>	<b>Minimum 3" x 4 1/2"</b>	<b>Maximum 36 1/4" x 49 1/2"</b>
<b>Foil Area</b>		<b>Maximum 35" x 45"</b>

## Dies

The lead times for die manufacturing vary with complexity and can take from three to six 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

## 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.

## Foil

Foil Lead time for ordering foil varies with foil selection and the foil manufacturer. Special ordered foil delivery can take one (1) working day to three (3) working weeks. Our quotes assume normal delivery charges. If your job is time sensitive, please call to discuss alternative foils or additional costs for special delivery.

## Foil Stamping Over Inks

When foil stamping over inked surfaces, there are two main items to consider:

1. The ink must be a no wax (very low content) ink. A high concentration of wax will cause the foil to sharks tooth (create jagged edges). This occurs when a high concentration of wax melts from the heat of the die, creating a wet surface on the sheet.



2. Not to use rubber based inks. Rubber based inks never really completely dry on the paper, and therefore, prohibits the foil from properly bonding to the inked area. In addition, be sure to allow the printed sheet to dry two to three days before stamping when possible. Darker inks dry much slower, requiring four to five days of curing time.

### **Required for Ordering Foil**

- Specify the type of substrate we will be stamping
- Identification of images to be foiled and colors to be used\*

*Note: Our stock foil chart includes the foil we inventory. These foils consist of metallics, gloss and matte pigments.*

### **Quality Control**

*Required for set up and quality control:*

- Ruled up press sheet with gripper and side guide indicated\*
- Sample of finished piece\* (if re-run)
- Additional sheets for waste and make ready
- Gripper margin of 1/2"

### **Recommendations for Successful Results**

- Do not use rubber-based inks
- Use wax-free inks and coatings
- Allow for adequate ink drying time
- Do not reverse out images that are to be foiled
- Do not use UV coatings unless tested in advance
- Avoid heavily inked sheets, if possible
- Avoid fine type to prevent fill in of letters (call for advice)
- Minimum line width 1/4 " pt. and minimum knock out is 1/2" pt.
- If foiled sheet is to be used in a laser printer, please call to discuss
- If foil is to be overprinted, please ask for recommendations
- Call for advice on pigment, pearl or pastels foils
- Artwork to be 100% black or another color that we can change to black.
- Outline fonts whenever possible. This will keep fonts from substituting when we open your files.

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



## Glossary of Foil Terms

**Foil:** General term for roll-leaf stamping material consisting of a carrier, usually polyester film coated with a release agent and an adhesive coat (in this order).

**Dusted Foils:** Foils utilizing a bronze powder on the Mylar carrier; easily applied, but easily rubbed off without an overcoating. Limited colors are available.

**Gloss Foils:** Clear transparent foils, glossy in appearance.

**Metallic Foils:** Metalized aluminum foils, available in several colors, and either shiny or satin in their finish. The more widely used foils are gold and silver.

**Patterned Foils:** Foils manufactured with specific patterns rather than flat color. These range from woodgrains or marbles -- to the newer 3-D holographic patterns or images. A wide variety of designs are available.

**Pearlescent Foils:** Similar to gloss foils, but have a translucent color. A limited choice of colors available. Best used with embossing, but can also be flat stamped.

**Pigment Foils:** Opaque foils of intense color, resembling glossy enamel foils. Pigment foils are available in gloss or matte finish.

**Tint/Pastel Foils:** Flat or dull translucent stamping foil. Can be applied in varying degrees of color density by changing the press temperature when stamping. A limited choice of colors available. Excellent highlight to enhance embossing.

**Foil Embossing:** Raising the image and applying foil at the same time with one press run, using a combination die or foil embossing die. This process can also be done flat stamped and register embossed (stamp and bump).

### There are three different types of foil dies commonly used:

**Magnesium** -Chemically etched. Used for quick turnaround. Short die life because it is fairly soft.  
Die life: 25,000 impressions.

**Copper** - Chemically etched. Used for fairly quick turnaround and medium length runs.  
Die life: 100,000 – 200,000 impressions.

**Brass** - Mechanically engraved. Slower process and more costly.  
Die life: 200,000 – 1 million impressions.